Table A1. Chedoke Creek Sediment Sample Analytical Results - April 2021

	Station	CC-C18					CC-C19							
	Sample ID	CC-C18-WEST-45-60	CC-C18-CENTRE-0-15	CC-C18-CENTRE-15-30	CC-C18-CENTRE-30-45	CC-C18-EAST-0-15	CC-C19-WEST-0-15	CC-C19-WEST-15-30	CC-C19-WEST-30-45	CC-C19-WEST-45-60	CC-C19-CENTRE-0-15	CC-C19-CENTRE-15-30	CC-C19-CENTRE-30-45	CC-C19-CENTRE-45-60
	BV Labs Sample ID	PHY940	PHY934	PHY935	PHY936	PHY933	PHY946	PHY947	PHY948	PHY957	PHY942	PHY943	PHY944	PHY945
	Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	Sampled By	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB
	Sampling Date and Time	4/14/21 10:00	4/14/21 9:30	4/14/21 9:30	4/14/21 9:30	4/14/21 9:00	4/14/21 12:00	4/14/21 12:00	4/14/21 12:00	4/14/21 12:00	4/14/21 11:30	4/14/21 11:30	4/14/21 11:30	4/14/21 11:30
Parameter Name	Units													
PHYSICAL														
Moisture	%	38	22	30	22	47	47	28	38	32	25	27	27	31
ANIONS & NUTRIENTS														
Total Ammonia-N	ug/g	129	46	36	23	35	252	218	271	183	67	95	135	156
Nitrogen (N)	%													
Calculated Total Kjeldahl Nitrogen (TKN)	ug/g	1510	608	612	578	2300	2590	1070	1810	1230	1290	795	982	1420
Nitrite (N)	ug/g													
Nitrate (N)	ug/g													
Nitrate + Nitrite (N)	ug/g													
METALS														
Acid Extractable Aluminum (Al)	ug/g	13000	7100	7700	8000	9300	11000	8000	9500	12000	9000	9900	8900	10000
Acid Extractable Antimony (Sb)	ug/g	4.1	0.6	1.4	1.8	0.92	1.3	1.4	2.5	2	4.7	1.6	1.9	2.2
Acid Extractable Arsenic (As)	ug/g	10	3.6	5	4.2	5.3	5.3	13	5.5	6	5.4	5.6	5.3	5.8
Acid Extractable Barium (Ba)	ug/g	230	77	96	100	100	120	100	240	170	170	100	110	180
Acid Extractable Beryllium (Be)	ug/g	0.66	0.37	0.42	0.4	0.49	0.56	0.43	0.46	0.59	0.46	0.51	0.46	0.46
Acid Extractable Bismuth (Bi)	ug/g	1.2	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	1	1.2	<1.0	<1.0	<1.0
Acid Extractable Boron (B)	ug/g	23	15	12	11	20	22	22	26	25	21	20	20	23
Acid Extractable Cadmium (Cd)	ug/g	23	0.58	7.9	11	0.63	0.96	3.8	38	17	15	7.7	6.1	21
Acid Extractable Calcium (Ca)	ug/g	59000	72000	56000	63000	66000	71000	72000	57000	65000	64000	65000	65000	64000
Acid Extractable Chromium (Cr)	ug/g	43	24	22	22	22	30	25	56	41	39	24	21	41
Acid Extractable Cobalt (Co)	ug/g	15	6.5	8.5	7.9	8	9.1	8.5	14	13	11	9.6	10	13
Acid Extractable Copper (Cu)	ug/g	100	68	56	50	58	86	78	150	94	93	56	62	110
Acid Extractable Iron (Fe)	ug/g	25000	23000	19000	18000	23000	25000	20000	20000	24000	22000	21000	20000	22000
Acid Extractable Lead (Pb)	ug/g	140	46	67	50	49	46	91	110	95	120	65	62	92
Acid Extractable Magnesium (Mg)	ug/g	13000	22000	10000	9200	22000	25000	22000	16000	16000	20000	13000	16000	18000
Acid Extractable Manganese (Mn)	ug/g	570	480	600	560	520	550	510	480	660	510	650	660	600
Acid Extractable Molybdenum (Mo)	ug/g	1.2	0.83	0.69	0.52	1.2	1.4	0.78	0.85	0.86	1	0.65	0.77	0.96
Acid Extractable Nickel (Ni)	ug/g	47	18	24	24	22	25	27	58	45	38	28	28	46
Acid Extractable Phosphorus (P)	ug/g	1200	930	1000	890	1100	1300	970	1500	1300	1200	930	830	1200
Acid Extractable Potassium (K)	ug/g	1700	1400	1100	1300	1700	2100	1600	1500	1800	1700	1600	1500	1700
Acid Extractable Selenium (Se)	ug/g	0.52	<0.50	<0.50	<0.50	<0.50	0.57	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Acid Extractable Silver (Ag)	ug/g	3.6	<0.20	1.8	1.4	0.24	0.68	1.5	9.8	3.3	3.1	1.5	1.5	4.6
Acid Extractable Sodium (Na)	ug/g	210	200	190	140	570	430	220	230	250	350	320	330	370
Acid Extractable Strontium (Sr)	ug/g	110	100	100	110	140	160	120	100	110	110	110	100	100
Acid Extractable Thallium (Tl)	ug/g	0.17	0.1	0.1	0.096	0.18	0.21	0.12	0.12	0.13	0.13	0.12	0.11	0.12
Acid Extractable Tin (Sn)	ug/g	21	2.6	10	8.1	3.2	5.2	6.9	19	14	17	7	6.3	17
Acid Extractable Uranium (U)	ug/g	0.61	0.51	0.46	0.44	0.61	0.71	0.53	0.59	0.62	0.58	0.52	0.52	0.57
Acid Extractable Vanadium (V)	ug/g	28	22	20	20	21	24	20	23	25	23	24	21	22
Acid Extractable Zinc (Zn)	ug/g	440	220	190	170	340	400	290	500	330	390	210	200	350
Acid Extractable Mercury (Hg)	ug/g	0.48	0.085	0.15	0.14	0.068	0.19	0.22	0.54	0.38	0.29	0.27	0.27	0.37
PAHs														
Acenaphthene	ug/g	0.23	0.077	0.054	0.053	<0.10	<0.10	0.21	0.54	0.41	0.26	0.13	0.28	0.4
Acenaphthylene	ug/g	<0.10	<0.050	<0.050	<0.050	<0.10	<0.10	<0.050	<0.20	<0.10	<0.050	<0.050	0.044	<0.10
Anthracene	ug/g	0.43	0.11	0.06	0.097	0.13	0.15	0.36	0.52	0.37	0.31	0.14	0.44	0.38
Benzo(a)anthracene	ug/g	1.1	0.33	0.16	0.28	0.27	0.73	1	1.1	0.87	0.6	0.41	1.1	0.72
Benzo(a)pyrene	ug/g	1	0.29	0.15	0.25	0.25	0.83	0.84	0.98	0.83	0.5	0.4	1	0.66
Benzo(b/j)fluoranthene	ug/g	1.7	0.45	0.24	0.39	0.38	1.3	1.2	1.6	1.3	0.79	0.53	1.5	1
Benzo(g,h,i)perylene	ug/g	0.77	0.21	0.11	0.2	0.19	0.73	0.53	0.73	0.61	0.34	0.28	0.64	0.47
Benzo(k)fluoranthene	ug/g	0.6	0.14	0.067	0.13	0.11	0.37	0.35	0.56	0.45	0.22	0.2	0.54	0.34
Chrysene	ug/g	1.1	0.36	0.18	0.29	0.29	0.94	0.99	1.1	0.9	0.66	0.39	0.98	0.68
Dibenzo(a,h)anthracene	ug/g	0.18	<0.050	<0.050	<0.050	<0.10	0.11	0.12	0.16	0.16	0.069	0.059	0.18	0.11
Fluoranthene	ug/g	3.2	1.2	0.5	0.81	1	2.8	2.6	3.7	2.5	2.2	1.1	2.8	2.2
Fluorene	ug/g	0.36	0.076	0.068	<0.050	<0.10	0.1	0.28	0.65	0.45	0.37	0.17	0.35	0.45
Indeno(1,2,3-cd)pyrene	ug/g	0.81	0.22	0.11	0.22	0.19	0.73	0.57	0.73	0.62	0.38	0.31	0.71	0.48
Methylnaphthalene, 2-(1-)	ug/g	0.41	<0.071	<0.071	<0.071	<0.14	<0.14	0.3	3.2	1.9	1	0.32	0.94	1.1
1-Methylnaphthalene	ug/g	0.16	<0.050	<0.050	<0.050	<0.10	<0.10	0.21	1.5	0.8	0.42	0.14	0.4	0.57
2-Methylnaphthalene	ug/g	0.25	<0.050	<0.050	<0.050	<0.10	<0.10	0.086	1.7	1.2	0.61	0.17	0.54	0.57
Naphthalene	ug/g	<0.10	<0.050	<0.050	<0.050	<0.10	<0.10	<0.050	<0.30	<0.20	<0.050	<0.050	<0.10	<0.20
Phenanthrene	ug/g	2.2	0.76	0.3	0.13	0.51	1.2	1.7	3.3	2.4	1.7	0.81	1.9	2.1
Pyrene	ug/g	2.1	0.9	0.37	0.62	0.73	2.1	2	2.6	1.8	1.6	0.86	1.9	1.5
SIZE DISTRIBUTION														
< -1 Phi (2 mm)	%						97	93	100	100	95	100	100	82
< 0 Phi (1 mm)	%						96	90	99	100	87	100	100	80
< +1 Phi (0.5 mm)	%						95	86	98	99	73	100	99	78
< +2 Phi (0.25 mm)	%						93	78	96	99	53	98	95	76
< +3 Phi (0.12 mm)	%						88	59	82	96	38	94	87	70
< +4 Phi (0.062 mm)	%						82	43	65	87	31	91	73	59
< +5 Phi (0.031 mm)	%						65	33	53	70	26	75	57	48
< +6 Phi (0.016 mm)	%						48	25	41	53	21	59	45	39
< +7 Phi (0.0078 mm)	%						29	16	28	33	15	36	29	25
< +8 Phi (0.0039 mm)	%						24	14	23	28	12	30	24	21
< +9 Phi (0.0020 mm)	%						16	9.8	17	19	8.8	21	18	15
Gravel	%						3.1	7.3	0.34	0.25	5.2	<0.10	<0.10	18
Coarse Sand	%						5.6	22	9.2	2	48	3.8	8	8.2
Fine Sand	%						8.9	28	25	11	16	5.6	19	15
Silt	%						58	29	42	59	18	60	49	38
Clay	%						24	14	23	28	12	30	24	21
Loss on Ignition	%w/w						5.9	1.4	5.2	4.8	3.3	4.1	3.7	3.3
Wet Bulk Density	g/cm3						1.5	1.9	1.7	1.8	1.9	1.7	1.7	1.7
Liquid Limit	%w/w						61	31	37	41	39	34	30	COMMENTS
Plastic Limit	%w/w						32	21	21	24	24	18	18	COMMENTS
Plasticity Index	%w/w						29	10	16	17	15	16	12	COMMENTS
Dissolved BOD5	mg/L													

Table A1. Chedoke Creek Sediment Sample Analytical Results - April 2021

	Station		CC-C04												
	Sample ID	CC-C19-EAST-0-15	CC-C04-WEST-0-15	CC-C04-WEST-15-30	CC-C04-WEST-30-45	CC-C04-WEST-45-60	CC-C04-CENTRE-0-15	CC-C04-CENTRE-15-30	CC-C04-CENTRE-30-45	CC-C04-CENTRE-45-60	CC-C04-EAST-0-15	CC-C04-EAST-15-30	CC-C20-WEST-0-15	CC-C20-WEST-15-30	CC-C20-WEST-30-45
	BV Labs Sample ID	PHY941	PIX237	PIX238	PIX239	PIX240	PIX233	PIX234	PIX235	PIX236	PIX231	PIX232	PHY954	PHY953	PHY955
	Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Water	Soil	Soil	Soil	Soil	Soil
	Sampled By	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB
	Sampling Date and Time	4/14/21 11:00	4/19/21 13:00	4/19/21 13:00	4/19/21 13:00	4/19/21 13:00	4/19/21 12:30	4/19/21 12:30	4/19/21 12:30	4/19/21 12:30	4/19/21 12:00	4/19/21 12:00	4/14/21 15:00	4/14/21 15:00	4/14/21 15:00
Parameter Name	Units														
PHYSICAL															
Moisture	%	40	37	34	34	32	20	32	34		55	25	57	57	32
ANIONS & NUTRIENTS															
Total Ammonia-N	ug/g	<20	152	179	181	140	43	133	155		29	<20	341	463	218
Nitrogen (N)	%		0.17	0.18	0.14	0.11	0.056	0.13	0.12		0.26	0.055			
Calculated Total Kjeldahl Nitrogen (TKN)	ug/g	1900	1720	1810	1360	1130	560	1300	1170		2590	554	3800	3800	1290
Nitrite (N)	ug/g		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5			
Nitrate (N)	ug/g		<2	<2	<2	<2	<2	<2	<2		<2	<2			
Nitrate + Nitrite (N)	ug/g		<3	<3	<3	<3	<3	<3	<3		<3	<3			
METALS															
Acid Extractable Aluminum (Al)	ug/g	9200	9800	9300	11000	11000	7600	12000	12000		11000	5500	11000	10000	9500
Acid Extractable Antimony (Sb)	ug/g	0.97	1.6	2.1	2.1	1.8	0.56	2	2		1.3	0.42	1.3	1.8	1.3
Acid Extractable Arsenic (As)	ug/g	4.7	5.7	5.5	6.5	5.7	4.1	7.3	6.2		5.9	2.9	5	5.1	5.2
Acid Extractable Barium (Ba)	ug/g	86	160	190	220	120	89	240	150		100	46	120	150	110
Acid Extractable Beryllium (Be)	ug/g	0.5	0.44	0.44	0.51	0.5	0.41	0.56	0.6		0.51	0.25	0.56	0.58	0.48
Acid Extractable Bismuth (Bi)	ug/g	<1.0	3	1.5	<1.0	<1.0	<1.0	1.2	<1.0		1.1	<1.0	1.3	1.5	<1.0
Acid Extractable Boron (B)	ug/g	18	22	25	22	23	17	27	25		16	7	21	22	18
Acid Extractable Cadmium (Cd)	ug/g	0.65	14	26	30	7.9	3.2	30	14		0.81	0.28	1.1	7.7	2.6
Acid Extractable Calcium (Ca)	ug/g	66000	63000	57000	58000	61000	66000	66000	62000		66000	70000	64000	58000	78000
Acid Extractable Chromium (Cr)	ug/g	25	40	51	56	30	23	57	37		29	12	31	39	26
Acid Extractable Cobalt (Co)	ug/g	8.2	11	13	14	11	7.1	15	12		8.5	4.5	8.9	11	8.6
Acid Extractable Copper (Cu)	ug/g	67	150	150	130	76	46	120	83		83	29	93	130	67
Acid Extractable Iron (Fe)	ug/g	22000	23000	19000	23000	22000	20000	25000	24000		25000	15000	25000	24000	24000
Acid Extractable Lead (Pb)	ug/g	33	110	98	110	72	40	140	85		39	15	43	88	100
Acid Extractable Magnesium (Mg)	ug/g	22000	20000	16000	15000	15000	20000	19000	16000		22000	11000	23000	20000	22000
Acid Extractable Manganese (Mn)	ug/g	510	510	500	590	710	490	630	720		520	410	520	540	620
Acid Extractable Molybdenum (Mo)	ug/g	1.3	1.2	0.83	1	0.75	0.63	1.2	0.88		1.6	0.65	1.7	1.6	1.2
Acid Extractable Nickel (Ni)	ug/g	20	41	53	56	32	20	53	40		23	11	26	34	26
Acid Extractable Phosphorus (P)	ug/g	1000	1300	1400	1500	1100	970	1700	1200		1100	800	1300	1500	1100
Acid Extractable Potassium (K)	ug/g	1800	1600	1400	1500	1600	1500	1900	1900		1900	850	2100	1700	1600
Acid Extractable Selenium (Se)	ug/g	<0.50	0.54	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		0.71	<0.50	0.62	0.56	<0.50
Acid Extractable Silver (Ag)	ug/g	0.3	7.8	11	5.3	5	0.85	5.7	3.1		0.47	<0.20	0.74	2.7	0.95
Acid Extractable Sodium (Na)	ug/g	370	440	320	310	260	270	510	450		250	120	540	420	230
Acid Extractable Strontium (Sr)	ug/g	140	130	96	110	98	99	120	110		160	130	140	140	170
Acid Extractable Thallium (Tl)	ug/g	0.17	0.16	0.11	0.12	0.12	0.1	0.14	0.13		0.19	0.073	0.19	0.2	0.15
Acid Extractable Tin (Sn)	ug/g	2.9	9.2	16	23	7.8	3.1	24	11		4.3	1.2	6.4	9.9	8.1
Acid Extractable Uranium (U)	ug/g	0.68	0.63	0.59	0.61	0.57	0.44	0.65	0.62		0.76	0.45	0.75	0.74	0.62
Acid Extractable Vanadium (V)	ug/g	23	23	19	22	22	19	25	24		24	16	24	25	23
Acid Extractable Zinc (Zn)	ug/g	320	440	420	440	260	210	520	300		420	120	400	480	340
Acid Extractable Mercury (Hg)	ug/g	0.13	3.8	0.47	0.42	0.29	0.14	0.45	0.3		0.12	0.051	0.12	0.3	0.18
PAHs															
Acenaphthene	ug/g	0.052	0.11	0.39	0.48	0.31	0.1	0.38	0.31		<0.10	0.018	0.11	<0.10	<0.050
Acenaphthylene	ug/g	0.015	<0.050	<0.10	<0.10	<0.10	<0.050	<0.10	<0.10		<0.10	0.0061	<0.10	<0.10	<0.050
Anthracene	ug/g	0.18	0.15	0.5	0.39	0.37	0.2	0.47	0.29		0.16	0.034	0.25	0.16	0.078
Benzo(a)anthracene	ug/g	0.66	0.48	0.95	0.82	0.75	0.5	1.1	0.58		0.64	0.16	1	0.83	0.33
Benzo(a)pyrene	ug/g	0.76	0.54	0.86	0.82	0.71	0.47	1	0.58		0.85	0.22	1.1	0.97	0.36
Benzo(b/j)fluoranthene	ug/g	1.3	0.89	1.2	1.2	1	0.71	1.6	0.86		1.5	0.39	1.9	1.8	0.65
Benzo(g,h,i)perylene	ug/g	0.66	0.52	0.62	0.67	0.51	0.34	0.84	0.49		0.92	0.26	0.99	0.94	0.33
Benzo(k)fluoranthene	ug/g	0.45	0.3	0.45	0.39	0.36	0.24	0.55	0.3		0.44	0.12	0.67	0.55	0.22
Chrysene	ug/g	0.76	0.59	0.95	0.93	0.76	0.48	1.2	0.65		0.96	0.26	1.2	1	0.44
Dibenzo(a,h)anthracene	ug/g	0.12	0.12	0.18	0.16	0.16	0.079	0.2	0.14		0.15	0.05	0.17	0.15	0.057
Fluoranthene	ug/g	2.4	1.8	3	2.5	2.4	1.8	3.8	1.7		2.8	0.66	3.4	3	1.1
Fluorene	ug/g	0.075	0.15	0.53	0.52	0.3	0.13	0.51	0.33		<0.10	0.016	0.14	<0.10	0.062
Indeno(1,2,3-cd)pyrene	ug/g	0.63	0.54	0.64	0.68	0.57	0.38	0.84	0.5		0.84	0.24	0.92	0.87	0.32
Methylnaphthalene, 2-(1-)	ug/g	0.062	<0.11	0.62	1.4	0.8	0.12	1.6	1.1		<0.14	0.015	<0.14	<0.14	<0.071
1-Methylnaphthalene	ug/g	0.011	0.1	0.48	0.82	0.36	0.058	0.72	0.48		<0.10	<0.0050	<0.10	<0.10	<0.050
2-Methylnaphthalene	ug/g	0.052	<0.10	0.13	0.56	0.44	0.058	0.92	0.63		<0.10	0.015	0.12	0.11	<0.050
Naphthalene	ug/g	0.03	<0.050	0.097	<0.20	<0.10	<0.050	<0.20	<0.20		<0.10	<0.0050	<0.10	<0.10	<0.050
Phenanthrene	ug/g	0.79	0.82	2.9	2.8	2.1	1.1	3.3	1.9		0.82	0.15	1.5	1.1	0.33
Pyrene	ug/g	1.6	1.4	2.3	1.9	1.8	1.3	2.8	1.3		2	0.49	2.3	2.1	0.77
SIZE DISTRIBUTION															
< -1 Phi (2 mm)	%	99					94	90	100						
< 0 Phi (1 mm)	%	99					89	83	99						
< +1 Phi (0.5 mm)	%	98					79	70	99						
< +2 Phi (0.25 mm)	%	92					55	61	98						
< +3 Phi (0.12 mm)	%	85					26	55	97						
< +4 Phi (0.062 mm)	%	76					17	50	84						
< +5 Phi (0.031 mm)	%	61					13	42	67						
< +6 Phi (0.016 mm)	%	45					10	35	51						
< +7 Phi (0.0078 mm)	%	22					6.6	23	32						
< +8 Phi (0.0039 mm)	%	10					5.4	20	27						
< +9 Phi (0.0020 mm)	%	3.2					3.9	14	19						
Gravel	%	0.65					6.1	9.6	0.32						
Coarse Sand	%	10					50	32	2.1						
Fine Sand	%	13					27	8.7	14						
Silt	%	66					12	29	57						
Clay	%	10					5.4	20	27						
Loss on Ignition	%w/w	6.7					2	4.3	4						
Wet Bulk Density	g/cm3	1.5					2	1.8	1.7						
Liquid Limit	%w/w	48	51	COMMENT	36		COMMENT	45	26		69	COMMENT			
Plastic Limit	%w/w	28	29	COMMENT	23		COMMENT	25	24		35	COMMENT			
Plasticity Index	%w/w	20	22	COMMENT	19		COMMENT	20	12		24	COMMENT			
Dissolved BOD5	mg/L						<8			<10					

