

Sudbury Area Risk Assessment Volume II

Appendix O:

Detailed Results of the HHRA (Deterministic Results)

Available on CD

**General Population
Community of Interest: Coniston**

COC	Route	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
CENTRAL TENDENCY EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	9.0E-05
	Oral	1.6E-01	1.0E+00	6.6E-01	3.8E-01	2.5E-01	
Cobalt	Inhalation	1.4E-03	3.3E-03	2.7E-03	1.6E-03	1.2E-03	NA
	Oral	1.3E-02	6.4E-02	4.3E-02	2.5E-02	1.5E-02	
Copper	Inhalation	1.3E-02	3.1E-02	2.5E-02	1.5E-02	1.2E-02	NA
	Oral	3.3E-01	4.9E-01	3.5E-01	2.0E-01	1.3E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	1.6E-01	5.9E-01	3.1E-01	1.8E-01	1.2E-01	
Nickel	Inhalation	5.0E-01	1.2E+00	9.4E-01	5.6E-01	4.3E-01	NA
	Oral	1.2E-01	4.3E-01	3.0E-01	1.7E-01	1.4E-01	
Selenium	Inhalation	1.4E-04	3.3E-04	2.6E-04	1.6E-04	1.2E-04	NA
	Oral	2.1E-01	1.2E+00	8.6E-01	5.2E-01	3.6E-01	
REASONABLE MAXIMUM EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	1.2E-04
	Oral	1.9E-01	1.3E+00	8.6E-01	4.9E-01	3.4E-01	
Cobalt	Inhalation	1.6E-03	3.6E-03	2.9E-03	1.7E-03	1.3E-03	NA
	Oral	1.4E-02	8.1E-02	5.7E-02	3.3E-02	2.2E-02	
Copper	Inhalation	1.5E-02	3.3E-02	2.7E-02	1.6E-02	1.2E-02	NA
	Oral	3.6E-01	6.2E-01	4.6E-01	2.7E-01	1.8E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	1.6E-01	8.9E-01	5.7E-01	3.4E-01	2.5E-01	
Nickel	Inhalation	5.4E-01	1.3E+00	1.0E+00	6.0E-01	4.6E-01	NA
	Oral	1.5E-01	6.6E-01	4.7E-01	2.7E-01	2.1E-01	
Selenium	Inhalation	1.5E-04	3.5E-04	2.8E-04	1.7E-04	1.3E-04	NA
	Oral	2.2E-01	1.7E+00	1.3E+00	7.8E-01	6.5E-01	

with the exception of the lifetime receptor, all values are HQ estimates. ILCRs are associated with the lifetime receptor

**General Population
Community of Interest: Copper Cliff**

COC	Route	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
CENTRAL TENDENCY EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	1.8E-04
	Oral	3.0E-01	1.2E+00	7.6E-01	4.4E-01	3.3E-01	
Cobalt	Inhalation	4.2E-03	9.6E-03	7.7E-03	4.6E-03	3.6E-03	NA
	Oral	1.3E-02	6.5E-02	4.3E-02	2.5E-02	1.5E-02	
Copper	Inhalation	6.7E-02	1.6E-01	1.2E-01	7.4E-02	5.8E-02	NA
	Oral	3.7E-01	5.2E-01	3.7E-01	2.1E-01	1.5E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	2.0E-01	6.6E-01	3.4E-01	1.9E-01	1.3E-01	
Nickel	Inhalation	2.5E+00	5.7E+00	4.6E+00	2.7E+00	2.1E+00	NA
	Oral	1.3E-01	4.6E-01	3.0E-01	1.7E-01	1.4E-01	
Selenium	Inhalation	2.3E-04	5.2E-04	4.2E-04	2.5E-04	1.9E-04	NA
	Oral	2.2E-01	1.2E+00	8.8E-01	5.3E-01	3.7E-01	
REASONABLE MAXIMUM EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	2.2E-04
	Oral	3.7E-01	1.5E+00	9.8E-01	5.4E-01	4.3E-01	
Cobalt	Inhalation	4.5E-03	1.0E-02	8.2E-03	4.9E-03	3.8E-03	NA
	Oral	1.4E-02	8.3E-02	5.8E-02	3.4E-02	2.2E-02	
Copper	Inhalation	7.2E-02	1.7E-01	1.3E-01	7.9E-02	6.2E-02	NA
	Oral	4.0E-01	6.6E-01	4.8E-01	2.8E-01	2.0E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	2.1E-01	9.6E-01	5.9E-01	3.4E-01	2.6E-01	
Nickel	Inhalation	2.7E+00	6.1E+00	4.9E+00	2.9E+00	2.3E+00	NA
	Oral	1.5E-01	7.0E-01	4.9E-01	2.8E-01	2.2E-01	
Selenium	Inhalation	2.4E-04	5.6E-04	4.5E-04	2.7E-04	2.1E-04	NA
	Oral	2.4E-01	1.7E+00	1.3E+00	8.1E-01	6.8E-01	

with the exception of the lifetime receptor, all values are HQ estimates. ILCRs are associated with the lifetime receptor

**General Population
Community of Interest: Falconbridge**

COC	Route	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
CENTRAL TENDENCY EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	1.8E-04
	Oral	3.8E-01	1.3E+00	7.9E-01	4.5E-01	3.4E-01	
Cobalt	Inhalation	4.1E-03	9.5E-03	7.6E-03	4.5E-03	3.5E-03	NA
	Oral	1.4E-02	6.6E-02	4.4E-02	2.5E-02	1.6E-02	
Copper	Inhalation	2.2E-02	5.1E-02	4.1E-02	2.4E-02	1.9E-02	NA
	Oral	3.4E-01	4.9E-01	3.5E-01	2.0E-01	1.3E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	1.8E-01	6.3E-01	3.3E-01	1.8E-01	1.3E-01	
Nickel	Inhalation	1.2E+00	2.7E+00	2.2E+00	1.3E+00	1.0E+00	NA
	Oral	1.1E-01	4.4E-01	2.9E-01	1.6E-01	1.2E-01	
Selenium	Inhalation	1.4E-04	3.3E-04	2.6E-04	1.6E-04	1.2E-04	NA
	Oral	2.2E-01	1.2E+00	8.7E-01	5.2E-01	3.7E-01	
REASONABLE MAXIMUM EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	2.3E-04
	Oral	4.5E-01	1.7E+00	1.0E+00	5.7E-01	4.6E-01	
Cobalt	Inhalation	4.4E-03	1.0E-02	8.1E-03	4.9E-03	3.8E-03	NA
	Oral	1.5E-02	8.6E-02	5.9E-02	3.4E-02	2.3E-02	
Copper	Inhalation	2.4E-02	5.4E-02	4.3E-02	2.6E-02	2.0E-02	NA
	Oral	3.6E-01	6.2E-01	4.6E-01	2.7E-01	1.8E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	2.0E-01	9.3E-01	5.8E-01	3.4E-01	2.5E-01	
Nickel	Inhalation	1.3E+00	2.9E+00	2.3E+00	1.4E+00	1.1E+00	NA
	Oral	1.2E-01	6.9E-01	4.9E-01	2.9E-01	2.1E-01	
Selenium	Inhalation	1.5E-04	3.5E-04	2.8E-04	1.7E-04	1.3E-04	NA
	Oral	2.3E-01	1.7E+00	1.3E+00	7.9E-01	6.6E-01	

with the exception of the lifetime receptor, all values are HQ estimates. ILCRs are associated with the lifetime receptor

**General Population
Community of Interest: Hanmer**

COC	Route	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
CENTRAL TENDENCY EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	1.2E-04
	Oral	1.7E-01	1.0E+00	6.8E-01	3.9E-01	2.7E-01	
Cobalt	Inhalation	1.1E-03	2.5E-03	2.0E-03	1.2E-03	9.4E-04	NA
	Oral	1.2E-02	6.3E-02	4.3E-02	2.5E-02	1.5E-02	
Copper	Inhalation	8.2E-02	1.9E-01	1.5E-01	9.1E-02	7.1E-02	NA
	Oral	3.4E-01	4.9E-01	3.5E-01	2.0E-01	1.3E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	1.3E-01	5.4E-01	3.1E-01	1.7E-01	1.2E-01	
Nickel	Inhalation	5.1E-01	1.2E+00	9.5E-01	5.7E-01	4.4E-01	NA
	Oral	3.6E-02	3.3E-01	2.4E-01	1.4E-01	9.2E-02	
Selenium	Inhalation	1.6E-04	3.8E-04	3.1E-04	1.8E-04	1.4E-04	NA
	Oral	2.1E-01	1.2E+00	8.6E-01	5.2E-01	3.6E-01	
REASONABLE MAXIMUM EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	1.6E-04
	Oral	2.1E-01	1.3E+00	9.0E-01	5.1E-01	3.6E-01	
Cobalt	Inhalation	1.2E-03	2.7E-03	2.2E-03	1.3E-03	1.0E-03	NA
	Oral	1.3E-02	8.1E-02	5.7E-02	3.3E-02	2.2E-02	
Copper	Inhalation	8.9E-02	2.0E-01	1.6E-01	9.7E-02	7.6E-02	NA
	Oral	3.6E-01	6.2E-01	4.6E-01	2.7E-01	1.8E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	1.4E-01	8.4E-01	5.6E-01	3.3E-01	2.5E-01	
Nickel	Inhalation	5.5E-01	1.3E+00	1.0E+00	6.1E-01	4.7E-01	NA
	Oral	3.9E-02	5.3E-01	4.0E-01	2.4E-01	1.5E-01	
Selenium	Inhalation	1.8E-04	4.1E-04	3.3E-04	2.0E-04	1.5E-04	NA
	Oral	2.2E-01	1.7E+00	1.3E+00	7.8E-01	6.5E-01	

with the exception of the lifetime receptor, all values are HQ estimates. ILCRs are associated with the lifetime receptor

**General Population
Community of Interest: Sudbury Centre**

COC	Route	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
CENTRAL TENDENCY EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	1.1E-04
	Oral	1.5E-01	1.0E+00	6.6E-01	3.7E-01	2.5E-01	
Cobalt	Inhalation	1.6E-02	3.7E-02	3.0E-02	1.8E-02	1.4E-02	NA
	Oral	1.2E-02	6.3E-02	4.3E-02	2.5E-02	1.5E-02	
Copper	Inhalation	1.4E-01	3.3E-01	2.6E-01	1.6E-01	1.2E-01	NA
	Oral	3.3E-01	4.9E-01	3.5E-01	2.0E-01	1.3E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	1.5E-01	5.7E-01	3.1E-01	1.7E-01	1.2E-01	
Nickel	Inhalation	3.9E+00	9.1E+00	7.3E+00	4.4E+00	3.4E+00	NA
	Oral	1.2E-01	4.2E-01	3.0E-01	1.7E-01	1.4E-01	
Selenium	Inhalation	3.8E-04	8.9E-04	7.1E-04	4.3E-04	3.3E-04	NA
	Oral	2.1E-01	1.2E+00	8.6E-01	5.2E-01	3.6E-01	
REASONABLE MAXIMUM EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	1.4E-04
	Oral	1.8E-01	1.3E+00	8.6E-01	4.9E-01	3.4E-01	
Cobalt	Inhalation	1.7E-02	4.0E-02	3.2E-02	1.9E-02	1.5E-02	NA
	Oral	1.3E-02	8.1E-02	5.7E-02	3.3E-02	2.2E-02	
Copper	Inhalation	1.5E-01	3.5E-01	2.8E-01	1.7E-01	1.3E-01	NA
	Oral	3.6E-01	6.2E-01	4.6E-01	2.7E-01	1.8E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	1.6E-01	8.6E-01	5.6E-01	3.3E-01	2.4E-01	
Nickel	Inhalation	4.2E+00	9.7E+00	7.8E+00	4.7E+00	3.6E+00	NA
	Oral	1.4E-01	6.5E-01	4.7E-01	2.7E-01	2.1E-01	
Selenium	Inhalation	4.1E-04	9.5E-04	7.6E-04	4.5E-04	3.5E-04	NA
	Oral	2.2E-01	1.7E+00	1.3E+00	7.8E-01	6.5E-01	

with the exception of the lifetime receptor, all values are HQ estimates. ILCRs are associated with the lifetime receptor

