APPENDIX B COPC SCREENING TABLES

Appendix B-1: COPC Screening of Polycyclic Aromatic Hydrocarbons in Soil, Overnurden, and Coal

BV Labs ID:	BC CSR Numerical Soil Standards [1] Agricultural Intake of Contaminated Soil	CCME Soil Quality Guideline [3] Agricultural	Units	RDL	YI3349	YI3350	YI3351	YI3352	YI3353	B[a]P PEF [2]	Calculated B[a]P Total Potency Equivalents (TPE) [4]				
Sampling Date:					2019-03-01	2019-03-01	2019-03-01	2020-08-17	2020-08-17		2019-03-01	2019-03-01	2019-03-01	2020-08-17	2020-08-17
COC Number:					08485528	08485528	08485528	08485528	08485528		08485528	08485528	08485528	08485528	08485528
					Overburden	Overburden	Overburden	Coal	Soil		Overburden	Overburden	Overburden	Coal	Soil
					1146052A	1146054A	1146059A	COAL SAMPLE 1	PIT SAMPLE 1		1146052A	1146054A	1146059A	COAL SAMPLE 1	PIT SAMPLE 1
Calculated Parameters															
Low Molecular Weight PAH`s			mg/kg	0.050	3.8	4.1	2.8	8.6	0.062						
High Molecular Weight PAH`s			mg/kg	0.050	0.095	<0.050	0.075	0.33	0.44						
Total PAH			mg/kg	0.050	3.9	4.1	2.9	9.0	0.50						
Polycyclic Aromatics															
Quinoline	-	0.1	mg/kg	0.050	**0.025**	**0.025**	**0.025**	**0.025**	**0.025**						
Naphthalene	850	-	mg/kg	0.010	1.0	1.2	0.65	1.9	<0.010						
1-Methylnaphthalene	-	-	mg/kg	0.050	0.89	0.91	0.66	1.8	<0.050						
2-Methylnaphthalene	-	-	mg/kg	0.020	1.6	1.7	1.1	2.6	<0.020						
Acenaphthylene	-	-	mg/kg	0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050						
Acenaphthene	*950*	-	mg/kg	0.0050	<0.0050	<0.0050	<0.0050	0.0098	0.0052						
Fluorene	*600*	-	mg/kg	0.020	0.055	0.053	0.079	0.033	<0.020						
Phenanthrene	*1,500*	-	mg/kg	0.010	0.29	0.27	0.27	2.2	0.046						
Anthracene	10,000	-	mg/kg	0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.010						
Fluoranthene	1,500	-	mg/kg	0.020	<0.020	<0.020	<0.020	0.11	0.079						
Pyrene	*1,000*	-	mg/kg	0.020	0.021	<0.020	<0.020	0.076	0.068						
Benzo(a)anthracene	*50*	-	mg/kg	0.020	**0.01**	**0.01**	**0.01**	0.038	0.044	0.1	0.001	0.001	0.001	0.0038	0.0044
Chrysene	*200*	-	mg/kg	0.020	0.051	0.041	0.052	0.086	0.052	0.01	0.00051	0.00041	0.00052	0.00086	0.00052
Benzo(b&j)fluoranthene	*50*	-	mg/kg	0.020	0.023	**0.01**	0.023	0.022	0.076	0.1	0.0023	0.001	0.0023	0.0022	0.0076
Benzo(b)fluoranthene	-	-	mg/kg	0.020	0.023	<0.020	0.023	0.022	0.052						
Benzo(k)fluoranthene	*50*	-	mg/kg	0.020	**0.01**	**0.01**	**0.01**	**0.01**	0.024	0.1	0.001	0.001	0.001	0.001	0.0024
Benzo(a)pyrene	5	-	mg/kg	0.020	**0.01**	**0.01**	**0.01**	**0.01**	0.055	1	0.01	0.01	0.01	0.01	0.055
Indeno(1,2,3-cd)pyrene	*50*	-	mg/kg	0.020	**0.01**	**0.01**	**0.01**	**0.01**	0.037	0.1	0.001	0.001	0.001	0.001	0.0037
Dibenz(a,h)anthracene	*5*	-	mg/kg	0.020	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	1	0.01	0.01	0.01	0.01	0.01
Benzo(g,h,i)perylene	-	-	mg/kg	0.050	**0.025**	**0.025**	**0.025**	**0.025**	**0.025**	0.01	0.00025	0.00025	0.00025	0.00025	0.00025
Surrogate Recovery (%)															
D10-ANTHRACENE (sur.)			%		85	84	81	74	84						
D8-ACENAPHTHYLENE (sur.)			%		87	85	83	82	83						
D8-NAPHTHALENE (sur.)			%		83	83	79	80	81						
TERPHENYL-D14 (sur.)			%		85	85	83	81	84						
TOTAL B[a]P TPE											0.02606	0.02466	0.02607	0.02911	0.08387
CCME Soil Quality Guideline based on an incremental lifetime cancer risk (ILCR) of 1 in 100,000 (10^{-5}) [2]											5.3 B[a]P TPE				

