

APPENDIX A

Soil Analytical Results Tables

Table 1: Summary of Stockpile Classification and Estimated Quantities

Stockpile ID	Hazardous Waste (tonnes)	Waste Quality (tonnes)
Storage Cell #1	2,374	-
Storage Cell #2	4,856	3,816
Transfer Facility	600	6,164
Total Volume	7,830	9,980

Table 2: Storage Cell #1 Soil Analytical Results

Parameter		Location ID:		Storage Cell #1											
		Stockpile Volume:				1187 m ³									
Sample ID:		SP-C1-1	SP-C1-900	RPD (%)	SP-C1-2	SP-C1-3	SP-C1-4	SP-C1-5	SP-C1-6	SP-C1-7	SP-C1-8	SP-C1-9	SP-C1-10	SP-C1-11	
Date Sampled:		20/03/2015	20/03/2015		20/03/2015	20/03/2015	20/03/2015	23/03/2015	23/03/2015	23/03/2015	23/03/2015	23/03/2015	23/03/2015	23/03/2015	
BCCSR EL ^{3,4}	BCCSR CL ^{3,5}	BCHWR LOS ^{6,7}													
Field Tests															
pH	-	-	3.82	3.85	0%	3.85	3.84	3.82	3.84	3.86	3.85	3.86	3.84	3.86	3.92
Physical Tests															
Moisture (% ww)	-	-	10	9	5%	9.5	9.2	8.8	10.2	10.7	8.9	9.5	9.3	9.9	9.1
pH, final	-	-	4.9	4.92	0%	4.91	4.95	4.9	4.93	4.91	4.93	4.94	4.93	4.92	4.93
pH, initial	-	-	4.47	4.51	0%	4.44	4.41	4.42	4.32	4.98	4.41	4.43	4.81	4.58	4.62
pH, leaching fluid	-	-	4.94	4.94	0%	4.94	4.94	4.94	4.98	4.98	4.98	4.98	4.98	4.98	4.98
Leachate Metals															
Antimony (ug/L)	-	-	<100	<100	nc	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Arsenic (ug/L)	-	2500	<100	<100	nc	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Barium (ug/L)	-	100000	250	280	6%	260	230	220	240	270	300	290	250	270	250
Beryllium (ug/L)	-	-	<100	<100	nc	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Boron (ug/L)	-	500000	<100	<100	nc	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Cadmium (ug/L)	-	500	<100	<100	nc	<100	140	110	110	<100	<100	<100	<100	<100	<100
Chromium (ug/L)	-	5000	<100	<100	nc	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Cobalt (ug/L)	-	-	<100	<100	nc	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Copper (ug/L)	-	100000	26500	21200	11%	21400	39400	30700	30800	22500	31000	19200	25000	16800	21900
Iron (ug/L)	-	-	<500	<500	nc	<500	500	<500	<500	<500	<500	<500	<500	<500	<500
Lead (ug/L)	-	5000	6050	11800	32%	6300	9210	8440	8580	7430	13200	6040	41700	6780	16300
Mercury (ug/L)	-	100	<2.0	<2.0	nc	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Molybdenum (ug/L)	-	-	<100	<100	nc	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Nickel (ug/L)	-	-	<100	<100	nc	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Selenium (ug/L)	-	1000	<100	<100	nc	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Silver (ug/L)	-	5000	<100	<100	nc	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Thallium (ug/L)	-	-	<100	<100	nc	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Uranium (ug/L)	-	10000	<100	<100	nc	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Vanadium (ug/L)	-	-	<100	<100	nc	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Zinc (ug/L)	-	50000	15600	11000	17%	11100	22400	17400	18700	14800	14400	12400	16100	11600	14800
Zirconium (ug/L)	-	-	<100	<100	nc	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100