**General Population
Community of Interest: Typical Ontario**

COC	Route	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
CENTRAL TENDENCY EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	5.2E-05
	Oral	1.2E-01	9.7E-01	6.2E-01	3.5E-01	2.2E-01	
Cobalt	Inhalation	3.1E-03	7.3E-03	5.8E-03	3.5E-03	2.7E-03	NA
	Oral	1.3E-02	6.3E-02	4.3E-02	2.4E-02	1.5E-02	
Copper	Inhalation	7.5E-03	1.7E-02	1.4E-02	8.4E-03	6.5E-03	NA
	Oral	3.3E-01	4.9E-01	3.5E-01	2.0E-01	1.3E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	2.2E-01	6.2E-01	2.9E-01	1.6E-01	1.1E-01	
Nickel	Inhalation	5.8E-02	1.3E-01	1.1E-01	6.4E-02	5.0E-02	NA
	Oral	3.7E-02	2.6E-01	2.0E-01	1.2E-01	7.6E-02	
Selenium	Inhalation	7.9E-05	1.8E-04	1.5E-04	8.7E-05	6.8E-05	NA
	Oral	2.1E-01	1.1E+00	7.9E-01	4.7E-01	3.1E-01	
REASONABLE MAXIMUM EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	5.7E-05
	Oral	1.3E-01	1.2E+00	8.0E-01	4.7E-01	3.0E-01	
Cobalt	Inhalation	3.4E-03	7.8E-03	6.2E-03	3.7E-03	2.9E-03	NA
	Oral	1.3E-02	7.9E-02	5.5E-02	3.2E-02	2.0E-02	
Copper	Inhalation	8.1E-03	1.9E-02	1.5E-02	8.9E-03	6.9E-03	NA
	Oral	3.6E-01	6.2E-01	4.6E-01	2.7E-01	1.8E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	2.3E-01	7.5E-01	3.7E-01	2.1E-01	1.4E-01	
Nickel	Inhalation	6.3E-02	1.4E-01	1.1E-01	6.9E-02	5.4E-02	NA
	Oral	4.0E-02	3.5E-01	2.7E-01	1.8E-01	1.0E-01	
Selenium	Inhalation	8.5E-05	2.0E-04	1.6E-04	9.3E-05	7.3E-05	NA
	Oral	2.3E-01	1.4E+00	9.6E-01	5.9E-01	4.5E-01	

with the exception of the lifetime receptor, all values are HQ estimates. ILCRs are associated with the lifetime receptor

**General Population
Community of Interest: Coniston**

COC	Route	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
CENTRAL TENDENCY EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	9.6E-05
	Oral	1.6E-01	1.1E+00	6.0E-01	3.3E-01	2.5E-01	
Cobalt	Inhalation	1.4E-03	3.0E-03	2.4E-03	1.4E-03	1.4E-03	NA
	Oral	1.6E-02	6.6E-02	3.8E-02	2.0E-02	1.3E-02	
Copper	Inhalation	1.3E-02	2.8E-02	2.2E-02	1.3E-02	1.3E-02	NA
	Oral	4.2E-01	5.3E-01	3.1E-01	1.7E-01	1.2E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	1.7E-01	6.3E-01	2.9E-01	1.5E-01	1.1E-01	
Nickel	Inhalation	5.0E-01	1.1E+00	8.3E-01	5.0E-01	4.7E-01	NA
	Oral	1.3E-01	5.0E-01	2.8E-01	1.6E-01	1.4E-01	
Selenium	Inhalation	1.4E-04	3.0E-04	2.3E-04	1.4E-04	1.3E-04	NA
	Oral	2.6E-01	1.1E+00	7.7E-01	4.1E-01	2.7E-01	
REASONABLE MAXIMUM EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	1.3E-04
	Oral	1.9E-01	1.3E+00	7.7E-01	4.4E-01	3.3E-01	
Cobalt	Inhalation	1.6E-03	3.3E-03	2.5E-03	1.5E-03	1.4E-03	NA
	Oral	2.0E-02	8.1E-02	5.0E-02	2.8E-02	1.8E-02	
Copper	Inhalation	1.5E-02	3.0E-02	2.4E-02	1.4E-02	1.3E-02	NA
	Oral	5.4E-01	6.2E-01	4.0E-01	2.2E-01	1.5E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	2.0E-01	8.6E-01	5.2E-01	2.8E-01	2.3E-01	
Nickel	Inhalation	5.4E-01	1.1E+00	8.9E-01	5.3E-01	5.0E-01	NA
	Oral	1.6E-01	6.7E-01	4.2E-01	2.5E-01	2.1E-01	
Selenium	Inhalation	1.5E-04	3.2E-04	2.5E-04	1.5E-04	1.4E-04	NA
	Oral	3.4E-01	1.6E+00	1.2E+00	6.3E-01	4.8E-01	

with the exception of the lifetime receptor, all values are HQ estimates. ILCRs are associated with the lifetime receptor

**General Population
Community of Interest: Copper Cliff**

COC	Route	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
CENTRAL TENDENCY EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	1.9E-04
	Oral	3.0E-01	1.2E+00	7.0E-01	4.0E-01	3.4E-01	
Cobalt	Inhalation	4.2E-03	8.7E-03	6.9E-03	4.1E-03	3.9E-03	NA
	Oral	1.6E-02	6.7E-02	3.9E-02	2.0E-02	1.3E-02	
Copper	Inhalation	6.7E-02	1.4E-01	1.1E-01	6.6E-02	6.3E-02	NA
	Oral	4.5E-01	5.6E-01	3.3E-01	1.8E-01	1.3E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	2.2E-01	7.0E-01	3.1E-01	1.6E-01	1.3E-01	
Nickel	Inhalation	2.5E+00	5.2E+00	4.1E+00	2.4E+00	2.3E+00	NA
	Oral	1.4E-01	5.3E-01	2.8E-01	1.6E-01	1.4E-01	
Selenium	Inhalation	2.3E-04	4.8E-04	3.7E-04	2.2E-04	2.1E-04	NA
	Oral	2.7E-01	1.1E+00	7.8E-01	4.1E-01	2.8E-01	
REASONABLE MAXIMUM EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	2.4E-04
	Oral	3.7E-01	1.5E+00	8.9E-01	5.3E-01	4.4E-01	
Cobalt	Inhalation	4.5E-03	9.4E-03	7.3E-03	4.4E-03	4.1E-03	NA
	Oral	2.0E-02	8.3E-02	5.1E-02	2.8E-02	1.9E-02	
Copper	Inhalation	7.2E-02	1.5E-01	1.2E-01	7.0E-02	6.7E-02	NA
	Oral	5.8E-01	6.6E-01	4.3E-01	2.4E-01	1.7E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	2.5E-01	9.3E-01	5.4E-01	3.0E-01	2.5E-01	
Nickel	Inhalation	2.7E+00	5.6E+00	4.3E+00	2.6E+00	2.5E+00	NA
	Oral	1.7E-01	7.1E-01	4.4E-01	2.6E-01	2.1E-01	
Selenium	Inhalation	2.4E-04	5.1E-04	4.0E-04	2.4E-04	2.3E-04	NA
	Oral	3.5E-01	1.6E+00	1.2E+00	6.5E-01	5.1E-01	

with the exception of the lifetime receptor, all values are HQ estimates. ILCRs are associated with the lifetime receptor

**General Population
Community of Interest: Falconbridge**

COC	Route	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
CENTRAL TENDENCY EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	2.0E-04
	Oral	3.8E-01	1.4E+00	7.2E-01	4.1E-01	3.6E-01	
Cobalt	Inhalation	4.1E-03	8.6E-03	6.8E-03	4.1E-03	3.9E-03	NA
	Oral	1.7E-02	6.9E-02	3.9E-02	2.1E-02	1.4E-02	
Copper	Inhalation	2.2E-02	4.6E-02	3.6E-02	2.2E-02	2.1E-02	NA
	Oral	4.2E-01	5.3E-01	3.1E-01	1.6E-01	1.1E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	2.0E-01	6.8E-01	3.0E-01	1.6E-01	1.2E-01	
Nickel	Inhalation	1.2E+00	2.4E+00	1.9E+00	1.2E+00	1.1E+00	NA
	Oral	1.2E-01	5.1E-01	2.6E-01	1.5E-01	1.2E-01	
Selenium	Inhalation	1.4E-04	3.0E-04	2.3E-04	1.4E-04	1.3E-04	NA
	Oral	2.7E-01	1.1E+00	7.7E-01	4.1E-01	2.8E-01	
REASONABLE MAXIMUM EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	2.6E-04
	Oral	4.5E-01	1.7E+00	9.4E-01	5.6E-01	4.7E-01	
Cobalt	Inhalation	4.4E-03	9.3E-03	7.2E-03	4.3E-03	4.1E-03	NA
	Oral	2.1E-02	8.5E-02	5.2E-02	2.9E-02	1.9E-02	
Copper	Inhalation	2.4E-02	5.0E-02	3.8E-02	2.3E-02	2.2E-02	NA
	Oral	5.4E-01	6.2E-01	4.0E-01	2.2E-01	1.5E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	2.3E-01	9.1E-01	5.2E-01	2.9E-01	2.4E-01	
Nickel	Inhalation	1.3E+00	2.6E+00	2.0E+00	1.2E+00	1.2E+00	NA
	Oral	1.4E-01	7.0E-01	4.3E-01	2.6E-01	2.0E-01	
Selenium	Inhalation	1.5E-04	3.2E-04	2.5E-04	1.5E-04	1.4E-04	NA
	Oral	3.5E-01	1.6E+00	1.2E+00	6.3E-01	4.9E-01	

with the exception of the lifetime receptor, all values are HQ estimates. ILCRs are associated with the lifetime receptor

**General Population
Community of Interest: Hanmer**

COC	Route	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
CENTRAL TENDENCY EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	1.3E-04
	Oral	1.7E-01	1.1E+00	6.2E-01	3.4E-01	2.7E-01	
Cobalt	Inhalation	1.1E-03	2.3E-03	1.8E-03	1.1E-03	1.0E-03	NA
	Oral	1.5E-02	6.5E-02	3.8E-02	2.0E-02	1.3E-02	
Copper	Inhalation	8.2E-02	1.7E-01	1.4E-01	8.1E-02	7.7E-02	NA
	Oral	4.2E-01	5.3E-01	3.2E-01	1.7E-01	1.2E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	1.5E-01	5.8E-01	2.8E-01	1.5E-01	1.1E-01	
Nickel	Inhalation	5.1E-01	1.1E+00	8.5E-01	5.1E-01	4.8E-01	NA
	Oral	4.4E-02	4.0E-01	2.2E-01	1.2E-01	8.5E-02	
Selenium	Inhalation	1.6E-04	3.5E-04	2.7E-04	1.6E-04	1.5E-04	NA
	Oral	2.6E-01	1.1E+00	7.7E-01	4.1E-01	2.7E-01	
REASONABLE MAXIMUM EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	1.7E-04
	Oral	2.1E-01	1.3E+00	8.0E-01	4.7E-01	3.6E-01	
Cobalt	Inhalation	1.2E-03	2.5E-03	1.9E-03	1.1E-03	1.1E-03	NA
	Oral	1.9E-02	8.0E-02	5.0E-02	2.8E-02	1.8E-02	
Copper	Inhalation	8.9E-02	1.9E-01	1.4E-01	8.6E-02	8.2E-02	NA
	Oral	5.5E-01	6.2E-01	4.1E-01	2.2E-01	1.5E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	1.8E-01	8.1E-01	5.1E-01	2.8E-01	2.3E-01	
Nickel	Inhalation	5.5E-01	1.2E+00	9.0E-01	5.4E-01	5.1E-01	NA
	Oral	5.5E-02	5.4E-01	3.6E-01	2.0E-01	1.4E-01	
Selenium	Inhalation	1.8E-04	3.7E-04	2.9E-04	1.7E-04	1.6E-04	NA
	Oral	3.4E-01	1.6E+00	1.2E+00	6.3E-01	4.8E-01	

with the exception of the lifetime receptor, all values are HQ estimates. ILCRs are associated with the lifetime receptor