Notes:

B[a]P TPE = Benzo[a]pyrene Total Potency Equivalents

PEF = Potency Equivalence Factors

Bold indicates concentrations at half the RDL

RDL = Reporting detection limit

[1] *BC MOE. 2019. Contaminated Sites Regulation. Schedule 3.1. https://www.bclaws.ca/civix/document/id/complete/statreg/375_96_07.*
Italics indicate Generic Numerical Soil Standard.

[2] *Canadian Council of Ministers of the Environment. 2008, revised 2010. Canadian soil quality guidelines for the protection of environmental and human health: Polycyclic Aromatic Hydrocarbons. In: Canadian environmental quality guidelines, 1999, Canadian Council of Ministers of the Environment, Winnipeg.*

[3] *Canadian Council of Ministers of the Environment. 1991. Canadian soil quality guidelines for the protection of environmental and human health, Agricultural.*

[4] *Calculation for direct contact screen as per CCME 2008 by multiplying the concentration of each PAH in the sample by its B[a]P PEF and summing the products.*

Potential threats to potable groundwater water quality from leaching of carcinogenic PAH mixtures from soil were not calculated as these surface samples are not in contact with groundwater.

Appendix B-2: Screening for Contaminants of Potential Concern Bound to PM_{10} in Air

Metals	Screening Benchmarks			95% UCLM Baseline Metal Concentration in Dustfall [d] (mg/dm²-day)	Baseline Ratio of Metal Concentration in Dustfall [e]	Baseline Metal Concentration Bound to PM_{10} [f] (µg/m³)	Maximum Predicted Metal Concentration Bound to PM_{10} in Operations (µg/m³)	Baseline plus Predicted Metal Concentration Bound to PM_{10} in Operations (µg/m³)	COPC (Yes/No)
	Ontario Ambient Air Quality Criteria [b] (µg/m³, Annual)	Texas Long-Term ESLs [a] (µg/m³)	Washington State ASIL [c] (mg/m³; Annual)						
Aluminum	-	5	-	0.00352	0.00488	0.0266	1.2765	1.3031	No
Antimony	-	0.5	-	0.000017	0.0000235	0.000128	0.000201	0.000329	No
Arsenic	-	0.067	-	0.000029	0.0000402	0.0002189	0.0008070	0.001026	No
Barium	-	0.5	-	0.000102	0.0001413	0.000770	0.011962	0.01273	No
Beryllium	-	0.002	-	0.00004	0.0000554	0.000302	-	0.000302	No
Bismuth	-	5	-	0.00004	0.0000554	0.000302	0.000006	0.000308	No
Boron	-	5	-	0.0008	0.0011081	0.00604	0.00105	0.00709	No
Cadmium	0.005	0.0033	0.00024	0.000004	0.0000055	0.0000302	0.0000735	0.0001037	No
Calcium	-	-	-	0.0174	0.0241002	0.1313	7.8176	7.949	No
Chromium	0.00007 (hexavalent)	0.0043 Long-term AMCV)	0.000004	0.00004	0.0000554	0.000302	0.001724	0.002026	Yes*
Cobalt	-	0.0017	-	0.000008	0.0000111	0.0000604	0.0007556	0.0008160	No
Copper	-	1	-	0.007	0.0096955	0.0528	0.0018	0.0546	No
Iron	-	-	-	0.00388	0.0053741	0.0293	1.5890	1.618	No
Lead	0.2 (30 day)	-	0.083	0.0000107	0.0000148	0.0000808	0.0006642	0.000745	No
Lithium	-	0.2	-	0.0004	0.0005540	0.00302	-	0.00302	No
Magnesium	-	4	-	0.0059	0.0081719	0.0445	0.2898	0.3343	No
Manganese	-	0.25	-	0.00041	0.0005679	0.00309	0.03425	0.03734	No
Mercury	-	0.025	-	0.000004	0.0000055	0.0000302	0.0014736	0.0015038	No
Molybdenum	-	3	-	0.000004	0.0000055	0.0000302	0.0002103	0.0002405	No
Nickel	0.02	0.059	0.0038	0.00004	0.0000554	0.000302	0.001647	0.001949	No
Phosphorus	-	0.1	20	0.00589165	0.0081603	0.0445	0.0553	0.0997	No
Potassium	-	2	-	0.00891997	0.0123548	0.0673	0.0623	0.1296	No
Selenium	-	0.2	-	0.00008	0.0001108	0.000604	0.000047	0.000651	No
Silicon	-	-	-	0.0082	0.0113576	0.0619	-	0.0619	No
Silver	-	0.01	-	0.0000008	0.0000011	0.00000604	-	0.00000604	No
Sodium	-	-	-	0.0157	0.0217456	0.119	0.0635	0.182	No
Strontium	-	2	-	0.00023	0.0003186	0.00174	0.003263	0.004999	No
Thallium	-	0.1	-	0.000008	0.0000111	0.0000604	0.0025320	0.002592	No
Tin	-	2	-	0.000008	0.0000111	0.0000604	-	0.0000604	No
Titanium	-	5	-	0.0008	0.0011081	0.00604	0.02153	0.02757	No
Uranium	0.03	0.2	-	0.00000313	0.0000043	0.00002363	0.00003348	0.0000571	No
Vanadium	-	2	-	0.00008	0.0001108	0.000604	0.003175	0.003779	No
Zinc	-	2	-	0.00059	0.0008172	0.00445	0.00728	0.01173	No