Table 2: Storage Cell #1 Soil Analytical Results

Location ID:		Storage Cell #1													
Stockpile Volume:		1187 m³													
Sample ID:		SP-C1-11													
Date Sampled:		23/03/2015													
BCHWR LQS ^{3,7}															
Parameter	BCCSR RL ^{3,4}	BCCSR CL ^{3,5}	SP-C1-1	SP-C1-900	RPD (%)	SP-C1-2	SP-C1-3	SP-C1-4	SP-C1-5	SP-C1-6	SP-C1-7	SP-C1-8	SP-C1-9	SP-C1-10	SP-C1-11
Total Metals															
Aluminum	-	-	8460	8990	3%	8660	8760	9220	9140	885	9830	9800	10600	9820	9900
Antimony	-	-	41.8	32.3	13%	27.1	43.3	38.8	34.7	30.2	32.8	23.2	29.3	32.9	28.5
Arsenic	50 ⁶	100 ⁶	203	172	8%	156	227	212	200	183	184	141	175	198	163
Barium	1000 ⁸	1500 ⁸	165	147	6%	140	150	148	150	151	153	152	153	162	147
Beryllium	-	-	0.7	0.053	86%	0.067	0.059	0.07	0.059	0.05	0.052	0.051	0.059	0.068	0.056
Boron	-	-	<1	<1	nc	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cadmium	70 ⁸	100 ⁹	46.4	37.5	11%	33.8	54.5	47.5	47.8	44	49.2	35.4	42.9	48.1	40.5
Calcium	-	-	4790	4880	1%	4490	5190	5810	5470	6090	5760	4920	5900	5590	5400
Chromium	100 ⁹	300 ⁹	32.1	31.4	1%	26.5	63.1	32.1	32.9	29.3	32.1	29	35.4	32.4	28.9
Cobalt	-	-	7.9	8.5	4%	7.6	8.3	8.2	7.6	8.2	8.4	8.3	8.8	8.6	9
Copper	150 ⁸	250 ⁸	19200	18800	2%	16700	24900	19200	24900	19700	25600	16700	18500	20000	17500
Iron	-	-	72600	64800	6%	58200	78400	74100	85500	75100	86400	69900	73300	76200	69900
Lead	400 ⁹	700 ⁹	7530	5200	10%	5620	7650	7190	7890	7600	8430	6920	6940	7550	6530
Magnesium	-	-	3910	4250	4%	3920	4020	4250	3780	4200	4110	4470	4680	4250	4310
Manganese	-	-	223	230	2%	214	243	234	223	220	225	248	233	230	240
Mercury	15 ⁸	40 ⁹	5.36	4.27	11%	3.98	5.83	5.16	4.17	4.46	5.2	3.66	4.74	5.23	4.43
Molybdenum	-	-	255	234	4%	196	302	271	268	235	261	199	246	264	214
Nickel	-	-	35	37	3%	35	36	36	41	34	31	29	36	31	28
Phosphorus	-	-	470	470	0%	465	464	456	416	442	483	468	492	510	460
Potassium	-	-	1540	1380	5%	1330	1460	1480	1380	1430	1650	1340	1370	1520	1260
Selenium	-	-	21.2	18.5	7%	16.4	21.9	20.6	18.2	16.4	18.9	13.9	16.2	18.3	15.5
Silicon	-	-	917	935	1%	841	907	1010	1850	1990	2370	2530	2480	2180	2200
Silver	-	-	2.74	2.59	3%	2.61	2.48	2.48	2.34	2.3	2.28	2.31	2.34	2.47	2.35
Sodium	-	-	454	445	1%	438	458	494	571	567	587	549	659	560	569
Strontium	-	-	31.6	29.6	3%	31.1	31.3	35.6	35.4	36	37.1	34.9	39.9	35.9	34.5
Tin	-	-	16	15	3%	14	16	14	14	14	14	12	12	14	19
Titanium	-	-	732	707	2%	665	754	726	724	772	821	735	790	822	781
Vanadium	-	-	50	46	4%	42	53	52	47	44	50	44	50	52	47
Zinc	450 ⁸	600 ⁸	7350	5650	13%	6240	8420	7400	>20000	7940	9050	6040	7130	8220	6300
Total Inorganics	-	-	23800	21200	6%	18200	27500	25200	25000	22700	25700	19100	22200	24900	20900
Sulfur	-	-													