**General Population
Community of Interest: Sudbury Centre**

COC	Route	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
CENTRAL TENDENCY EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	1.2E-04
	Oral	1.5E-01	1.0E+00	5.9E-01	3.2E-01	2.5E-01	
Cobalt	Inhalation	1.6E-02	3.4E-02	2.7E-02	1.6E-02	1.5E-02	NA
	Oral	1.5E-02	6.5E-02	3.8E-02	2.0E-02	1.3E-02	
Copper	Inhalation	1.4E-01	3.0E-01	2.3E-01	1.4E-01	1.3E-01	NA
	Oral	4.2E-01	5.2E-01	3.1E-01	1.7E-01	1.2E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	1.6E-01	6.1E-01	2.9E-01	1.5E-01	1.1E-01	
Nickel	Inhalation	3.9E+00	8.3E+00	6.5E+00	3.9E+00	3.7E+00	NA
	Oral	1.3E-01	4.9E-01	2.7E-01	1.6E-01	1.4E-01	
Selenium	Inhalation	3.8E-04	8.1E-04	6.3E-04	3.8E-04	3.6E-04	NA
	Oral	2.6E-01	1.1E+00	7.7E-01	4.1E-01	2.7E-01	
REASONABLE MAXIMUM EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	1.5E-04
	Oral	1.8E-01	1.3E+00	7.7E-01	4.4E-01	3.3E-01	
Cobalt	Inhalation	1.7E-02	3.6E-02	2.8E-02	1.7E-02	1.6E-02	NA
	Oral	2.0E-02	8.0E-02	5.0E-02	2.8E-02	1.8E-02	
Copper	Inhalation	1.5E-01	3.2E-01	2.5E-01	1.5E-01	1.4E-01	NA
	Oral	5.4E-01	6.2E-01	4.0E-01	2.2E-01	1.5E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	1.9E-01	8.3E-01	5.1E-01	2.8E-01	2.3E-01	
Nickel	Inhalation	4.2E+00	8.9E+00	6.9E+00	4.1E+00	3.9E+00	NA
	Oral	1.6E-01	6.6E-01	4.3E-01	2.5E-01	2.1E-01	
Selenium	Inhalation	4.1E-04	8.7E-04	6.7E-04	4.0E-04	3.8E-04	NA
	Oral	3.4E-01	1.6E+00	1.2E+00	6.3E-01	4.8E-01	

with the exception of the lifetime receptor, all values are HQ estimates. ILCRs are associated with the lifetime receptor

**General Population
Community of Interest: Typical Ontario**

COC	Route	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
CENTRAL TENDENCY EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	5.5E-05
	Oral	1.2E-01	1.0E+00	5.6E-01	3.0E-01	2.1E-01	
Cobalt	Inhalation	3.1E-03	6.6E-03	5.2E-03	3.1E-03	3.0E-03	NA
	Oral	1.6E-02	6.5E-02	3.8E-02	2.0E-02	1.3E-02	
Copper	Inhalation	7.5E-03	1.6E-02	1.2E-02	7.5E-03	7.1E-03	NA
	Oral	4.2E-01	5.2E-01	3.2E-01	1.7E-01	1.2E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	2.3E-01	6.6E-01	2.6E-01	1.4E-01	1.0E-01	
Nickel	Inhalation	5.8E-02	1.2E-01	9.6E-02	5.8E-02	5.5E-02	NA
	Oral	4.4E-02	3.2E-01	1.8E-01	9.7E-02	6.9E-02	
Selenium	Inhalation	7.9E-05	1.7E-04	1.3E-04	7.8E-05	7.4E-05	NA
	Oral	2.6E-01	1.0E+00	6.9E-01	3.6E-01	2.3E-01	
REASONABLE MAXIMUM EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	6.3E-05
	Oral	1.3E-01	1.2E+00	7.2E-01	4.0E-01	2.9E-01	
Cobalt	Inhalation	3.4E-03	7.1E-03	5.5E-03	3.3E-03	3.1E-03	NA
	Oral	2.0E-02	7.8E-02	4.8E-02	2.7E-02	1.7E-02	
Copper	Inhalation	8.1E-03	1.7E-02	1.3E-02	7.9E-03	7.5E-03	NA
	Oral	5.4E-01	6.2E-01	4.1E-01	2.2E-01	1.5E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	2.7E-01	7.5E-01	3.3E-01	1.8E-01	1.3E-01	
Nickel	Inhalation	6.3E-02	1.3E-01	1.0E-01	6.1E-02	5.8E-02	NA
	Oral	5.6E-02	3.5E-01	2.4E-01	1.4E-01	9.4E-02	
Selenium	Inhalation	8.5E-05	1.8E-04	1.4E-04	8.3E-05	7.9E-05	NA
	Oral	3.4E-01	1.3E+00	8.6E-01	4.6E-01	2.9E-01	

with the exception of the lifetime receptor, all values are HQ estimates. ILCRs are associated with the lifetime receptor

**Hunters and Anglers
Community of Interest: Coniston**

COC	Route	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
CENTRAL TENDENCY EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	9.0E-05
	Oral	1.6E-01	1.0E+00	6.6E-01	3.7E-01	2.5E-01	
Cobalt	Inhalation	1.4E-03	3.3E-03	2.7E-03	1.6E-03	1.2E-03	NA
	Oral	1.3E-02	6.5E-02	4.4E-02	2.5E-02	1.6E-02	
Copper	Inhalation	1.3E-02	3.1E-02	2.5E-02	1.5E-02	1.2E-02	NA
	Oral	3.3E-01	4.9E-01	3.5E-01	2.0E-01	1.3E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	1.6E-01	6.5E-01	3.9E-01	2.3E-01	1.8E-01	
Nickel	Inhalation	5.0E-01	1.2E+00	9.4E-01	5.6E-01	4.3E-01	NA
	Oral	1.2E-01	4.5E-01	3.1E-01	1.8E-01	1.4E-01	
Selenium	Inhalation	1.4E-04	3.3E-04	2.6E-04	1.6E-04	1.2E-04	NA
	Oral	2.1E-01	1.4E+00	1.1E+00	7.1E-01	5.6E-01	
REASONABLE MAXIMUM EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	1.2E-04
	Oral	1.9E-01	1.3E+00	8.6E-01	4.9E-01	3.4E-01	
Cobalt	Inhalation	1.6E-03	3.6E-03	2.9E-03	1.7E-03	1.3E-03	NA
	Oral	1.4E-02	8.3E-02	5.9E-02	3.4E-02	2.3E-02	
Copper	Inhalation	1.5E-02	3.3E-02	2.7E-02	1.6E-02	1.2E-02	NA
	Oral	3.6E-01	6.2E-01	4.6E-01	2.7E-01	1.8E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	1.6E-01	1.1E+00	7.5E-01	4.4E-01	3.6E-01	
Nickel	Inhalation	5.4E-01	1.3E+00	1.0E+00	6.0E-01	4.6E-01	NA
	Oral	1.5E-01	6.8E-01	4.9E-01	2.8E-01	2.2E-01	
Selenium	Inhalation	1.5E-04	3.5E-04	2.8E-04	1.7E-04	1.3E-04	NA
	Oral	2.2E-01	2.2E+00	1.8E+00	1.1E+00	1.0E+00	

with the exception of the lifetime receptor, all values are HQ estimates. ILCRs are associated with the lifetime receptor

**Hunters and Anglers
Community of Interest: Copper Cliff**

COC	Route	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
CENTRAL TENDENCY EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	1.8E-04
	Oral	3.0E-01	1.2E+00	7.6E-01	4.4E-01	3.3E-01	
Cobalt	Inhalation	4.2E-03	9.6E-03	7.7E-03	4.6E-03	3.6E-03	NA
	Oral	1.3E-02	6.6E-02	4.4E-02	2.6E-02	1.6E-02	
Copper	Inhalation	6.7E-02	1.6E-01	1.2E-01	7.4E-02	5.8E-02	NA
	Oral	3.7E-01	5.2E-01	3.7E-01	2.1E-01	1.5E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	2.0E-01	7.2E-01	4.1E-01	2.4E-01	1.9E-01	
Nickel	Inhalation	2.5E+00	5.7E+00	4.6E+00	2.7E+00	2.1E+00	NA
	Oral	1.3E-01	4.7E-01	3.1E-01	1.8E-01	1.4E-01	
Selenium	Inhalation	2.3E-04	5.2E-04	4.2E-04	2.5E-04	1.9E-04	NA
	Oral	2.2E-01	1.5E+00	1.1E+00	7.2E-01	5.6E-01	
REASONABLE MAXIMUM EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	2.2E-04
	Oral	3.7E-01	1.5E+00	9.8E-01	5.4E-01	4.3E-01	
Cobalt	Inhalation	4.5E-03	1.0E-02	8.2E-03	4.9E-03	3.8E-03	NA
	Oral	1.4E-02	8.5E-02	6.0E-02	3.5E-02	2.3E-02	
Copper	Inhalation	7.2E-02	1.7E-01	1.3E-01	7.9E-02	6.2E-02	NA
	Oral	4.0E-01	6.6E-01	4.8E-01	2.8E-01	2.0E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	2.1E-01	1.1E+00	7.6E-01	4.5E-01	3.8E-01	
Nickel	Inhalation	2.7E+00	6.1E+00	4.9E+00	2.9E+00	2.3E+00	NA
	Oral	1.5E-01	7.2E-01	5.1E-01	3.0E-01	2.3E-01	
Selenium	Inhalation	2.4E-04	5.6E-04	4.5E-04	2.7E-04	2.1E-04	NA
	Oral	2.4E-01	2.3E+00	1.9E+00	1.2E+00	1.1E+00	

with the exception of the lifetime receptor, all values are HQ estimates. ILCRs are associated with the lifetime receptor