Notes:

(-) = guideline or predicted data not available

[a] *TCEQ (2020) = Texas Commision on Enviornmental Quality. 2020. Toxicity Factor Database. https://www.tceq.texas.gov/toxicology/database/tox (accessed September 2020).*

[b] *OMECP (2012) = Ontario MOE. 2012. Ontario's Ambient Air Quality Criteria. Standards Development Branch, Ontario Ministry of Environment. http://www.airqualityontario.com/downloads/AmbientAirQualityCriteria.pdf (accessed July 2020).*

[c] *Washington State (2019) = Washington State. 2019. Acceptable source impact level. https://apps.leg.wa.gov/WAC/default.aspx?cite=173-460-150&pdf=true. (accessed July 2020)*

[d] *95% UCLM baseline metal concentration in dustfall was obtained from four dustfall monitoring stations at the Project site from September 2017 to November 2018 (n=20). Results less than the method detection limit were adjusted to 1/2 of the detection limit and further adjusted to account for snowfall periods (see Air Quality Baseline Report for methodology).*

[f] *The 95th upper confidence level of the mean baseline 24-hour PM_{10} concentration at PM-Kerr (5.45 µg/m³) was multiplied with the ratio of each metal in dust to determine the concentration of metals on PM_{10}.*

** Although the calculated maximum total chromium concentration in PM_{10} is higher than the guideline for hexavalent chromium, the parameter was not detectable in dust and the Base Case exceedance is an artifact of the calculation.*

OMECP = Ontario Ministry of the Environment, Conservation and Parks

ESL = effects screening levels

AMCV = Air Monitoring Comparison Value

ASIL = acceptable source impact level

PM_{10} = particulate matter up to and including 10 µm in diameter

Appendix B-3: Screening Results for Selection of Metal Contaminants of Potential Concern in Surface Water and Residential Groundwater Wells within the LSA