Table A1. Chedoke Creek Sediment Sample Analytical Results - April 2021

	Station	CC-C20					CC-C21								
	Sample ID	CC-C20-WEST-45-60	CC-C20-CENTRE-0-15	CC-C20-CENTRE-15-30	CC-C20-CENTRE-30-45	CC-C20-EAST-0-15	CC-C21-WEST-0-15	CC-C21-WEST-15-30	CC-C21-WEST-30-45	CC-C21-CENTRE-0-15	CC-C21-CENTRE-15-30	CC-C21-EAST-0-15	CC-C21-EAST-15-30	CC-C22-WEST-0-15	CC-C22-WEST-15-30
	BV Labs Sample ID	PHY956	PHY950	PHY951	PHY952	PHY949	PIH405	PIH406	PIH407	PIH403	PIH404	PIH401	PIH402	PIH412	PIH413
	Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	Sampled By	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB
	Sampling Date and Time	4/14/21 15:00	4/14/21 14:30	4/14/21 14:30	4/14/21 14:30	4/14/21 14:00	4/15/21 10:00	4/15/21 10:00	4/15/21 10:00	4/15/21 9:30	4/15/21 9:30	4/15/21 9:00	4/15/21 9:00	4/15/21 12:00	4/15/21 12:00
Parameter Name	Units														
PHYSICAL															
Moisture	%	35	36	38	39	50	57	36	28	30	38	51	59	53	20
ANIONS & NUTRIENTS															
Total Ammonia-N	ug/g	214	150	174	137	<20	61	<20	<20	<20	<20	126	474	317	90
Nitrogen (N)	%														
Calculated Total Kjeldahl Nitrogen (TKN)	ug/g	1650	1390	1750	1630	2160	3240	1230	671	1010	1490	2580	5500	3240	367
Nitrite (N)	ug/g														
Nitrate (N)	ug/g														
Nitrate + Nitrite (N)	ug/g														
METALS															
Acid Extractable Aluminum (Al)	ug/g	11000	14000	9300	11000	10000	12000	10000	8600	7400	11000	11000	12000	11000	6900
Acid Extractable Antimony (Sb)	ug/g	2	2	1.8	2.2	0.79	1.6	1.7	1.9	1.1	2	1.5	0.56	1.6	1
Acid Extractable Arsenic (As)	ug/g	6.4	7.6	5.1	6.3	5.7	5.8	6.4	6.6	4.1	6.5	5.5	5.1	5.5	3.5
Acid Extractable Barium (Ba)	ug/g	270	250	200	250	100	120	110	92	100	180	120	110	130	86
Acid Extractable Beryllium (Be)	ug/g	0.55	0.65	0.43	0.54	0.49	0.59	0.5	0.52	0.38	0.57	0.55	0.54	0.55	0.36
Acid Extractable Bismuth (Bi)	ug/g	1.2	1.2	<1.0	<1.0	<1.0	1.7	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	1.7	<1.0
Acid Extractable Boron (B)	ug/g	27	25	21	25	20	19	13	7.9	15	16	20	14	19	14
Acid Extractable Cadmium (Cd)	ug/g	32	30	27	36	0.62	1.2	13	5.3	7.1	17	0.88	0.72	0.94	0.65
Acid Extractable Calcium (Ca)	ug/g	42000	64000	56000	57000	65000	64000	61000	60000	71000	57000	70000	57000	64000	74000
Acid Extractable Chromium (Cr)	ug/g	61	61	42	85	23	33	32	23	27	35	30	22	33	22
Acid Extractable Cobalt (Co)	ug/g	17	16	12	15	8.5	9.4	11	7.7	7.5	12	9.1	8.9	9	6.6
Acid Extractable Copper (Cu)	ug/g	130	130	110	180	51	110	76	55	91	86	87	41	120	54
Acid Extractable Iron (Fe)	ug/g	21000	28000	19000	23000	25000	25000	22000	18000	19000	23000	25000	23000	25000	21000
Acid Extractable Lead (Pb)	ug/g	140	140	110	130	41	51	74	87	110	100	44	28	45	120
Acid Extractable Magnesium (Mg)	ug/g	13000	15000	13000	13000	24000	23000	14000	8400	19000	16000	23000	17000	22000	19000
Acid Extractable Manganese (Mn)	ug/g	490	660	470	490	540	520	420	340	450	460	540	490	510	470
Acid Extractable Molybdenum (Mo)	ug/g	1.2	1.2	0.85	1.2	0.94	1.8	0.96	1.2	0.81	1	1.5	0.79	1.8	0.87
Acid Extractable Nickel (Ni)	ug/g	61	58	47	61	22	25	35	23	23	40	23	21	25	17
Acid Extractable Phosphorus (P)	ug/g	1500	1500	1300	1500	1200	1500	770	730	1100	890	1400	980	1300	850
Acid Extractable Potassium (K)	ug/g	1400	2200	1400	1600	2000	2000	1600	1200	1400	1700	2000	1700	1900	1200
Acid Extractable Selenium (Se)	ug/g	<0.50	<0.50	<0.50	<0.50	<0.50	0.73	<0.50	0.65	<0.50	<0.50	0.57	<0.50	0.74	<0.50
Acid Extractable Silver (Ag)	ug/g	7.6	6	5.9	14	<0.20	0.89	2.6	1.3	4	3	0.64	<0.20	0.79	1.1
Acid Extractable Sodium (Na)	ug/g	210	330	310	440	440	1600	940	710	580	1000	650	340	560	250
Acid Extractable Strontium (Sr)	ug/g	90	120	99	110	130	110	96	120	110	91	170	130	160	130
Acid Extractable Thallium (Tl)	ug/g	0.15	0.17	0.11	0.16	0.17	0.22	0.12	0.14	0.12	0.13	0.2	0.15	0.22	0.11
Acid Extractable Tin (Sn)	ug/g	15	23	16	15	3	7.9	10	20	9.2	13	4.4	2.6	5.2	20
Acid Extractable Uranium (U)	ug/g	0.67	0.69	0.55	0.69	0.56	0.77	0.6	0.78	0.55	0.59	0.65	0.63	0.74	0.54
Acid Extractable Vanadium (V)	ug/g	26	29	23	27	23	26	24	23	20	25	24	25	25	23
Acid Extractable Zinc (Zn)	ug/g	540	440	390	480	320	480	290	210	270	340	400	240	470	200
Acid Extractable Mercury (Hg)	ug/g	0.48	0.45	0.3	0.41	0.057	0.21	0.23	0.26	7.1	0.3	0.15	0.076	0.27	0.25
PAHs															
Acenaphthene	ug/g	0.24	0.53	0.69	0.3	<0.10	0.79	0.054	0.016	0.57	0.33	<0.10	<0.10	<0.10	<0.0050
Acenaphthylene	ug/g	0.053	<0.20	<0.20	<0.10	<0.10	<0.20	<0.050	0.022	0.035	0.05	<0.10	<0.10	<0.10	<0.0050
Anthracene	ug/g	0.22	0.43	0.73	0.29	0.23	0.86	0.12	0.072	0.71	0.57	0.13	<0.10	0.17	<0.0050
Benzo(a)anthracene	ug/g	0.61	0.92	1.4	0.57	0.76	2.6	0.45	0.26	2	1.9	0.65	0.27	0.78	0.011
Benzo(a)pyrene	ug/g	0.59	0.84	1.2	0.48	0.8	2.3	0.5	0.25	1.7	1.6	0.77	0.3	0.97	0.011
Benzo(b/j)fluoranthene	ug/g	0.99	1.4	2.1	0.74	1.2	3.8	0.8	0.35	2.6	2.4	1.4	0.52	1.7	0.022
Benzo(g,h,i)perylene	ug/g	0.45	0.64	0.97	0.33	0.64	1.5	0.33	0.17	1	1	0.73	0.27	0.88	0.0098
Benzo(k)fluoranthene	ug/g	0.35	0.49	0.69	0.22	0.34	1.3	0.27	0.12	0.91	0.83	0.47	0.18	0.56	0.0068
Chrysene	ug/g	0.7	0.95	1.5	0.61	0.88	3	0.33	0.19	1.9	1.8	0.87	0.36	1	0.016
Dibenzo(a,h)anthracene	ug/g	0.1	0.14	0.22	<0.10	0.11	0.34	0.077	0.044	0.28	0.31	0.12	<0.10	0.14	<0.0050
Fluoranthene	ug/g	2	2.9	4.5	1.9	2.8	9.7	1.4	0.57	6	5	2.4	0.92	2.8	0.061
Fluorene	ug/g	0.3	0.6	0.99	0.4	0.1	0.8	<0.050	0.018	0.5	0.3	<0.10	<0.10	0.11	<0.0050
Indeno(1,2,3-cd)pyrene	ug/g	0.46	0.65	0.93	0.36	0.66	1.6	0.37	0.18	1.1	1.1	0.67	0.25	0.83	0.0093
Methylnaphthalene, 2-(1-)	ug/g	1	2.1	3.1	0.81	<0.14									
1-Methylnaphthalene	ug/g	0.62	0.94	1.6	0.51	<0.10	0.38	<0.050	0.0063	0.084	0.17	<0.10	<0.10	<0.10	<0.0050
2-Methylnaphthalene	ug/g	0.4	1.2	1.6	0.3	<0.10	0.62	<0.050	0.013	0.15	0.25	<0.10	<0.10	<0.10	<0.0050
Naphthalene	ug/g	<0.20	<0.20	<0.30	<0.10	<0.10	1.8	<0.050	0.014	0.25	0.17	<0.10	<0.10	<0.10	<0.0050
Phenanthrene	ug/g	1.4	2.9	4.4	1.1	1.3	9	0.34	0.18	4.8	4.1	0.89	0.32	1.1	0.012
Pyrene	ug/g	1.4	2	3.1	1.5	2	6.2	1.1	0.42	4.4	3.5	1.7	0.66	2	0.041
SIZE DISTRIBUTION															
< -1 Phi (2 mm)	%						99	94	100						
< 0 Phi (1 mm)	%						98	93	100						
< +1 Phi (0.5 mm)	%						95	87	98						
< +2 Phi (0.25 mm)	%						92	77	90						
< +3 Phi (0.12 mm)	%						87	73	66						
< +4 Phi (0.062 mm)	%						82	69	48						
< +5 Phi (0.031 mm)	%						67	55	40						
< +6 Phi (0.016 mm)	%						52	43	31						
< +7 Phi (0.0078 mm)	%						31	27	19						
< +8 Phi (0.0039 mm)	%						25	23	16						
< +9 Phi (0.0020 mm)	%						7.5	17	12						
Gravel	%						1.3	5.7	0.16						
Coarse Sand	%						8.5	19	20						
Fine Sand	%						8.1	6.2	32						
Silt	%						57	46	32						
Clay	%						25	23	16						
Loss on Ignition	%w/w						6.3	3.4	2.5						
Wet Bulk Density	g/cm3						1.6	1.9	1.8						
Liquid Limit	%w/w						54	38	COMMENTS						
Plastic Limit	%w/w						22	21	COMMENTS						
Plasticity Index	%w/w						32	17	COMMENTS						
Dissolved BOD5	mg/L														

Table A1. Chedoke Creek Sediment Sample Analytical Results - April 2021

	Station	CC-C22						CC-C23						
	Sample ID	CC-C22-WEST-30-45	CC-C22-WEST-45-60	CC-C22-CENTRE-0-15	CC-C22-CENTRE-15-30	CC-C22-CENTRE-30-45	CC-C22-EAST-0-15	CC-C23-WEST-0-15	CC-C23-WEST-15-30	CC-C23-WEST-30-45	CC-C23-WEST-45-60	CC-C23-CENTRE-0-15	CC-C23-CENTRE-15-30	CC-C23-EAST-0-15
	BV Labs Sample ID	PIH414	PIH415	PIH409	PIH410	PIH411	PIH408	PIH419	PIH420	PIH421	PIH422	PIH417	PIH418	PIH416
	Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	Sampled By	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB
	Sampling Date and Time	4/15/21 12:00	4/15/21 12:00	4/15/21 11:30	4/15/21 11:30	4/15/21 11:30	4/15/21 11:00	4/15/21 14:00	4/15/21 14:00	4/15/21 14:00	4/15/21 14:00	4/15/21 13:30	4/15/21 13:30	4/15/21 13:00
Parameter Name	Units													
PHYSICAL														
Moisture	%	34	34	34	42	59	53	48	30	29	26	38	67	39
ANIONS & NUTRIENTS														
Total Ammonia-N	ug/g	165	204	114	186	252	27	213	182	178	149	61	227	41
Nitrogen (N)	%													
Calculated Total Kjeldahl Nitrogen (TKN)	ug/g	1000	1320	1370	2840	6380	2160	2610	879	970	894	1710	7340	1800
Nitrite (N)	ug/g													
Nitrate (N)	ug/g													
Nitrate + Nitrite (N)	ug/g													
METALS														
Acid Extractable Aluminum (Al)	ug/g	7100	9400	8800	9900	8500	10000	10000	6600	7000	7200	8200	11000	8800
Acid Extractable Antimony (Sb)	ug/g	1.4	1.9	4.2	3.4	4	1.3	1.1	1.6	1.5	2.4	0.45	0.39	1.6
Acid Extractable Arsenic (As)	ug/g	6.3	6.3	7.2	7.3	6.5	6.1	5.1	4.4	5	5.8	3.8	4	6.2
Acid Extractable Barium (Ba)	ug/g	130	170	260	160	190	110	110	91	130	150	84	120	95
Acid Extractable Beryllium (Be)	ug/g	0.41	0.55	0.44	0.51	0.46	0.52	0.49	0.33	0.41	0.42	0.4	0.54	0.47
Acid Extractable Bismuth (Bi)	ug/g	<1.0	<1.0	<1.0	1.2	1.1	<1.0	1	<1.0	<1.0	<1.0	<1.0	1.4	<1.0
Acid Extractable Boron (B)	ug/g	20	25	20	20	29	18	19	15	19	18	14	17	15
Acid Extractable Cadmium (Cd)	ug/g	4.7	9.9	20	9.8	8.4	0.87	0.75	2.6	5.8	9.8	0.39	0.44	1.2
Acid Extractable Calcium (Ca)	ug/g	64000	65000	65000	54000	56000	72000	65000	66000	64000	64000	71000	66000	67000
Acid Extractable Chromium (Cr)	ug/g	21	33	48	43	38	30	28	24	29	36	18	22	24
Acid Extractable Cobalt (Co)	ug/g	11	13	15	9.8	9.8	9.2	8.7	8.2	9.8	11	7.2	8.8	7.6
Acid Extractable Copper (Cu)	ug/g	54	67	110	120	110	78	85	91	74	84	47	38	62
Acid Extractable Iron (Fe)	ug/g	18000	22000	22000	23000	23000	24000	24000	25000	21000	20000	21000	23000	23000
Acid Extractable Lead (Pb)	ug/g	110	130	160	150	230	41	43	120	110	110	52	20	120
Acid Extractable Magnesium (Mg)	ug/g	15000	18000	15000	12000	13000	24000	24000	17000	14000	14000	18000	15000	21000
Acid Extractable Manganese (Mn)	ug/g	480	590	540	500	440	610	530	450	480	500	450	450	520
Acid Extractable Molybdenum (Mo)	ug/g	0.74	0.86	1	1.4	1.3	1.3	1.4	0.9	0.74	1.6	0.71	0.82	1.2
Acid Extractable Nickel (Ni)	ug/g	27	51	54	33	32	23	23	20	39	44	19	21	20
Acid Extractable Phosphorus (P)	ug/g	1000	1300	1500	1200	1400	1400	1300	1000	1300	1300	780	910	1100
Acid Extractable Potassium (K)	ug/g	1200	1600	1400	1400	1100	1900	1900	1200	1200	1100	1500	1800	1500
Acid Extractable Selenium (Se)	ug/g	<0.50	<0.50	<0.50	0.59	0.67	0.54	0.56	<0.50	<0.50	<0.50	<0.50	0.54	0.51
Acid Extractable Silver (Ag)	ug/g	1.5	2.2	5.9	3.3	2.2	0.48	0.54	4.4	2.5	3.3	1.1	<0.20	1.7
Acid Extractable Sodium (Na)	ug/g	210	220	390	260	260	550	480	220	230	220	390	500	470
Acid Extractable Strontium (Sr)	ug/g	110	120	150	110	120	170	140	120	110	120	120	140	150
Acid Extractable Thallium (Tl)	ug/g	0.08	0.11	0.11	0.14	0.16	0.2	0.19	0.1	0.091	0.095	0.12	0.15	0.15
Acid Extractable Tin (Sn)	ug/g	9.4	5.8	11	28	33	3.5	3.6	10	8.3	9.4	3.4	1.7	12
Acid Extractable Uranium (U)	ug/g	0.51	0.55	0.57	0.55	0.56	0.67	0.63	0.53	0.51	0.53	0.54	0.57	0.61
Acid Extractable Vanadium (V)	ug/g	20	23	23	23	20	24	23	33	28	25	20	22	23
Acid Extractable Zinc (Zn)	ug/g	270	320	420	470	500	380	380	240	290	340	180	180	320
Acid Extractable Mercury (Hg)	ug/g	0.74	0.39	0.52	0.46	0.62	0.15	0.12	9.1	0.41	0.35	1.2	0.07	2.5
PAHs														
Acenaphthene	ug/g	0.043	0.1	0.17	0.098	8.1	<0.10	<0.10	0.044	0.086	0.16	<0.10	<0.10	0.22
Acenaphthylene	ug/g	0.0093	0.029	<0.10	0.045	0.13	<0.10	<0.10	0.0088	0.025	0.035	<0.10	<0.10	<0.10
Anthracene	ug/g	0.051	0.14	0.21	0.17	11	0.13	0.16	0.065	0.096	0.25	<0.10	<0.10	0.29
Benzo(a)anthracene	ug/g	0.14	0.35	0.53	0.56	17	0.66	0.81	0.22	0.31	0.61	0.16	<0.10	1.1
Benzo(a)pyrene	ug/g	0.13	0.32	0.48	0.54	12	0.79	1	0.23	0.28	0.52	0.16	<0.10	1.5
Benzo(b/j)fluoranthene	ug/g	0.21	0.5	0.82	0.79	16	1.4	1.7	0.38	0.47	0.77	0.28	0.14	1.9
Benzo(g,h,i)perylene	ug/g	0.098	0.24	0.38	0.39	5.3	0.76	0.74	0.19	0.21	0.33	0.12	<0.10	1.1
Benzo(k)fluoranthene	ug/g	0.075	0.18	0.29	0.27	6.5	0.49	0.57	0.13	0.16	0.29	<0.10	<0.10	0.69
Chrysene	ug/g	0.14	0.34	0.56	0.49	14	0.89	1.1	0.25	0.31	0.57	0.17	<0.10	1.1
Dibenzo(a,h)anthracene	ug/g	0.02	0.052	<0.10	0.096	2	0.13	0.14	0.037	0.045	0.086	<0.10	<0.10	0.26
Fluoranthene	ug/g	0.42	1	1.6	1.3	46	2.5	3	0.77	0.93	1.7	0.63	0.4	2.6
Fluorene	ug/g	0.05	0.14	0.23	0.1	8.8	<0.10	0.11	0.06	0.12	0.19	<0.10	<0.10	0.17
Indeno(1,2,3-cd)pyrene	ug/g	0.097	0.24	0.38	0.4	6.4	0.7	0.78	0.19	0.21	0.36	0.11	<0.10	1.1
Methylnaphthalene, 2-(1-)	ug/g													
1-Methylnaphthalene	ug/g	0.026	0.1	0.13	0.033	1	<0.10	<0.10	0.01	0.062	0.065	<0.10	<0.10	<0.10
2-Methylnaphthalene	ug/g	0.017	0.048	<0.10	0.07	1.6	<0.10	<0.10	0.019	0.041	0.045	<0.10	<0.10	0.11
Naphthalene	ug/g	<0.020	<0.050	<0.10	0.041	2.6	<0.10	<0.10	<0.010	<0.050	<0.050	<0.10	<0.10	0.13
Phenanthrene	ug/g	0.26	0.75	1.1	0.65	49	0.91	1.3	0.34	0.58	1.2	0.22	0.2	1.2
Pyrene	ug/g	0.3	0.73	1.1	1.1	30	1.7	2.2	0.53	0.66	1.2	0.44	0.27	1.9
SIZE DISTRIBUTION														
< -1 Phi (2 mm)	%							100	98	98				
< 0 Phi (1 mm)	%							99	96	97				
< +1 Phi (0.5 mm)	%							94	88	95				
< +2 Phi (0.25 mm)	%							84	60	82				
< +3 Phi (0.12 mm)	%							77	36	59				
< +4 Phi (0.062 mm)	%							68	30	49				
< +5 Phi (0.031 mm)	%							54	23	43				
< +6 Phi (0.016 mm)	%							42	18	35				
< +7 Phi (0.0078 mm)	%							21	12	23				
< +8 Phi (0.0039 mm)	%							8.6	10	19				
< +9 Phi (0.0020 mm)	%							3.1	2.8	14				
Gravel	%							0.31	2.3	1.8				
Coarse Sand	%							19	47	25				
Fine Sand	%							13	20	23				
Silt	%							59	20	30				
Clay	%							8.6	10	19				
Loss on Ignition	%w/w							6.6	2.8	3.2				
Wet Bulk Density	g/cm3							1.5	1.9	1.9				
Liquid Limit	%w/w							65	COMMENTS	37				
Plastic Limit	%w/w							36	COMMENTS	19				
Plasticity Index	%w/w							29	COMMENTS	18				
Dissolved BOD5	mg/L													