**Hunters and Anglers
Community of Interest: Falconbridge**

COC	Route	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
CENTRAL TENDENCY EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	1.8E-04
	Oral	3.8E-01	1.3E+00	7.9E-01	4.5E-01	3.4E-01	
Cobalt	Inhalation	4.1E-03	9.5E-03	7.6E-03	4.5E-03	3.5E-03	NA
	Oral	1.4E-02	6.7E-02	4.5E-02	2.6E-02	1.6E-02	
Copper	Inhalation	2.2E-02	5.1E-02	4.1E-02	2.4E-02	1.9E-02	NA
	Oral	3.4E-01	4.9E-01	3.5E-01	2.0E-01	1.3E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	1.8E-01	7.0E-01	4.0E-01	2.4E-01	1.8E-01	
Nickel	Inhalation	1.2E+00	2.7E+00	2.2E+00	1.3E+00	1.0E+00	NA
	Oral	1.1E-01	4.5E-01	3.0E-01	1.7E-01	1.3E-01	
Selenium	Inhalation	1.4E-04	3.3E-04	2.6E-04	1.6E-04	1.2E-04	NA
	Oral	2.2E-01	1.4E+00	1.1E+00	7.1E-01	5.6E-01	
REASONABLE MAXIMUM EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	2.4E-04
	Oral	4.5E-01	1.7E+00	1.0E+00	5.7E-01	4.6E-01	
Cobalt	Inhalation	4.4E-03	1.0E-02	8.1E-03	4.9E-03	3.8E-03	NA
	Oral	1.5E-02	8.7E-02	6.1E-02	3.6E-02	2.4E-02	
Copper	Inhalation	2.4E-02	5.4E-02	4.3E-02	2.6E-02	2.0E-02	NA
	Oral	3.6E-01	6.2E-01	4.6E-01	2.7E-01	1.8E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	2.0E-01	1.1E+00	7.5E-01	4.5E-01	3.7E-01	
Nickel	Inhalation	1.3E+00	2.9E+00	2.3E+00	1.4E+00	1.1E+00	NA
	Oral	1.2E-01	7.1E-01	5.0E-01	3.0E-01	2.2E-01	
Selenium	Inhalation	1.5E-04	3.5E-04	2.8E-04	1.7E-04	1.3E-04	NA
	Oral	2.3E-01	2.2E+00	1.8E+00	1.1E+00	1.0E+00	

with the exception of the lifetime receptor, all values are HQ estimates. ILCRs are associated with the lifetime receptor

**Hunters and Anglers
Community of Interest: Hanmer**

COC	Route	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
CENTRAL TENDENCY EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	1.2E-04
	Oral	1.7E-01	1.0E+00	6.8E-01	3.9E-01	2.7E-01	
Cobalt	Inhalation	1.1E-03	2.5E-03	2.0E-03	1.2E-03	9.4E-04	NA
	Oral	1.2E-02	6.4E-02	4.4E-02	2.5E-02	1.6E-02	
Copper	Inhalation	8.2E-02	1.9E-01	1.5E-01	9.1E-02	7.1E-02	NA
	Oral	3.4E-01	4.9E-01	3.5E-01	2.0E-01	1.3E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	1.3E-01	6.1E-01	3.8E-01	2.3E-01	1.7E-01	
Nickel	Inhalation	5.1E-01	1.2E+00	9.5E-01	5.7E-01	4.4E-01	NA
	Oral	3.6E-02	3.5E-01	2.5E-01	1.4E-01	1.0E-01	
Selenium	Inhalation	1.6E-04	3.8E-04	3.1E-04	1.8E-04	1.4E-04	NA
	Oral	2.1E-01	1.4E+00	1.1E+00	7.1E-01	5.6E-01	
REASONABLE MAXIMUM EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	1.6E-04
	Oral	2.1E-01	1.3E+00	9.0E-01	5.1E-01	3.6E-01	
Cobalt	Inhalation	1.2E-03	2.7E-03	2.2E-03	1.3E-03	1.0E-03	NA
	Oral	1.3E-02	8.3E-02	5.9E-02	3.4E-02	2.3E-02	
Copper	Inhalation	8.9E-02	2.0E-01	1.6E-01	9.7E-02	7.6E-02	NA
	Oral	3.6E-01	6.2E-01	4.6E-01	2.7E-01	1.8E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	1.4E-01	1.0E+00	7.4E-01	4.4E-01	3.6E-01	
Nickel	Inhalation	5.5E-01	1.3E+00	1.0E+00	6.1E-01	4.7E-01	NA
	Oral	3.9E-02	5.5E-01	4.2E-01	2.5E-01	1.7E-01	
Selenium	Inhalation	1.8E-04	4.1E-04	3.3E-04	2.0E-04	1.5E-04	NA
	Oral	2.2E-01	2.2E+00	1.8E+00	1.1E+00	1.0E+00	

with the exception of the lifetime receptor, all values are HQ estimates. ILCRs are associated with the lifetime receptor

**Hunters and Anglers
Community of Interest: Sudbury Centre**

COC	Route	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
CENTRAL TENDENCY EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	1.1E-04
	Oral	1.5E-01	1.0E+00	6.5E-01	3.7E-01	2.5E-01	
Cobalt	Inhalation	1.6E-02	3.7E-02	3.0E-02	1.8E-02	1.4E-02	NA
	Oral	1.2E-02	6.4E-02	4.4E-02	2.5E-02	1.6E-02	
Copper	Inhalation	1.4E-01	3.3E-01	2.6E-01	1.6E-01	1.2E-01	NA
	Oral	3.3E-01	4.8E-01	3.5E-01	2.0E-01	1.3E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	1.5E-01	6.4E-01	3.9E-01	2.3E-01	1.7E-01	
Nickel	Inhalation	3.9E+00	9.1E+00	7.3E+00	4.4E+00	3.4E+00	NA
	Oral	1.2E-01	4.3E-01	3.1E-01	1.8E-01	1.4E-01	
Selenium	Inhalation	3.8E-04	8.9E-04	7.1E-04	4.3E-04	3.3E-04	NA
	Oral	2.1E-01	1.4E+00	1.1E+00	7.1E-01	5.6E-01	
REASONABLE MAXIMUM EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	1.5E-04
	Oral	1.8E-01	1.3E+00	8.6E-01	4.9E-01	3.4E-01	
Cobalt	Inhalation	1.7E-02	4.0E-02	3.2E-02	1.9E-02	1.5E-02	NA
	Oral	1.3E-02	8.3E-02	5.9E-02	3.4E-02	2.3E-02	
Copper	Inhalation	1.5E-01	3.5E-01	2.8E-01	1.7E-01	1.3E-01	NA
	Oral	3.6E-01	6.2E-01	4.6E-01	2.7E-01	1.8E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	1.6E-01	1.0E+00	7.3E-01	4.4E-01	3.6E-01	
Nickel	Inhalation	4.2E+00	9.7E+00	7.8E+00	4.7E+00	3.6E+00	NA
	Oral	1.4E-01	6.7E-01	4.9E-01	2.8E-01	2.3E-01	
Selenium	Inhalation	4.1E-04	9.5E-04	7.6E-04	4.5E-04	3.5E-04	NA
	Oral	2.2E-01	2.2E+00	1.8E+00	1.1E+00	1.0E+00	

with the exception of the lifetime receptor, all values are HQ estimates. ILCRs are associated with the lifetime receptor

**Hunters and Anglers
Community of Interest: Typical Ontario**

COC	Route	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
CENTRAL TENDENCY EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	5.2E-05
	Oral	1.2E-01	9.7E-01	6.2E-01	3.5E-01	2.2E-01	
Cobalt	Inhalation	3.1E-03	7.3E-03	5.8E-03	3.5E-03	2.7E-03	NA
	Oral	1.3E-02	6.3E-02	4.3E-02	2.4E-02	1.5E-02	
Copper	Inhalation	7.5E-03	1.7E-02	1.4E-02	8.4E-03	6.5E-03	NA
	Oral	3.3E-01	4.9E-01	3.5E-01	2.0E-01	1.3E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	2.2E-01	6.2E-01	2.9E-01	1.6E-01	1.1E-01	
Nickel	Inhalation	5.8E-02	1.3E-01	1.1E-01	6.4E-02	5.0E-02	NA
	Oral	3.7E-02	2.6E-01	2.0E-01	1.2E-01	7.6E-02	
Selenium	Inhalation	7.9E-05	1.8E-04	1.5E-04	8.7E-05	6.8E-05	NA
	Oral	2.1E-01	1.1E+00	7.9E-01	4.7E-01	3.1E-01	
REASONABLE MAXIMUM EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	5.7E-05
	Oral	1.3E-01	1.2E+00	8.0E-01	4.7E-01	3.0E-01	
Cobalt	Inhalation	3.4E-03	7.8E-03	6.2E-03	3.7E-03	2.9E-03	NA
	Oral	1.3E-02	7.9E-02	5.5E-02	3.2E-02	2.0E-02	
Copper	Inhalation	8.1E-03	1.9E-02	1.5E-02	8.9E-03	6.9E-03	NA
	Oral	3.6E-01	6.2E-01	4.6E-01	2.7E-01	1.8E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	2.3E-01	7.5E-01	3.7E-01	2.1E-01	1.4E-01	
Nickel	Inhalation	6.3E-02	1.4E-01	1.1E-01	6.9E-02	5.4E-02	NA
	Oral	4.0E-02	3.5E-01	2.7E-01	1.8E-01	1.0E-01	
Selenium	Inhalation	8.5E-05	2.0E-04	1.6E-04	9.3E-05	7.3E-05	NA
	Oral	2.3E-01	1.4E+00	9.6E-01	5.9E-01	4.5E-01	

with the exception of the lifetime receptor, all values are HQ estimates. ILCRs are associated with the lifetime receptor

**Hunters and Anglers
Community of Interest: Coniston**

COC	Route	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
CENTRAL TENDENCY EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	9.6E-05
	Oral	1.6E-01	1.1E+00	6.0E-01	3.2E-01	2.5E-01	
Cobalt	Inhalation	1.4E-03	3.0E-03	2.4E-03	1.4E-03	1.4E-03	NA
	Oral	1.6E-02	6.7E-02	3.9E-02	2.1E-02	1.4E-02	
Copper	Inhalation	1.3E-02	2.8E-02	2.2E-02	1.3E-02	1.3E-02	NA
	Oral	4.2E-01	5.3E-01	3.1E-01	1.7E-01	1.2E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	1.7E-01	6.9E-01	3.6E-01	2.0E-01	1.7E-01	
Nickel	Inhalation	5.0E-01	1.1E+00	8.3E-01	5.0E-01	4.7E-01	NA
	Oral	1.3E-01	5.2E-01	2.9E-01	1.6E-01	1.4E-01	
Selenium	Inhalation	1.4E-04	3.0E-04	2.3E-04	1.4E-04	1.3E-04	NA
	Oral	2.6E-01	1.4E+00	1.0E+00	5.6E-01	4.5E-01	
REASONABLE MAXIMUM EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	1.3E-04
	Oral	1.9E-01	1.3E+00	7.7E-01	4.4E-01	3.3E-01	
Cobalt	Inhalation	1.6E-03	3.3E-03	2.5E-03	1.5E-03	1.4E-03	NA
	Oral	2.0E-02	8.3E-02	5.2E-02	2.9E-02	1.9E-02	
Copper	Inhalation	1.5E-02	3.0E-02	2.4E-02	1.4E-02	1.3E-02	NA
	Oral	5.4E-01	6.2E-01	4.1E-01	2.2E-01	1.5E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	2.0E-01	9.7E-01	6.9E-01	3.8E-01	3.5E-01	
Nickel	Inhalation	5.4E-01	1.1E+00	8.9E-01	5.3E-01	5.0E-01	NA
	Oral	1.6E-01	6.9E-01	4.4E-01	2.6E-01	2.2E-01	
Selenium	Inhalation	1.5E-04	3.2E-04	2.5E-04	1.5E-04	1.4E-04	NA
	Oral	3.4E-01	2.0E+00	1.7E+00	9.2E-01	8.1E-01	

with the exception of the lifetime receptor, all values are HQ estimates. ILCRs are associated with the lifetime receptor