Parameters	COPC Screening Criteria			Maximum Surface Water Concentrations			Maximum Baseline Groundwater Concentration in Residential Wells (n=8)[c]	Baseline Overburden P95 Groundwater Concentration [d]	High Case Post-Closure Groundwater Concentrations [e]	COPC based on Comparison to Screening Criteria? (Yes/No)
	BC Source DWQG	Health Canada DWQG	BC CSR	Measured Baseline Surface Water Concentration (n = 454-502)[a]	Predicted Surface Water Concentration in Operations [b]	Predicted Surface Water Concentration in Closure and Post-Closure [b]				
Aluminum	9.5	AO	9.5	2.64	0.268	0.261	0.0160	0.0339	0.01698	No
Antimony	0.006	0.006	0.006	0.000500	0.001695	0.004825	0.00025	0.00053	0.000586	No
Arsenic	0.01	0.01	0.01	0.00140	0.00183	0.00469	0.0199	0.0110	0.001129	**Yes**
Barium	NG	2	1	0.142	0.079	0.088	0.0160	0.2480	0.3159	No
Beryllium	NG	NG	0.008	0.000100	0.0000810	0.0000788	0.00005	0.00020	0.0000962	No
Bismuth	NG	NG	NG	0.000079	0.0000250	0.0000250	no data	no data	no data	No
Boron	5	5	5	0.0500	0.0705	0.2001	0.05	0.10	0.173	No
Cadmium	0.005	0.007	0.005	0.000140	0.0001937	0.0004528	0.0000251	0.0002690	0.0000899	No
Chromium	0.05	0.05	0.05	0.00390	0.000711	0.001224	0.0005	0.0010	0.001134	No
Cobalt	0.001	NG	0.001	0.00133	0.00289	0.00816	0.00293	0.00410	0.001222	**Yes**
Copper	2	AO	1.5	0.00641	0.00216	0.00245	0.0648	0.0050	0.00107	No
Iron	AO	AO	6.5	2.52	0.483	0.470	9.73	0.10	0.0654	**Yes**
Lead	0.005	0.01	0.01	0.00297	0.000298	0.000524	0.00104	0.00090	0.000528	No
Lithium	NG	NG	0.008	0.00210	0.0343	0.1021	0.00350	0.00670	0.05787	**Yes**
Magnesium	NG	NG	NG	19.4			15.9	no data	6.77	No
Manganese	0.12	AO	1.5	0.113	0.031	0.030	7.02	0.57	0.0192	**Yes**
Mercury	0.001	0.001	0.001	0.0000250	0.0000025	0.0000025	0.0000025	0.0001700	0.0001349	No
Molybdenum	0.088	NG	0.25	0.00100	0.005178	0.01427	0.00230	0.01500	0.00247	No
Nickel	0.08	NG	0.08	0.00345	0.0050	0.0133	0.00160	0.01630	0.00241	No
Selenium	0.01	0.05	0.01	0.000500	0.00367	0.01074	0.0000910	0.0009600	0.001305	**Yes**
Silver	NG	NG	0.02	0.0000655	0.00000500	0.00000500	0.00001	0.00026	0.0001473	No
Sodium [f]	NG	NG	200	19.0	7.8	18.7	14.0	111.8	302.1	No [f]
Strontium	7	7	2.5	0.258	0.728	2.010	no data	no data	no data	No
Thallium	NG	NG	NG	0.0000500	0.0009131	0.002634	0.000005	no data	no data	No
Tin	NG	NG	2.5	0.00500	0.00005	0.00005	0.00025	0.00490	0.001370	No
Tungsten	NG	NG	0.003	0.0000500		no data	no data	no data	no data	No
Uranium	0.02	0.02	0.02	0.000324	0.000360	0.002270	0.000210	0.003220	0.00057	No
Vanadium	NG	NG	0.02	0.00563	0.001301	0.002553	0.00201	0.00500	0.00085	No
Zinc	3	AO	3	0.139	0.00457	0.00794	0.110	0.012	0.00574	No

Appendix B-3: Screening Results for Selection of Metal Contaminants of Potential Concern in Surface Water and Residential Groundwater Wells within the LSA

Notes:
All concentrations are mg/L unless otherwise specified.
n = sample number
Measured concentrations that were below the method detection limit (MDL) were adjusted to 1/2 the MDL concentration.
"no data" means that the concentration was either not measured in baseline studies or was not included in predictive models, so no data are available.
COPC = contaminant of potential concern; DWQG = drinking water quality guideline; AO = aesthetic objective (not health-based);
OG = operational guideline (not health-based); NG = no guideline or standard.
BC CSR = British Columbia Contaminated Sites Regulation (B.C. Reg. 375.96).
BC source drinking water quality guidelines are from BC ENV (2020).
Health Canada drinking water quality guidelines are from Health Canada (2020).
BC CSR DW standard is the BC Contaminated Sites Regulation (B.C. Reg. 375/96) Schedule 3.2. Drinking Water Standard.