Table A1. Chedoke Creek Sediment Sample Analytical Results - April 2021

	Station	CC-C05												CC
	Sample ID	CC-C05-WEST-0-15	CC-C05-WEST-15-30	CC-C05-WEST-30-45	CC-C05-WEST-45-60	CC-C05-WEST-60-75	CC-C05-WEST-75-90	CC-C05-CENTRE-0-15	CC-C05-EAST-0-15	CC-C05-EAST-15-30	CC-C24-WEST-0-15	CC-C24-WEST-15-30	CC-C24-CENTRE-0-15	CC-C24-CENTRE-15-30
	BV Labs Sample ID	PJI863	PJI864	PJI865	PJI866	PJI867	PJI868	PJI862	PJI860	PJI861	PJI875	PJI876	PJI871	PJI872
	Matrix	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid
	Sampled By	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB
	Sampling Date and Time	4/20/21 10:00	4/20/21 10:00	4/20/21 10:00	4/20/21 10:00	4/20/21 10:00	4/20/21 11:00	4/20/21 9:30	4/20/21 8:00	4/20/21 9:00	4/20/21 12:00	4/20/21 12:00	4/20/21 11:30	4/20/21 11:30
Parameter Name	Units													
PHYSICAL														
Moisture	%	42	18	33	42	49	46	24	25	35	52	27	19	18
ANIONS & NUTRIENTS														
Total Ammonia-N	ug/g	178	85	188	286	269	228	25	93	157	84	<20	<20	31
Nitrogen (N)	%	0.21	0.035	0.12	0.22	0.33	0.3	0.074	0.091	0.21	0.3	0.067	0.035	0.019
Calculated Total Kjeldahl Nitrogen (TKN)	ug/g	2080	349	1240	2200	3260	3010	736	908	2120	3010	668	353	187
Nitrite (N)	ug/g	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nitrate (N)	ug/g	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nitrate + Nitrite (N)	ug/g	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
METALS														
Acid Extractable Aluminum (Al)	ug/g	7500	4900	9700	11000	12000	8900	8100	9700	11000	11000	9000	6600	3700
Acid Extractable Antimony (Sb)	ug/g	0.84	0.49	2.8	3	1.5	0.64	1	2.5	1.4	1.4	0.47	0.43	1
Acid Extractable Arsenic (As)	ug/g	3.7	2.9	6.2	6.5	6.2	4.5	5.3	6.1	7.1	5.9	4.5	3.5	2.6
Acid Extractable Barium (Ba)	ug/g	94	57	220	260	210	100	98	100	140	120	55	70	43
Acid Extractable Beryllium (Be)	ug/g	0.42	0.29	0.51	0.56	0.61	0.46	0.47	0.53	0.65	0.59	0.45	0.39	0.23
Acid Extractable Bismuth (Bi)	ug/g	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	1.6	<1.0	<1.0	<1.0
Acid Extractable Boron (B)	ug/g	16	12	29	31	36	26	18	19	19	20	11	16	10
Acid Extractable Cadmium (Cd)	ug/g	0.66	1.5	16	29	21	4	0.98	1.3	3.2	0.94	0.49	0.58	0.63
Acid Extractable Calcium (Ca)	ug/g	64000	67000	63000	53000	64000	67000	72000	62000	55000	62000	58000	69000	67000
Acid Extractable Chromium (Cr)	ug/g	24	18	47	56	44	20	30	34	30	33	20	18	15
Acid Extractable Cobalt (Co)	ug/g	7.2	6	14	16	13	7.9	8.7	9	9.4	9.1	7.8	7.2	4.6
Acid Extractable Copper (Cu)	ug/g	79	38	120	170	140	46	62	98	87	110	46	38	89
Acid Extractable Iron (Fe)	ug/g	23000	21000	22000	21000	22000	18000	24000	35000	25000	25000	21000	19000	17000
Acid Extractable Lead (Pb)	ug/g	67	65	150	170	100	56	90	160	98	55	24	48	140
Acid Extractable Magnesium (Mg)	ug/g	18000	14000	14000	12000	11000	7800	18000	17000	11000	20000	11000	17000	12000
Acid Extractable Manganese (Mn)	ug/g	440	410	510	500	540	500	590	580	670	520	550	490	390
Acid Extractable Molybdenum (Mo)	ug/g	1	0.61	0.93	1.1	0.92	0.74	1.3	1.3	1.7	1.7	0.66	0.59	0.53
Acid Extractable Nickel (Ni)	ug/g	18	16	58	58	44	22	23	24	26	24	18	17	10
Acid Extractable Phosphorus (P)	ug/g	1200	880	1500	1700	1400	890	1200	1200	1100	1400	810	870	950
Acid Extractable Potassium (K)	ug/g	1500	1000	1600	1600	1700	1200	1700	1900	1600	1900	1400	1500	750
Acid Extractable Selenium (Se)	ug/g	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.5	0.68	<0.50	<0.50	<0.50
Acid Extractable Silver (Ag)	ug/g	0.66	0.28	4.7	12	8	1.5	0.89	0.4	0.81	0.69	<0.20	<0.20	<0.20
Acid Extractable Sodium (Na)	ug/g	320	180	270	250	290	240	360	450	540	520	260	250	200
Acid Extractable Strontium (Sr)	ug/g	130	120	120	110	150	150	140	120	140	150	110	120	100
Acid Extractable Thallium (Tl)	ug/g	0.15	0.087	0.15	0.15	0.15	0.11	0.16	0.16	0.14	0.24	0.12	0.12	0.067
Acid Extractable Tin (Sn)	ug/g	6.8	5.1	10	15	13	7.3	21	45	25	4.6	2.2	2.8	5.7
Acid Extractable Uranium (U)	ug/g	0.66	0.5	0.64	0.64	0.65	0.47	0.7	0.57	0.63	0.77	0.79	0.49	0.44
Acid Extractable Vanadium (V)	ug/g	29	30	26	25	25	21	22	40	26	27	25	20	23
Acid Extractable Zinc (Zn)	ug/g	310	190	420	570	400	160	260	380	300	440	170	190	200
Acid Extractable Mercury (Hg)	ug/g	0.18	0.28	0.45	0.55	0.35	0.12	0.12	0.16	0.28	0.14	0.11	0.082	0.079
PAHs														
Acenaphthene	ug/g	<0.10	<0.050	0.14	0.51	0.2	<0.10	0.86	<0.050	<0.10	<0.10	<0.050	<0.050	<0.050
Acenaphthylene	ug/g	<0.10	<0.050	<0.050	<0.10	<0.10	<0.10	<0.050	<0.050	<0.10	<0.10	<0.050	<0.050	<0.050
Anthracene	ug/g	<0.10	<0.050	0.12	0.31	0.19	<0.10	1.7	<0.050	<0.10	0.12	<0.050	<0.050	<0.050
Benzo(a)anthracene	ug/g	<0.10	0.2	0.39	0.53	0.48	0.16	4.9	<0.050	<0.10	0.61	0.19	0.18	0.15
Benzo(a)pyrene	ug/g	<0.10	0.19	0.37	0.46	0.45	0.19	3.8	<0.050	<0.10	0.74	0.21	0.17	0.15
Benzo(b/j)fluoranthene	ug/g	<0.10	0.34	0.63	0.74	0.71	0.22	5.3	0.077	0.13	1.2	0.36	0.28	0.25
Benzo(g,h,i)perylene	ug/g	<0.10	0.14	0.3	0.29	0.33	0.13	2.1	<0.050	<0.10	0.62	0.18	0.13	0.11
Benzo(k)fluoranthene	ug/g	<0.10	0.12	0.22	0.21	0.26	<0.10	1.6	<0.050	<0.10	0.4	0.1	0.082	0.081
Chrysene	ug/g	<0.10	0.25	0.43	0.57	0.49	0.17	4.9	0.05	<0.10	0.81	0.31	0.22	0.18
Dibenzo(a,h)anthracene	ug/g	<0.10	<0.050	0.055	<0.10	<0.10	<0.10	0.52	<0.050	<0.10	0.11	<0.050	<0.050	<0.050
Fluoranthene	ug/g	0.14	0.78	1.3	1.8	1.4	0.37	15	0.17	0.26	2.5	0.68	0.62	0.54
Fluorene	ug/g	<0.10	<0.050	0.19	<0.50	0.19	<0.10	0.79	<0.050	<0.10	<0.10	<0.050	<0.050	<0.050
Indeno(1,2,3-cd)pyrene	ug/g	<0.10	0.14	0.3	0.33	0.34	0.14	2.4	<0.050	<0.10	0.62	0.18	0.13	0.11
Methylnaphthalene, 2-(1-)	ug/g	<0.14	<0.071	0.25	0.79	0.53	<0.14	0.34	<0.071	<0.14	<0.14	<0.071	<0.071	<0.071
1-Methylnaphthalene	ug/g	<0.10	<0.050	0.19	0.61	0.39	<0.10	0.13	<0.050	<0.10	<0.10	<0.050	<0.050	<0.050
2-Methylnaphthalene	ug/g	<0.10	<0.050	0.062	0.18	0.15	<0.10	0.21	<0.050	<0.10	<0.10	<0.050	<0.050	<0.050
Naphthalene	ug/g	<0.10	<0.050	0.058	<0.10	<0.10	<0.10	0.77	<0.050	<0.10	<0.10	<0.050	<0.050	<0.050
Phenanthrene	ug/g	<0.10	0.38	0.93	1.5	1.1	0.25	11	0.092	0.14	0.96	0.18	0.19	0.22
Pyrene	ug/g	0.1	0.53	0.9	1.4	0.98	0.31	11	0.12	0.2	1.9	0.52	0.46	0.37
SIZE DISTRIBUTION														
< -1 Phi (2 mm)	%													
< 0 Phi (1 mm)	%													
< +1 Phi (0.5 mm)	%													
< +2 Phi (0.25 mm)	%													
< +3 Phi (0.12 mm)	%													
< +4 Phi (0.062 mm)	%													
< +5 Phi (0.031 mm)	%													
< +6 Phi (0.016 mm)	%													
< +7 Phi (0.0078 mm)	%													
< +8 Phi (0.0039 mm)	%													
< +9 Phi (0.0020 mm)	%													
Gravel	%													
Coarse Sand	%													
Fine Sand	%													
Silt	%													
Clay	%													
Loss on Ignition	%w/w													
Wet Bulk Density	g/cm3													
Liquid Limit	%w/w													
Plastic Limit	%w/w													
Plasticity Index	%w/w													
Dissolved BOD5	mg/L	7					<20							

Table A1. Chedoke Creek Sediment Sample Analytical Results - April 2021

	Station	C24				CC-C25								
	Sample ID	CC-C24-CENTRE-30-45	CC-C24-CENTRE-45-60	CC-C24-EAST-0-15	CC-C24-EAST-15-30	CC-C25-WEST-0-15	CC-C25-WEST-15-30	CC-C25-WEST-30-45	CC-C25-WEST-45-60	CC-C25-WEST-60-75	CC-C25-CENTRE-0-15	CC-C25-CENTRE-15-30	CC-C25-CENTRE-30-45	CC-C25-CENTRE-45-60
	BV Labs Sample ID	PJI873	PJI874	PJI869	PJI870	PJI883	PJI884	PJI885	PJI886	PJI887	PJI879	PJI880	PJI881	PJI882
	Matrix	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid
	Sampled By	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB
	Sampling Date and Time	4/20/21 11:30	4/20/21 11:30	4/20/21 11:00	4/20/21 11:00	4/20/21 14:00	4/20/21 14:00	4/20/21 14:00	4/20/21 14:00	4/20/21 14:00	4/20/21 13:30	4/20/21 13:30	4/20/21 13:30	4/20/21 13:30
Parameter Name	Units													
PHYSICAL														
Moisture	%	35	30	38	31	43	30	32	43	44	23	20	19	37
ANIONS & NUTRIENTS														
Total Ammonia-N	ug/g	119	114	43	57	113	168	238	387	454	22	90	98	349
Nitrogen (N)	%	0.13	0.13	0.16	0.096	0.22	0.12	0.14	0.24	0.28	0.066	0.052	0.045	0.15
Calculated Total Kjeldahl Nitrogen (TKN)	ug/g	1350	1260	1580	957	2250	1200	1390	2440	2830	655	515	451	1510
Nitrite (N)	ug/g	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nitrate (N)	ug/g	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nitrate + Nitrite (N)	ug/g	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
METALS														
Acid Extractable Aluminum (Al)	ug/g	11000	7900	7300	9400	9300	7300	10000	14000	15000	6900	6500	6100	9800
Acid Extractable Antimony (Sb)	ug/g	2.5	1.8	0.75	0.66	0.89	0.75	2.2	3.2	3	0.78	0.52	0.68	3.2
Acid Extractable Arsenic (As)	ug/g	8.4	5.3	3.9	5.1	4.5	4.6	6.1	9.2	9.7	3.3	3.9	3.7	6.8
Acid Extractable Barium (Ba)	ug/g	250	170	110	120	99	78	190	370	260	74	69	64	230
Acid Extractable Beryllium (Be)	ug/g	0.61	0.45	0.39	0.5	0.5	0.42	0.54	0.68	0.73	0.39	0.37	0.35	0.54
Acid Extractable Bismuth (Bi)	ug/g	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.7	2.7	1.1	<1.0	<1.0	<1.0
Acid Extractable Boron (B)	ug/g	36	25	15	15	20	21	34	57	46	18	21	21	45
Acid Extractable Cadmium (Cd)	ug/g	17	16	0.52	0.89	0.79	0.99	12	44	29	0.63	0.6	0.66	18
Acid Extractable Calcium (Ca)	ug/g	59000	58000	64000	64000	67000	67000	59000	54000	52000	70000	69000	68000	60000
Acid Extractable Chromium (Cr)	ug/g	51	37	20	23	27	24	45	90	67	21	21	18	51
Acid Extractable Cobalt (Co)	ug/g	17	12	6.6	8.2	8.2	7.9	14	20	16	6.9	6.4	6.1	15
Acid Extractable Copper (Cu)	ug/g	120	120	48	51	72	55	90	220	170	66	44	59	120
Acid Extractable Iron (Fe)	ug/g	24000	19000	18000	18000	21000	20000	21000	26000	29000	23000	19000	18000	22000
Acid Extractable Lead (Pb)	ug/g	200	120	48	66	39	50	120	230	220	89	41	72	140
Acid Extractable Magnesium (Mg)	ug/g	15000	15000	17000	14000	21000	20000	14000	14000	13000	19000	17000	14000	14000
Acid Extractable Manganese (Mn)	ug/g	600	520	470	530	500	500	540	560	570	460	470	460	540
Acid Extractable Molybdenum (Mo)	ug/g	1.1	0.87	0.85	0.88	1.3	0.86	0.89	1.5	1.3	0.79	0.65	0.57	0.99
Acid Extractable Nickel (Ni)	ug/g	69	38	16	20	20	20	58	91	62	16	16	15	68
Acid Extractable Phosphorus (P)	ug/g	1600	1500	970	860	1300	1100	1700	2300	2100	1200	970	920	1600
Acid Extractable Potassium (K)	ug/g	1800	1300	1400	1600	1700	1400	1700	2100	2200	1500	1400	1200	1700
Acid Extractable Selenium (Se)	ug/g	0.51	<0.50	<0.50	<0.50	0.5	<0.50	<0.50	0.67	0.73	<0.50	<0.50	<0.50	<0.50
Acid Extractable Silver (Ag)	ug/g	5.2	5.4	0.28	0.55	0.51	0.73	3.6	16	9.4	<0.20	1.6	0.21	6.1
Acid Extractable Sodium (Na)	ug/g	490	380	420	430	410	240	260	360	290	260	220	200	300
Acid Extractable Strontium (Sr)	ug/g	130	99	120	120	140	130	120	130	110	130	120	120	130
Acid Extractable Thallium (Tl)	ug/g	0.17	0.12	0.15	0.14	0.18	0.14	0.14	0.22	0.24	0.12	0.11	0.1	0.15
Acid Extractable Tin (Sn)	ug/g	12	14	3.2	5	3.4	3.3	8.7	22	34	3.7	7.6	9.9	9.8
Acid Extractable Uranium (U)	ug/g	0.73	0.57	0.55	1	0.62	0.58	0.63	0.76	0.73	0.61	0.54	0.48	0.62
Acid Extractable Vanadium (V)	ug/g	26	20	22	25	22	23	24	31	32	29	24	21	22
Acid Extractable Zinc (Zn)	ug/g	480	390	220	230	340	260	450	780	870	260	210	170	430
Acid Extractable Mercury (Hg)	ug/g	0.43	0.48	0.095	0.39	0.15	0.38	0.46	0.78	1.1	0.098	1.8	0.14	0.44
PAHs														
Acenaphthene	ug/g	2.3	0.22	<0.050	<0.050	<0.10	0.13	0.27	0.15	0.37	0.094	<0.050	0.26	0.39
Acenaphthylene	ug/g	0.073	<0.050	<0.050	<0.050	<0.10	<0.050	<0.050	<0.10	0.11	<0.050	<0.050	<0.050	<0.050
Anthracene	ug/g	3.7	0.19	<0.050	<0.050	0.12	0.14	0.19	0.17	0.32	0.16	<0.050	0.43	0.26
Benzo(a)anthracene	ug/g	4.4	0.5	0.25	0.21	0.64	0.75	0.46	0.5	0.9	0.66	0.26	1	0.64
Benzo(a)pyrene	ug/g	2.6	0.44	0.29	0.21	0.69	0.72	0.41	0.48	0.78	0.62	0.3	0.69	0.54
Benzo(b/j)fluoranthene	ug/g	3.2	0.71	0.48	0.37	1.1	1.2	0.59	0.77	1.2	0.97	0.5	1	0.83
Benzo(g,h,i)perylene	ug/g	0.95	0.33	0.24	0.17	0.52	0.53	0.25	0.38	0.52	0.44	0.26	0.32	0.31
Benzo(k)fluoranthene	ug/g	1.2	0.24	0.14	0.097	0.32	0.4	0.22	0.27	0.43	0.35	0.18	0.32	0.25
Chrysene	ug/g	3.9	0.5	0.34	0.27	0.83	0.95	0.48	0.52	0.99	0.68	0.33	0.98	0.66
Dibenzo(a,h)anthracene	ug/g	0.33	0.078	<0.050	<0.050	<0.10	0.12	0.065	<0.10	0.15	0.1	<0.050	0.1	0.078
Fluoranthene	ug/g	14	1.5	0.95	0.71	2.5	2.9	1.5	1.5	2.5	2.1	0.86	3.1	2.1
Fluorene	ug/g	3	0.25	<0.050	<0.050	<0.10	0.13	0.19	0.21	0.32	0.085	<0.050	0.24	0.29
Indeno(1,2,3-cd)pyrene	ug/g	1.2	0.33	0.24	0.18	0.55	0.59	0.29	0.37	0.6	0.45	0.25	0.4	0.36
Methylnaphthalene, 2-(1-)	ug/g	3.1	0.56	<0.071	<0.071	<0.14	0.16	<0.071	0.31	0.38	<0.071	<0.071	<0.071	0.28
1-Methylnaphthalene	ug/g	1.3	0.37	<0.050	<0.050	<0.10	0.066	<0.050	0.16	0.18	<0.050	<0.050	<0.050	0.17
2-Methylnaphthalene	ug/g	1.8	0.19	<0.050	<0.050	<0.10	0.096	<0.050	0.14	0.21	<0.050	<0.050	<0.050	0.11
Naphthalene	ug/g	3.1	<0.070	<0.050	<0.050	<0.10	0.19	<0.050	<0.10	<0.10	<0.050	<0.050	0.09	<0.050
Phenanthrene	ug/g	18	1.2	0.34	0.25	1.1	2	0.98	1.1	1.4	1.1	0.21	2.5	1.4
Pyrene	ug/g	9.9	1.1	0.72	0.54	1.8	2.1	1.1	1.1	2	1.4	0.6	2.2	1.6
SIZE DISTRIBUTION														
< -1 Phi (2 mm)	%													
< 0 Phi (1 mm)	%													
< +1 Phi (0.5 mm)	%													
< +2 Phi (0.25 mm)	%													
< +3 Phi (0.12 mm)	%													
< +4 Phi (0.062 mm)	%													
< +5 Phi (0.031 mm)	%													
< +6 Phi (0.016 mm)	%													
< +7 Phi (0.0078 mm)	%													
< +8 Phi (0.0039 mm)	%													
< +9 Phi (0.0020 mm)	%													
Gravel	%													
Coarse Sand	%													
Fine Sand	%													
Silt	%													
Clay	%													
Loss on Ignition	%w/w													
Wet Bulk Density	g/cm3													
Liquid Limit	%w/w													
Plastic Limit	%w/w													
Plasticity Index	%w/w													
Dissolved BOD5	mg/L													