Table 2: Storage Cell #1 Soil Analytical Results

Location ID:		Storage Cell #1											
Stockpile Volume:		1187 m ³											
Sample ID:		SP-C1-12	SP-C1-13	SP-C1-14	SP-C1-15	SP-C1-16	SP-C1-17	SP-C1-18	SP-C1-19	SP-C1-20	SP-C1-1000	RPD (%)	
Date Sampled:		23/03/2015	23/03/2015	23/03/2015	23/03/2015	23/03/2015	23/03/2015	23/03/2015	24/03/2015	24/03/2015	24/03/2015		
Parameter	BCCSR RL ^{3,4}	BCCSR CL ^{3,5}	BCHWR LOS ^{8,7}	10500	9640	9980	9230	9240	9910	10500	12700	9820	9310
Total Metals	-	-	-	167	146	169	189	163	166	184	152	209	191
Aluminum	-	-	-	156	148	169	156	141	170	158	160	158	166
Antimony	-	-	-	0.057	0.058	0.053	0.062	0.057	0.056	0.067	0.073	0.06	0.069
Arsenic	50 ⁸	100 ⁸	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Barium	1000 ⁸	1500 ⁸	-	43.6	34.4	42.5	55.7	46.6	59.6	43.9	60	33.3	66.2
Beryllium	-	-	-	5980	4970	5930	5750	5290	5600	6500	7220	5820	5310
Boron	-	-	-	33.5	26.3	28.7	34.1	33.8	35.9	29.5	33.4	34.9	32.2
Cadmium	70 ⁸	100 ⁸	-	8.6	7.8	7.9	8.8	7.7	9.2	8.2	10	11.4	9.4
Calcium	-	-	-	19700	15400	19200	23300	15600	19400	18300	17300	28000	19900
Chromium	100 ⁹	300 ⁹	-	73500	72200	68400	74800	68000	71900	72800	57600	75500	67600
Cobalt	-	-	-	6950	6540	6950	8120	7100	7380	7080	6540	8370	7490
Copper	150 ⁸	250 ⁸	-	4470	4230	4180	3920	4020	4370	4500	4130	4050	3870
Iron	-	-	-	242	218	223	216	234	235	241	212	225	224
Lead	400 ⁹	700 ⁹	-	479	3.9	4.62	5.19	4.45	5.28	4.77	4.08	6.47	5.43
Magnesium	-	-	-	235	198	235	260	233	252	267	177	251	222
Manganese	15 ⁸	40 ⁸	-	39	28	29	35	28	33	33	46	56	31
Mercury	-	-	-	464	450	509	508	507	475	519	464	497	437
Molybdenum	-	-	-	1500	1350	1560	1480	1340	1490	1440	1400	1460	1320
Nickel	-	-	-	16	14.4	16.2	17.8	15.9	16.3	17.8	11.5	16.7	14.8
Phosphorus	-	-	-	2380	2510	2190	2430	2310	2220	2290	2530	2330	2230
Potassium	-	-	-	232	2.41	2.42	2.53	2.57	2.31	2.34	2.56	2.25	2.4
Selenium	-	-	-	609	605	638	534	568	559	673	713	546	522
Silicon	-	-	-	37.5	34.6	40.7	35.8	35.1	35.2	39.1	48.6	37.9	34.7
Silver	-	-	-	13	12	14	15	13	15	12	13	16	16
Sodium	-	-	-	800	749	772	769	672	801	747	683	761	694
Strontium	-	-	-	51	43	47	50	45	50	53	43	51	49
Tin	-	-	-	7260	6370	7030	9440	7670	9900	7340	10400	14700	10700
Titanium	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	450 ⁸	600 ⁸	-	-	-	-	-	-	-	-	-	-	-
Total Inorganics	-	-	-	22400	17900	22500	26000	22500	25400	22900	20900	31400	25700
Sulfur	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD (%)	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 2: Storage Cell #1 Soil Analytical Results - Notes

- (1) All values are reported as µg/g unless otherwise noted
- (2) - = No standard or not analyzed
- (3) BCCSR = BC Environmental Management Act, Contaminated Sites Regulation, B.C. Reg. 375/96 - includes amendments up to B.C. Reg. 4/2014, January 31, 2014
- (4) BCCSR RL = Schedules 4 (Generic) and/or 5 (Matrix), Column IV Residential, and/or Schedule 10, Column III, Agricultural, Urban Park, Residential Soil Standard
- (5) BCCSR CL = Schedules 4 (Generic) and/or 5 (Matrix), Column V Commercial, and/or Schedule 10, Column IV, Commercial, Industrial Soil Standard
- (6) BCHWR = BC Environmental Management Act, Hazardous Waste Regulation, B.C. Reg. 63/88 includes amendments up to B.C. Reg. 63/2009, April 1, 2009
- (7) BCHWR LQS = Schedule 4, Table 1, Leachate Quality Standards
- (8) Schedule 5, Environmental Protection, Toxicity to soil invertebrates and plants
- (9) Schedule 5, Human Health Protection, Intake of contaminated soil