[a] *Maximum surface water concentration from stream water samples collected from within the human health local study area (LSA) from 2008 to 2019.*

[b] *Maximum concentrations at modelling nodes in the surface water quality model as inputs (Baseline source terms) or predictive results (Operations and Closure Phases) for the EA20 modelling scenario (provided by SRK 2021).*

[c] *Maximum groundwater concentration from residential wells in the human health LSA collected in 2018 and 2019 (provided by TCL 2020).*

[d] *Baseline Overburden 95th percentile groundwater concentration (provided by SRK, 2021).*

[e] *Worst-case groundwater predictions: High Case (maximum hydraulic conductivity), bedrock background groundwater quality, winter months of the 1st 25 years of Post-closure period including discharges of pulse from control pond (SRK 2021).*

[f] *The BC CSR standard for sodium is based on threshold for unacceptable taste (WHO 1993). Therefore, sodium was not selected as a COPC in water.*
World Health Organization (WHO). 1993. Guidelines for drinking-water quality, 2nd ed. Vol. 1. Recommendations. Geneva, World Health Organization. p. 55.

Grey shading with normal font means the concentration is greater than the lowest of the BC, Health Canada, or BC CSR drinking water benchmark.

Appendix B-4: COPC Screening Results for Base Case and Predicted Project Case Maximum Soil Concentrations

Parameter	Maximum Soil Concentration (mg/kg dry weight)		Soil Quality Guidelines or Standards		Contaminant of Potential Concern (COPC)
	Baseline	Construction and Operation	BC CSR	CCME SQG	
Aluminum	*43100*	*43167*	40000	NG	**YES**
Antimony	0.910	1.18	250	20	No
Arsenic	**13.6**	**14.0**	20	12	**YES**
Barium	577	579	8500	6800	No
Beryllium	1.14	1.14	85	75	No
Bismuth	0.350	1.04	NS	NG	No
Boron	**6.40**	**20.4**	8500	2	**YES**
Cadmium	**1.44**	**1.51**	20	1.4	**YES**
Calcium	31500	31799	NS	NG	No
Chromium	40.3	41.0	100	220	No
Cobalt	16.9	17.0	25	40	No
Copper	69.5	169	3500	1100	No
Iron	*45400*	*45714*	35000	NG	**YES**
Lead	11.5	11.7	120	70	No
Lithium	23.7	23.7	30	NG	No
Magnesium	9700	9801	NS	NG	No
Manganese	1960	1970	6000	NG	No
Mercury	0.237	0.307	10	6.6	No
Molybdenum	1.47	1.55	200	5	No
Nickel	32.8	33.5	450	200	No
Phosphorus	2050	2162	NS	NG	No
Potassium	2070	2245	NS	NG	No
Selenium	0.640	2.03	200	80	No
Silver	0.690	0.690	200	20	No
Sodium	477	714	1000000	NG	No
Strontium	203	206	9500	NG	No
Tellurium	0.0500	0.0503	NS	NG	No
Thallium	0.200	0.341	2	1	No
Thorium	1.25	1.25	NS	NG	No
Tin	0.620	0.620	25000	5	No
Titanium	932	946	NS	NG	No
Tungsten	0.100	0.101	15	NG	No
Uranium	1.21	1.26	100	23	No
Vanadium	84.4	85.8	200	130	No
Zinc	229	240	10000	10000	No

Notes:

mg/kg = milligram per kilogram; 95% UCLM = 95 percent upper confidence limit of the mean; NG = no guideline; NS = no standard

n = 30 sites (outside of Project footprint)

BC CSR = British Columbia Contaminated Sites Regulation (B.C. Reg. 375/96), Schedule 3.1 numerical and matrix soil standards. Standard shown is the lowest of the soil standards for human health protection for reverted wildlands (WLR) or agricultural (AL) land uses.

CCME = Canadian Council of Ministers of the Environment Soil Quality Guidelines (CCME 2020). Where available, the CCME SQG for the protection of human health was used, otherwise, the generic CCME SQG was used. The guideline shown is the lowest of the guidelines for residential/parklan (RL/PL) or agricultural (AL) land uses).