**Hunters and Anglers
Community of Interest: Copper Cliff**

COC	Route	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
CENTRAL TENDENCY EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	1.9E-04
	Oral	3.0E-01	1.2E+00	6.9E-01	3.9E-01	3.4E-01	
Cobalt	Inhalation	4.2E-03	8.7E-03	6.9E-03	4.1E-03	3.9E-03	NA
	Oral	1.6E-02	6.8E-02	3.9E-02	2.1E-02	1.4E-02	
Copper	Inhalation	6.7E-02	1.4E-01	1.1E-01	6.6E-02	6.3E-02	NA
	Oral	4.5E-01	5.6E-01	3.3E-01	1.8E-01	1.3E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	2.2E-01	7.7E-01	3.8E-01	2.1E-01	1.9E-01	
Nickel	Inhalation	2.5E+00	5.2E+00	4.1E+00	2.4E+00	2.3E+00	NA
	Oral	1.4E-01	5.4E-01	2.9E-01	1.7E-01	1.4E-01	
Selenium	Inhalation	2.3E-04	4.8E-04	3.7E-04	2.2E-04	2.1E-04	NA
	Oral	2.7E-01	1.4E+00	1.0E+00	5.7E-01	4.6E-01	
REASONABLE MAXIMUM EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	2.4E-04
	Oral	3.7E-01	1.5E+00	8.9E-01	5.3E-01	4.4E-01	
Cobalt	Inhalation	4.5E-03	9.4E-03	7.3E-03	4.4E-03	4.1E-03	NA
	Oral	2.0E-02	8.4E-02	5.3E-02	2.9E-02	2.0E-02	
Copper	Inhalation	7.2E-02	1.5E-01	1.2E-01	7.0E-02	6.7E-02	NA
	Oral	5.8E-01	6.7E-01	4.3E-01	2.4E-01	1.7E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	2.5E-01	1.0E+00	7.1E-01	3.9E-01	3.6E-01	
Nickel	Inhalation	2.7E+00	5.6E+00	4.3E+00	2.6E+00	2.5E+00	NA
	Oral	1.7E-01	7.3E-01	4.6E-01	2.7E-01	2.2E-01	
Selenium	Inhalation	2.4E-04	5.1E-04	4.0E-04	2.4E-04	2.3E-04	NA
	Oral	3.5E-01	2.0E+00	1.7E+00	9.5E-01	8.4E-01	

with the exception of the lifetime receptor, all values are HQ estimates. ILCRs are associated with the lifetime receptor

**Hunters and Anglers
Community of Interest: Falconbridge**

COC	Route	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
CENTRAL TENDENCY EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	2.0E-04
	Oral	3.8E-01	1.4E+00	7.2E-01	4.1E-01	3.6E-01	
Cobalt	Inhalation	4.1E-03	8.6E-03	6.8E-03	4.1E-03	3.9E-03	NA
	Oral	1.7E-02	7.0E-02	4.0E-02	2.1E-02	1.4E-02	
Copper	Inhalation	2.2E-02	4.6E-02	3.6E-02	2.2E-02	2.1E-02	NA
	Oral	4.2E-01	5.3E-01	3.1E-01	1.6E-01	1.1E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	2.0E-01	7.4E-01	3.8E-01	2.0E-01	1.8E-01	
Nickel	Inhalation	1.2E+00	2.4E+00	1.9E+00	1.2E+00	1.1E+00	NA
	Oral	1.2E-01	5.2E-01	2.7E-01	1.5E-01	1.3E-01	
Selenium	Inhalation	1.4E-04	3.0E-04	2.3E-04	1.4E-04	1.3E-04	NA
	Oral	2.7E-01	1.4E+00	1.0E+00	5.6E-01	4.5E-01	
REASONABLE MAXIMUM EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	2.6E-04
	Oral	4.5E-01	1.7E+00	9.4E-01	5.6E-01	4.7E-01	
Cobalt	Inhalation	4.4E-03	9.3E-03	7.2E-03	4.3E-03	4.1E-03	NA
	Oral	2.1E-02	8.7E-02	5.4E-02	3.0E-02	2.0E-02	
Copper	Inhalation	2.4E-02	5.0E-02	3.8E-02	2.3E-02	2.2E-02	NA
	Oral	5.4E-01	6.3E-01	4.1E-01	2.2E-01	1.5E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	2.3E-01	1.0E+00	7.0E-01	3.8E-01	3.5E-01	
Nickel	Inhalation	1.3E+00	2.6E+00	2.0E+00	1.2E+00	1.2E+00	NA
	Oral	1.4E-01	7.2E-01	4.5E-01	2.7E-01	2.1E-01	
Selenium	Inhalation	1.5E-04	3.2E-04	2.5E-04	1.5E-04	1.4E-04	NA
	Oral	3.5E-01	2.0E+00	1.7E+00	9.3E-01	8.2E-01	

with the exception of the lifetime receptor, all values are HQ estimates. ILCRs are associated with the lifetime receptor

**Hunters and Anglers
Community of Interest: Hanmer**

COC	Route	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
CENTRAL TENDENCY EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	1.3E-04
	Oral	1.7E-01	1.1E+00	6.1E-01	3.4E-01	2.7E-01	
Cobalt	Inhalation	1.1E-03	2.3E-03	1.8E-03	1.1E-03	1.0E-03	NA
	Oral	1.5E-02	6.6E-02	3.9E-02	2.1E-02	1.4E-02	
Copper	Inhalation	8.2E-02	1.7E-01	1.4E-01	8.1E-02	7.7E-02	NA
	Oral	4.2E-01	5.3E-01	3.2E-01	1.7E-01	1.2E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	1.5E-01	6.5E-01	3.6E-01	1.9E-01	1.7E-01	
Nickel	Inhalation	5.1E-01	1.1E+00	8.5E-01	5.1E-01	4.8E-01	NA
	Oral	4.4E-02	4.2E-01	2.3E-01	1.2E-01	9.1E-02	
Selenium	Inhalation	1.6E-04	3.5E-04	2.7E-04	1.6E-04	1.5E-04	NA
	Oral	2.6E-01	1.4E+00	1.0E+00	5.6E-01	4.5E-01	
REASONABLE MAXIMUM EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	1.7E-04
	Oral	2.1E-01	1.3E+00	8.0E-01	4.7E-01	3.6E-01	
Cobalt	Inhalation	1.2E-03	2.5E-03	1.9E-03	1.1E-03	1.1E-03	NA
	Oral	1.9E-02	8.2E-02	5.2E-02	2.9E-02	1.9E-02	
Copper	Inhalation	8.9E-02	1.9E-01	1.4E-01	8.6E-02	8.2E-02	NA
	Oral	5.5E-01	6.2E-01	4.1E-01	2.2E-01	1.6E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	1.8E-01	9.2E-01	6.9E-01	3.8E-01	3.4E-01	
Nickel	Inhalation	5.5E-01	1.2E+00	9.0E-01	5.4E-01	5.1E-01	NA
	Oral	5.5E-02	5.6E-01	3.7E-01	2.1E-01	1.5E-01	
Selenium	Inhalation	1.8E-04	3.7E-04	2.9E-04	1.7E-04	1.6E-04	NA
	Oral	3.4E-01	2.0E+00	1.7E+00	9.2E-01	8.1E-01	

with the exception of the lifetime receptor, all values are HQ estimates. ILCRs are associated with the lifetime receptor

**Hunters and Anglers
Community of Interest: Sudbury Centre**

COC	Route	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
CENTRAL TENDENCY EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	1.2E-04
	Oral	1.5E-01	1.0E+00	5.9E-01	3.2E-01	2.5E-01	
Cobalt	Inhalation	1.6E-02	3.4E-02	2.7E-02	1.6E-02	1.5E-02	NA
	Oral	1.5E-02	6.6E-02	3.9E-02	2.1E-02	1.4E-02	
Copper	Inhalation	1.4E-01	3.0E-01	2.3E-01	1.4E-01	1.3E-01	NA
	Oral	4.2E-01	5.2E-01	3.1E-01	1.7E-01	1.2E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	1.6E-01	6.8E-01	3.6E-01	1.9E-01	1.7E-01	
Nickel	Inhalation	3.9E+00	8.3E+00	6.5E+00	3.9E+00	3.7E+00	NA
	Oral	1.3E-01	5.0E-01	2.9E-01	1.6E-01	1.4E-01	
Selenium	Inhalation	3.8E-04	8.1E-04	6.3E-04	3.8E-04	3.6E-04	NA
	Oral	2.6E-01	1.4E+00	1.0E+00	5.6E-01	4.5E-01	
REASONABLE MAXIMUM EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	1.5E-04
	Oral	1.8E-01	1.3E+00	7.7E-01	4.4E-01	3.3E-01	
Cobalt	Inhalation	1.7E-02	3.6E-02	2.8E-02	1.7E-02	1.6E-02	NA
	Oral	2.0E-02	8.2E-02	5.2E-02	2.9E-02	1.9E-02	
Copper	Inhalation	1.5E-01	3.2E-01	2.5E-01	1.5E-01	1.4E-01	NA
	Oral	5.4E-01	6.2E-01	4.1E-01	2.2E-01	1.5E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	1.9E-01	9.4E-01	6.8E-01	3.7E-01	3.4E-01	
Nickel	Inhalation	4.2E+00	8.9E+00	6.9E+00	4.1E+00	3.9E+00	NA
	Oral	1.6E-01	6.8E-01	4.4E-01	2.6E-01	2.2E-01	
Selenium	Inhalation	4.1E-04	8.7E-04	6.7E-04	4.0E-04	3.8E-04	NA
	Oral	3.4E-01	2.0E+00	1.7E+00	9.2E-01	8.1E-01	

with the exception of the lifetime receptor, all values are HQ estimates. ILCRs are associated with the lifetime receptor

**Hunters and Anglers
Community of Interest: Typical Ontario**

COC	Route	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
CENTRAL TENDENCY EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	2.3E-01	6.6E-01	2.6E-01	1.4E-01	1.0E-01	
Cobalt	Inhalation	3.1E-03	6.6E-03	5.2E-03	3.1E-03	3.0E-03	NA
	Oral	1.6E-02	6.5E-02	3.8E-02	2.0E-02	1.3E-02	
Copper	Inhalation	7.5E-03	1.6E-02	1.2E-02	7.5E-03	7.1E-03	NA
	Oral	4.2E-01	5.2E-01	3.2E-01	1.7E-01	1.2E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	2.3E-01	6.6E-01	2.6E-01	1.4E-01	1.0E-01	
Nickel	Inhalation	5.8E-02	1.2E-01	9.6E-02	5.8E-02	5.5E-02	NA
	Oral	4.4E-02	3.2E-01	1.8E-01	9.7E-02	6.9E-02	
Selenium	Inhalation	7.9E-05	1.7E-04	1.3E-04	7.8E-05	7.4E-05	NA
	Oral	2.6E-01	1.0E+00	6.9E-01	3.6E-01	2.3E-01	
REASONABLE MAXIMUM EXPOSURES - HQ & ILCR ESTIMATES							
Arsenic	Inhalation	NA	NA	NA	NA	NA	6.3E-05
	Oral	1.3E-01	1.2E+00	7.2E-01	4.0E-01	2.9E-01	
Cobalt	Inhalation	3.4E-03	7.1E-03	5.5E-03	3.3E-03	3.1E-03	NA
	Oral	2.0E-02	7.8E-02	4.8E-02	2.7E-02	1.7E-02	
Copper	Inhalation	8.1E-03	1.7E-02	1.3E-02	7.9E-03	7.5E-03	NA
	Oral	5.4E-01	6.2E-01	4.1E-01	2.2E-01	1.5E-01	
Lead	Inhalation	NA	NA	NA	NA	NA	NA
	Oral	2.7E-01	7.5E-01	3.3E-01	1.8E-01	1.3E-01	
Nickel	Inhalation	6.3E-02	1.3E-01	1.0E-01	6.1E-02	5.8E-02	NA
	Oral	5.6E-02	3.5E-01	2.4E-01	1.4E-01	9.4E-02	
Selenium	Inhalation	8.5E-05	1.8E-04	1.4E-04	8.3E-05	7.9E-05	NA
	Oral	3.4E-01	1.3E+00	8.6E-01	4.6E-01	2.9E-01	

with the exception of the lifetime receptor, all values are HQ estimates. ILCRs are associated with the lifetime receptor