Table 3: Storage Cell #2 Soil Analytical Results

Location ID:				Cell #2 Stockpile															
Stockpile Volume:				4338 m³															
Parameter	Sample ID:		Date Sampled:	SP-C2-11															
	BCCSR RL ^{3,4}	BCCSR CL		11/03/2015															
				SP-C2-1	SP-C2-2	SP-C2-3	SP-C2-4	SP-C2-5	SP-C2-6	SP-C2-7	SP-C2-100	RPD (%)	SP-C2-8	SP-C2-200	RPD (%)	SP-C2-9	SP-C2-10	SP-C2-11	
Field Tests				6.95	6.89	6.87	6.85	7.05	6.95	7.12	7.07	0%	7.23	7.17	0%	7.31	7.31	7.3	
Total Metals																			
	-	-	-	14800	14100	14300	13400	12800	14100	12200	13900	7%	11800	13200	6%	12000	12700	11700	
	-	-	-	0.61	0.75	0.96	0.76	1.19	0.73	4.48	1.16	59%	2.19	0.76	48%	0.78	1.13	2.06	
	50 ⁸	-	-	8.2	8.9	6.8	10	17.3	8.5	12	10.5	7%	11.6	9.7	9%	8.8	11.1	47.1	
	1000 ⁸	-	-	35.3	39.9	35.8	39.1	35.4	40.5	36.1	37.3	2%	33.2	47.5	16%	34.8	37.6	37	
	-	-	-	0.098	0.09	0.084	0.099	0.082	0.097	0.104	0.09	0.09	7%	0.094	0.085	5%	0.075	0.086	0.087
	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	nc	<1	<1	nc	<1	<1	<1	
	70 ⁸	100 ⁸	-	5.5	8.7	5.2	5.6	7.1	10.3	9.7	9.4	2%	14.8	11.2	14%	7.5	9	9.5	
	-	-	-	8130	8130	8280	7420	10400	8090	8080	8080	8380	2%	9730	9970	1%	8510	9520	8840
	100 ⁹	300 ⁹	-	14.3	14.3	14.2	13.3	12.1	14.4	12.2	13.8	6%	11.4	12.7	5%	10.9	13.7	12	
	-	-	-	14	12.9	19.1	13.6	12.4	18.1	14.6	17.9	10%	12.5	12.6	0%	11.4	15.3	11.3	
	150 ⁸	250 ⁸	-	19300	19800	18000	19700	22500	19600	18100	19000	2%	16500	18700	25%	16700	18800	22300	
	-	-	-	192	215	207	205	205	189	311	266	8%	244	211	7%	237	308	284	
	400 ⁹	700 ⁹	-	5290	5000	4850	4680	4540	5040	4440	4680	3%	4350	4890	6%	4470	4630	4230	
	-	-	-	269	279	278	261	267	296	261	296	6%	263	287	4%	252	263	246	
15 ⁹	40 ⁹	-	0.081	0.149	0.09	0.313	0.12	0.086	0.135	0.132	0.132	1%	0.119	0.116	1%	0.094	0.12	0.158	
Total Inorganics																			
	-	-	-	9.1	12	9.3	12	21	11	13	12	4%	13	15	7%	10	13	42	
	-	-	-	119	86	213	123	73	122	138	166	9%	81	72	6%	97	144	82	
	-	-	-	531	592	467	508	510	533	478	469	1%	477	472	1%	450	518	496	
	-	-	-	1250	1350	1300	1240	1310	1450	1200	1280	3%	1150	1380	9%	1180	1260	1200	
	-	-	-	0.8	0.9	0.6	1.2	2.8	0.8	1.1	0.9	10%	0.9	0.9	0%	0.8	1	2.3	
	-	-	-	512	609	672	567	498	589	639	614	2%	557	545	1%	471	601	577	
	-	-	-	1.52	1.93	1.49	1.93	3.6	1.84	3.44	2.76	11%	2.07	2.41	8%	1.93	2.75	3.73	
	-	-	-	580	561	534	536	573	592	538	605	6%	564	675	9%	609	527	527	
	-	-	-	48	47.3	41.6	40.8	63.9	44.9	47.5	47.7	0%	49.5	58.3	8%	48.4	52.9	51.1	
	-	-	-	10	11	12	12	11	10	12	12	0%	12	11	4%	10	11	11	
	-	-	-	727	782	858	766	724	788	674	772	7%	622	807	13%	623	684	635	
	-	-	-	49	51	50	48	48	52	47	53	6%	41	48	8%	41	49	43	
	450 ⁸	600 ⁸	-	850	1020	828	938	1120	1050	1000	1090	6%	2450	1730	17%	1400	1580	1420	
	Total Inorganics																		
Sulfur	-	-	1680	2490	2110	2650	6940	2570	2800	2800	2560	4%	2740	2310	9%	1870	2810	3780	

