

Appendix 12 : 2020 Results of the Tailings Supernatant Sampling



AGNICO EAGLE

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC		
1	Tailings Liquid		Sample date	1/7/2020	3/1/2020	2/1/2020	2/15/2020	3/1/2020	3/15/2020	3/29/2020	4/12/2020	4/26/2020	5/10/2020	5/24/2020	6/8/2020	6/21/2020	7/5/2020	7/19/2020	8/2/2020	8/16/2020	8/31/2020	9/13/2020	9/27/2020	10/14/2020	10/28/2020	11/11/2020	11/19/2020	12/3/2020	12/17/2020		
2	Parameter		Lab Site	CO0517	CO0534	CO0509	CO0450	CO0573	CO0536	CO0567	CO0626	CO0443	CO0591	CO0595	CO0532	CO0748	CO0462	CO0545	CO0568	CO0533	CO0510	CO0086	CO0710	CO0461	CO0762	CO0575	CO0773	CO0549	CO0623		
3	Conventional Parameters																														
4	pH	NTU	mg CaCO ₃ /L	9.42	11.9	9.24	8.96	9.18	8.80	9.39	8.46	9.29	8.96	9.12	8.81	9.01	9.18	9.04	8.52	9.20	8.99	8.55	8.78	8.86	8.21	8.52	8.60	8.65	8.42		
5	Turbidity	mg/L	mg CaCO ₃ /L	100	280	500	120	340	420	230	420	21	24	32	190	140	270	30	18	570	40	0.7	18	150	39	120	70	430	17	130	
6	Hardness, as CaCO ₃ (T)	mg/L	mg CaCO ₃ /L	3910	2840	2800	2550	2840	2760	3230	3470	4410	2760	2380	2870	3260	3240	3040	3030	5080	2920	2550	3020	3390	2630	4020	2490	2420	1940	2450	
7	Hardness, as CaCO ₃ (D)	mg/L	mg CaCO ₃ /L	3130	2650	2550	2480	2600	2600	3480	2890	3890	2360	2360	2360	2680	2680	3070	2380	2480	2480	2480	2640	2480	2640	2480	2070	2070	1920	1940	
8	Total alkalinity, as CaCO ₃	mg/L	mg CaCO ₃ /L	230	230	270	220	230	230	260	180	240	230	210	190	240	260	220	190	250	250	220	200	220	200	220	200	220	200	240	
9	TDS	mg/L	mg/L	17400	16300	16500	17500	16200	17000	19100	14700	19500	18100	18200	18700	19900	19300	21700	23700	19200	25300	19200	20900	17400	20200	19000	20500	19000	17500	16800	
10	TSS	mg/L	mg/L	13000	14500	8500	2600	200	9000	860	3300	8200	1800	490	900	6100	3400	57	220	22000	840	77	790	6900	1100	30000	140	3400	94	6300	
11	Major Ions																														
12	Chloride	mg/L	mg/L	4100	3900	4000	4800	4300	4300	5800	4800	3300	5000	3800	3900	4600	4000	4500	5400	4300	5400	4200	4800	5000	4200	4500	5000	4200	3700		
13	Fluoride	mg/L	mg/L	0.02	0.14	0.21	0.14	0.11	0.11	0.14	0.11	0.14	0.15	0.14	0.14	0.14	0.14	0.14	0.14	0.16	0.15	0.18	0.26	0.19	0.23	0.30	0.26	0.26	0.26		
14	Sulphate	mg/L	mg/L	5500	4600	4400	4600	4200	4200	5100	4200	5100	5000	3800	3900	5500	4700	5000	4600	4900	5000	4600	4300	5900	4700	5100	4400	6100	6100	6100	
15	Cyanide (free)	mg/L	mg/L	0.026	0.032	0.058	0.035	0.061	0.12	0.14	0.086	0.032	0.047	0.041	0.027	0.037	0.023	0.028	0.046	0.062	0.051	0.076	0.035	0.052	0.0054	0.03	0.045	0.037	0.036		
16	Cyanide (WAD)	mg/L	mg/L	-	-	-	-	-	0.34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
17	Cyanide (IAD)	mg/L	mg/L	18	20	13	13	20	31	45	41	64	80	110	67	69	39	48	47	49	53	55	61	70	91	90	63	21	35		
18	Calcium	mg/L	mg/L	1270	1060	1020	984	1070	1140	1380	790	1150	904	952	1080	1070	1190	1230	1230	898	1020	979	1130	1160	1040	849	1050	817	783	759	
19	Magnesium	mg/L	mg/L	1.5	7.5	3.0	7.5	2.3	2.2	4.7	3.6	2.1	1.5	4.4	1.8	2.9	3.7	2.4	2.7	10.9	6.4	8.8	8.2	7.8	8.4	24.4	18.9	8.5	3.4	11.2	
20	Potassium	mg/L	mg/L	447	406	392	409	400	405	476	425	443	374	390	271	395	436	443	461	365	401	355	383	405	366	353	361	362	313	353	
21	Sodium	mg/L	mg/L	3900	4070	4090	4470	3770	3750	5170	4190	4680	4450	5240	4610	4760	4860	4690	5380	4460	6090	5050	4970	4790	5000	4840	5380	5600	4440	4360	
22	Nutrients and Chlorophyll a																														
23	Total ammonia	mg/L	mg/L	280	220	330	380	370	300	350	310	330	370	380	320	340	380	420	400	400	400	400	400	370	420	360	360	330	320	350	