ESTIMATED TOTAL DAILY INTAKE

Arsenic



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	2.4E-03	µg/m3	0.0%	2.7E-05	5.6E-05	4.4E-05	2.7E-05	2.5E-05	5.3E-05
Inhalation of Fine Particulate- Indoors	2.4E-03	µg/m3	0.5%	5.5E-04	1.2E-03	9.1E-04	5.4E-04	5.2E-04	1.1E-03
Dermal Contact - Outdoors	1.2E+01	µg/g	0.1%	2.5E-04	2.4E-04	1.9E-04	1.8E-04	5.2E-05	2.2E-04
Dermal Contact - Indoors	1.7E+01	µg/g	0.0%	9.2E-05	8.5E-05	6.5E-05	5.9E-05	2.6E-05	8.1E-05
Soil Ingestion	1.2E+01	µg/g	1.7%	3.4E-03	6.9E-03	8.4E-04	5.0E-04	4.5E-04	2.3E-03
Indoor dust Ingestion	1.7E+01	µg/g	4.8%	9.7E-03	1.9E-02	2.4E-03	1.4E-03	1.3E-03	6.6E-03
Home Produced Fruits & Vegetables	6.9E-03	µg/g fw	0.4%	0.0E+00	1.3E-03	6.5E-04	3.7E-04	3.2E-04	7.9E-04
Local Fruits & Vegetables	6.7E-03	µg/g fw	1.2%	0.0E+00	4.0E-03	2.1E-03	1.2E-03	1.0E-03	2.5E-03
Local Wild Blue Berries	5.2E-03	µg/g fw	0.8%	0.0E+00	3.2E-03	1.5E-03	7.1E-04	6.0E-04	1.7E-03
Local Wild Game	1.3E-04	µg/g fw	0.0%	0.0E+00	1.9E-05	1.2E-05	8.4E-06	6.5E-06	1.5E-05
Local Fish	2.2E-04	µg/g fw	0.0%	0.0E+00	2.5E-05	3.1E-05	1.8E-05	2.3E-05	3.7E-05
Drinking Water	1.1E+00	µg/L	18.1%	3.3E-02	3.3E-02	2.3E-02	1.7E-02	2.3E-02	3.8E-02
Market Basket Contribution	NA	µg/g	72.4%	4.1E-04	2.5E-01	1.5E-01	7.6E-02	4.8E-02	1.5E-01

Arsenic

Scenario	
Region	Coniston
Metal	Arsenic
EPC	95% UCL
Receptor	Female - CTE Estimate

SUMMARY									
Estimated Total Daily Intake(ug/kg/day)	100.0%	4.8E-02	3.2E-01	1.8E-01	9.8E-02	7.5E-02	2.1E-01		
<i>Inhalation Route Only</i>	0.5%	5.7E-04	1.2E-03	9.5E-04	5.7E-04	5.4E-04	1.1E-03		
<i>Direct Soil Contact Only</i>	6.6%	1.4E-02	2.7E-02	3.5E-03	2.2E-03	1.8E-03	9.2E-03		
<i>Market Basket Foods and Drinking Water</i>	90.5%	3.4E-02	2.8E-01	1.7E-01	9.3E-02	7.1E-02	1.9E-01		
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)	2.4%	0.0E+00	8.5E-03	4.3E-03	2.3E-03	2.0E-03	5.1E-03		



HUMAN HEALTH RISK ESTIMATES

Arsenic

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	4.1E-04	2.5E-01	1.5E-01	7.6E-02	4.8E-02	1.5E-01
Drinking Water	µg/kg/day	3.3E-02	3.3E-02	2.3E-02	1.7E-02	2.3E-02	3.8E-02
Inhalation Route	µg/kg/day	5.7E-04	1.2E-03	9.5E-04	5.7E-04	5.4E-04	1.1E-03
Direct Dermal Contact	µg/kg/day	3.5E-04	3.3E-04	2.6E-04	2.4E-04	7.8E-05	3.0E-04
Soil/Dust Ingestion	µg/kg/day	1.3E-02	2.6E-02	3.2E-03	1.9E-03	1.7E-03	8.9E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.3E-03	6.5E-04	3.7E-04	3.2E-04	7.9E-04
Local Fruit & Vegetables	µg/kg/day	0.0E+00	4.0E-03	2.1E-03	1.2E-03	1.0E-03	2.5E-03
Wild Blue Berries	µg/kg/day	0.0E+00	3.2E-03	1.5E-03	7.1E-04	6.0E-04	1.7E-03
Wild Game & Fish	µg/kg/day	0.0E+00	4.4E-05	4.3E-05	2.6E-05	3.0E-05	5.2E-05
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	4.7E-02	3.2E-01	1.8E-01	9.8E-02	7.4E-02	2.0E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	1.6E-01	1.1E+00	6.0E-01	3.3E-01	2.5E-01	3.4E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		1.7E-05		7.8E-05		9.6E-05	

Scenario	
COI	Coniston
COC	Arsenic
EPC	95% UCL
Receptor	Female - CTE Estimate

Toxicity Information - Arsenic		
Oral RfD	µg/kg/day	0.3
Oral S.F.	(µg/kg/day) ⁻¹	1.50E-03
Inhalation S.F.	(µg/kg/day) ⁻¹	1.50E-02
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Arsenic



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	2.4E-03	µg/m3	0.0%	3.9E-05	8.2E-05	6.4E-05	3.8E-05	3.6E-05	7.7E-05
Inhalation of Fine Particulate- Indoors	2.4E-03	µg/m3	0.4%	5.8E-04	1.2E-03	9.5E-04	5.7E-04	5.4E-04	1.1E-03
Dermal Contact - Outdoors	1.2E+01	µg/g	0.1%	2.7E-04	2.6E-04	2.0E-04	1.9E-04	5.5E-05	2.3E-04
Dermal Contact - Indoors	1.7E+01	µg/g	0.0%	9.5E-05	8.8E-05	6.8E-05	6.1E-05	2.7E-05	8.4E-05
Soil Ingestion	1.2E+01	µg/g	1.4%	3.6E-03	7.3E-03	8.9E-04	5.3E-04	4.7E-04	2.4E-03
Indoor dust Ingestion	1.7E+01	µg/g	3.9%	1.0E-02	2.0E-02	2.5E-03	1.5E-03	1.3E-03	6.8E-03
Home Produced Fruits & Vegetables	6.9E-03	µg/g fw	1.1%	0.0E+00	3.9E-03	2.7E-03	1.7E-03	1.4E-03	3.1E-03
Local Fruits & Vegetables	6.7E-03	µg/g fw	3.5%	0.0E+00	1.3E-02	9.0E-03	5.8E-03	4.6E-03	1.0E-02
Local Wild Blue Berries	5.2E-03	µg/g fw	1.4%	0.0E+00	6.3E-03	3.2E-03	1.5E-03	1.2E-03	3.6E-03
Local Wild Game	1.3E-04	µg/g fw	0.0%	0.0E+00	2.2E-05	1.6E-05	1.0E-05	8.1E-06	1.8E-05
Local Fish	2.2E-04	µg/g fw	0.0%	0.0E+00	9.6E-05	1.5E-04	8.1E-05	9.9E-05	1.6E-04
Drinking Water	1.1E+00	µg/L	17.4%	4.2E-02	4.2E-02	2.7E-02	2.0E-02	2.7E-02	4.5E-02
Market Basket Contribution	NA	µg/g	70.7%	5.3E-04	2.9E-01	1.9E-01	1.0E-01	6.3E-02	1.9E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)	100.0%	5.7E-02	3.9E-01	2.3E-01	1.3E-01	9.9E-02	2.7E-01		
<i>Inhalation Route Only</i>	0.5%	6.2E-04	1.3E-03	1.0E-03	6.0E-04	5.7E-04	1.2E-03		
<i>Direct Soil Contact Only</i>	5.5%	1.4E-02	2.8E-02	3.6E-03	2.3E-03	1.9E-03	9.6E-03		
<i>Market Basket Foods and Drinking Water</i>	88.1%	4.2E-02	3.3E-01	2.1E-01	1.2E-01	9.0E-02	2.4E-01		
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)	6.0%	0.0E+00	2.3E-02	1.5E-02	9.1E-03	7.3E-03	1.7E-02		

Arsenic

Scenario	
Region	Coniston
Metal	Arsenic
EPC	95% UCL
Receptor	Female - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Arsenic

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	5.3E-04	2.9E-01	1.9E-01	1.0E-01	6.3E-02	1.9E-01
Drinking Water	µg/kg/day	4.2E-02	4.2E-02	2.7E-02	2.0E-02	2.7E-02	4.5E-02
Inhalation Route	µg/kg/day	6.2E-04	1.3E-03	1.0E-03	6.0E-04	5.7E-04	1.2E-03
Direct Dermal Contact	µg/kg/day	3.6E-04	3.5E-04	2.7E-04	2.5E-04	8.2E-05	3.2E-04
Soil/Dust Ingestion	µg/kg/day	1.4E-02	2.8E-02	3.4E-03	2.0E-03	1.8E-03	9.3E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	3.9E-03	2.7E-03	1.7E-03	1.4E-03	3.1E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.3E-02	9.0E-03	5.8E-03	4.6E-03	1.0E-02
Wild Blue Berries	µg/kg/day	0.0E+00	6.3E-03	3.2E-03	1.5E-03	1.2E-03	3.6E-03
Wild Game & Fish	µg/kg/day	0.0E+00	1.2E-04	1.7E-04	9.1E-05	1.1E-04	1.8E-04
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	5.6E-02	3.9E-01	2.3E-01	1.3E-01	9.9E-02	2.6E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	1.9E-01	1.3E+00	7.7E-01	4.4E-01	3.3E-01	4.5E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		1.8E-05		1.1E-04		1.3E-04	

Scenario	
COI	Coniston
COC	Arsenic
EPC	95% UCL
Receptor	Female - RME Estimate

Toxicity Information - Arsenic		
Oral RfD	µg/kg/day	0.3
Oral S.F.	(µg/kg/day) ⁻¹	1.50E-03
Inhalation S.F.	(µg/kg/day) ⁻¹	1.50E-02
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Arsenic



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	2.4E-03	µg/m3	0.0%	2.7E-05	6.2E-05	5.0E-05	3.0E-05	2.3E-05	5.6E-05
Inhalation of Fine Particulate- Indoors	2.4E-03	µg/m3	0.5%	5.5E-04	1.3E-03	1.0E-03	6.1E-04	4.7E-04	1.1E-03
Dermal Contact - Outdoors	1.2E+01	µg/g	0.1%	2.5E-04	2.4E-04	1.9E-04	1.7E-04	4.8E-05	2.2E-04
Dermal Contact - Indoors	1.7E+01	µg/g	0.0%	9.2E-05	8.5E-05	6.6E-05	5.7E-05	2.4E-05	7.9E-05
Soil Ingestion	1.2E+01	µg/g	1.6%	3.4E-03	6.8E-03	8.7E-04	4.5E-04	3.6E-04	2.2E-03
Indoor dust Ingestion	1.7E+01	µg/g	4.6%	9.7E-03	1.9E-02	2.5E-03	1.3E-03	1.0E-03	6.3E-03
Home Produced Fruits & Vegetables	6.9E-03	µg/g fw	0.3%	0.0E+00	1.1E-03	6.8E-04	3.6E-04	3.0E-04	7.5E-04
Local Fruits & Vegetables	6.7E-03	µg/g fw	1.0%	0.0E+00	3.3E-03	2.2E-03	1.2E-03	9.9E-04	2.4E-03
Local Wild Blue Berries	5.2E-03	µg/g fw	0.8%	0.0E+00	3.1E-03	1.6E-03	6.3E-04	5.3E-04	1.7E-03
Local Wild Game	1.3E-04	µg/g fw	0.0%	0.0E+00	1.7E-05	1.4E-05	1.1E-05	1.1E-05	1.9E-05
Local Fish	2.2E-04	µg/g fw	0.0%	0.0E+00	2.6E-05	2.9E-05	2.1E-05	2.2E-05	3.7E-05
Drinking Water	1.1E+00	µg/L	16.7%	3.3E-02	3.3E-02	2.4E-02	1.5E-02	1.8E-02	3.4E-02
Market Basket Contribution	NA	µg/g	74.2%	3.2E-04	2.4E-01	1.7E-01	9.4E-02	5.4E-02	1.7E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	4.8E-02	3.1E-01	2.0E-01	1.1E-01	7.6E-02	2.2E-01
<i>Inhalation Route Only</i>			0.6%	5.7E-04	1.3E-03	1.1E-03	6.4E-04	4.9E-04	1.2E-03
<i>Direct Soil Contact Only</i>			6.3%	1.4E-02	2.7E-02	3.6E-03	1.9E-03	1.4E-03	8.9E-03
<i>Market Basket Foods and Drinking Water</i>			90.9%	3.4E-02	2.7E-01	1.9E-01	1.1E-01	7.2E-02	2.0E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			2.2%	0.0E+00	7.6E-03	4.5E-03	2.2E-03	1.8E-03	4.9E-03