Table 3: Storage Cell #2 Soil Analytical Results

Cell #2 Stockpile																					
4338 m³																					
Stockpile Volume:																					
Sample ID:																					
Date Sampled:																					
Parameter	BCHWR RL ^{3,4}	ECOSUR ^{5,6}	SP-C2-12 16/03/2015	SP-C2-13 17/03/2015	SP-C2-14 17/03/2015	SP-C2-16 20/03/2015	SP-C2-23 17/03/2015	SP-C2-300 17/03/2015	RPD (%)	SP-C2-24 17/03/2015	SP-C2-25 17/03/2015	SP-C2-400 17/03/2015	RPD (%)	SP-C2-26 17/03/2015	SP-C2-27 16/03/2015	SP-C2-28 16/03/2015	SP-C2-29 18/03/2015	SP-C2-30 18/03/2015	SP-C2-31 18/03/2015	SP-C2-32 18/03/2015	
Physical Tests	-	-	15.2	16.6	14.9	18	14.2	13.4	3%	14.4	14.8	15.8	3%	16	15.3	14.4	14.6	15.5	17	15.2	
			Moisture (% ww)																		
			pH after HCl	1.21	1.44	1.41	1.49	1.44	-	-	nc	1.38	1.33	-	nc	1.41	1.35	1.28	1.44	1.41	1.48
			pH, final	5.21	5.4	5.75	5.2	5.25	-	-	nc	5.37	5.26	-	nc	5.2	5.21	5.24	5.6	5.24	5.34
			pH, initial	7.94	8.19	7.79	8.45	8.16	-	-	nc	8.35	8.17	-	nc	8.21	8.05	8.05	8.37	8.31	8.36
pH, leaching fluid	-	4.97	4.93	4.93	4.96	4.96	-	-	nc	4.97	4.97	-	nc	4.96	4.96	4.97	4.96	4.96	4.96		
Leachate Metals	-	-	<100	<100	<100	<100	<100	-	nc	<100	<100	-	nc	<100	<100	<100	<100	<100	<100	<100	
			Antimony (ug/L)																		
			Arsenic (ug/L)	<100	<100	<100	<100	<100	-	-	nc	<100	<100	-	nc	<100	<100	<100	<100	<100	<100
			Barium (ug/L)	230	280	260	360	320	-	-	nc	370	290	-	nc	320	250	230	280	340	330
			Beryllium (ug/L)	<100	<100	<100	<100	<100	-	-	nc	<100	<100	-	nc	<100	<100	<100	<100	<100	<100
			Boron (ug/L)	<100	<100	<100	<100	<100	-	-	nc	<100	<100	-	nc	<100	<100	<100	<100	<100	<100
			Cadmium (ug/L)	280	330	220	220	410	-	-	nc	440	540	-	nc	300	170	260	380	410	150
			Chromium (ug/L)	<100	<100	<100	<100	<100	-	-	nc	<100	<100	-	nc	<100	<100	<100	<100	<100	<100
			Cobalt (ug/L)	<100	<100	<100	<100	<100	-	-	nc	<100	<100	-	nc	<100	<100	<100	<100	<100	<100
			Copper (ug/L)	140000	87800	83200	54000	85000	-	-	nc	100000	93700	-	nc	109000	75600	167000	85900	122000	27700
			Iron (ug/L)	590	660	1070	<500	510	-	-	nc	860	670	-	nc	<500	<500	640	830	<500	540
			Lead (ug/L)	5000	620	<100	690	3100	-	-	nc	6330	1520	-	nc	630	110	140	190	230	640
			Mercury (ug/L)	100	<2.0	<2.0	<2.0	<2.0	-	-	nc	<2.0	<2.0	-	nc	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
			Molybdenum (ug/L)	-	<100	<100	<100	<100	-	-	nc	<100	<100	-	nc	<100	<100	<100	<100	<100	<100
			Nickel (ug/L)	-	1110	320	190	430	-	-	nc	<100	400	-	nc	420	210	430	170	250	110
			Selenium (ug/L)	1000	<100	<100	<100	<100	-	-	nc	<100	<100	-	nc	<100	<100	<100	<100	<100	<100
			Silver (ug/L)	5000	<100	<100	<100	<100	-	-	nc	<100	<100	-	nc	<100	<100	<100	<100	<100	<100
Thallium (ug/L)	-	<100	<100	<100	<100	-	-	nc	<100	<100	-	nc	<100	<100	<100	<100	<100	<100			
Uranium (ug/L)	10000	<100	<100	<100	<100	-	-	nc	<100	<100	-	nc	<100	<100	<100	<100	<100	<100			
Vanadium (ug/L)	-	<100	<100	<100	<100	-	-	nc	<100	<100	-	nc	<100	<100	<100	<100	<100	<100			
Zinc (ug/L)	500000	30600	19100	23300	43400	-	-	nc	<100	48800	-	nc	<100	18200	25200	35600	47500	15500	20100		
Zinc (ug/L)	-	<100	<100	<100	<100	-	-	nc	<100	<100	-	nc	<100	<100	<100	<100	<100	<100	<100		