24	Nitrate	mg/L	mg/L	228	236	274	271	274	286	293	223	251	266	283	208	255	266	247	263	230	279	268	244	230	174	193	290	204	159	187	
25	Nitrite	mg/L	mg/L	0.580	0.757	0.985	1.19	0.859	0.974	0.928	1.04	0.679	0.705	0.95	0.498	0.82	0.479	0.488	0.437	0.82	0.885	0.746	0.844	0.728	0.521	0.588	0.676	0.533	0.210	0.498	
26	Nitrate + Nitrite	mg/L	mg/L	228	237	275	272	275	287	294	224	251	266	283	208	256	266	247	261	231	280	268	245	230	174	194	290	205	159	188	
27	Total phosphorus	mg/L	mg/L	5.1	21	-	-	1.2	1.4	18	0.98	12	20	3.6	2.5	3.9	11	6.3	-	-	-	-	-	-	-	-	-	-	-	-	
28	Orthophosphate	mg/L	mg/L	-	-	-	-	-	-	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
29	Total Metals																														
30	Aluminum	mg/L	mg/L	55.9	12.8	26.2	6.72	11.6	10.7	10.2	107	172	36.9	20.1	26.4	83.8	45.1	5.68	8.74	272	21.7	5.99	12	54.3	20.6	112	2.26	118	6.61	63.4	
31	Antimony	mg/L	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
32	Arsenic	mg/L	mg/L	16.8	9.78	15.9	10.4	17	14.8	14.1	38.3	3	81.1	22.3	10.8	16.1	34.2	31.6	10.8	11.4	46.4	31.3	14.2	35.6	26.7	15.2	11.9	80.2	72.6	37.7	
33	Barium	mg/L	mg/L	0.401	0.229	0.256	0.226	0.28	0.21	0.245	0.622	0.854	0.995	0.297	0.283	0.417	0.349	0.211	0.275	0.758	0.211	0.207	0.275	0.362	0.287	0.162	0.205	0.785	0.135	0.455	
34	Cadmium	mg/L	mg/L	0.00447	0.00030	0.00051	-	-	-	-	0.00210	0.0042	0.00075	0.00023	-	0.00081	0.00087	-	-	0.0046	-	-	-	0.000110	-	0.0195	0.00080	0.0090	-	0.00071	
35	Calcium	mg/L	mg/L	1470	1120	1080	1000	1120	1090	1280	1240	1570	1070	994	1130	1230	1240	1210	1210	1670	1120	1010	1180	1290	1130	962	866	766	968	968	
36	Chromium	mg/L	mg/L	0.103	0.036	0.047	-	-	0.188	0.28	0.056	0.031	0.026	0.106	0.086	0.086	0.086	0.086	0.086	0.086	0.086	0.086	0.086	0.086	0.086	0.086	0.086	0.086	0.086	0.086	
37	Cobalt	mg/L	mg/L	0.361	0.426	0.222	0.494	0.295	0.25	0.292	0.524	0.405	0.114	0.217	0.463	0.511	0.181	0.63	0.39	0.271	0.18	0.175	0.28	0.148	0.194	0.083	0.232	0.048	0.232		
38	Copper	mg/L	mg/L	0.187	0.126	0.238	2.32	7.35	0.989	2.9	0.445	3.58	2.63	4.06	3.44	3.94	1.31	8.51	11.3	8.97	-	-	-	-	-	-	-	-	-	-	
39	Iron	mg/L	mg/L	188	60.9	105	25.4	41.4	32.9	29.5	332	129	52	75.8	409	238	20.8	25.8	1330	112	24.2	49.8	233	66.5	882	28.3	561	20	243	243	
40	Lead	mg/L	mg/L	5.07	1.63	1.3	0.243	0.577	0.516	0.251	6.29	5.27	1.17	0.65	0.628	3.92	2.85	0.0597	0.113	11.9	2.03	0.0623	0.292	2.34	0.642	10.4	0.688	3.49	0.379	2.6	
41	Lithium	mg/L	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
42	Manganese	mg/L	mg/L	56.1	11.2	23.9	32.2	7.63	7.55	7.77	91.7	115	22.4	14	11.9	45.7	33.3	2.81	3.68	222	29.2	9.84	14.5	40.9	17.2	381	20.8	61.9	7.4	46.9	
43	Manganese	mg/L	mg/L	3.83	0.634	1.42	0.225	0.214	0.084	0.132	0.084	5.75	6.41	0.638	0.171	0.213	1.92	1.62	0.027	0.039	15.6	1.46	0.045	0.125	1.48	0.179	13.4	0.056	2.48	0.105	1.73
44	Mercury	mg/L	mg/L	0.998	1.12	0.996	1.11	0.744	0.449	0.609	0.737	0.906	0.248	0.298	0.432	0.593	0.865	0.00043	0.00043	0.00043	0.00043	0.00043	0.00043	0.00043	0.00043	0.00043	0.00043	0.00043	0.00043	0.00043	
45	Molybdenum	mg/L	mg/L	0.072	-	0.029	-	-	-	-	0.119	0.303	-	-	0.097	-	-	-	-	0.324	-	-	-	-	-	-	-	-	-	-	
46	Nickel	mg/L	mg/L	461	391	375	420	400	395	432	437	460	404	368	383	407	411	434	482	382	405	372	174	412	368	380	369	335	305	338	
47	Potassium	mg/L	mg/L	0.178	0.22	0.129	0.0773	0.0999	0.0691	0.0389	0.0406	0.03	0.0117	0.0071	0.0133	0.0283	0.0467	0.0164	0.0206	0.232	0.487	0.568	0.631	0.629	0.514	0.773	0.798	0.683	0.683		
48	Selenium	mg/L	mg/L	97.3	16.5	22.7	8.45	12.8	11.3	14.9	113	144	39.3	20.8	28.6	82.8	50.9	3.44	4.88	248	21.2	4.35	13.2	72.5							