Table A1. Chedoke Creek Sediment Sample Analytical Results - April 2021

	Station			CC-C26										
	Sample ID	CC-C25-EAST-0-15	CC-C25-EAST-15-30	CC-C26-WEST-0-15	CC-C26-WEST-15-30	CC-C26-WEST-30-45	CC-C26-WEST-45-60	CC-C26-CENTRE-0-15	CC-C26-CENTRE-15-30	CC-C26-CENTRE-30-45	CC-C26-CENTRE-45-60	CC-C26-EAST-0-15	CC-C26-EAST-15-30	CC-C26-EAST-30-45
	BV Labs Sample ID	PJI877	PJI878	PJT424	PJT425	PJT426	PJT427	PJT420	PJT421	PJT422	PJT423	PJT416	PJT417	PJT418
	Matrix	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid
	Sampled By	TB	TB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
	Sampling Date and Time	4/20/21 13:00	4/20/21 13:00	4/21/21 10:00	4/21/21 10:00	4/21/21 10:00	4/21/21 10:00	4/21/21 9:30	4/21/21 9:30	4/21/21 9:30	4/21/21 9:30	4/21/21 9:00	4/21/21 9:00	4/21/21 9:00
Parameter Name	Units													
PHYSICAL														
Moisture	%	51	40	29	25	24	45	20	20	21	25	46	38	33
ANIONS & NUTRIENTS														
Total Ammonia-N	ug/g	219	228	65	145	133	428	35	99	146	210	205	249	244
Nitrogen (N)	%	0.29	0.16	0.11	0.093	0.12	0.36	0.048	0.058	0.063	0.081	0.25	0.16	0.14
Calculated Total Kjeldahl Nitrogen (TKN)	ug/g	2950	1610	1060	932	1150	3590	479	582	629	815	2480	1640	1380
Nitrite (N)	ug/g	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nitrate (N)	ug/g	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nitrate + Nitrite (N)	ug/g	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
METALS														
Acid Extractable Aluminum (Al)	ug/g	11000	10000	6500	7700	7000	14000	5300	6400	6000	6800	11000	11000	9600
Acid Extractable Antimony (Sb)	ug/g	1.4	0.77	5.4	1.6	3.8	3.7	0.41	0.41	0.36	0.47	1.1	0.74	0.79
Acid Extractable Arsenic (As)	ug/g	5.4	5.8	4.3	4.7	5.1	11	3.1	3.6	3.7	4	5.3	5.9	5.1
Acid Extractable Barium (Ba)	ug/g	120	97	65	100	130	260	68	63	62	80	110	96	99
Acid Extractable Beryllium (Be)	ug/g	0.6	0.53	0.35	0.45	0.4	0.74	0.31	0.39	0.34	0.39	0.57	0.57	0.51
Acid Extractable Bismuth (Bi)	ug/g	1.4	<1.0	<1.0	<1.0	1.1	3.9	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Acid Extractable Boron (B)	ug/g	21	18	17	30	47	82	15	22	25	33	27	30	35
Acid Extractable Cadmium (Cd)	ug/g	0.96	1.2	0.85	10	22	76	0.56	0.7	0.86	1.4	1.1	1.3	1.8
Acid Extractable Calcium (Ca)	ug/g	68000	65000	69000	70000	63000	53000	73000	70000	70000	68000	73000	73000	68000
Acid Extractable Chromium (Cr)	ug/g	34	28	21	37	63	280	18	18	19	24	31	29	30
Acid Extractable Cobalt (Co)	ug/g	9.2	8.8	6.9	11	18	21	5.5	6.4	6.3	7.9	8.8	9.4	8.7
Acid Extractable Copper (Cu)	ug/g	95	64	57	90	160	410	90	43	52	70	81	62	71
Acid Extractable Iron (Fe)	ug/g	25000	23000	19000	20000	18000	30000	18000	19000	17000	20000	24000	24000	23000
Acid Extractable Lead (Pb)	ug/g	55	54	69	93	140	240	70	51	63	110	44	53	75
Acid Extractable Magnesium (Mg)	ug/g	21000	19000	18000	16000	15000	14000	16000	16000	13000	15000	21000	20000	18000
Acid Extractable Manganese (Mn)	ug/g	530	570	460	510	460	610	430	480	480	510	550	590	560
Acid Extractable Molybdenum (Mo)	ug/g	1.6	1	0.77	0.93	0.91	3.2	0.62	0.58	0.59	0.69	1.2	1	0.95
Acid Extractable Nickel (Ni)	ug/g	24	23	21	29	43	91	12	15	17	22	23	23	23
Acid Extractable Phosphorus (P)	ug/g	1500	1300	980	1200	1300	2500	950	920	1000	1000	1300	1200	1300
Acid Extractable Potassium (K)	ug/g	2000	1600	1300	1400	1200	2100	1200	1300	1200	1200	2000	1900	1600
Acid Extractable Selenium (Se)	ug/g	0.71	<0.50	<0.50	<0.50	<0.50	0.84	<0.50	<0.50	<0.50	<0.50	0.58	0.51	<0.50
Acid Extractable Silver (Ag)	ug/g	0.86	0.56	0.28	3.1	5	11	<0.20	0.25	0.75	1.9	0.52	0.46	1.1
Acid Extractable Sodium (Na)	ug/g	500	350	250	280	230	400	220	210	220	260	460	330	270
Acid Extractable Strontium (Sr)	ug/g	170	140	120	110	82	100	120	120	120	120	190	170	130
Acid Extractable Thallium (Tl)	ug/g	0.22	0.16	0.13	0.13	0.12	0.25	0.095	0.11	0.1	0.11	0.2	0.18	0.15
Acid Extractable Tin (Sn)	ug/g	4.5	4.4	14	8.6	22	81	6.7	2.5	3.3	6.8	3.8	4.5	7.3
Acid Extractable Uranium (U)	ug/g	0.76	0.56	0.57	0.54	0.49	0.87	0.54	0.5	0.43	0.51	0.65	0.57	0.63
Acid Extractable Vanadium (V)	ug/g	27	25	20	21	17	28	23	22	19	21	25	25	25
Acid Extractable Zinc (Zn)	ug/g	430	330	260	340	530	1500	200	240	170	240	400	340	300
Acid Extractable Mercury (Hg)	ug/g	0.46	0.17	0.51	0.53	0.6	1.5	0.12	0.43	0.41	1.3	0.11	0.16	0.54
PAHs														
Acenaphthene	ug/g	<0.10	0.074	<0.050	0.11	0.37	0.67	<0.050	<0.050	0.058	0.082	<0.10	0.063	0.088
Acenaphthylene	ug/g	<0.10	<0.050	<0.050	<0.050	<0.050	<0.10	<0.050	<0.050	<0.050	<0.050	<0.10	<0.050	<0.050
Anthracene	ug/g	0.1	0.11	0.08	0.1	0.3	0.41	<0.050	<0.050	0.086	0.14	<0.10	0.12	0.11
Benzo(a)anthracene	ug/g	0.56	0.57	0.43	0.37	0.92	0.86	0.15	0.23	0.32	0.31	0.56	0.6	0.51
Benzo(a)pyrene	ug/g	0.66	0.61	0.44	0.36	0.85	0.75	0.16	0.23	0.3	0.26	0.69	0.65	0.55
Benzo(b/j)fluoranthene	ug/g	1.1	1	0.69	0.6	1.2	1.1	0.26	0.39	0.45	0.39	1.1	0.97	0.8
Benzo(g,h,i)perylene	ug/g	0.54	0.48	0.36	0.3	0.62	0.55	0.14	0.19	0.22	0.2	0.62	0.54	0.45
Benzo(k)fluoranthene	ug/g	0.3	0.29	0.21	0.18	0.42	0.39	0.092	0.11	0.16	0.14	0.31	0.35	0.29
Chrysene	ug/g	0.8	0.76	0.57	0.44	0.9	1	0.2	0.29	0.4	0.35	0.79	0.79	0.67
Dibenzo(a,h)anthracene	ug/g	<0.10	0.091	0.051	<0.050	0.13	0.1	<0.050	<0.050	<0.050	<0.050	<0.10	0.08	0.067
Fluoranthene	ug/g	2.2	2	1.4	1.1	2.1	2.3	0.57	0.79	1.2	0.99	2.1	1.9	1.8
Fluorene	ug/g	<0.10	0.091	<0.050	0.096	0.3	0.39	<0.050	<0.050	0.064	0.11	<0.10	0.072	0.087
Indeno(1,2,3-cd)pyrene	ug/g	0.56	0.51	0.38	0.32	0.66	0.63	0.15	0.21	0.24	0.22	0.66	0.6	0.49
Methylnaphthalene, 2-(1-)	ug/g	<0.14	<0.071	<0.071	<0.071	0.35	0.58	<0.071	<0.071	<0.071	<0.071	<0.14	<0.071	<0.071
1-Methylnaphthalene	ug/g	<0.10	<0.050	<0.050	<0.050	0.12	0.32	<0.050	<0.050	<0.050	<0.050	<0.10	<0.050	<0.050
2-Methylnaphthalene	ug/g	<0.10	<0.050	<0.050	0.051	0.23	0.26	<0.050	<0.050	<0.050	<0.050	<0.10	<0.050	<0.050
Naphthalene	ug/g	<0.10	<0.050	<0.050	<0.050	0.14	<0.10	<0.050	<0.050	<0.050	<0.050	<0.10	<0.050	<0.050
Phenanthrene	ug/g	0.82	0.81	0.44	0.51	1.7	1.7	0.21	0.28	0.5	0.68	0.72	0.7	0.72
Pyrene	ug/g	1.6	1.5	1.1	0.89	1.8	2	0.42	0.6	0.87	0.75	1.6	1.5	1.3
SIZE DISTRIBUTION														
< -1 Phi (2 mm)	%							99	96	99	99			
< 0 Phi (1 mm)	%							98	94	97	97			
< +1 Phi (0.5 mm)	%							91	88	91	94			
< +2 Phi (0.25 mm)	%							51	53	55	71			
< +3 Phi (0.12 mm)	%							21	30	28	39			
< +4 Phi (0.062 mm)	%							16	23	23	30			
< +5 Phi (0.031 mm)	%							13	17	17	26			
< +6 Phi (0.016 mm)	%							10	14	14	22			
< +7 Phi (0.0078 mm)	%							6.5	8.8	8.6	14			
< +8 Phi (0.0039 mm)	%							5.4	7.5	7.2	12			
< +9 Phi (0.0020 mm)	%							3.8	5.5	5	8.2			
Gravel	%							0.65	4	0.63	1.3			
Coarse Sand	%							61	52	55	41			
Fine Sand	%							23	21	22	28			
Silt	%							10	15	15	19			
Clay	%							5.4	7.5	7.2	12			
Loss on Ignition	%w/w							1.8	1.8	2.2	4.3			
Wet Bulk Density	g/cm3							1.9	2	2	2			
Liquid Limit	%w/w							COMMENT	37	COMMENT	COMMENT			
Plastic Limit	%w/w							COMMENT	20	COMMENT	COMMENT			
Plasticity Index	%w/w							COMMENT	17	COMMENT	COMMENT			
Dissolved BOD5	mg/L													

Table A1. Chedoke Creek Sediment Sample Analytical Results - April 2021

	Station	
	Sample ID	CC-C26-EAST-45-60
	BV Labs Sample ID	PJT419
	Matrix	Solid
	Sampled By	SB
	Sampling Date and Time	4/21/21 9:00
Parameter Name	Units	
PHYSICAL		
Moisture	%	41
ANIONS & NUTRIENTS		
Total Ammonia-N	ug/g	462
Nitrogen (N)	%	0.19
Calculated Total Kjeldahl Nitrogen (TKN)	ug/g	1900
Nitrite (N)	ug/g	<0.5
Nitrate (N)	ug/g	<2
Nitrate + Nitrite (N)	ug/g	<3
METALS		
Acid Extractable Aluminum (Al)	ug/g	12000
Acid Extractable Antimony (Sb)	ug/g	3.8
Acid Extractable Arsenic (As)	ug/g	8.9
Acid Extractable Barium (Ba)	ug/g	320
Acid Extractable Beryllium (Be)	ug/g	0.63
Acid Extractable Bismuth (Bi)	ug/g	1.1
Acid Extractable Boron (B)	ug/g	65
Acid Extractable Cadmium (Cd)	ug/g	26
Acid Extractable Calcium (Ca)	ug/g	58000
Acid Extractable Chromium (Cr)	ug/g	72
Acid Extractable Cobalt (Co)	ug/g	20
Acid Extractable Copper (Cu)	ug/g	150
Acid Extractable Iron (Fe)	ug/g	26000
Acid Extractable Lead (Pb)	ug/g	190
Acid Extractable Magnesium (Mg)	ug/g	15000
Acid Extractable Manganese (Mn)	ug/g	600
Acid Extractable Molybdenum (Mo)	ug/g	2.8
Acid Extractable Nickel (Ni)	ug/g	76
Acid Extractable Phosphorus (P)	ug/g	2000
Acid Extractable Potassium (K)	ug/g	1700
Acid Extractable Selenium (Se)	ug/g	0.67
Acid Extractable Silver (Ag)	ug/g	7.6
Acid Extractable Sodium (Na)	ug/g	320
Acid Extractable Strontium (Sr)	ug/g	130
Acid Extractable Thallium (Tl)	ug/g	0.17
Acid Extractable Tin (Sn)	ug/g	17
Acid Extractable Uranium (U)	ug/g	0.67
Acid Extractable Vanadium (V)	ug/g	26
Acid Extractable Zinc (Zn)	ug/g	690
Acid Extractable Mercury (Hg)	ug/g	0.57
PAHs		
Acenaphthene	ug/g	0.56
Acenaphthylene	ug/g	<0.050
Anthracene	ug/g	0.26
Benzo(a)anthracene	ug/g	0.48
Benzo(a)pyrene	ug/g	0.43
Benzo(b/j)fluoranthene	ug/g	0.7
Benzo(g,h,i)perylene	ug/g	0.31
Benzo(k)fluoranthene	ug/g	0.21
Chrysene	ug/g	0.51
Dibenzo(a,h)anthracene	ug/g	0.053
Fluoranthene	ug/g	1.6
Fluorene	ug/g	0.36
Indeno(1,2,3-cd)pyrene	ug/g	0.34
Methylnaphthalene, 2-(1-)	ug/g	0.32
1-Methylnaphthalene	ug/g	0.2
2-Methylnaphthalene	ug/g	0.12
Naphthalene	ug/g	<0.050
Phenanthrene	ug/g	1.3
Pyrene	ug/g	1.3
SIZE DISTRIBUTION		
< -1 Phi (2 mm)	%	
< 0 Phi (1 mm)	%	
< +1 Phi (0.5 mm)	%	
< +2 Phi (0.25 mm)	%	
< +3 Phi (0.12 mm)	%	
< +4 Phi (0.062 mm)	%	
< +5 Phi (0.031 mm)	%	
< +6 Phi (0.016 mm)	%	
< +7 Phi (0.0078 mm)	%	
< +8 Phi (0.0039 mm)	%	
< +9 Phi (0.0020 mm)	%	
Gravel	%	
Coarse Sand	%	
Fine Sand	%	
Silt	%	
Clay	%	
Loss on Ignition	%w/w	
Wet Bulk Density	g/cm3	
Liquid Limit	%w/w	
Plastic Limit	%w/w	
Plasticity Index	%w/w	
Dissolved BOD5	mg/L	

Table A2. Princess Point Sediment Sample Analytical Results - April 2021

	Station	PP-C01				PP-C02			PP-C03						PP-C04				PP-C05			
	Sample ID	PP-C01-0-15	PP-C01-15-30	PP-C01-30-45	PP-C01-45-60	PP-C02-0-15	PP-C02-15-30	PP-C02-30-45	PP-C03-0-15	PP-C03-15-30	PP-C03-30-45	PP-C03-45-60	PP-C03-60-75	PP-C03-75-90	PP-C04-0-15	PP-C04-15-30	PP-C04-30-45	PP-C04-45-60	PP-C05-0-15	PP-C05-15-30	PP-C05-30-45	PP-C05-45-60
	BV Labs Sample ID	PJT428	PJT429	PJT430	PJT431	PJT432	PJT433	PJT434	PJT435	PJT436	PJT437	PJT438	PJT439	PJT440	PJT441	PJT442	PJT443	PJT444	PJI888	PJI889	PJI890	PJI891
	Matrix	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid
	Sampled By	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	TB	TB	TB	TB
	Sampling Date and Time	4/21/21 11:00	4/21/21 11:00	4/21/21 11:00	4/21/21 11:00	4/21/21 11:30	4/21/21 11:30	4/21/21 11:30	4/21/21 13:00	4/21/21 13:00	4/21/21 13:00	4/21/21 13:00	4/21/21 13:00	4/21/21 13:00	4/21/21 14:30	4/21/21 14:30	4/21/21 14:30	4/21/21 14:30	4/20/21 14:45	4/20/21 14:45	4/20/21 14:45	4/20/21 14:45
Parameter Name	Units																					
PHYSICAL																						
Moisture	%	44	33	31	27	19	23	21	21	20	21	21	36	30	46	33	29	28	51	36	35	38
ANIONS & NUTRIENTS																						
Total Ammonia-N	ug/g	161	209	234	239	48	126	158	31	85	130	144	363	298	159	165	211	290	113	178	216	367
Nitrogen (N)	%	0.23	0.14	0.14	0.12	0.04	0.069	0.064	0.049	0.047	0.07	0.065	0.2	0.16	0.23	0.14	0.12	0.14	0.27	0.14	0.14	0.17
Calculated Total Kjeldahl Nitrogen (TKN)	ug/g	2340	1350	1360	1160	397	693	643	490	467	704	648	2050	1610	2280	1430	1220	1390	2740	1390	1390	1720
Nitrite (N)	ug/g	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nitrate (N)	ug/g	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nitrate + Nitrite (N)	ug/g	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
METALS																						
Acid Extractable Aluminum (Al)	ug/g	9800	8100	7600	8500	4800	5900	7600	5400	6000	6200	4800	13000	9900	10000	8700	8400	8000	10000	8800	7900	11000
Acid Extractable Antimony (Sb)	ug/g	0.95	0.59	0.83	0.64	0.63	0.48	0.41	0.43	0.59	0.59	0.72	6	3.2	0.92	0.58	0.52	0.97	0.92	0.74	0.73	1.8
Acid Extractable Arsenic (As)	ug/g	4.9	4.8	4.7	4.3	2.6	3.4	4.2	2.8	3.2	3.9	3.3	8.8	6.8	4.4	5	4.3	5.1	4.3	5.1	4.9	6.4
Acid Extractable Barium (Ba)	ug/g	100	83	90	89	50	60	85	52	64	73	62	300	170	110	86	86	110	110	84	88	140
Acid Extractable Beryllium (Be)	ug/g	0.51	0.47	0.46	0.46	0.26	0.34	0.45	0.31	0.35	0.38	0.31	0.7	0.53	0.53	0.47	0.45	0.48	0.56	0.49	0.47	0.6
Acid Extractable Bismuth (Bi)	ug/g	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.6	3.1	1	<1.0	<1.0	<1.0	1	1.5	<1.0	<1.0
Acid Extractable Boron (B)	ug/g	25	29	40	48	13	20	31	13	19	25	22	72	57	29	29	38	58	25	27	37	80
Acid Extractable Cadmium (Cd)	ug/g	0.95	1.2	1.4	1.5	0.6	0.98	1.1	0.53	0.88	1.3	2.1	40	37	0.86	1	1.2	2.4	0.89	1.1	1.2	3.9
Acid Extractable Calcium (Ca)	ug/g	71000	73000	63000	69000	74000	70000	68000	73000	70000	68000	66000	62000	80000	74000	73000	67000	64000	70000	71000	66000	63000
Acid Extractable Chromium (Cr)	ug/g	30	26	27	29	15	24	24	16	19	22	18	91	79	31	26	26	34	31	26	25	43
Acid Extractable Cobalt (Co)	ug/g	8.7	8.1	7.8	8.1	5.1	6.5	7.7	5.8	6.6	7.5	7.4	18	18	8.9	8.2	7.8	10	8.8	8	7.7	13
Acid Extractable Copper (Cu)	ug/g	80	57	61	58	61	66	75	60	67	59	64	170	170	88	54	57	79	90	54	56	100
Acid Extractable Iron (Fe)	ug/g	23000	21000	21000	22000	15000	17000	20000	17000	18000	19000	15000	26000	23000	23000	21000	20000	22000	23000	21000	20000	23000
Acid Extractable Lead (Pb)	ug/g	40	48	69	91	31	54	100	41	73	100	84	210	160	40	40	61	130	44	44	63	160
Acid Extractable Magnesium (Mg)	ug/g	21000	20000	17000	16000	14000	15000	15000	14000	15000	15000	14000	17000	18000	22000	21000	17000	17000	22000	20000	18000	17000
Acid Extractable Manganese (Mn)	ug/g	520	540	510	550	440	450	510	430	450	500	440	570	530	530	550	520	560	530	540	520	590
Acid Extractable Molybdenum (Mo)	ug/g	1.2	0.92	0.84	1	0.51	0.96	0.76	0.54	0.6	0.87	<0.50	1.3	1.1	1.3	0.91	0.78	0.86	1.4	1.1	0.84	1.2
Acid Extractable Nickel (Ni)	ug/g	22	20	21	25	13	19	22	15	17	22	20	79	48	22	20	20	27	23	20	21	36
Acid Extractable Phosphorus (P)	ug/g	1200	1100	1200	1200	780	890	1100	830	920	1100	870	2000	1600	1200	1000	1200	1300	1200	1000	1200	1500
Acid Extractable Potassium (K)	ug/g	1700	1400	1300	1500	1000	1000	1400	1100	1200	1200	780	2000	1700	1900	1600	1400	1300	1900	1700	1300	1700
Acid Extractable Selenium (Se)	ug/g	0.52	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.74	<0.50	0.6	<0.50	<0.50	<0.50	0.52	<0.50	<0.50	0.61
Acid Extractable Silver (Ag)	ug/g	0.51	0.32	0.94	0.79	0.21	0.54	0.67	<0.20	0.34	1.4	1.2	11	7.3	0.63	0.29	0.6	2.3	0.53	0.34	0.55	3.4
Acid Extractable Sodium (Na)	ug/g	440	290	270	260	200	170	200	210	180	190	160	290	260	470	290	250	270	430	300	290	410
Acid Extractable Strontium (Sr)	ug/g	180	160	130	130	120	120	120	120	120	110	100	130	120	180	150	130	120	170	160	140	130
Acid Extractable Thallium (Tl)	ug/g	0.19	0.16	0.14	0.12	0.099	0.12	0.12	0.11	0.12	0.1	0.078	0.19	0.17	0.21	0.16	0.15	0.13	0.2	0.17	0.16	0.16
Acid Extractable Tin (Sn)	ug/g	4	3	5.4	16	2.9	3.5	13	4.1	4.8	5.8	5.9	27	23	4.3	3.9	6	10	5.5	3.2	5.6	12
Acid Extractable Uranium (U)	ug/g	0.62	0.53	0.49	0.51	0.42	0.46	0.66	0.45	0.5	0.48	0.4	0.75	0.59	0.66	0.55	0.49	0.53	0.71	0.58	0.51	0.55
Acid Extractable Vanadium (V)	ug/g	23	22	22	24	18	19	20	20	20	20	15	27	23	24	21	21	21	24	23	21	24
Acid Extractable Zinc (Zn)	ug/g	370	310	280	270	180	210	260	150	210	260	200	760	590	380	290	270	360	380	310	280	470
Acid Extractable Mercury (Hg)	ug/g	0.15	0.13	0.36	0.3	0.28	0.15	0.29	0.065	0.51	0.45	0.62	0.93	0.66	0.14	0.1	0.27	0.44	0.18	0.18	0.24	0.49
PAHs																						
Acenaphthene	ug/g	<0.10	<0.050	0.074	0.073	<0.050	0.12	<0.050	0.082	<0.050	0.13	<0.050	0.36	0.27	<0.10	<0.050	0.057	0.14	0.72	0.051	0.11	0.25
Acenaphthylene	ug/g	<0.10	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.10	<0.050	<0.050	<0.050	<0.10	<0.050	<0.050	<0.050
Anthracene	ug/g	<0.10	0.085	0.12	0.11	<0.050	0.22	0.077	0.11	<0.050	0.19	<0.050	0.37	0.19	0.1	0.093	0.091	0.15	0.78	0.1	0.22	0.25
Benzo(a)anthracene	ug/g	0.4	0.54	0.68	0.5	0.15	0.66	0.28	0.51	0.19	0.54	0.15	1.1	0.57	0.72	0.63	0.52	0.54	3.1	0.56	0.87	0.65
Benzo(a)pyrene	ug/g	0.48	0.61	0.76	0.46	0.15	0.62	0.27	0.46	0.18	0.45	0.14	1.1	0.59	0.85	0.71	0.57	0.53	2.8	0.61	0.83	0.61
Benzo(b/j)fluoranthene	ug/g	0.79	0.98	1.1	0.69	0.26	0.94	0.43	0.67	0.29	0.63	0.2	1.4	0.87	1.3	1.1	0.86	0.79	4.2	1	1.2	0.9
Benzo(g,h,i)perylene	ug/g	0.42	0.54	0.56	0.35	0.13	0.4	0.21	0.34	0.13	0.3	0.11	0.73	0.5	0.7	0.57	0.44	0.39	1.7	0.45	0.55	0.38
Benzo(k)fluoranthene	ug/g	0.22	0.36	0.35	0.22	0.079	0.3	0.13	0.24	0.084	0.19	0.061	0.44	0.31	0.48	0.33	0.29	0.24	1.6	0.29	0.41	0.28
Chrysene	ug/g	0.58	0.66	0.87	0.58	0.2	0.69	0.34	0.59	0.24	0.51	0.16	1	0.65	1.1	0.79	0.63	0.61	3.2	0.7	1.1	0.67
Dibenzo(a,h)anthracene	ug/g	<0.10	0.077	0.089	0.057	<0.050	0.11	<0.050	0.052	<0.050	0.056	<0.050	0.14	0.091	<0.10	0.081	0.069	0.079	0.47	0.099	0.12	0.091
Fluoranthene	ug/g	1.5	1.7	2.1	1.5	0.54	2.1	0.91	1.7	0.69	1.7	0.46	2.6	1.4	2.7	2	1.7	1.7	11	1.8	2.8	2
Fluorene	ug/g	<0.10	0.052	0.087	0.076	<0.050	0.11	0.054	0.077	<0.050	0.15	<0.050	0.32	0.2	<0.10	0.052	0.061	0.13	0.85	0.06	0.13	0.19
Indeno(1,2,3-cd)pyrene	ug/g	0.44	0.58	0.61	0.4	0.14	0.47	0.23	0.37	0.15	0.35	0.11	0.86	0.54	0.71	0.63	0.5	0.43	1.8	0.49	0.62	0.42
Methylnaphthalene, 2-(1-)	ug/g	<0.14	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	0.22	0.29	<0.14	<0.071	<0.071	<0.071	0.42	<0.071	<0.071	0.16
1-Methylnaphthalene	ug/g	<0.10	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.082	0.13	<0.10	<0.050	<0.050	<0.050	0.16	<0.050	<0.050	0.083
2-Methylnaphthalene	ug/g	<0.10	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.14	0.16	<0.10	<0.050	<0.050	<0.050	0.26	<0.050	<0.050	0.073
Naphthalene	ug/g	<0.10	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.07	0.081	<0.10	<0.050	<0.050	<0.050	0.57	<0.050	<0.050	<0.050
Phenanthrene	ug/g	0.5	0.52	0.85	0.59	0.15	1.3	0.4	0.82	0.27	1.2	0.25	1.6	0.89	0.84	0.58	0.49	0.82	8.1	0.58	1.2	1.1
Pyrene	ug/g	1.1	1.3	1.7	1.1	0.41	1.6	0.7	1.3	0.52	1.3	0.37	2.5	1.2	2	1.6	1.3	1.4	7.3	1.4	2.1	1.6
SIZE DISTRIBUTION																						
< -1 Phi (2 mm)	%																					
< 0 Phi (1 mm)	%																					
< +1 Phi (0.5 mm)	%																					
< +2 Phi (0.25 mm)	%																					
< +3 Phi (0.12 mm)	%																					
< +4 Phi (0.062 mm)	%																					
< +5 Phi (0.031 mm)	%																					
< +6 Phi (0.016 mm)	%																					
< +7 Phi (0.0078 mm)	%																					
< +8 Phi (0.0039 mm)	%																					
< +9 Phi (0.0020 mm)	%																					
Gravel	%																					
Coarse Sand	%																					
Fine Sand	%																					
Silt	%																					
Clay	%																					
Loss on Ignition	%w/w																					
Wet Bulk Density	g/cm3																					
Liquid Limit	%w/w																					
Plastic Limit	%w/w																					
Plasticity Index	%w/w																					
Dissolved BOD5	mg/L																					