Grey shading and italic font indicates concentration exceeds BC CSR soil standard.

Grey shading and bold font indicates concentration exceds CCME SQG.

Appendix B-5: Screening for Contaminants of Concern in Subsistence Foods based on Toddler Screening Criteria.

Parameter	Risk-based Screening Benchmark Concentration for Subsistence Foods (mg/kg wet weight)		Subsistence Foods COPC?	Modelled Operations Tissue Concentration						Modelled Closure Tissue Concentration											
				American Black Bear	Blue Grouse	Snowshoe Hare	Rainbow Trout	Berries	Leaves and Stems	Moose			Mule Deer			American Black Bear	Blue Grouse	Snowshoe Hare	Rainbow Trout	Berries	Leaves and Stems
	Toddler	Adult	Yes/-							Meat	Liver	Kidney	Meat	Liver	Kidney						
Aluminum	29	63	YES	0.111	2.86	0.00820	**62.9**	3.77	14.4	0.139	0.0654	0.0593	0.138	0.0651	0.0590	0.0935	2.28	0.00667	**67.1**	0.795	10.7
Antimony	0.041	0.087	-	0.0000195	0.00000435	0.00000127	0.00446	0.00139	0.00184	0.000129	0.000171	0.000165	0.0000334	0.0000443	0.0000426	0.0000227	0.00000426	0.00000126	0.0168	0.00139	0.00184
Arsenic	0.030	0.065	-	0.000195	0.00174	0.0000111	0.0106	0.00365	0.0138	0.00937	0.0177	0.0106	0.00945	0.0179	0.0107	0.000202	0.00161	0.0000104	0.0239	0.00236	0.0123
Barium	20	43	YES	0.0202	0.0436	0.00187	2.48	2.67	**22.1**	0.193	0.185	0.356	0.0483	0.0461	0.0890	0.0201	0.0435	0.00187	2.49	2.64	**22.1**
Beryllium	0.20	0.43	-	0.0000130	0.000197	0.000000844	0.00151	0.00139	0.00149	0.0000834	0.0000834	0.0000834	0.0000219	0.0000219	0.0000219	0.0000130	0.000197	0.000000845	0.00152	0.00139	0.00149
Bismuth	-	4.347379283	-	0.000164	0.00143	0.00000983	0.00120	0.0166	0.0117	0.000956	0.00104	0.000822	0.000254	0.000277	0.000219	0.000164	0.00143	0.00000983	0.00120	0.0166	0.0117
Boron	20.3	43.5	-	0.179	8.50	0.0119	0.352	3.47	11.4	1.18	1.18	1.18	0.309	0.309	0.309	0.179	8.50	0.0119	0.535	3.46	11.4
Cadmium	0.101	0.22	YES	0.000259	0.0165	0.0000216	0.0984	0.0149	0.0863	0.00665	0.00900	0.0164	0.00669	0.00905	0.0165	0.000295	0.0165	0.0000215	**0.377**	0.0148	0.0862
Calcium	-	-	-	75.0	70.4	6.84	6048	713	8172	710	488	857	177	122	213	75.1	70.4	6.83	6315	703	8161
Chromium	0.203	0.43	YES	0.00446	0.00440	0.000383	0.168	0.0141	0.105	0.0377	0.0343	0.0264	0.00938	0.00854	0.00657	0.00435	0.00414	0.000362	**0.239**	0.00727	0.0962
Cobalt	0.142	0.304	YES	0.00581	0.0244	0.000474	**0.151**	0.00574	0.0581	0.0483	**0.517**	**0.263**	0.0120	0.128	0.0654	0.0107	0.0237	0.000463	**1.21**	0.00379	0.0557
Copper	43.2	93	-	0.403	0.740	0.0260	1.26	0.896	2.41	6.20	25.4	19.0	6.73	27.5	20.7	0.404	0.740	0.0260	1.42	0.891	2.40
Iron	71	152	YES	4.23	8.38	0.320	**133**	9.32	40.1	29.4	29.4	29.4	7.35	7.35	7.35	3.79	7.35	0.284	**138**	4.03	33.7
