

SIA sampling results for two sites sampled October 14 2016

Parameter	Units	Weir	SW-1	Water Quality Guidelines (approved and working) for the Protection of Aquatic Life WEIR HARDNESS		Water Quality Guidelines (approved and working) for the Protection of Aquatic Life BACKGROUND HARDNESS	
				Chronic	Acute	Chronic	Acute
EMS Site Number							
Sample Date		14-Oct-16	14-Oct-16	Chronic	Acute	Chronic	Acute
Depth / Duplicate							
Conductivity	µS/cm	528	591				
Turbidity	NTU	21.1	9.95		Change of 5		Change of 5
Total Suspended Solids	mg/L	13	6	Change of 5	Change of 25	Change of 5	Change of 25
Hardness - Total	mg/L	187	221				
Anions							
Chloride -Dissolved	mg/L	42.3	42.8	150	600	150	600
Sulphate	mg/L	149	165	218		218	
Total Metals							
Aluminum	µg/L	1930	583				
Antimony	µg/L	0.4	0.4		20		20
Arsenic	µg/L	0.6	<0.5		5		5
Barium	µg/L	27	24	1000	5000	1000	5000
Beryllium	µg/L	<0.1	<0.1	5.3		5.3	
Bismuth	µg/L	<0.1	<0.1				
Boron	µg/L	30	31		1200		1200
Cadmium	µg/L	0.02	0.02				
Calcium	mg/L	67.7	80.9				
Chromium	µg/L	3.8	1.6		1		1
Cobalt	µg/L	1.22	0.75	4	110	4	110
Copper*	µg/L	4.4	2.9	20	7	2	7
Iron	µg/L	1910	580		1000		1000
Lead*	µg/L	0.8	0.4	181	10	4.6	33.5
Magnesium	mg/L	12.6	13.5				
Manganese*	µg/L	84.8	54.5	2601	1428	800	1100
Molybdenum	µg/L	1	1.5	1000	2000	1000	2000

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Nickel*	µg/L	6.2	2.5		150		25
Phosphorus	µg/L	50	20				
Potassium	mg/L	1.92	1.91		373		373
Selenium	µg/L	<0.5	0.7	2		2	
Silicon	µg/L	7100	5600				
Silver*	µg/L	<0.05	<0.05	3	1.5	0.05	0.1
Sodium	mg/L	25.4	25.1				
Strontium	µg/L	263	277				
Sulfur	mg/L	59	63				
Thallium	µg/L	<0.02	<0.02		0.3		0.3
Tin	µg/L	<0.2	<0.2				
Titanium	µg/L	106	28		2000		2000
Uranium	µg/L	0.16	0.75		300		300
Vanadium	µg/L	5	3		6		6
Zinc*	µg/L	8	5	106	80	7.5	33
Dissolved Metals							
Aluminum	µg/L	6	9	50	100	50	100
Antimony	µg/L	0.8	0.5				
Arsenic	µg/L	1.3	0.6				
Barium	µg/L	14	18				
Beryllium	µg/L	<0.1	<0.1				
Bismuth	µg/L	<0.1	<0.1				
Boron	µg/L	25	24				
Cadmium*	µg/L	0.04	0.02	1.12	0.34	0.06	0.09
Calcium	mg/L	58	68.4				
Chromium	µg/L	0.6	0.6				
Cobalt	µg/L	0.39	0.41				
Copper	µg/L	1	1.2				
Iron	µg/L	<10	<10		350		350

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Lead	µg/L	<0.1	<0.1				
Magnesium	mg/L	10.3	12.1				
Manganese	µg/L	53.8	38.4				
Molybdenum	µg/L	0.9	1.3				
Nickel	µg/L	1.9	1.3				
Phosphorus	µg/L	<20	<20				
Potassium	mg/L	1.52	1.7				
Selenium	µg/L	<0.5	0.6				
Silicon	µg/L	3000	4100				
Silver	µg/L	<0.05	<0.05				
Sodium	mg/L	23.4	22.7				
Strontium	µg/L	233	249				
Sulfur	mg/L	51	57				
Thallium	µg/L	<0.02	<0.02				
Tin	µg/L	<0.2	<0.2				
Titanium	µg/L	<5	<5				
Uranium	µg/L	0.12	0.6				
Vanadium	µg/L	<1	1				
Zinc	µg/L	<4	<4				

*Hardness dependent WQG

Above BC AHWQG
At WQG
Potential WQG exceedance