Table A2. Princess Point Sediment Sample Analytical Results - April 2021

	Station	PP-C06					PP-C07					PP-C08				PP-C09						
	Sample ID	PP-C06-0-15	PP-C06-15-30	PP-C06-30-45	PP-C06-45-60	PP-C06-60-75	PP-C07-0-15	PP-C07-15-30	PP-C07-30-45	PP-C07-45-60	PP-C07-60-75	PP-C08-0-15	PP-C08-15-30	PP-C08-30-45	PP-C08-45-60	PP-C09-0-15	PP-C09-15-30	PP-C09-30-45	PP-C09-45-60	PP-C09-60-75	PP-C11-0-15	PP-C11-15-30
	BV Labs Sample ID	PKV679	PKV680	PKV681	PKV682	PKV683	PKV684	PKV685	PKV686	PKV687	PKV688	PKV675	PKV676	PKV677	PKV678	PJZ020	PJZ021	PJZ022	PJZ023	PJZ024	PJZ014	PJZ015
	Matrix	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid
	Sampled By	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB
	Sampling Date and Time	4/23/21 9:30	4/23/21 9:30	4/23/21 9:30	4/23/21 9:30	4/23/21 9:30	4/23/21 10:30	4/23/21 10:30	4/23/21 10:30	4/23/21 10:30	4/23/21 10:30	4/23/21 9:00	4/23/21 9:00	4/23/21 9:00	4/23/21 9:00	4/22/21 13:00	4/22/21 14:30	4/22/21 14:30	4/22/21 14:30	4/22/21 14:30	4/22/21 13:00	4/22/21 13:00
Parameter Name	Units																					
PHYSICAL																						
Moisture	%	51	44	37	41	44	45	35	36	32	30	33	23	23	20	46	42	33	35	38	59	48
ANIONS & NUTRIENTS																						
Total Ammonia-N	ug/g	46	80	166	305	281	26	82	146	157	172	41	81	96	104	<20	68	151	233	279	50	161
Nitrogen (N)	%	0.23	0.14	0.14	0.18	0.19	0.18	0.12	0.14	0.11	0.1	0.14	0.049	0.058	0.069							
Calculated Total Kjeldahl Nitrogen (TKN)	ug/g	2260	1370	1440	1750	1940	1760	1210	1430	1090	1040	1370	491	577	693	1780	1730	1370	1550	1850	2720	1960
Nitrite (N)	ug/g	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5							
Nitrate (N)	ug/g	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2							
Nitrate + Nitrite (N)	ug/g	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3							
METALS																						
Acid Extractable Aluminum (Al)	ug/g	11000	9300	9800	11000	11000	9700	8200	8900	7600	7600	7800	5800	5500	6600	10000	11000	9800	11000	12000	14000	14000
Acid Extractable Antimony (Sb)	ug/g	0.78	0.67	1	3.6	3.3	0.75	0.6	0.64	0.65	0.57	0.64	0.36	0.37	0.84	0.78	0.67	0.64	0.77	1.8	0.79	0.7
Acid Extractable Arsenic (As)	ug/g	4.6	4.9	5.6	9.2	7.3	4.3	4.7	4.6	4	4.1	3.3	3	2.9	3.3	5.3	5.8	5	5.4	7.4	5.9	6.5
Acid Extractable Barium (Ba)	ug/g	110	84	120	240	220	90	77	90	84	78	77	60	56	71	94	110	110	120	190	120	130
Acid Extractable Beryllium (Be)	ug/g	0.52	0.44	0.5	0.64	0.57	0.5	0.44	0.46	0.4	0.4	0.43	0.3	0.3	0.36	0.53	0.56	0.51	0.57	0.64	0.66	0.67
Acid Extractable Bismuth (Bi)	ug/g	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Acid Extractable Boron (B)	ug/g	16	15	32	50	48	20	21	31	35	38	20	18	22	32	16	21	24	42	57	18	23
Acid Extractable Cadmium (Cd)	ug/g	1	1.2	3	22	18	0.8	0.95	1.2	1	0.9	0.64	0.52	0.61	0.96	1.4	1.7	1.6	1.9	6	2.1	2.7
Acid Extractable Calcium (Ca)	ug/g	75000	75000	65000	63000	62000	75000	73000	73000	68000	68000	72000	71000	70000	71000	78000	77000	69000	66000	65000	87000	84000
Acid Extractable Chromium (Cr)	ug/g	29	25	33	54	48	27	23	27	23	24	21	16	17	20	29	32	28	38	55	35	36
Acid Extractable Cobalt (Co)	ug/g	9	8.4	10	18	17	8.5	7.7	7.8	7.2	7.2	7.2	5.7	5.7	6.8	9	9.1	8.4	10	14	10	11
Acid Extractable Copper (Cu)	ug/g	77	54	72	100	100	60	51	61	58	50	53	48	49	43	67	77	69	82	130	92	89
Acid Extractable Iron (Fe)	ug/g	23000	21000	22000	24000	23000	22000	20000	21000	19000	18000	19000	15000	15000	18000	23000	23000	22000	24000	26000	27000	28000
Acid Extractable Lead (Pb)	ug/g	42	44	110	190	160	37	40	56	65	80	30	32	41	56	47	60	77	130	180	57	77
Acid Extractable Magnesium (Mg)	ug/g	22000	19000	18000	17000	17000	24000	22000	20000	20000	18000	23000	16000	17000	19000	23000	20000	18000	17000	17000	18000	17000
Acid Extractable Manganese (Mn)	ug/g	590	560	590	620	590	560	550	550	560	550	510	470	450	510	560	590	580	600	620	610	670
Acid Extractable Molybdenum (Mo)	ug/g	1.1	1	0.81	1	0.92	1.4	0.81	0.87	0.94	0.65	0.84	0.51	<0.50	0.63	1.5	1.1	0.88	0.98	1.1	1.5	1.2
Acid Extractable Nickel (Ni)	ug/g	23	21	28	66	59	21	19	20	20	20	17	14	15	17	22	24	24	30	40	27	29
Acid Extractable Phosphorus (P)	ug/g	1200	890	1300	1800	1700	960	920	1100	1100	1000	930	770	780	1100	840	1000	1300	1300	1700	1100	1200
Acid Extractable Potassium (K)	ug/g	1800	1400	1500	1700	1700	1900	1400	1500	1200	1300	1500	1100	1000	1300	1700	1800	1400	1500	2000	2200	2100
Acid Extractable Selenium (Se)	ug/g	<0.50	<0.50	<0.50	0.87	0.59	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.53	0.56	0.53	0.54	0.76	0.68	0.7
Acid Extractable Silver (Ag)	ug/g	0.56	0.51	1.8	4.9	4.8	0.41	0.3	0.41	1	0.59	0.29	0.22	<0.20	1.2	0.51	0.68	0.94	1.6	5.4	0.76	1.1
Acid Extractable Sodium (Na)	ug/g	420	280	280	300	280	370	280	250	230	210	260	160	160	200	370	370	230	280	310	560	440
Acid Extractable Strontium (Sr)	ug/g	190	180	140	140	130	170	150	150	120	120	140	120	110	110	190	180	130	130	140	300	240
Acid Extractable Thallium (Tl)	ug/g	0.23	0.18	0.16	0.17	0.16	0.19	0.14	0.15	0.13	0.11	0.15	0.093	0.11	0.098	0.21	0.2	0.16	0.17	0.19	0.25	0.24
Acid Extractable Tin (Sn)	ug/g	3.8	3	7.7	10	11	3.2	3.1	5.1	5.8	5.2	3.6	3.3	7.7	8.2	3.5	4.9	5	8.1	16	4.6	5.5
Acid Extractable Uranium (U)	ug/g	0.61	0.55	0.52	0.61	0.61	0.63	0.52	0.5	0.47	0.46	0.53	0.4	0.39	0.45	0.65	0.6	0.46	0.52	0.57	0.69	0.57
Acid Extractable Vanadium (V)	ug/g	22	20	21	24	23	21	20	20	18	18	18	14	15	17	21	23	20	23	25	25	26
Acid Extractable Zinc (Zn)	ug/g	390	320	370	580	510	310	260	290	230	220	230	150	170	180	380	390	330	410	600	500	480
Acid Extractable Mercury (Hg)	ug/g	0.12	0.22	0.39	0.48	0.71	0.12	0.12	0.21	0.5	0.31	0.092	0.094	0.098	0.38	0.16	0.33	0.37	0.4	0.49	0.17	0.26
PAHs																						
Acenaphthene	ug/g	<0.10	<0.10	0.085	0.11	0.12	<0.10	0.088	0.061	0.17	0.11	0.24	<0.050	0.084	0.12	<0.10	<0.10	0.065	0.078	0.07	<0.10	<0.10
Acenaphthylene	ug/g	<0.10	<0.10	<0.050	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.10	<0.10	<0.050	<0.050	<0.050	<0.10	<0.10
Anthracene	ug/g	<0.10	<0.10	0.092	0.14	0.2	<0.10	0.19	0.11	0.24	0.25	0.48	0.076	0.16	0.17	0.11	0.17	0.14	0.16	0.14	<0.10	<0.10
Benzo(a)anthracene	ug/g	0.51	0.47	0.43	0.47	0.76	0.46	0.88	0.54	0.81	0.69	1.3	0.34	0.59	0.61	0.6	0.74	0.61	0.64	0.51	0.41	0.45
Benzo(a)pyrene	ug/g	0.65	0.59	0.48	0.46	0.75	0.6	0.89	0.61	0.82	0.68	1.3	0.37	0.57	0.63	0.79	0.86	0.7	0.74	0.57	0.57	0.64
Benzo(b/j)fluoranthene	ug/g	1	1	0.86	0.67	1	1	1.4	1	1.2	0.95	1.8	0.58	0.94	1	1.4	1.4	1.1	1.2	0.91	1	1.1
Benzo(g,h,i)perylene	ug/g	0.62	0.47	0.36	0.37	0.55	0.49	0.65	0.43	0.5	0.49	0.96	0.31	0.38	0.42	0.83	0.81	0.66	0.69	0.56	0.67	0.71
Benzo(k)fluoranthene	ug/g	0.34	0.29	0.25	0.24	0.38	0.31	0.42	0.32	0.43	0.34	0.63	0.19	0.33	0.31	0.45	0.5	0.4	0.37	0.31	0.35	0.38
Chrysene	ug/g	0.67	0.63	0.52	0.51	0.75	0.61	1	0.69	0.8	0.69	1.4	0.4	0.64	0.66	0.74	0.96	0.76	0.75	0.57	0.55	0.66
Dibenzo(a,h)anthracene	ug/g	<0.10	<0.10	0.058	<0.10	0.12	<0.10	0.1	0.071	0.088	0.1	0.19	0.056	0.066	0.07	0.17	0.16	0.13	0.14	0.12	0.11	0.12
Fluoranthene	ug/g	1.9	1.6	1.3	1.4	2.1	1.7	2.7	1.7	2.3	2.1	4.4	1.1	1.9	2	2.2	2.4	2.1	2	1.6	1.5	1.5
Fluorene	ug/g	<0.10	<0.10	0.083	<0.20	<0.20	<0.10	0.11	0.067	0.17	0.12	0.26	<0.050	0.094	0.13	<0.10	<0.10	0.076	0.084	0.092	<0.10	<0.10
Indeno(1,2,3-cd)pyrene	ug/g	0.62	0.49	0.38	0.37	0.59	0.5	0.67	0.46	0.54	0.54	1	0.33	0.4	0.46	0.8	0.8	0.67	0.68	0.55	0.62	0.68
Methylnaphthalene, 2-(1-)	ug/g	<0.14	<0.14	<0.071	<0.14	<0.14	<0.14	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.14	<0.14	<0.071	<0.071	<0.071	<0.14	<0.14
1-Methylnaphthalene	ug/g	<0.10	<0.10	<0.050	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.10	<0.10	<0.050	<0.050	<0.050	<0.10	<0.10
2-Methylnaphthalene	ug/g	<0.10	<0.10	<0.050	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.10	<0.10	<0.050	<0.050	<0.050	<0.10	<0.10
Naphthalene	ug/g	<0.10	<0.10	<0.050	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.10	<0.10	<0.050	<0.050	<0.050	<0.10	<0.10
Phenanthrene	ug/g	0.49	0.45	0.51	0.94	1.1	0.43	1.1	0.65	1.3	1.2	2.6	0.38	0.92	1.1	0.48	0.82	0.8	0.86	0.8	0.28	0.34
Pyrene	ug/g	1.4	1.2	1.1	1.2	1.6	1.3	2	1.3	1.7	1.6	3.2	0.83	1.4	1.5	1.7	1.8	1.6	1.6	1.3	1.1	1.2
SIZE DISTRIBUTION																						
< -1 Phi (2 mm)	%																					
< 0 Phi (1 mm)	%																					
< +1 Phi (0.5 mm)	%																					
< +2 Phi (0.25 mm)	%																					
< +3 Phi (0.12 mm)	%																					
< +4 Phi (0.062 mm)	%																					
< +5 Phi (0.031 mm)	%																					
< +6 Phi (0.016 mm)	%																					
< +7 Phi (0.0078 mm)	%																					
< +8 Phi (0.0039 mm)	%																					
< +9 Phi (0.0020 mm)	%																					
Gravel	%																					
Coarse Sand	%																					
Fine Sand	%																					
Silt	%																					
Clay	%																					
Loss on Ignition	%w/w																					
Wet Bulk Density	g/cm3																					
Liquid Limit	%w/w																					
Plastic Limit	%w/w																					
Plasticity Index	%w/w																					
Dissolved BOD5	mg/L																					