Table 3: Storage Cell #2 Soil Analytical Results

Cell #2 Stockpile																					
Stockpile Volume: 4336 m ³																					
Parameter	Location ID:		Sample ID: SP-C2-25 SP-C2-400																		
	Date Sampled:		RPD (%)																		
	BCCSR RL ^{1,4}	BCCSR CL ^{1,4}	BCHWR LOS ^{3,7}	SP-C2-12	SP-C2-13	SP-C2-14	SP-C2-16	SP-C2-23	SP-C2-300	RPD (%)	SP-C2-24	SP-C2-25	SP-C2-400	RPD (%)	SP-C2-26	SP-C2-27	SP-C2-28	SP-C2-29	SP-C2-30	SP-C2-31	SP-C2-32
Field Tests																					
pH				7.24	7.26	7.27	7.67	7.41	7.42	0%	7.35	7.42	7.4	0%	7.35	7.23	7.19	7.46	7.47	7.51	7.35
Total Metals																					
Aluminum	-	-	-	12800	15100	13800	16600	13500	13200	1%	15300	14700	13900	3%	14500	14100	12500	15100	14600	16200	15000
Antimony	-	-	-	1.02	1.01	1.29	1.39	5.08	4.01	12%	4.47	4.17	3.39	10%	2.17	1.05	0.59	1.66	1.28	0.93	1.22
Arsenic	50 ^a	100 ^a	-	51.7	18.4	22.8	17.7	23.9	25.7	4%	34	22.6	20.3	5%	19.1	22	9	15.9	10.8	9.9	20.1
Barium	1000 ^a	-	-	38	43.4	49.2	52.8	56.1	88.1	22%	51.9	55.5	46.7	9%	51.2	37.8	33.7	45.4	43.7	49.5	43.7
Beryllium	-	-	-	0.104	0.096	0.099	0.103	0.088	0.082	4%	0.092	0.103	0.086	9%	0.079	0.115	0.093	0.087	0.086	0.108	0.091
Boron	-	-	-	<1	<1	<1	<1	<1	<1	nc	<1	<1	<1	nc	<1	<1	<1	<1	<1	<1	<1
Cadmium	70 ^a	100 ^a	-	15.6	13.4	11.3	11.7	21.1	19.8	3%	20	23.1	18.5	11%	13.2	9.7	8.1	16.5	26.2	6.6	9.8
Calcium	-	-	-	12600	11100	8550	12000	9430	10000	3%	10300	14100	10700	14%	8740	9890	8340	10500	10200	12500	9750
Chromium	100 ^a	300 ^a	-	14.4	15.4	16	17.2	17.1	14.7	8%	18.3	16	13.3	9%	14.6	15.2	12.3	15	14	13.9	14.1
Cobalt	-	-	-	17.1	11.1	10.7	10.7	12.3	11	6%	12.4	11.1	12.5	6%	11.7	11.2	13.1	10	10.5	9.3	11.4
Copper	150 ^a	250 ^a	-	7700	5320	5550	5350	5000	5100	1%	7500	7010	7450	4%	5200	5320	5330	5120	5200	5210	5320
Iron	-	-	-	18400	20500	20200	21900	19700	21600	5%	21500	21000	18600	6%	18400	20700	15800	19200	17400	19000	17400
Lead	400 ^a	700 ^a	-	209	262	234	588	525	525	6%	5100	4370	4400	16%	521	234	157	373	327	285	320
Magnesium	-	-	-	4670	4700	4650	5070	4500	4040	5%	5100	4370	4400	0%	4530	4960	4380	4650	4470	5220	4500
Manganese	-	-	-	273	300	276	306	239	227	3%	263	246	255	2%	252	295	253	261	249	304	271
Mercury	15 ^a	40 ^a	-	0.09	0.125	0.102	0.246	0.548	0.47	8%	0.476	0.443	0.292	21%	0.259	0.12	0.064	0.254	0.194	0.128	0.173
Molybdenum	-	-	-	9.2	13	13	15	19	22	7%	24	18	15	9%	17	13	7.7	12	11	7.1	8.9
Nickel	-	-	-	176	45	50	54	79	72	5%	88	75	79	3%	77	56	103	34	47	31	67
Phosphorus	-	-	-	527	572	541	581	479	477	0%	503	531	488	4%	473	566	497	511	517	616	543
Potassium	-	-	-	1340	1510	1620	1560	1260	1240	1%	1300	1350	1310	2%	1230	1340	1200	1360	1300	1540	1360
Selenium	-	-	-	0.9	0.9	0.7	1.2	1.7	1.8	3%	1.9	1.7	1.2	17%	1.2	1	0.6	1.1	1	0.7	0.8
Silicon	-	-	-	694	3530	3540	3620	3620	3370	4%	3850	3570	3370	3%	3560	608	584	3820	3450	3810	3400
Silver	-	-	-	2.43	2.46	2.63	3.18	5.84	7.07	10%	6.16	6.81	5.34	12%	4.31	2.53	1.73	3.07	2.72	1.79	2.11
Sodium	-	-	-	582	912	820	919	867	869	0%	954	998	853	8%	923	633	596	991	960	946	882
Strontium	-	-	-	65.2	69.3	55.1	74.5	60.3	58.9	1%	59.7	91.3	62.8	16%	60.1	55.7	47.2	65.3	66.7	83	59.4
Tin	-	-	-	11	9.1	10	8.8	9.9	11	5%	9.1	9.3	9.3	0%	11	11	12	10	10	9.1	11
Titanium	-	-	-	677	786	770	848	690	687	0%	794	756	731	2%	742	731	650	779	748	871	718
Vanadium	-	-	-	49	44	39	46	39	38	1%	44	46	39	8%	40	52	45	45	43	46	41
Zinc	450 ^a	600 ^a	-	2180	1550	1220	1650	1650	1830	5%	3520	313	2770	80%	2000	1100	1310	2655	3230	1070	1510
Total Inorganics																					
Sulfur	-	-	-	3550	2420	2220	2510	4820	4860	0%	4850	4880	3890	11%	2850	2100	2160	2840	2560	1750	2110