Lead	0.051	0.11	-	0.0000254	0.00174	0.00000162	0.0381	0.00342	0.00953	0.0246	0.000165	0.0252	0.0246	0.000165	0.0253	0.0000232	0.00154	0.00000144	0.0405	0.00216	0.00799
Lithium	0.20	0.43	YES	0.00937	0.0285	0.000486	**0.794**	0.0842	0.0842	0.0526	0.0412	0.0401	0.0137	0.0107	0.0104	0.0164	0.0294	0.000513	**3.52**	0.0842	0.0842
Magnesium	-	-	-	137	9.49	12.2	427	180	1435	1264	1264	1264	316	316	316	140	9.49	12.2	960	179	1434
Manganese	3	5	YES	0.140	0.634	0.0119	**10.5**	**13.8**	**53.5**	1.22	0.884	0.796	0.308	0.223	0.201	0.143	0.633	0.0119	**38.0**	**13.7**	**53.4**
Mercury	0.030	0.065	YES	0.0176	0.0000681	0.000988	**0.0321**	0.00462	0.00631	0.0180	0.0271	**0.0902**	0.0212	**0.0319**	**0.106**	0.0166	0.0000629	0.000912	**0.0323**	0.00374	0.00523
Molybdenum	0.5	1.1	YES	0.0125	0.0149	0.000891	0.357	0.158	0.290	0.0894	0.111	0.482	0.0231	0.0286	0.124	0.0128	0.0149	0.000891	**0.563**	0.158	0.289
Nickel	0.13	0.3	YES	0.0188	0.000137	0.00152	0.102	**0.192**	**0.544**	**0.154**	**22.9**	**7.15**	0.0391	**5.83**	**1.82**	0.0191	0.000136	0.00151	**0.370**	**0.187**	**0.539**
Potassium	-	-	-	916	751	69.9	11909.4774	1954	7355	7141	7141	7141	1811	1811	1811	1231	751	69.9	77907.5321	1954	7355
Selenium	0.61	1.2	YES	0.0330	0.490	0.00141	**2.40**	0.0203	0.0447	0.598	**0.732**	**0.717**	**0.621**	**0.761**	**0.744**	0.0330	0.490	0.00141	**2.40**	0.0203	0.0447
Silver	0.51	1.09	-	0.000314	0.00814	0.0000209	0.000488	0.0116	0.0124	0.00205	0.00205	0.00205	0.000541	0.000541	0.000541	0.000314	0.00814	0.0000209	0.000500	0.0116	0.0124
Sodium	-	-	-	160	0.0288	0.458	8004	2.00	6.65	153	153	153	35.2	35.2	35.2	504	0.0527	1.03	25432.2966	1.89	6.52
Strontium	61	130	YES	1.30	0.624	0.121	6.53	2.68	35.9	12.6	**93.9**	**142**	3.14	23.4	35.4	1.33	0.624	0.121	17.7	2.67	35.9
Thallium	0.0089	0.005	YES	0.00141	0.00104	0.0000911	**0.0113**	0.00413	0.00531	0.00537	0.00353	0.00740	0.00140	0.000917	0.00192	0.00480	0.000606	0.0000533	**0.417**	0.00129	0.00185
Tin	20	43	-	0.0111	0.00370	0.000652	0.0638	0.0109	0.0161	0.0649	0.0649	0.0649	0.0169	0.0169	0.0169	0.0111	0.00370	0.000652	0.0635	0.0107	0.0158
Uranium	0.061	0.130	-	0.00000317	0.000345	0.000000178	0.00645	0.00101	0.00102	0.0000192	0.0000152	0.0000152	0.00000495	0.00000393	0.00000393	0.00000346	0.000345	0.000000183	0.00867	0.000930	0.000926
Vanadium	0.51	1.10	-	0.000771	0.0105	0.0000485	0.307	0.0210	0.0471	0.00410	0.00410	0.00410	0.00104	0.00104	0.00104	0.000711	0.00852	0.0000398	0.386	0.0106	0.0344
Zinc	49	124	-	8.54	23.8	0.649	26.0	2.30	14.7	26.7	12.5	11.3	28.5	13.3	12.0	8.87	23.8	0.649	40.0	2.29	14.6

Note:

All units are in mg/kg wet weight.

The screening benchmark for the toddler was used for COPC screening.

bold *Concentration exceeding the screening benchmark*