Table A2. Princess Point Sediment Sample Analytical Results - April 2021

	Station	PP-C11				PP-C12		
	Sample ID	PP-C11-30-45	PP-C11-45-60	PP-C11-60-75	PP-C11-75-90	PP-C12-0-15	PP-C12-15-30	PP-C12-30-45
	BV Labs Sample ID	PJZ016	PJZ017	PJZ018	PJZ019	PJT445	PJT446	PJT447
	Matrix	Solid	Solid	Solid	Solid	Solid	Solid	Solid
	Sampled By	TB	TB	TB	TB	SB	SB	SB
	Sampling Date and Time	4/22/21 13:00	4/22/21 13:00	4/22/21 13:00	4/22/21 13:00	4/21/21 14:00	4/21/21 14:00	4/21/21 14:00
Parameter Name	Units							
PHYSICAL								
Moisture	%	43	41	40	40	32	27	31
ANIONS & NUTRIENTS								
Total Ammonia-N	ug/g	262	303	367	378	92	141	153
Nitrogen (N)	%					0.16	0.1	0.15
Calculated Total Kjeldahl Nitrogen (TKN)	ug/g	1830	2100	2580	2510	1570	1050	1500
Nitrite (N)	ug/g					<0.5	<0.5	<0.5
Nitrate (N)	ug/g					<2	<2	<2
Nitrate + Nitrite (N)	ug/g					<3	<3	<3
METALS								
Acid Extractable Aluminum (Al)	ug/g	14000	13000	15000	15000	7600	7200	7600
Acid Extractable Antimony (Sb)	ug/g	0.74	2.6	4.8	2.2	0.62	0.58	0.68
Acid Extractable Arsenic (As)	ug/g	6.8	7.8	9.7	8.8	3.2	3.7	3.8
Acid Extractable Barium (Ba)	ug/g	150	230	280	220	76	72	79
Acid Extractable Beryllium (Be)	ug/g	0.64	0.68	0.74	0.69	0.46	0.4	0.45
Acid Extractable Bismuth (Bi)	ug/g	<1.0	1.1	2.3	1.9	<1.0	<1.0	<1.0
Acid Extractable Boron (B)	ug/g	27	36	53	49	31	42	43
Acid Extractable Cadmium (Cd)	ug/g	4.1	24	53	48	0.78	0.94	1.2
Acid Extractable Calcium (Ca)	ug/g	74000	65000	63000	71000	70000	70000	71000
Acid Extractable Chromium (Cr)	ug/g	45	77	110	150	23	22	25
Acid Extractable Cobalt (Co)	ug/g	12	18	17	17	7.5	7.3	7.3
Acid Extractable Copper (Cu)	ug/g	110	150	210	190	58	49	59
Acid Extractable Iron (Fe)	ug/g	28000	28000	30000	29000	19000	19000	19000
Acid Extractable Lead (Pb)	ug/g	130	170	210	170	48	40	48
Acid Extractable Magnesium (Mg)	ug/g	15000	14000	16000	14000	21000	21000	19000
Acid Extractable Manganese (Mn)	ug/g	720	660	630	650	480	510	490
Acid Extractable Molybdenum (Mo)	ug/g	0.93	1.1	1.3	1.2	0.83	0.69	0.87
Acid Extractable Nickel (Ni)	ug/g	35	71	70	68	18	18	19
Acid Extractable Phosphorus (P)	ug/g	1700	2200	2300	2500	900	900	1000
Acid Extractable Potassium (K)	ug/g	1900	1800	2100	1900	1600	1500	1500
Acid Extractable Selenium (Se)	ug/g	0.7	0.77	0.7	0.58	<0.50	<0.50	<0.50
Acid Extractable Silver (Ag)	ug/g	2.9	7.3	12	7.8	0.33	0.3	0.51
Acid Extractable Sodium (Na)	ug/g	340	320	340	290	240	200	240
Acid Extractable Strontium (Sr)	ug/g	180	150	130	110	140	120	140
Acid Extractable Thallium (Tl)	ug/g	0.21	0.24	0.24	0.23	0.15	0.14	0.16
Acid Extractable Tin (Sn)	ug/g	11	18	35	30	4.5	2.6	3.4
Acid Extractable Uranium (U)	ug/g	0.45	0.62	0.69	0.68	0.55	0.52	0.53
Acid Extractable Vanadium (V)	ug/g	25	28	28	26	20	19	20
Acid Extractable Zinc (Zn)	ug/g	540	660	1000	990	270	230	280
Acid Extractable Mercury (Hg)	ug/g	0.37	0.57	0.93	0.76	0.77	0.12	0.38
PAHs								
Acenaphthene	ug/g	<0.10	0.12	0.2	0.13	<0.10	<0.050	0.098
Acenaphthylene	ug/g	<0.10	<0.10	<0.050	<0.10	<0.10	<0.050	<0.050
Anthracene	ug/g	<0.10	0.25	0.32	0.15	<0.10	0.092	0.19
Benzo(a)anthracene	ug/g	0.53	0.74	0.94	0.59	0.46	0.56	0.88
Benzo(a)pyrene	ug/g	0.66	0.81	0.98	0.66	0.52	0.57	0.88
Benzo(b/j)fluoranthene	ug/g	1.1	1.2	1.5	1.1	0.83	0.89	1.3
Benzo(g,h,i)perylene	ug/g	0.66	0.67	0.93	0.7	0.44	0.45	0.63
Benzo(k)fluoranthene	ug/g	0.39	0.41	0.55	0.36	0.27	0.25	0.46
Chrysene	ug/g	0.69	0.8	1.1	0.69	0.53	0.59	0.96
Dibenzo(a,h)anthracene	ug/g	0.13	0.16	0.22	0.15	<0.10	0.09	0.1
Fluoranthene	ug/g	1.8	2.1	2.6	1.5	1.6	1.6	2.7
Fluorene	ug/g	<0.10	0.15	0.28	0.14	<0.10	<0.050	0.096
Indeno(1,2,3-cd)pyrene	ug/g	0.64	0.69	0.94	0.69	0.46	0.5	0.69
Methylnaphthalene, 2-(1-)	ug/g	<0.14	<0.14	0.23	<0.14	<0.14	<0.071	<0.071
1-Methylnaphthalene	ug/g	<0.10	<0.10	0.071	<0.10	<0.10	<0.050	<0.050
2-Methylnaphthalene	ug/g	<0.10	<0.10	0.16	0.13	<0.10	<0.050	<0.050
Naphthalene	ug/g	<0.10	<0.10	0.081	<0.10	<0.10	<0.050	<0.050
Phenanthrene	ug/g	0.59	1.1	1.9	0.84	0.67	0.54	1
Pyrene	ug/g	1.4	1.7	1.9	1.2	1.2	1.3	2.1
SIZE DISTRIBUTION								
< -1 Phi (2 mm)	%							
< 0 Phi (1 mm)	%							
< +1 Phi (0.5 mm)	%							
< +2 Phi (0.25 mm)	%							
< +3 Phi (0.12 mm)	%							
< +4 Phi (0.062 mm)	%							
< +5 Phi (0.031 mm)	%							
< +6 Phi (0.016 mm)	%							
< +7 Phi (0.0078 mm)	%							
< +8 Phi (0.0039 mm)	%							
< +9 Phi (0.0020 mm)	%							
Gravel	%							
Coarse Sand	%							
Fine Sand	%							
Silt	%							
Clay	%							
Loss on Ignition	%w/w							
Wet Bulk Density	g/cm3							
Liquid Limit	%w/w							
Plastic Limit	%w/w							
Plasticity Index	%w/w							
Dissolved BOD5	mg/L							

Table A3. Cootes Paradise Sediment Sample Analytical Results - April 2021

	Station	CP-C01				CP-C02					CP-C03						
	Sample ID	CP-C01-0-15	CP-C01-15-30	CP-C01-30-45	CP-C01-45-60	CP-C02-0-15	CP-C02-15-30	CP-C02-30-45	CP-C02-45-60	CP-C02-60-75	CP-C03-0-15	CP-C03-15-30	CP-C03-30-45	CP-C03-45-60	CP-C03-60-75	CP-C04-0-15	CP-C04-15-30
	BV Labs Sample ID	PJZ000	PJZ001	PJZ002	PJZ003	PJZ004	PJZ005	PJZ006	PJZ007	PJZ008	PJZ009	PJZ010	PJZ011	PJZ012	PJZ013	PKV717	PKV718
	Matrix	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid
	Sampled By	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB
	Sampling Date and Time	4/22/21 9:00	4/22/21 9:00	4/22/21 9:00	4/22/21 9:00	4/22/21 10:00	4/22/21 10:00	4/22/21 10:00	4/22/21 10:00	4/22/21 10:00	4/22/21 11:00	4/22/21 11:00	4/22/21 11:00	4/22/21 11:00	4/22/21 11:00	4/26/21 12:30	4/26/21 12:30
Parameter Name	Units																
PHYSICAL																	
Moisture	%	58	50	41	40	49	45	39	35	39	47	36	33	33	34	47	42
ANIONS & NUTRIENTS																	
Total Ammonia-N	ug/g	41	108	92	83	48	102	132	161	245	27	75	166	178	219	45	97
Nitrogen (N)	%															0.17	0.15
Calculated Total Kjeldahl Nitrogen (TKN)	ug/g	2420	2010	1620	1650	1960	1680	1450	1340	1750	1890	1260	1290	1280	1360	1740	1460
Nitrite (N)	ug/g															<0.5	<0.5
Nitrate (N)	ug/g															<2	<2
Nitrate + Nitrite (N)	ug/g															<3	<3
METALS																	
Acid Extractable Aluminum (Al)	ug/g	13000	13000	12000	10000	11000	10000	10000	10000	12000	9900	8700	8200	9500	9900	10000	10000
Acid Extractable Antimony (Sb)	ug/g	0.79	0.63	0.5	0.65	0.77	0.83	0.52	0.82	1.7	0.67	0.54	0.71	1.1	2	0.72	0.57
Acid Extractable Arsenic (As)	ug/g	5.9	6.4	6.4	5.8	5.1	5.7	5.4	5.3	7.2	4.6	4.6	4.8	5.8	6.2	5.1	5.5
Acid Extractable Barium (Ba)	ug/g	110	120	110	110	94	100	110	120	180	87	85	95	120	160	95	97
Acid Extractable Beryllium (Be)	ug/g	0.63	0.65	0.61	0.5	0.52	0.53	0.48	0.54	0.63	0.5	0.45	0.4	0.51	0.5	0.54	0.57
Acid Extractable Bismuth (Bi)	ug/g	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Acid Extractable Boron (B)	ug/g	16	16	17	15	18	19	24	35	47	17	22	33	45	57	15	16
Acid Extractable Cadmium (Cd)	ug/g	1.7	2	2.5	2.8	1.3	1.5	1.7	1.7	4.9	0.91	0.85	1.3	3.8	8.2	0.99	1.3
Acid Extractable Calcium (Ca)	ug/g	85000	81000	69000	64000	81000	77000	73000	74000	69000	81000	74000	70000	70000	68000	81000	80000
Acid Extractable Chromium (Cr)	ug/g	35	34	35	34	29	29	29	35	49	25	25	26	30	40	27	28
Acid Extractable Cobalt (Co)	ug/g	10	11	11	12	9.1	8.7	8.7	10	14	8.5	7.7	8.3	10	13	8.8	9
Acid Extractable Copper (Cu)	ug/g	82	77	78	69	66	65	71	76	110	56	48	63	64	83	61	59
Acid Extractable Iron (Fe)	ug/g	27000	27000	26000	24000	24000	23000	23000	24000	26000	22000	20000	21000	21000	22000	23000	23000
Acid Extractable Lead (Pb)	ug/g	52	67	91	83	44	60	67	120	180	65	43	77	120	140	44	46
Acid Extractable Magnesium (Mg)	ug/g	17000	16000	15000	13000	22000	20000	19000	19000	18000	23000	21000	19000	19000	19000	22000	21000
Acid Extractable Manganese (Mn)	ug/g	650	700	710	660	650	620	650	660	690	620	560	580	640	630	620	640
Acid Extractable Molybdenum (Mo)	ug/g	1.5	1.1	0.8	0.75	1.3	1.1	0.95	0.91	1	1.2	0.91	0.84	0.78	0.87	1.3	0.96
Acid Extractable Nickel (Ni)	ug/g	26	28	31	32	22	23	24	30	38	20	21	23	28	43	22	22
Acid Extractable Phosphorus (P)	ug/g	940	1200	1600	1500	900	1000	1200	1300	1600	870	910	1100	1300	1400	920	900
Acid Extractable Potassium (K)	ug/g	2200	2000	1700	1300	2000	1600	1600	1600	1700	1700	1600	1300	1600	1700	1900	1600
Acid Extractable Selenium (Se)	ug/g	0.63	0.67	0.67	0.61	<0.50	0.56	0.53	<0.50	0.72	<0.50	<0.50	<0.50	0.52	0.58	<0.50	<0.50
Acid Extractable Silver (Ag)	ug/g	0.62	0.8	1.2	1.1	0.42	0.65	0.77	1.3	4.4	0.48	0.31	1	1.4	3	0.36	0.46
Acid Extractable Sodium (Na)	ug/g	440	320	250	200	370	280	290	260	280	430	290	270	260	270	370	320
Acid Extractable Strontium (Sr)	ug/g	280	230	160	150	210	180	160	140	140	180	150	130	130	130	210	190
Acid Extractable Thallium (Tl)	ug/g	0.25	0.24	0.24	0.22	0.21	0.2	0.17	0.17	0.18	0.18	0.16	0.14	0.13	0.15	0.2	0.19
Acid Extractable Tin (Sn)	ug/g	4.1	4.6	6.4	7.2	3.3	3.9	4.4	6.7	15	3	3.7	8.6	8.2	13	3.1	2.8
Acid Extractable Uranium (U)	ug/g	0.71	0.57	0.46	0.43	0.62	0.57	0.49	0.53	0.55	0.57	0.48	0.48	0.49	0.51	0.59	0.56
Acid Extractable Vanadium (V)	ug/g	25	25	24	22	23	22	22	24	24	21	19	19	20	21	22	22
Acid Extractable Zinc (Zn)	ug/g	450	430	400	390	360	350	330	360	550	310	250	290	320	400	340	330
Acid Extractable Mercury (Hg)	ug/g	0.17	0.22	0.4	0.31	0.15	0.45	0.31	0.6	0.52	0.21	0.16	0.27	0.35	0.45	0.12	0.11
PAHs																	
Acenaphthene	ug/g	<0.10	<0.10	0.2	<0.050	<0.10	0.1	0.073	0.68	<0.10	<0.10	0.18	0.13	0.36	0.24	<0.010	<0.050
Acenaphthylene	ug/g	<0.10	<0.10	<0.10	<0.050	<0.10	<0.10	<0.050	<0.050	<0.10	<0.10	<0.050	<0.050	<0.050	<0.050	<0.010	<0.050
Anthracene	ug/g	<0.10	<0.10	0.26	0.089	0.1	0.19	0.15	1.2	0.19	<0.10	0.3	0.24	0.57	0.41	0.018	0.069
Benzo(a)anthracene	ug/g	0.34	0.43	0.79	0.44	0.54	0.74	0.71	2	0.65	0.5	1	0.75	1.3	0.89	0.089	0.33
Benzo(a)pyrene	ug/g	0.5	0.61	0.79	0.53	0.7	0.82	0.84	1.6	0.69	0.67	1.1	0.8	1.1	0.78	0.12	0.4
Benzo(b/j)fluoranthene	ug/g	0.92	1.1	1.3	0.9	1.2	1.3	1.4	2.3	1.1	1.1	1.6	1.3	1.6	1.2	0.2	0.67
Benzo(g,h,i)perylene	ug/g	0.54	0.65	0.68	0.49	0.74	0.69	0.74	1	0.6	0.66	0.81	0.64	0.71	0.56	0.12	0.38
Benzo(k)fluoranthene	ug/g	0.28	0.36	0.44	0.31	0.4	0.47	0.48	0.83	0.41	0.39	0.57	0.39	0.58	0.38	0.067	0.23
Chrysene	ug/g	0.45	0.62	0.92	0.59	0.68	0.9	0.94	1.9	0.75	0.65	1.2	0.91	1.4	0.98	0.11	0.42
Dibenzo(a,h)anthracene	ug/g	<0.10	0.13	0.14	0.098	0.13	0.14	0.15	0.27	0.12	0.12	0.17	0.14	0.19	0.15	0.022	0.067
Fluoranthene	ug/g	1.3	1.6	2.6	1.4	1.9	2.5	2.3	5.8	1.9	2	3.7	2.5	4.2	2.8	0.33	1.2
Fluorene	ug/g	<0.10	<0.10	0.16	<0.050	<0.10	<0.10	0.085	0.69	0.13	<0.10	0.15	0.15	0.37	0.25	<0.010	<0.050
Indeno(1,2,3-cd)pyrene	ug/g	0.51	0.63	0.7	0.51	0.7	0.71	0.75	1.1	0.59	0.64	0.83	0.66	0.77	0.59	0.11	0.35
Methylnaphthalene, 2-(1-)	ug/g	<0.14	<0.14	<0.14	<0.071	<0.14	<0.14	<0.071	0.26	<0.14	<0.14	<0.071	<0.071	0.16	<0.11	<0.014	<0.071
1-Methylnaphthalene	ug/g	<0.10	<0.10	<0.10	<0.050	<0.10	<0.10	<0.050	0.1	<0.10	<0.10	<0.050	<0.050	0.058	<0.050	<0.010	<0.050
2-Methylnaphthalene	ug/g	<0.10	<0.10	<0.10	<0.050	<0.10	<0.10	<0.050	0.15	<0.10	<0.10	<0.050	<0.050	0.099	<0.10	<0.010	<0.050
Naphthalene	ug/g	<0.10	<0.10	<0.10	<0.050	<0.10	<0.10	<0.050	0.17	<0.10	<0.10	<0.050	0.055	0.19	0.057	<0.010	<0.050
Phenanthrene	ug/g	0.25	0.36	1.7	0.53	0.48	1.1	0.88	5.3	1.1	0.45	1.8	1.4	3.8	2.2	0.089	0.31
Pyrene	ug/g	0.97	1.2	2	1.1	1.4	1.9	1.8	4.1	1.5	1.5	2.7	1.9	3	2.1	0.25	0.91
SIZE DISTRIBUTION																	
< -1 Phi (2 mm)	%										99	99	100	99	98		
< 0 Phi (1 mm)	%										98	98	99	99	97		
< +1 Phi (0.5 mm)	%										98	97	98	98	96		
< +2 Phi (0.25 mm)	%										97	95	95	95	93		
< +3 Phi (0.12 mm)	%										88	78	80	81	81		
< +4 Phi (0.062 mm)	%										78	57	59	60	68		
< +5 Phi (0.031 mm)	%										56	42	41	44	51		
< +6 Phi (0.016 mm)	%										41	30	30	34	38		
< +7 Phi (0.0078 mm)	%										23	17	17	20	22		
< +8 Phi (0.0039 mm)	%										18	14	14	16	17		
< +9 Phi (0.0020 mm)	%										9.1	4.4	10	11	12		
Gravel	%										0.83	0.6	0.15	0.52	2		
Coarse Sand	%										5.7	11	10	10	9.8		
Fine Sand	%										15	31	31	29	20		
Silt	%										60	43	44	44	51		
Clay	%										18	14	14	16	17		
Loss on Ignition	%w/w										5.9	4.7	4.5	4.8	5.5		
Wet Bulk Density	g/cm3										1.6	1.6	1.8	1.7	1.8		
Liquid Limit	%w/w										55	43	42	46	40		
Plastic Limit	%w/w										43	26	26	26	25		
Plasticity Index	%w/w										42	17	16	20	15		
Dissolved BOD5	mg/L															<6	