Arsenic

Scenario	
Region	Coniston
Metal	Arsenic
EPC	95% UCL
Receptor	Male - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Arsenic

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	3.2E-04	2.4E-01	1.7E-01	9.4E-02	5.4E-02	1.7E-01
Drinking Water	µg/kg/day	3.3E-02	3.3E-02	2.4E-02	1.5E-02	1.8E-02	3.4E-02
Inhalation Route	µg/kg/day	5.7E-04	1.3E-03	1.1E-03	6.4E-04	4.9E-04	1.2E-03
Direct Dermal Contact	µg/kg/day	3.5E-04	3.3E-04	2.6E-04	2.3E-04	7.3E-05	3.0E-04
Soil/Dust Ingestion	µg/kg/day	1.3E-02	2.6E-02	3.4E-03	1.7E-03	1.4E-03	8.6E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.1E-03	6.8E-04	3.6E-04	3.0E-04	7.5E-04
Local Fruit & Vegetables	µg/kg/day	0.0E+00	3.3E-03	2.2E-03	1.2E-03	9.9E-04	2.4E-03
Wild Blue Berries	µg/kg/day	0.0E+00	3.1E-03	1.6E-03	6.3E-04	5.3E-04	1.7E-03
Wild Game & Fish	µg/kg/day	0.0E+00	4.3E-05	4.3E-05	3.2E-05	3.3E-05	5.6E-05
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	4.7E-02	3.1E-01	2.0E-01	1.1E-01	7.5E-02	2.1E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	1.6E-01	1.0E+00	6.6E-01	3.8E-01	2.5E-01	3.5E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	<i>Inhalation ILCR</i>		<i>Oral ILCR</i>		<i>Total ILCR</i>	
		1.8E-05		7.2E-05		9.0E-05	

Scenario	
COI	Coniston
COC	Arsenic
EPC	95% UCL
Receptor	Male - CTE Estimate

Toxicity Information - Arsenic		
Oral RfD	µg/kg/day	0.3
Oral S.F.	(µg/kg/day) ⁻¹	1.50E-03
Inhalation S.F.	(µg/kg/day) ⁻¹	1.50E-02
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Arsenic

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	2.4E-03	µg/m3	0.0%	3.9E-05	9.0E-05	7.2E-05	3.9E-05	3.3E-05	7.9E-05
Inhalation of Fine Particulate- Indoors	2.4E-03	µg/m3	0.4%	5.8E-04	1.3E-03	1.1E-03	6.4E-04	5.0E-04	1.2E-03
Dermal Contact - Outdoors	1.2E+01	µg/g	0.1%	2.7E-04	2.6E-04	2.0E-04	1.8E-04	5.1E-05	2.3E-04
Dermal Contact - Indoors	1.7E+01	µg/g	0.0%	9.5E-05	8.8E-05	6.9E-05	5.9E-05	2.5E-05	8.2E-05
Soil Ingestion	1.2E+01	µg/g	1.3%	3.6E-03	7.2E-03	9.3E-04	4.7E-04	3.8E-04	2.4E-03
Indoor dust Ingestion	1.7E+01	µg/g	3.7%	1.0E-02	2.0E-02	2.6E-03	1.3E-03	1.1E-03	6.6E-03
Home Produced Fruits & Vegetables	6.9E-03	µg/g fw	1.1%	0.0E+00	3.9E-03	3.1E-03	1.8E-03	1.4E-03	3.3E-03
Local Fruits & Vegetables	6.7E-03	µg/g fw	3.6%	0.0E+00	1.3E-02	1.0E-02	6.3E-03	4.7E-03	1.1E-02
Local Wild Blue Berries	5.2E-03	µg/g fw	1.3%	0.0E+00	6.0E-03	3.6E-03	1.4E-03	1.1E-03	3.6E-03
Local Wild Game	1.3E-04	µg/g fw	0.0%	0.0E+00	2.2E-05	1.8E-05	1.4E-05	1.8E-05	2.7E-05
Local Fish	2.2E-04	µg/g fw	0.1%	0.0E+00	1.4E-04	1.5E-04	9.3E-05	9.9E-05	1.8E-04
Drinking Water	1.1E+00	µg/L	15.1%	4.2E-02	4.1E-02	2.8E-02	1.1E-02	2.2E-02	3.9E-02
Market Basket Contribution	NA	µg/g	73.3%	3.4E-04	3.0E-01	2.1E-01	1.2E-01	7.1E-02	2.1E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)	100.0%	5.7E-02	3.9E-01	2.6E-01	1.5E-01	1.0E-01	2.8E-01		
<i>Inhalation Route Only</i>	0.5%	6.2E-04	1.4E-03	1.1E-03	6.8E-04	5.3E-04	1.3E-03		
<i>Direct Soil Contact Only</i>	5.1%	1.4E-02	2.8E-02	3.8E-03	2.0E-03	1.5E-03	9.3E-03		
<i>Market Basket Foods and Drinking Water</i>	88.4%	4.2E-02	3.4E-01	2.4E-01	1.4E-01	9.2E-02	2.5E-01		
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)	6.0%	0.0E+00	2.3E-02	1.7E-02	9.6E-03	7.4E-03	1.8E-02		

Arsenic

Scenario	
Region	Coniston
Metal	Arsenic
EPC	95% UCL
Receptor	Male - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Arsenic

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	3.4E-04	3.0E-01	2.1E-01	1.2E-01	7.1E-02	2.1E-01
Drinking Water	µg/kg/day	4.2E-02	4.1E-02	2.8E-02	1.1E-02	2.2E-02	3.9E-02
Inhalation Route	µg/kg/day	6.2E-04	1.4E-03	1.1E-03	6.8E-04	5.3E-04	1.3E-03
Direct Dermal Contact	µg/kg/day	3.6E-04	3.5E-04	2.7E-04	2.4E-04	7.6E-05	3.1E-04
Soil/Dust Ingestion	µg/kg/day	1.4E-02	2.7E-02	3.5E-03	1.8E-03	1.4E-03	8.9E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	3.9E-03	3.1E-03	1.8E-03	1.4E-03	3.3E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.3E-02	1.0E-02	6.3E-03	4.7E-03	1.1E-02
Wild Blue Berries	µg/kg/day	0.0E+00	6.0E-03	3.6E-03	1.4E-03	1.1E-03	3.6E-03
Wild Game & Fish	µg/kg/day	0.0E+00	1.6E-04	1.7E-04	1.1E-04	1.2E-04	2.0E-04
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	5.6E-02	3.9E-01	2.6E-01	1.5E-01	1.0E-01	2.8E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	1.9E-01	1.3E+00	8.6E-01	4.9E-01	3.4E-01	4.7E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		1.9E-05		9.9E-05		1.2E-04	

Scenario	
COI	Coniston
COC	Arsenic
EPC	95% UCL
Receptor	Male - RME Estimate

Toxicity Information - Arsenic		
Oral RfD	µg/kg/day	0.3
Oral S.F.	(µg/kg/day) ⁻¹	1.50E-03
Inhalation S.F.	(µg/kg/day) ⁻¹	1.50E-02
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Cobalt



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	8.7E-04	µg/m3	0.0%	9.6E-06	2.0E-05	1.6E-05	9.5E-06	9.1E-06	1.1E-05
Inhalation of Fine Particulate- Indoors	8.7E-04	µg/m3	0.0%	2.0E-04	4.1E-04	3.2E-04	1.9E-04	1.8E-04	2.1E-04
Dermal Contact - Outdoors	1.8E+01	µg/g	0.0%	1.3E-05	1.2E-05	9.6E-06	9.1E-06	2.6E-06	4.8E-06
Dermal Contact - Indoors	4.3E+01	µg/g	0.0%	7.8E-06	7.2E-06	5.5E-06	5.0E-06	2.2E-06	3.2E-06
Soil Ingestion	1.8E+01	µg/g	0.4%	3.7E-03	7.5E-03	9.1E-04	5.5E-04	4.9E-04	1.0E-03
Indoor dust Ingestion	4.3E+01	µg/g	1.9%	1.6E-02	3.3E-02	4.0E-03	2.4E-03	2.1E-03	4.4E-03
Home Produced Fruits & Vegetables	2.4E-02	µg/g fw	0.3%	0.0E+00	4.2E-03	2.1E-03	1.2E-03	1.0E-03	1.4E-03
Local Fruits & Vegetables	2.1E-02	µg/g fw	1.5%	0.0E+00	2.2E-02	1.1E-02	6.4E-03	5.5E-03	7.3E-03
Local Wild Blue Berries	1.6E-02	µg/g fw	0.6%	0.0E+00	1.0E-02	4.9E-03	2.3E-03	1.9E-03	2.8E-03
Local Wild Game	4.0E-02	µg/g fw	0.5%	0.0E+00	6.3E-03	4.1E-03	2.8E-03	2.2E-03	2.7E-03
Local Fish	1.9E-02	µg/g fw	0.3%	0.0E+00	2.2E-03	2.7E-03	1.6E-03	2.1E-03	2.1E-03
Drinking Water	2.0E-01	µg/L	0.7%	5.7E-03	5.7E-03	4.0E-03	2.9E-03	3.9E-03	3.9E-03
Market Basket Contribution	NA	µg/g	93.8%	2.9E-01	1.2E+00	7.3E-01	3.9E-01	2.5E-01	3.8E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	3.1E-01	1.3E+00	7.7E-01	4.1E-01	2.7E-01	4.0E-01
Inhalation Route Only			0.0%	2.1E-04	4.3E-04	3.4E-04	2.0E-04	1.9E-04	2.3E-04
Direct Soil Contact Only			2.3%	2.0E-02	4.0E-02	5.0E-03	3.0E-03	2.6E-03	5.5E-03
Market Basket Foods and Drinking Water			94.5%	2.9E-01	1.2E+00	7.4E-01	3.9E-01	2.5E-01	3.8E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			3.2%	0.0E+00	4.5E-02	2.5E-02	1.4E-02	1.3E-02	1.6E-02

Cobalt

Scenario	
Region	Coniston
Metal	Cobalt
EPC	95% UCL
Receptor	Female - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Cobalt