Table 3: Storage Cell #2 Soil Analytical Results - Notes

- (1) All values are reported as µg/g unless otherwise noted
- (2) - = No standard or not analyzed
- (3) BCCSR = BC Environmental Management Act, Contaminated Sites Regulation, B.C. Reg. 375/96 - includes amendments up to B.C. Reg. 4/2014, January 31, 2014
- (4) BCCSR RL = Schedules 4 (Generic) and/or 5 (Matrix), Column IV Residential, and/or Schedule 10, Column III, Agricultural, Urban Park, Residential Soil Standard
- (5) BCCSR CL = Schedules 4 (Generic) and/or 5 (Matrix), Column V Commercial, and/or Schedule 10, Column IV, Commercial, Industrial Soil Standard
- (6) BCHWR = BC Environmental Management Act, Hazardous Waste Regulation, B.C. Reg. 63/88 includes amendments up to B.C. Reg. 63/2009, April 1, 2009
- (7) BCHWR LQS = Schedule 4, Table 1, Leachate Quality Standards
- (8) Schedule 5, Environmental Protection, Toxicity to soil invertebrates and plants
- (9) Schedule 5, Human Health Protection, Intake of contaminated soil

Table 4: Transfer Facility Soil Analytical Results

[illegible]

Table 4: Transfer Facility Soil Analytical Results

Parameter	Location ID:		Transfer Facility													
	Stockpile Volume:		3382 m ³													
	Sample ID:															
	Date Sampled:		03/03/2015													
	BCCSR RL ^{3,4}	BCCSR CL ^{3,5}	BCHWR LQS ^{6,7}	SP-TF-150303-1	SP-TF-150303-2	SP-TF-150303-3	SP-TF-150303-4	SP-TF-150303-5	SP-TF-150303-6	SP-TF-150303-7	SP-TF-150306-8	SP-TF-150306-9	SP-TF-150306-10	SP-TF-150306-11		
Field Tests																
pH	-	-	-	5.04	6.18	4.93	5.16	6.64	4.78	5.9	6.21	6.81	7.09	5.43		
Total Metals																
Aluminum	-	-	-	14400	12600	14100	14800	13200	14200	11800	16100	12400	13400	15000		
Antimony	-	-	-	0.57	0.4	0.73	0.55	0.46	0.99	0.35	0.21	0.33	0.6	0.35		
Arsenic	50 ⁸	100 ⁸	-	4.9	4.7	5.8	4.8	4.2	6	7.7	8.2	6	14.2	8.5		
Barium	1000 ⁸	1500 ⁸	-	33.4	32.6	40.7	40	33.5	41.3	32.6	42.3	34.3	37.3	42.3		
Beryllium	-	-	-	0.087	0.083	0.096	0.109	0.087	0.095	0.094	0.115	0.083	0.118	0.106		
Boron	-	-	-	63	62	65	70	57	72	2.9	2.3	59	6	7		
Cadmium	70 ⁸	100 ⁹	-	2.7	4.6	3.5	6.9	7	5.2	6.1	5.3	5.3	8.5	7.4		
Calcium	-	-	-	4390	6050	4300	4510	7100	3700	7130	5790	4950	7500	8340		
Chromium	100 ⁹	300 ⁹	-	13.4	12.8	13	14.1	13.6	13.3	10.7	15.3	11.7	12.6	12.8		
Cobalt	-	-	-	11.4	14.1	12.2	9.4	13.4	9.5	8.7	8.9	11	11.7	10.2		
Copper	150 ⁸	250 ⁸	-	4500	5010	3770	3950	4300	3350	4070	5010	5920	8150	6910		
Iron	-	-	-	17100	16400	17800	18600	15700	19200	15500	20800	16000	19800	20200		
Lead	400 ⁹	700 ⁹	-	61	84	59	87	90	195	132	170	73	236	154		
Magnesium	-	-	-	4930	4120	4750	5130	4400	4960	4070	5090	4260	4760	5410		
Manganese	-	-	-	233	195	217	233	233	232	212	238	223	248	275		
Mercury	15 ⁹	40 ⁹	-	0.065	0.073	0.119	0.105	0.075	0.194	0.115	0.114	0.074	0.215	0.119		
Molybdenum	-	-	-	4.9	5.9	5.6	5.5	5.6	8.9	8.2	12	6.7	15	9.8		
Nickel	-	-	-	120	182	141	52	130	54	26	32	81	75	37		
Phosphorus	-	-	-	398	396	411	397	448	397	437	579	432	493	543		
Potassium	-	-	-	1020	1090	1160	1140	1130	1110	1110	1340	1150	1170	1410		
Potassium (K)	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Selenium	-	-	-	0.6	0.6	1.5	0.6	0.6	0.7	0.7	0.8	0.6	1.6	0.8		
Silicon	-	-	-	853	796	912	881	898	840	1050	1340	314	1080	1160		
Silver	-	-	-	0.53	0.76	0.93	0.88	0.95	1.48	1.05	1.16	0.74	2.2	1.23		
Sodium	-	-	-	431	520	434	513	457	443	566	522	507	614	652		
Strontium	-	-	-	26.2	36.7	27.5	29.6	36.6	25.9	46.4	37.8	33	47.7	53.4		
Tin	-	-	-	12	11	12	11	12	11	12	13	11	13	11		
Titanium	-	-	-	731	607	773	788	691	770	593	804	621	732	780		
Vanadium	-	-	-	46	43	48	51	43	49	35	50	41	43	45		
Zinc	450 ⁸	600 ⁸	-	388	710	485	924	929	755	859	739	863	1130	1300		
Total Inorganics																
Sulfur	-	-	-	1270	2760	1490	1670	2200	1710	2920	3830	1990	3360	3080		