Table A3. Cootes Paradise Sediment Sample Analytical Results - April 2021

	Station	CP-C04				CP-C05						CP-C06		CP-C07			
	Sample ID	CP-C04-30-45	CP-C04-45-60	CP-C04-60-75	CP-C04-75-90	CP-C05-0-15	CP-C05-15-30	CP-C05-30-45	CP-C05-45-60	CP-C05-60-75	CP-C05-75-90	CP-C06-0-15	CP-C06-15-30	CP-C07-0-15	CP-C07-15-30	CP-C07-30-45	CP-C07-45-60
	BV Labs Sample ID	PKV719	PKV720	PKV721	PKV722	PKV689	PKV690	PKV691	PKV692	PKV693	PKV694	PKV695	PKV696	PKV712	PKV713	PKV714	PKV715
	Matrix	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid
	Sampled By	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB
	Sampling Date and Time	4/26/21 12:30	4/26/21 12:30	4/26/21 12:30	4/26/21 12:30	4/23/21 11:30	4/23/21 11:30	4/23/21 11:30	4/23/21 11:30	4/23/21 11:30	4/23/21 11:30	4/23/21 13:30	4/23/21 13:30	4/26/21 11:30	4/26/21 11:30	4/26/21 11:30	4/26/21 11:30
Parameter Name	Units																
PHYSICAL																	
Moisture	%	39	34	34	35	48	41	37	40	38	39	28	45	55	44	40	37
ANIONS & NUTRIENTS																	
Total Ammonia-N	ug/g	123	169	162	208	<20	50	66	68	68	71	<20	66	24	110	173	185
Nitrogen (N)	%	0.14	0.14	0.14	0.12	0.19	0.15	0.14	0.15	0.19	0.18	0.094	0.37	0.21	0.15	0.15	0.15
Calculated Total Kjeldahl Nitrogen (TKN)	ug/g	1390	1360	1360	1220	1920	1490	1410	1540	1930	1800	944	3690	2070	1530	1450	1450
Nitrite (N)	ug/g	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nitrate (N)	ug/g	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nitrate + Nitrite (N)	ug/g	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
METALS																	
Acid Extractable Aluminum (Al)	ug/g	10000	10000	10000	8600	11000	11000	11000	12000	11000	13000	5100	8200	11000	11000	12000	10000
Acid Extractable Antimony (Sb)	ug/g	0.45	0.49	0.5	0.56	0.54	0.65	2	3.1	2.3	2.1	0.25	<0.20	0.6	0.53	0.45	0.83
Acid Extractable Arsenic (As)	ug/g	5.1	5	5.5	4.6	5	5.4	7	8.5	6.9	7.3	2.7	3.1	5.1	5.6	5.7	5.7
Acid Extractable Barium (Ba)	ug/g	100	100	110	93	98	100	160	220	190	160	44	69	97	100	110	120
Acid Extractable Beryllium (Be)	ug/g	0.52	0.5	0.53	0.43	0.51	0.49	0.59	0.64	0.58	0.61	0.25	0.33	0.56	0.53	0.58	0.52
Acid Extractable Bismuth (Bi)	ug/g	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.4	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Acid Extractable Boron (B)	ug/g	20	32	35	36	13	19	28	26	32	36	<5.0	8.9	15	19	25	35
Acid Extractable Cadmium (Cd)	ug/g	1.2	1.4	1.6	1.5	1.1	1.5	5.4	18	31	35	0.42	0.15	0.98	1.3	1.5	2.3
Acid Extractable Calcium (Ca)	ug/g	75000	69000	70000	66000	81000	74000	70000	69000	73000	62000	63000	58000	82000	71000	72000	68000
Acid Extractable Chromium (Cr)	ug/g	26	27	30	25	26	28	36	48	78	110	13	12	25	26	30	32
Acid Extractable Cobalt (Co)	ug/g	8.3	8.7	9.3	8.9	8.8	9.4	13	17	17	15	5.4	5.3	9.2	9.1	9.9	11
Acid Extractable Copper (Cu)	ug/g	68	61	63	58	60	61	85	100	120	130	28	21	60	62	61	83
Acid Extractable Iron (Fe)	ug/g	21000	22000	23000	21000	23000	23000	23000	24000	23000	26000	14000	15000	24000	24000	25000	23000
Acid Extractable Lead (Pb)	ug/g	54	73	95	92	42	57	130	160	130	110	33	15	42	59	80	120
Acid Extractable Magnesium (Mg)	ug/g	19000	19000	17000	18000	20000	20000	17000	17000	16000	15000	8900	6500	18000	17000	16000	17000
Acid Extractable Manganese (Mn)	ug/g	610	610	680	590	670	640	640	670	670	650	400	470	660	660	750	700
Acid Extractable Molybdenum (Mo)	ug/g	1	0.77	0.69	0.66	1.1	0.99	0.92	0.85	0.75	0.97	<0.50	<0.50	1.4	0.99	0.63	0.86
Acid Extractable Nickel (Ni)	ug/g	22	24	28	25	22	24	34	58	59	53	11	12	22	24	28	30
Acid Extractable Phosphorus (P)	ug/g	1100	1300	1100	1100	960	1100	1400	1600	2000	1900	800	810	920	1100	1100	1400
Acid Extractable Potassium (K)	ug/g	1600	1700	1600	1300	1800	1700	1700	1800	1600	1900	840	1100	1800	1600	1800	1600
Acid Extractable Selenium (Se)	ug/g	<0.50	0.51	<0.50	<0.50	<0.50	<0.50	0.62	0.63	<0.50	0.52	<0.50	<0.50	<0.50	0.53	0.55	0.54
Acid Extractable Silver (Ag)	ug/g	0.49	1.1	0.91	1.2	0.42	0.73	2.8	3.8	5.4	3.8	<0.20	<0.20	0.48	0.71	0.83	2.3
Acid Extractable Sodium (Na)	ug/g	300	270	250	240	320	300	290	260	260	330	210	220	350	270	220	230
Acid Extractable Strontium (Sr)	ug/g	160	130	140	120	200	170	140	130	110	94	130	120	240	160	160	130
Acid Extractable Thallium (Tl)	ug/g	0.16	0.16	0.15	0.13	0.2	0.18	0.17	0.17	0.19	0.22	0.15	0.094	0.22	0.19	0.17	0.17
Acid Extractable Tin (Sn)	ug/g	4.9	5	6	6.1	3.6	4.1	8.9	11	18	20	1.8	<1.0	2.8	3.6	5.1	13
Acid Extractable Uranium (U)	ug/g	0.49	0.48	0.43	0.42	0.53	0.54	0.54	0.56	0.52	0.59	0.34	0.46	0.62	0.52	0.45	0.5
Acid Extractable Vanadium (V)	ug/g	21	22	22	19	22	23	23	25	24	26	16	18	22	23	24	22
Acid Extractable Zinc (Zn)	ug/g	310	290	310	280	330	320	450	520	660	810	160	70	330	310	310	370
Acid Extractable Mercury (Hg)	ug/g	0.21	0.62	0.3	0.35	0.16	0.15	0.38	0.37	0.68	0.56	<0.050	<0.050	0.19	0.32	0.22	0.37
PAHs																	
Acenaphthene	ug/g	<0.10	0.077	0.061	0.025	<0.10	<0.10	0.063	<0.10	0.1	0.16	<0.050	<0.10	<0.10	<0.010	<0.050	<0.050
Acenaphthylene	ug/g	<0.10	<0.050	<0.050	0.008	<0.10	<0.10	<0.050	<0.10	<0.050	<0.10	<0.050	<0.10	<0.10	<0.010	<0.050	<0.050
Anthracene	ug/g	0.12	0.15	0.1	0.054	<0.10	<0.10	0.078	0.11	0.17	0.12	<0.050	<0.10	<0.10	0.019	<0.050	<0.050
Benzo(a)anthracene	ug/g	0.57	0.67	0.44	0.19	0.39	0.42	0.39	0.4	0.66	0.44	0.14	<0.10	0.34	0.092	0.16	0.11
Benzo(a)pyrene	ug/g	0.69	0.74	0.51	0.21	0.51	0.5	0.41	0.4	0.67	0.47	0.2	<0.10	0.44	0.11	0.19	0.12
Benzo(b/j)fluoranthene	ug/g	1.2	1.1	0.79	0.32	0.79	0.77	0.62	0.61	0.95	0.82	0.32	<0.10	0.7	0.19	0.31	0.19
Benzo(g,h,i)perylene	ug/g	0.62	0.6	0.43	0.19	0.46	0.42	0.34	0.32	0.51	0.36	0.18	<0.10	0.42	0.1	0.17	0.1
Benzo(k)fluoranthene	ug/g	0.4	0.39	0.26	0.11	0.28	0.27	0.22	0.2	0.34	0.24	0.11	<0.10	0.24	0.058	0.11	0.059
Chrysene	ug/g	0.75	0.75	0.53	0.22	0.47	0.5	0.44	0.43	0.68	0.46	0.21	<0.10	0.39	0.12	0.2	0.13
Dibenzo(a,h)anthracene	ug/g	0.11	0.12	0.078	0.042	<0.10	<0.10	0.06	<0.10	0.12	<0.10	<0.050	<0.10	<0.10	0.021	<0.050	<0.050
Fluoranthene	ug/g	1.9	2.1	1.4	0.6	1.3	1.3	1.3	1.2	1.6	1.1	0.55	<0.10	1.1	0.3	0.58	0.4
Fluorene	ug/g	<0.10	0.074	0.053	0.029	<0.10	<0.10	<0.050	<0.10	<0.090	0.11	<0.050	<0.10	<0.10	<0.010	<0.050	<0.050
Indeno(1,2,3-cd)pyrene	ug/g	0.61	0.66	0.46	0.19	0.48	0.45	0.35	0.33	0.53	0.37	0.18	<0.10	0.42	0.1	0.16	0.09
Methylnaphthalene, 2-(1-)	ug/g	<0.14	<0.071	<0.071	0.011	<0.14	<0.14	<0.071	<0.14	0.081	<0.14	<0.071	<0.14	<0.14	<0.014	<0.071	<0.071
1-Methylnaphthalene	ug/g	<0.10	<0.050	<0.050	<0.0050	<0.10	<0.10	<0.050	<0.10	<0.050	<0.10	<0.050	<0.10	<0.10	<0.010	<0.050	<0.050
2-Methylnaphthalene	ug/g	<0.10	<0.050	<0.050	0.011	<0.10	<0.10	<0.050	<0.10	0.081	<0.10	<0.050	<0.10	<0.10	<0.010	<0.050	<0.050
Naphthalene	ug/g	<0.10	<0.050	<0.050	0.0094	<0.10	<0.10	<0.050	<0.10	0.056	<0.10	<0.050	<0.10	<0.10	<0.010	<0.050	<0.050
Phenanthrene	ug/g	0.62	0.93	0.62	0.27	0.31	0.37	0.58	0.67	0.9	0.58	0.22	<0.10	0.28	0.089	0.21	0.26
Pyrene	ug/g	1.4	1.6	1.1	0.48	1	1	1	0.99	1.3	0.98	0.41	<0.10	0.86	0.23	0.45	0.31
SIZE DISTRIBUTION																	
< -1 Phi (2 mm)	%					100	100	100	100	100	100						
< 0 Phi (1 mm)	%					100	100	100	100	100	100						
< +1 Phi (0.5 mm)	%					100	100	100	99	99	100						
< +2 Phi (0.25 mm)	%					99	99	99	99	99	100						
< +3 Phi (0.12 mm)	%					98	95	96	97	97	99						
< +4 Phi (0.062 mm)	%					90	84	89	90	90	98						
< +5 Phi (0.031 mm)	%					68	62	68	74	73	87						
< +6 Phi (0.016 mm)	%					51	46	49	55	55	67						
< +7 Phi (0.0078 mm)	%					23	26	26	30	31	37						
< +8 Phi (0.0039 mm)	%					10	16	21	24	25	30						
< +9 Phi (0.0020 mm)	%					3	3.4	14	12	15	11						
Gravel	%					<0.10	<0.10	<0.10	<0.10	0.23	<0.10						
Coarse Sand	%					1.3	2.6	2.3	1.8	1.8	0.5						
Fine Sand	%					8.9	13	8.9	8.1	8.2	1.7						
Silt	%					79	68	68	67	65	68						
Clay	%					10	16	21	24	25	30						
Loss on Ignition	%w/w					5.4	4.8	4.6	5	5.4	5.8						
Wet Bulk Density	g/cm3					1.6	1.7	1.6	1.6	1.7	1.5						
Liquid Limit	%w/w					59	48	44	48	51	58						
Plastic Limit	%w/w					37	31	28	28	25	34						
Plasticity Index	%w/w					22	17	16	20	26	24						
Dissolved BOD5	mg/L				<10									<6			

Table A3. Cootes Paradise Sediment Sample Analytical Results - April 2021

	Station		CP-C08						CP-REF-1				CP-REF-02			
	Sample ID	CP-C07-60-75	CP-C08-0-15	CP-C08-15-30	CP-C08-30-45	CP-C08-45-60	CP-C08-60-75	CP-C08-75-90	CP-REF-1-0-15	CP-REF-1-15-30	CP-REF-1-30-45	CP-REF-1-45-60	CP-REF-2-0-15	CP-REF-2-15-30	CP-REF-2-30-45	CP-REF-2-45-60
	BV Labs Sample ID	PKV716	PKV697	PKV698	PKV699	PKV700	PKV701	PKV702	PKV703	PKV704	PKV705	PKV706	PKV707	PKV708	PKV709	PKV710
	Matrix	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid
	Sampled By	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB
	Sampling Date and Time	4/26/21 11:30	4/23/21 14:00	4/23/21 14:00	4/23/21 14:00	4/23/21 14:00	4/23/21 14:00	4/23/21 14:00	4/26/21 9:30	4/26/21 9:30	4/26/21 9:30	4/26/21 9:30	4/26/21 10:30	4/26/21 10:30	4/26/21 10:30	4/26/21 10:30
Parameter Name	Units															
PHYSICAL																
Moisture	%	44	58	51	48	41	43	43	33	29	38	59	59	46	51	47
ANIONS & NUTRIENTS																
Total Ammonia-N	ug/g	349	56	143	218	257	326	365	36	<20	72	126	39	81	102	152
Nitrogen (N)	%	0.21	0.23	0.2	0.21	0.18	0.19	0.2	0.1	0.078	0.27	0.63	0.27	0.22	0.26	0.32
Calculated Total Kjeldahl Nitrogen (TKN)	ug/g	2100	2330	2000	2130	1850	1910	1990	1020	782	2670	6320	2740	2210	2590	3210
Nitrite (N)	ug/g	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nitrate (N)	ug/g	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nitrate + Nitrite (N)	ug/g	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
METALS																
Acid Extractable Aluminum (Al)	ug/g	14000	13000	13000	14000	13000	13000	14000	5200	5800	15000	15000	14000	15000	16000	21000
Acid Extractable Antimony (Sb)	ug/g	1.8	0.58	0.41	0.53	0.44	0.5	0.48	<0.20	<0.20	<0.20	<0.20	0.25	0.45	0.56	0.47
Acid Extractable Arsenic (As)	ug/g	8.4	5.1	6	6.4	6.3	6.1	6.7	2.7	2.8	6	8.1	4.9	5.9	7.2	6.9
Acid Extractable Barium (Ba)	ug/g	180	100	110	110	120	110	120	41	40	95	120	110	110	120	130
Acid Extractable Beryllium (Be)	ug/g	0.64	0.56	0.62	0.6	0.63	0.58	0.64	0.29	0.28	0.66	0.65	0.66	0.66	0.69	0.88
Acid Extractable Bismuth (Bi)	ug/g	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Acid Extractable Boron (B)	ug/g	45	16	15	24	27	31	34	<5.0	<5.0	6.2	6.1	8.2	11	12	15
Acid Extractable Cadmium (Cd)	ug/g	12	1.1	1.3	1.4	1.4	1.5	1.8	0.19	0.25	0.34	0.35	0.7	1.3	2.5	1.7
Acid Extractable Calcium (Ca)	ug/g	69000	83000	84000	78000	74000	70000	72000	60000	55000	44000	16000	96000	82000	70000	48000
Acid Extractable Chromium (Cr)	ug/g	46	27	29	30	31	30	33	10	11	22	21	24	28	33	41
Acid Extractable Cobalt (Co)	ug/g	16	9.6	9.8	10	10	10	11	5	5.2	11	11	10	11	12	13
Acid Extractable Copper (Cu)	ug/g	87	62	60	69	68	62	69	20	20	39	39	41	48	53	44
Acid Extractable Iron (Fe)	ug/g	27000	25000	26000	27000	27000	27000	26000	14000	14000	25000	25000	27000	29000	30000	33000
Acid Extractable Lead (Pb)	ug/g	150	44	47	60	66	86	92	13	15	32	27	33	51	69	68
Acid Extractable Magnesium (Mg)	ug/g	15000	17000	15000	16000	16000	15000	14000	11000	11000	13000	10000	11000	12000	12000	10000
Acid Extractable Manganese (Mn)	ug/g	750	700	770	770	780	790	830	490	430	810	410	870	780	720	630
Acid Extractable Molybdenum (Mo)	ug/g	0.85	1.3	0.94	0.91	0.84	0.9	0.68	<0.50	<0.50	0.57	0.68	0.8	0.72	0.74	0.77
Acid Extractable Nickel (Ni)	ug/g	48	23	25	27	28	29	31	10	12	25	26	25	30	38	38
Acid Extractable Phosphorus (P)	ug/g	1700	940	950	1200	1200	1200	1100	840	770	890	870	890	940	1100	1000
Acid Extractable Potassium (K)	ug/g	1900	1900	1900	2100	2100	1800	1900	780	760	1800	1600	2200	2000	2100	2800
Acid Extractable Selenium (Se)	ug/g	0.81	<0.50	0.51	0.6	0.63	0.65	0.63	<0.50	<0.50	<0.50	<0.50	<0.50	0.72	0.74	0.65
Acid Extractable Silver (Ag)	ug/g	3.4	0.37	0.42	0.58	0.69	0.89	1.2	<0.20	<0.20	<0.20	<0.20	<0.20	0.44	0.75	0.35
Acid Extractable Sodium (Na)	ug/g	240	390	290	310	260	260	240	150	120	170	180	270	250	270	240
Acid Extractable Strontium (Sr)	ug/g	160	260	240	200	170	160	150	130	96	81	43	350	230	160	110
Acid Extractable Thallium (Tl)	ug/g	0.25	0.23	0.21	0.25	0.21	0.2	0.21	0.16	0.11	0.14	0.14	0.22	0.25	0.28	0.28
Acid Extractable Tin (Sn)	ug/g	8.4	2.7	2.9	3.5	4.2	5	6.4	<1.0	1.1	1.4	<1.0	1.8	3.2	3.9	3.3
Acid Extractable Uranium (U)	ug/g	0.55	0.64	0.52	0.58	0.47	0.48	0.45	0.34	0.33	0.55	0.78	0.54	0.56	0.59	0.78
Acid Extractable Vanadium (V)	ug/g	26	24	25	26	27	25	26	15	15	28	28	25	28	29	34
Acid Extractable Zinc (Zn)	ug/g	520	340	350	370	340	330	350	110	94	220	270	250	280	320	210
Acid Extractable Mercury (Hg)	ug/g	0.34	0.11	0.12	0.19	0.21	0.35	0.25	<0.050	<0.050	<0.050	<0.050	<0.050	0.12	0.13	0.096
PAHs																
Acenaphthene	ug/g	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.10	<0.10	<0.10	<0.10	<0.10
Acenaphthylene	ug/g	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.10	<0.10	<0.10	<0.10	<0.10
Anthracene	ug/g	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.10	<0.10	<0.10	<0.10	<0.10
Benzo(a)anthracene	ug/g	0.32	0.31	0.29	0.35	0.34	0.29	0.33	<0.050	0.054	<0.050	<0.20	<0.10	<0.10	<0.10	<0.10
Benzo(a)pyrene	ug/g	0.35	0.43	0.39	0.45	0.41	0.35	0.38	<0.050	0.059	0.054	<0.10	<0.10	0.1	0.1	<0.10
Benzo(b/j)fluoranthene	ug/g	0.5	0.69	0.61	0.72	0.74	0.57	0.65	0.081	0.1	0.079	<0.10	0.16	0.21	0.19	0.17
Benzo(g,h,i)perylene	ug/g	0.29	0.42	0.36	0.41	0.31	0.26	0.27	<0.050	<0.050	0.068	<0.10	<0.10	<0.10	<0.10	0.12
Benzo(k)fluoranthene	ug/g	0.18	0.22	0.21	0.25	0.25	0.2	0.19	<0.050	<0.050	<0.050	<0.10	<0.10	<0.10	<0.10	<0.10
Chrysene	ug/g	0.35	0.38	0.36	0.45	0.41	0.34	0.37	0.059	0.064	<0.050	<0.10	<0.10	0.11	<0.10	<0.10
Dibenzo(a,h)anthracene	ug/g	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.10	<0.10	<0.10	<0.10	<0.10
Fluoranthene	ug/g	0.95	1.1	0.9	1.1	1	0.86	0.97	0.12	0.11	<0.050	<0.10	0.16	0.17	0.19	0.16
Fluorene	ug/g	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.10	<0.10	<0.10	<0.10	<0.10
Indeno(1,2,3-cd)pyrene	ug/g	0.3	0.41	0.37	0.43	0.33	0.27	0.29	<0.050	<0.050	0.051	<0.10	<0.10	<0.10	<0.10	0.12
Methylnaphthalene, 2-(1-)	ug/g	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.071	<0.071	<0.071	<0.14	<0.14	<0.14	<0.14	<0.14
1-Methylnaphthalene	ug/g	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.10	<0.10	<0.10	<0.10	<0.10
2-Methylnaphthalene	ug/g	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.10	<0.10	<0.10	<0.10	<0.10
Naphthalene	ug/g	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.10	<0.10	<0.10	<0.10	<0.10
Phenanthrene	ug/g	0.48	0.24	0.23	0.33	0.36	0.33	0.39	<0.050	<0.050	<0.050	<0.10	<0.10	<0.10	<0.10	<0.10
Pyrene	ug/g	0.76	0.84	0.73	0.89	0.8	0.66	0.75	0.094	0.094	<0.050	<0.10	0.14	0.15	0.16	0.15
SIZE DISTRIBUTION																
< -1 Phi (2 mm)	%		100		100		100									
< 0 Phi (1 mm)	%		100		100		100									
< +1 Phi (0.5 mm)	%		100		100		100									
< +2 Phi (0.25 mm)	%		100		99		100									
< +3 Phi (0.12 mm)	%		99		99		99									
< +4 Phi (0.062 mm)	%		97		98		99									
< +5 Phi (0.031 mm)	%		84		89		88									
< +6 Phi (0.016 mm)	%		67		70		71									
< +7 Phi (0.0078 mm)	%		22		39		39									
< +8 Phi (0.0039 mm)	%		7.5		31		31									
< +9 Phi (0.0020 mm)	%		2.9		12		22									
Gravel	%		<0.10		<0.10		<0.10									
Coarse Sand	%		0.67		0.66		0.37									
Fine Sand	%		2.4		1.5		1.1									
Silt	%		89		67		68									
Clay	%		7.5		31		31									
Loss on Ignition	%w/w		5.2		5.5		5.3									
Wet Bulk Density	g/cm3		1.4		1.6		1.4									
Liquid Limit	%w/w		77		76		64									
Plastic Limit	%w/w		45		47		33									
Plasticity Index	%w/w		32		29		31									
Dissolved BOD5	mg/L	14														

Table A3. Cootes Paradise Sediment Sample Analytical Results - April 2021

	Station	
	Sample ID	CP-REF-2-60-75
	BV Labs Sample ID	PKV711
	Matrix	Solid
	Sampled By	TB
	Sampling Date and Time	4/26/21 11:30
Parameter Name	Units	
PHYSICAL		
Moisture	%	44
ANIONS & NUTRIENTS		
Total Ammonia-N	ug/g	210
Nitrogen (N)	%	0.3
Calculated Total Kjeldahl Nitrogen (TKN)	ug/g	2960
Nitrite (N)	ug/g	<0.5
Nitrate (N)	ug/g	<2
Nitrate + Nitrite (N)	ug/g	<3
METALS		
Acid Extractable Aluminum (Al)	ug/g	25000
Acid Extractable Antimony (Sb)	ug/g	<0.20
Acid Extractable Arsenic (As)	ug/g	4.6
Acid Extractable Barium (Ba)	ug/g	190
Acid Extractable Beryllium (Be)	ug/g	1.1
Acid Extractable Bismuth (Bi)	ug/g	<1.0
Acid Extractable Boron (B)	ug/g	7.4
Acid Extractable Cadmium (Cd)	ug/g	0.19
Acid Extractable Calcium (Ca)	ug/g	22000
Acid Extractable Chromium (Cr)	ug/g	32
Acid Extractable Cobalt (Co)	ug/g	13
Acid Extractable Copper (Cu)	ug/g	31
Acid Extractable Iron (Fe)	ug/g	36000
Acid Extractable Lead (Pb)	ug/g	15
Acid Extractable Magnesium (Mg)	ug/g	9000
Acid Extractable Manganese (Mn)	ug/g	480
Acid Extractable Molybdenum (Mo)	ug/g	0.77
Acid Extractable Nickel (Ni)	ug/g	34
Acid Extractable Phosphorus (P)	ug/g	800
Acid Extractable Potassium (K)	ug/g	2900
Acid Extractable Selenium (Se)	ug/g	<0.50
Acid Extractable Silver (Ag)	ug/g	<0.20
Acid Extractable Sodium (Na)	ug/g	210
Acid Extractable Strontium (Sr)	ug/g	67
Acid Extractable Thallium (Tl)	ug/g	0.2
Acid Extractable Tin (Sn)	ug/g	<1.0
Acid Extractable Uranium (U)	ug/g	0.88
Acid Extractable Vanadium (V)	ug/g	39
Acid Extractable Zinc (Zn)	ug/g	98
Acid Extractable Mercury (Hg)	ug/g	<0.050
PAHs		
Acenaphthene	ug/g	<0.10
Acenaphthylene	ug/g	<0.10
Anthracene	ug/g	<0.10
Benzo(a)anthracene	ug/g	<0.10
Benzo(a)pyrene	ug/g	<0.10
Benzo(b/j)fluoranthene	ug/g	<0.10
Benzo(g,h,i)perylene	ug/g	<0.10
Benzo(k)fluoranthene	ug/g	<0.10
Chrysene	ug/g	<0.10
Dibenzo(a,h)anthracene	ug/g	<0.10
Fluoranthene	ug/g	<0.10
Fluorene	ug/g	<0.10
Indeno(1,2,3-cd)pyrene	ug/g	<0.10
Methylnaphthalene, 2-(1-)	ug/g	<0.14
1-Methylnaphthalene	ug/g	<0.10
2-Methylnaphthalene	ug/g	<0.10
Naphthalene	ug/g	<0.10
Phenanthrene	ug/g	<0.10
Pyrene	ug/g	<0.10
SIZE DISTRIBUTION		
< -1 Phi (2 mm)	%	
< 0 Phi (1 mm)	%	
< +1 Phi (0.5 mm)	%	
< +2 Phi (0.25 mm)	%	
< +3 Phi (0.12 mm)	%	
< +4 Phi (0.062 mm)	%	
< +5 Phi (0.031 mm)	%	
< +6 Phi (0.016 mm)	%	
< +7 Phi (0.0078 mm)	%	
< +8 Phi (0.0039 mm)	%	
< +9 Phi (0.0020 mm)	%	
Gravel	%	
Coarse Sand	%	
Fine Sand	%	
Silt	%	
Clay	%	
Loss on Ignition	%w/w	
Wet Bulk Density	g/cm3	
Liquid Limit	%w/w	
Plastic Limit	%w/w	
Plasticity Index	%w/w	
Dissolved BOD5	mg/L	