Table 4: Transfer Facility Soil Analytical Results - Notes

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- (7) BCHWR LQS = Schedule 4, Table 1, Leachate Quality Standards
- (8) Schedule 5, Environmental Protection, Toxicity to soil invertebrates and plants
- (9) Schedule 5, Human Health Protection, Intake of contaminated soil

APPENDIX B

Soil Salt Analytical Results Table



Table 1
Soil Salt Analytical Results

Parameter	Location ID:		Transfer Facility									
	Sample ID:	SP-TF-01	SP-TF-02	SP-TF-03	SP-TF-04	SP-TF-05	SP-TF-06	SP-TF-07	SP-TF-08	SP-TF-09	SP-TF-10	
	Date Sampled:	03/11/2015	03/11/2015	03/11/2015	03/11/2015	03/11/2015	03/11/2015	03/11/2015	03/11/2015	03/11/2015	03/11/2015	
	Sample Depth (m):	-	-	-	-	-	-	-	-	-	-	
	BCCSR RL ^{3,4}	BCCSR CL ^{3,5}										
Physical Tests												
Saturation (%)	-	59.3	66.4	57.8	58.7	61.8	58.5	62.8	65.8	64.6	73.3	
Leachate Inorganics/Metals												
Chloride (mg/L)	-	79.2	63.8	75.1	59	42.2	51.5	66.2	75.5	60.1	64.3	
Sodium (ug/L)	-	74900	70000	103000	74500	57000	74700	105000	117000	97000	108000	
Total Inorganics/Metals												
Chloride	350 ⁶	47	42.4	43.4	34.6	26.1	30.2	41.5	49.7	38.8	47.1	
Sodium	200 ⁶	44.5	46.4	59.6	43.7	35.2	43.7	65.6	77.3	62.6	79.4	

Table 1
Soil Salt Analytical Results

Parameter	Location ID:		Excavation Floor								Excavation Wall		
	Sample ID:	SP-TF-11	SP-TF-121	TOE-01	TOE-02	TOE-03	TOE-04	TOE-041	SE-WALL-1	SE-WALL-2	SE-WALL-3		
	Date Sampled:	03/11/2015	03/11/2015	03/11/2015	03/11/2015	03/11/2015	03/11/2015	03/11/2015	03/11/2015	03/11/2015	03/11/2015		
	Sample Depth (m):	-	-	-	-	-	-	-	-	-	-		
	BCCSR RL ^{3,4}	BCCSR CL ^{3,5}											
Physical Tests													
Saturation (%)	-	69.4	66.3	81.3	66.8	62.7	57.4	59.1	52.4	46.9	65		
Leachate Inorganics/Metals													
Chloride (mg/L)	-	50.1	69.8	48.1	16.7	9.1	8.1	6.1	<5.0	<5.0	<5.0		
Sodium (ug/L)	-	94100	113000	95400	44700	20100	15000	14300	10800	6300	16400		
Total Inorganics/Metals													
Chloride	350 ⁶	34.8	46.3	39.1	11.1	5.7	4.7	3.6	<2.6	<2.3	<3.3		
Sodium	200 ⁶	65.3	74.9	77.6	29.9	12.6	8.6	8.4	5.7	2.9	10.7		

Table 1
Soil Salt Analytical Results
Notes

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- (6) Schedule 5, Environmental Protection, Toxicity to soil invertebrates and plants
- (7) Schedule 5, Human Health Protection, Intake of contaminated soil

100

100