Attachment B

Sediment Analysis Results Tables – August 2021

Table B1. Chedoke Creek Sediment Sample Analytical Results - August 2021

Sample ID	REPORTING LIMIT		CC-C13-75-90	CC-C13-90-105	CC-C19-75-90	CC-C19-90-105	CC-C20-105-120	CC-C20-120-135	CC-C23-105-120	CC-C23-120-135	CC-C26-105-120	CC-C26-120-135	CC-C17-75-90	Matrix Spike	SPIKED BLANK (%)	Method Blank
Laboratory ID / Guideline ID			QHV434	QHV435	QHV436	QHV437	QHV438	QHV439	QHV440	QHV441	QHV442	QHV443	QHV444	99995	99998	99999
BV Labs Job #			C1M2695	C1M2695	C1M2695	C1M2695	C1M2695	C1M2695	C1M2695	C1M2695	C1M2695	C1M2695	C1M2695	C1M2695	C1M2695	C1M2695
Sampling Date		Units	06-August-2021	06-August-2021	06-August-2021	06-August-2021	05-August-2021	05-August-2021	05-August-2021	05-August-2021	05-August-2021	05-August-2021	05-August-2021			
Antimony	0.2	ug/g	2.9	0.99	1.3	1.3	2.1	1.1	0.73	1.1	1.1	1.2	<0.20	92	96	<0.20
Arsenic	1	ug/g	6.2	6.7	4.9	5.2	5	4.3	4.6	4.4	4.1	4.3	2.5	101	97	<1.0
Barium	0.5	ug/g	160	160	130	130	120	100	120	120	86	97	47	NC	92	<0.50
Beryllium	0.2	ug/g	0.64	0.73	0.45	0.48	0.43	0.41	0.49	0.46	0.38	0.38	0.27	101	92	<0.20
Boron (Hot Water Soluble)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	0.1	ug/g	5.5	0.51	11	11	9.5	7.8	3.3	3	2.7	3.8	1.3	101	97	<0.10
Chromium	1	ug/g	38	29	29	33	29	27	24	25	24	27	11	105	98	<1.0
Chromium VI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cobalt	0.1	ug/g	10	11	10	11	11	8.3	9.6	9.8	8.4	9.1	5.2	96	97	<0.10
Copper	0.5	ug/g	77	65	83	97	79	69	67	86	66	71	31	97	95	<0.50
Lead	1	ug/g	170	54	77	76	92	91	66	120	110	110	24	98	101	<1.0
Mercury	0.05	ug/g	0.25	0.075	0.22	4.6	0.29	0.17	1	0.19	2	0.31	<0.050	93	95	<0.050
Molybdenum	0.5	ug/g	9.4	1.3	0.84	0.96	1	0.87	0.73	0.76	0.74	1	<0.50	101	97	<0.50
Nickel	0.5	ug/g	90	29	32	31	31	25	31	35	24	30	12	101	99	<0.50
Selenium	0.5	ug/g	0.63	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	99	100	<0.50
Silver	0.2	ug/g	0.93	0.79	3	6.5	2.8	3.1	1.7	1.1	1.7	1.5	0.25	106	102	<0.20
Thallium	0.05	ug/g	0.19	0.21	0.12	0.11	0.11	0.11	0.11	0.11	0.099	0.1	<0.050	101	102	<0.050
Vanadium	5	ug/g	28	31	22	23	21	23	21	19	20	19	15	NC	96	<5.0
Zinc	5	ug/g	510	290	280	260	260	240	220	230	230	240	70	NC	99	<5.0
Boron (Total)	5	ug/g	17	13	18	17	15	11	14	14	29	31	5.1	101	85	<5.0
Uranium	0.05	ug/g	0.83	0.71	0.55	0.63	0.54	0.63	0.57	0.58	0.55	0.48	0.44	99	100	<0.050
Acenaphthene	0.005	ug/g	<0.10	<0.10	0.1	0.1	0.16	0.075	<0.10	<0.10	0.12	0.69	0.0069	89	91	<0.0050
Acenaphthylene	0.005	ug/g	<0.10	<0.10	<0.050	<0.050	<0.050	<0.050	<0.10	<0.10	<0.050	<0.050	<0.0050	85	92	<0.0050
Anthracene	0.005	ug/g	<0.10	<0.10	0.12	0.13	0.23	0.11	0.11	0.21	0.22	1.2	0.019	92	94	<0.0050
Benzo(a)anthracene	0.005	ug/g	0.21	0.19	0.31	0.32	0.53	0.27	0.25	0.42	0.58	1.9	0.059	97	96	<0.0050
Benzo(a)pyrene	0.005	ug/g	0.23	0.22	0.31	0.37	0.53	0.27	0.29	0.44	0.55	1.7	0.071	87	85	<0.0050
Benzo(b/j)fluoranthene	0.005	ug/g	0.4	0.38	0.47	0.55	0.78	0.45	0.37	0.59	0.8	2.4	0.14	89	88	<0.0050
Benzo(ghi)perylene	0.005	ug/g	0.23	0.2	0.3	0.32	0.37	0.23	0.22	0.43	0.38	1	0.077	96	73	<0.0050
Benzo(k)fluoranthene	0.005	ug/g	0.13	0.13	0.16	0.2	0.26	0.16	0.13	0.21	0.29	0.92	0.05	91	96	<0.0050
Chrysene	0.005	ug/g	0.29	0.16	0.33	0.36	0.53	0.29	0.26	0.5	0.58	1.7	0.063	99	99	<0.0050
Dibenzo(a,h)anthracene	0.005	ug/g	<0.10	<0.10	0.071	0.082	0.097	0.051	<0.10	<0.10	0.097	0.29	0.013	109	79	<0.0050
Fluoranthene	0.005	ug/g	0.73	0.64	0.85	0.89	1.5	0.79	0.97	1.4	1.7	6	0.26	98	102	<0.0050
Fluorene	0.005	ug/g	<0.10	<0.10	0.12	0.12	0.19	0.094	<0.10	0.13	0.15	0.89	0.0075	92	92	<0.0050
Indeno(1,2,3-cd)pyrene	0.005	ug/g	0.22	0.2	0.29	0.33	0.38	0.23	0.19	0.42	0.4	1	0.062	100	80	<0.0050
1-Methylnaphthalene	0.005	ug/g	<0.10	<0.10	0.13	0.12	0.13	0.14	<0.10	<0.10	<0.050	0.12	<0.0050	87	93	<0.0050
2-Methylnaphthalene	0.005	ug/g	<0.10	<0.10	0.12	0.13	0.13	0.088	<0.10	<0.10	<0.050	0.21	<0.0050	87	93	<0.0050
Naphthalene	0.005	ug/g	<0.10	<0.10	<0.050	<0.050	<0.050	<0.050	<0.10	<0.10	<0.050	0.37	<0.0050	76	82	<0.0050
Phenanthrene	0.005	ug/g	0.26	0.29	0.62	0.55	1	0.46	0.39	0.74	1	5.6	0.069	85	93	<0.0050
Pyrene	0.005	ug/g	0.46	0.44	0.69	0.63	1.2	0.74	0.65	1.1	1.6	3.8	0.19	106	121	<0.0050
Methylnaphthalene, 2-(1-)	-	ug/g	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table B2. Princess Point Sediment Sample Analytical Results - August 2021

Sample ID			PP-C20-0-15	PP-C20-15-30	PP-C20-30-45	PP-C20-45-60	PP-C20A-60-75	PP-C21-0-15	PP-C21-15-30	PP-C21-30-45	PP-C21A-45-60	Matrix Spike (%)	SPIKED BLANK (%)	Method Blank
Laboratory ID / Guideline ID			QKS945	QKS946	QKS947	QKS948	QKS949	QKS950	QKS951	QKS952	QKS953	99995	99998	99999
BV Labs Job #			C1N6521	C1N6521	C1N6521	C1N6521	C1N6521	C1N6521	C1N6521	C1N6521	C1N6521	C1N6521	C1N6521	C1N6521
Sampling Date	REPORTING LIMIT	Units	18-August-2021	18-August-2021	18-August-2021	18-August-2021	18-August-2021	18-August-2021	18-August-2021	18-August-2021	18-August-2021			
Antimony	0.2	ug/g	0.71	0.86	1.9	3	1.8	3.3	7.5	5.8	2.4	94	101	<0.20
Arsenic	1	ug/g	6.2	7.5	8	9.4	7.7	6.3	12	8.8	7	100	105	<1.0
Barium	0.5	ug/g	120	160	230	250	180	160	280	240	220	NC	104	<0.50
Beryllium	0.2	ug/g	0.65	0.73	0.76	0.73	0.68	0.56	0.7	0.77	0.71	105	105	<0.20
Boron (Hot Water Soluble)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	0.1	ug/g	3.4	8.4	26	54	23	22	50	4	10	98	99	<0.10
Chromium	1	ug/g	39	55	91	190	94	92	200	38	58	97	102	<1.0
Chromium VI	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cobalt	0.1	ug/g	11	13	18	17	14	13	18	13	12	97	102	<0.10
Copper	0.5	ug/g	100	120	180	260	170	230	510	130	140	97	104	<0.50
Lead	1	ug/g	68	120	190	200	140	150	300	170	110	93	98	<1.0
Mercury	0.05	ug/g	0.23	0.4	0.6	1	0.56	0.82	2.2	1.8	0.79	94	102	<0.050
Molybdenum	0.5	ug/g	1.5	1.1	1	1.8	1.5	1.2	1.5	1	1.4	98	96	<0.50
Nickel	0.5	ug/g	29	40	71	76	51	48	74	32	36	98	104	<0.50
Selenium	0.5	ug/g	0.69	0.78	0.89	0.74	0.73	0.66	1.1	1	0.71	100	102	<0.50
Silver	0.2	ug/g	1.1	2.6	7.4	8.2	4.1	3.8	8.7	2.3	2.1	93	95	<0.20
Thallium	0.05	ug/g	0.25	0.24	0.24	0.23	0.24	0.21	0.24	0.25	0.21	95	101	<0.050
Vanadium	5	ug/g	26	28	29	28	26	22	27	30	28	97	103	<5.0
Zinc	5	ug/g	540	600	820	1200	790	900	2200	1000	720	NC	96	<5.0
Boron (Total)	5	ug/g	20	28	37	50	35	67	230	35	37	99	112	<5.0
Uranium	0.05	ug/g	0.72	0.61	0.59	0.73	0.69	0.64	1.1	0.73	0.74	98	100	<0.050
Acenaphthene	0.15	ug/g	<0.15	<0.10	<0.10	0.39	0.11	0.18	0.73	0.18	<0.15	83	86	<0.0050
Acenaphthylene	0.15	ug/g	<0.15	<0.10	<0.10	0.053	<0.10	<0.10	<0.10	0.14	<0.15	85	89	<0.0050
Anthracene	0.15	ug/g	<0.15	<0.10	<0.10	0.36	0.13	0.23	0.52	0.33	0.16	92	101	<0.0050
Benzo(a)anthracene	0.15	ug/g	0.37	0.36	0.36	0.93	0.5	0.8	1.1	1.2	0.56	94	104	<0.0050
Benzo(a)pyrene	0.15	ug/g	0.49	0.44	0.4	0.88	0.57	0.87	1.1	1.2	0.59	82	91	<0.0050
Benzo(b/j)fluoranthene	0.15	ug/g	0.92	0.81	0.69	1.4	0.97	1.3	1.7	1.8	0.96	85	101	<0.0050
Benzo(ghi)perylene	0.15	ug/g	0.53	0.44	0.37	0.7	0.53	0.71	0.87	0.89	0.48	98	109	<0.0050
Benzo(k)fluoranthene	0.15	ug/g	0.26	0.24	0.21	0.42	0.29	0.38	0.49	0.53	0.23	83	82	<0.0050
Chrysene	0.15	ug/g	0.5	0.5	0.46	1	0.61	0.86	1.3	1.4	0.68	96	108	<0.0050
Dibenzo(a,h)anthracene	0.15	ug/g	<0.15	<0.10	<0.10	0.16	0.11	0.14	0.19	0.2	<0.15	106	116	<0.0050
Fluoranthene	0.15	ug/g	1.2	1.2	1.1	2.6	1.4	2.1	3.1	2.9	1.6	97	109	<0.0050
Fluorene	0.15	ug/g	<0.15	<0.10	<0.10	0.33	0.1	0.15	0.54	0.16	<0.15	85	89	<0.0050
Indeno(1,2,3-cd)pyrene	0.15	ug/g	0.54	0.46	0.4	0.77	0.56	0.77	0.93	0.96	0.52	108	117	<0.0050
1-Methylnaphthalene	0.15	ug/g	<0.15	<0.10	<0.10	0.11	<0.10	<0.10	0.2	<0.10	<0.15	91	101	<0.0050
2-Methylnaphthalene	0.15	ug/g	<0.15	<0.10	<0.10	0.15	<0.10	0.1	0.34	<0.10	<0.15	80	88	<0.0050
Naphthalene	0.15	ug/g	<0.15	<0.10	<0.10	0.072	<0.10	<0.10	0.15	<0.10	<0.15	68	81	<0.0050
Phenanthrene	0.15	ug/g	0.25	0.29	0.37	1.5	0.49	0.95	2.2	1.1	0.84	88	96	<0.0050
Pyrene	0.15	ug/g	0.96	0.96	0.92	2.2	1.2	1.8	3.1	2.6	1.4	98	107	<0.0050
Methylnaphthalene, 2-(1-)	-	ug/g	-	-	-	-	-	-	-	-	-	-	-	-

Table B3. Cootes Paradise Sediment Sample Analytical Results - August 2021

Sample ID	REPORTING LIMIT	Units	CP-C09-0-15	CP-C09-15-30	CP-C09-30-45	CP-C09-45-60	CP-C09A-60-75	CP-C10-0-15	CP-C10-15-30	CP-C10-30-45	CP-C10-45-60	Matrix Spike (%)	SPIKED BLANK (%)	Method Blank
Laboratory ID / Guideline ID			QKT062	QKT063	QKT064	QKT065	QKT066	QKT067	QKT068	QKT069	QKT070	99995	99998	99999
BV Labs Job #			C1N6546	C1N6546	C1N6546	C1N6546	C1N6546	C1N6546	C1N6546	C1N6546	C1N6546	C1N6546	C1N6546	C1N6546
Sampling Date			19-August-2021	19-August-2021	19-August-2021	19-August-2021	19-August-2021	19-August-2021	19-August-2021	19-August-2021	19-August-2021			
Antimony	0.2	ug/g	0.53	0.37	0.49	0.48	0.5	0.41	0.4	0.49	0.49	97	104	<0.20
Arsenic	1	ug/g	5	5.8	6.2	5.9	5.8	4.6	5.8	5.9	5.4	99	99	<1.0
Barium	0.5	ug/g	97	97	110	100	100	94	100	100	110	NC	100	<0.50
Beryllium	0.2	ug/g	0.61	0.6	0.64	0.62	0.62	0.58	0.63	0.62	0.62	95	96	<0.20
Boron (Hot Water Soluble)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	0.1	ug/g	1	1.2	1.8	1.2	1.4	0.77	0.93	1.2	1.1	97	99	<0.10
Chromium	1	ug/g	26	28	30	28	28	24	26	26	25	102	100	<1.0
Chromium VI	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cobalt	0.1	ug/g	9.8	10	10	9.9	9.7	9.2	10	9.7	9.8	96	98	<0.10
Copper	0.5	ug/g	59	57	65	58	60	53	52	52	52	91	97	<0.50
Lead	1	ug/g	44	54	90	55	68	40	42	57	49	89	94	<1.0
Mercury	0.05	ug/g	0.084	0.15	0.26	0.16	0.22	0.091	0.12	0.14	0.11	84	91	<0.050
Molybdenum	0.5	ug/g	1.3	0.93	0.74	1.1	0.9	0.92	1	0.73	0.72	96	96	<0.50
Nickel	0.5	ug/g	24	24	27	25	25	22	25	25	24	99	100	<0.50
Selenium	0.5	ug/g	0.55	0.59	0.74	0.54	0.62	<0.50	0.59	0.67	0.53	97	98	<0.50
Silver	0.2	ug/g	0.35	0.43	1.3	0.43	0.72	0.29	0.31	0.38	0.42	94	97	<0.20
Thallium	0.05	ug/g	0.23	0.24	0.23	0.23	0.22	0.23	0.23	0.24	0.21	90	96	<0.050
Vanadium	5	ug/g	24	24	25	26	24	22	27	26	25	105	98	<5.0
Zinc	5	ug/g	350	340	360	340	340	320	320	310	310	NC	102	<5.0
Boron (Total)	5	ug/g	13	15	27	17	21	9.5	13	12	9.7	90	94	<5.0
Uranium	0.05	ug/g	0.66	0.62	0.51	0.64	0.66	0.59	0.56	0.58	0.6	92	94	<0.050
Acenaphthene	0.1	ug/g	<0.10	<0.10	<0.10	<0.10	<0.10	<0.15	<0.10	<0.10	<0.10	89	92	<0.0050
Acenaphthylene	0.1	ug/g	<0.10	<0.10	<0.10	<0.10	<0.10	<0.15	<0.10	<0.10	<0.10	86	90	<0.0050
Anthracene	0.1	ug/g	<0.10	<0.10	<0.10	<0.10	<0.10	<0.15	<0.10	<0.10	<0.10	97	100	<0.0050
Benzo(a)anthracene	0.1	ug/g	0.29	0.31	0.25	0.3	0.37	0.18	0.17	0.27	0.22	97	100	<0.0050
Benzo(a)pyrene	0.1	ug/g	0.39	0.41	0.29	0.4	0.43	0.23	0.2	0.31	0.28	76	79	<0.0050
Benzo(b/j)fluoranthene	0.1	ug/g	0.67	0.65	0.46	0.65	0.67	0.37	0.33	0.5	0.46	82	86	<0.0050
Benzo(ghi)perylene	0.1	ug/g	0.43	0.36	0.25	0.35	0.36	0.21	0.2	0.26	0.26	86	90	<0.0050
Benzo(k)fluoranthene	0.1	ug/g	0.2	0.22	0.16	0.21	0.22	<0.15	0.12	0.17	0.15	79	83	<0.0050
Chrysene	0.1	ug/g	0.33	0.39	0.3	0.38	0.43	0.21	0.18	0.3	0.27	95	98	<0.0050
Dibenzo(a,h)anthracene	0.1	ug/g	<0.10	<0.10	<0.10	<0.10	<0.10	<0.15	<0.10	<0.10	<0.10	80	82	<0.0050
Fluoranthene	0.1	ug/g	0.93	0.95	0.75	0.9	1.1	0.53	0.47	0.78	0.63	98	101	<0.0050
Fluorene	0.1	ug/g	<0.10	<0.10	<0.10	<0.10	<0.10	<0.15	<0.10	<0.10	<0.10	90	94	<0.0050
Indeno(1,2,3-cd)pyrene	0.1	ug/g	0.41	0.37	0.26	0.36	0.36	0.21	0.2	0.28	0.26	92	95	<0.0050
1-Methylnaphthalene	0.1	ug/g	<0.10	<0.10	<0.10	<0.10	<0.10	<0.15	<0.10	<0.10	<0.10	78	82	<0.0050
2-Methylnaphthalene	0.1	ug/g	<0.20	<0.10	<0.10	<0.10	<0.10	<0.15	<0.10	<0.10	<0.10	78	81	<0.0050
Naphthalene	0.1	ug/g	<0.10	<0.10	<0.10	<0.10	<0.10	<0.15	<0.10	<0.10	<0.10	81	86	<0.0050
Phenanthrene	0.1	ug/g	0.22	0.27	0.32	0.24	0.44	<0.15	0.13	0.34	0.19	92	95	<0.0050
Pyrene	0.1	ug/g	0.75	0.77	0.6	0.73	0.89	0.42	0.38	0.61	0.52	97	101	<0.0050
Methylnaphthalene, 2-(1-)	-	ug/g	-	-	-	-	-	-	-	-	-	-	-	-