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	2.9E-01	1.2E+00	7.3E-01	3.9E-01	2.5E-01	3.8E-01
Drinking Water	µg/kg/day	5.7E-03	5.7E-03	4.0E-03	2.9E-03	3.9E-03	3.9E-03
Inhalation Route	µg/kg/day	2.1E-04	4.3E-04	3.4E-04	2.0E-04	1.9E-04	2.3E-04
Direct Dermal Contact	µg/kg/day	2.1E-05	2.0E-05	1.5E-05	1.4E-05	4.8E-06	8.0E-06
Soil/Dust Ingestion	µg/kg/day	2.0E-02	4.0E-02	4.9E-03	3.0E-03	2.6E-03	5.5E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	4.2E-03	2.1E-03	1.2E-03	1.0E-03	1.4E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	2.2E-02	1.1E-02	6.4E-03	5.5E-03	7.3E-03
Wild Blue Berries	µg/kg/day	0.0E+00	1.0E-02	4.9E-03	2.3E-03	1.9E-03	2.8E-03
Wild Game & Fish	µg/kg/day	0.0E+00	8.5E-03	6.8E-03	4.4E-03	4.2E-03	4.7E-03
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	3.1E-01	1.3E+00	7.7E-01	4.1E-01	2.7E-01	4.0E-01
Hazard Quotient - inhal	unitless	1.4E-03	3.0E-03	2.4E-03	1.4E-03	1.4E-03	NA
Hazard Quotient - oral	unitless	1.6E-02	6.6E-02	3.8E-02	2.0E-02	1.3E-02	2.0E-02
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Coniston
COC	Cobalt
EPC	95% UCL
Receptor	Female - CTE Estimate

Toxicity Information - Cobalt		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.143

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Cobalt



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	8.7E-04	µg/m3	0.0%	1.4E-05	2.9E-05	2.3E-05	1.4E-05	1.3E-05	1.5E-05
Inhalation of Fine Particulate- Indoors	8.7E-04	µg/m3	0.0%	2.1E-04	4.4E-04	3.4E-04	2.0E-04	1.9E-04	2.2E-04
Dermal Contact - Outdoors	1.8E+01	µg/g	0.0%	1.4E-05	1.3E-05	1.0E-05	9.6E-06	2.8E-06	5.1E-06
Dermal Contact - Indoors	4.3E+01	µg/g	0.0%	8.1E-06	7.5E-06	5.7E-06	5.2E-06	2.3E-06	3.3E-06
Soil Ingestion	1.8E+01	µg/g	0.4%	4.0E-03	7.9E-03	9.7E-04	5.8E-04	5.2E-04	1.1E-03
Indoor dust Ingestion	4.3E+01	µg/g	1.5%	1.7E-02	3.4E-02	4.2E-03	2.5E-03	2.2E-03	4.6E-03
Home Produced Fruits & Vegetables	2.4E-02	µg/g fw	0.8%	0.0E+00	1.3E-02	9.0E-03	5.7E-03	4.5E-03	5.6E-03
Local Fruits & Vegetables	2.1E-02	µg/g fw	4.3%	0.0E+00	6.8E-02	4.7E-02	2.9E-02	2.4E-02	2.9E-02
Local Wild Blue Berries	1.6E-02	µg/g fw	1.0%	0.0E+00	2.0E-02	1.0E-02	4.9E-03	4.0E-03	5.7E-03
Local Wild Game	4.0E-02	µg/g fw	0.5%	0.0E+00	7.3E-03	5.2E-03	3.5E-03	2.7E-03	3.3E-03
Local Fish	1.9E-02	µg/g fw	1.0%	0.0E+00	8.5E-03	1.3E-02	7.2E-03	8.7E-03	8.9E-03
Drinking Water	2.0E-01	µg/L	0.7%	7.1E-03	7.1E-03	4.6E-03	3.5E-03	4.6E-03	4.7E-03
Market Basket Contribution	NA	µg/g	89.9%	3.7E-01	1.5E+00	9.1E-01	5.0E-01	3.2E-01	4.7E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	4.0E-01	1.6E+00	1.0E+00	5.6E-01	3.7E-01	5.3E-01
<i>Inhalation Route Only</i>			0.0%	2.2E-04	4.7E-04	3.6E-04	2.2E-04	2.1E-04	2.4E-04
<i>Direct Soil Contact Only</i>			1.9%	2.1E-02	4.2E-02	5.2E-03	3.1E-03	2.7E-03	5.7E-03
<i>Market Basket Foods and Drinking Water</i>			90.6%	3.8E-01	1.5E+00	9.2E-01	5.0E-01	3.2E-01	4.8E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			7.5%	0.0E+00	1.2E-01	8.5E-02	5.1E-02	4.3E-02	5.3E-02

Cobalt

Scenario	
Region	Coniston
Metal	Cobalt
EPC	95% UCL
Receptor	Female - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Cobalt

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	3.7E-01	1.5E+00	9.1E-01	5.0E-01	3.2E-01	4.7E-01
Drinking Water	µg/kg/day	7.1E-03	7.1E-03	4.6E-03	3.5E-03	4.6E-03	4.7E-03
Inhalation Route	µg/kg/day	2.2E-04	4.7E-04	3.6E-04	2.2E-04	2.1E-04	2.4E-04
Direct Dermal Contact	µg/kg/day	2.2E-05	2.1E-05	1.6E-05	1.5E-05	5.1E-06	8.4E-06
Soil/Dust Ingestion	µg/kg/day	2.1E-02	4.2E-02	5.1E-03	3.1E-03	2.7E-03	5.7E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.3E-02	9.0E-03	5.7E-03	4.5E-03	5.6E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	6.8E-02	4.7E-02	2.9E-02	2.4E-02	2.9E-02
Wild Blue Berries	µg/kg/day	0.0E+00	2.0E-02	1.0E-02	4.9E-03	4.0E-03	5.7E-03
Wild Game & Fish	µg/kg/day	0.0E+00	1.6E-02	1.9E-02	1.1E-02	1.1E-02	1.2E-02
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	4.0E-01	1.6E+00	1.0E+00	5.6E-01	3.7E-01	5.3E-01
Hazard Quotient - inhal	unitless	1.6E-03	3.3E-03	2.5E-03	1.5E-03	1.4E-03	NA
Hazard Quotient - oral	unitless	2.0E-02	8.1E-02	5.0E-02	2.8E-02	1.8E-02	2.7E-02
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Coniston
COC	Cobalt
EPC	95% UCL
Receptor	Female - RME Estimate

Toxicity Information - Cobalt		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.143

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Cobalt



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	8.7E-04	µg/m3	0.0%	9.6E-06	2.2E-05	1.8E-05	1.1E-05	8.3E-06	1.0E-05
Inhalation of Fine Particulate- Indoors	8.7E-04	µg/m3	0.0%	2.0E-04	4.6E-04	3.6E-04	2.2E-04	1.7E-04	2.1E-04
Dermal Contact - Outdoors	1.8E+01	µg/g	0.0%	1.3E-05	1.2E-05	9.7E-06	8.7E-06	2.4E-06	4.6E-06
Dermal Contact - Indoors	4.3E+01	µg/g	0.0%	7.8E-06	7.2E-06	5.6E-06	4.8E-06	2.0E-06	3.1E-06
Soil Ingestion	1.8E+01	µg/g	0.4%	3.7E-03	7.4E-03	9.5E-04	4.9E-04	3.9E-04	9.3E-04
Indoor dust Ingestion	4.3E+01	µg/g	1.8%	1.6E-02	3.3E-02	4.2E-03	2.1E-03	1.7E-03	4.1E-03
Home Produced Fruits & Vegetables	2.4E-02	µg/g fw	0.2%	0.0E+00	3.5E-03	2.2E-03	1.2E-03	9.9E-04	1.3E-03
Local Fruits & Vegetables	2.1E-02	µg/g fw	1.3%	0.0E+00	1.9E-02	1.2E-02	6.3E-03	5.3E-03	6.9E-03
Local Wild Blue Berries	1.6E-02	µg/g fw	0.6%	0.0E+00	9.9E-03	5.1E-03	2.0E-03	1.7E-03	2.6E-03
Local Wild Game	4.0E-02	µg/g fw	0.6%	0.0E+00	5.7E-03	4.7E-03	3.6E-03	3.6E-03	3.8E-03
Local Fish	1.9E-02	µg/g fw	0.3%	0.0E+00	2.3E-03	2.6E-03	1.9E-03	1.9E-03	2.0E-03
Drinking Water	2.0E-01	µg/L	0.7%	5.7E-03	5.7E-03	4.2E-03	2.5E-03	3.2E-03	3.4E-03
Market Basket Contribution	NA	µg/g	94.1%	2.3E-01	1.2E+00	8.3E-01	4.8E-01	2.9E-01	4.2E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	2.5E-01	1.3E+00	8.7E-01	5.0E-01	3.1E-01	4.5E-01
Inhalation Route Only			0.0%	2.1E-04	4.8E-04	3.8E-04	2.3E-04	1.8E-04	2.2E-04
Direct Soil Contact Only			2.2%	2.0E-02	4.0E-02	5.2E-03	2.6E-03	2.1E-03	5.1E-03
Market Basket Foods and Drinking Water			94.8%	2.3E-01	1.2E+00	8.3E-01	4.8E-01	2.9E-01	4.3E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			3.0%	0.0E+00	4.0E-02	2.7E-02	1.5E-02	1.4E-02	1.7E-02

Cobalt

Scenario	
Region	Coniston
Metal	Cobalt
EPC	95% UCL
Receptor	Male - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Cobalt

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	2.3E-01	1.2E+00	8.3E-01	4.8E-01	2.9E-01	4.2E-01
Drinking Water	µg/kg/day	5.7E-03	5.7E-03	4.2E-03	2.5E-03	3.2E-03	3.4E-03
Inhalation Route	µg/kg/day	2.1E-04	4.8E-04	3.8E-04	2.3E-04	1.8E-04	2.2E-04
Direct Dermal Contact	µg/kg/day	2.1E-05	2.0E-05	1.5E-05	1.4E-05	4.5E-06	7.7E-06
Soil/Dust Ingestion	µg/kg/day	2.0E-02	4.0E-02	5.2E-03	2.6E-03	2.1E-03	5.0E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	3.5E-03	2.2E-03	1.2E-03	9.9E-04	1.3E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.9E-02	1.2E-02	6.3E-03	5.3E-03	6.9E-03
Wild Blue Berries	µg/kg/day	0.0E+00	9.9E-03	5.1E-03	2.0E-03	1.7E-03	2.6E-03
Wild Game & Fish	µg/kg/day	0.0E+00	8.0E-03	7.3E-03	5.5E-03	5.6E-03	5.9E-03
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	2.5E-01	1.3E+00	8.7E-01	5.0E-01	3.1E-01	4.5E-01
Hazard Quotient - inhal	unitless	1.4E-03	3.3E-03	2.7E-03	1.6E-03	1.2E-03	NA
Hazard Quotient - oral	unitless	1.3E-02	6.4E-02	4.3E-02	2.5E-02	1.5E-02	2.2E-02
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Coniston
COC	Cobalt
EPC	95% UCL
Receptor	Male - CTE Estimate

Toxicity Information - Cobalt		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.143

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Cobalt



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	8.7E-04	µg/m3	0.0%	1.4E-05	3.2E-05	2.6E-05	1.4E-05	1.2E-05	1.5E-05
Inhalation of Fine Particulate- Indoors	8.7E-04	µg/m3	0.0%	2.1E-04	4.8E-04	3.8E-04	2.3E-04	1.8E-04	2.2E-04
Dermal Contact - Outdoors	1.8E+01	µg/g	0.0%	1.4E-05	1.3E-05	1.0E-05	9.3E-06	2.6E-06	4.9E-06
Dermal Contact - Indoors	4.3E+01	µg/g	0.0%	8.1E-06	7.4E-06	5.8E-06	5.0E-06	2.1E-06	3.2E-06
Soil Ingestion	1.8E+01	µg/g	0.3%	4.0E-03	7.9E-03	1.0E-03	5.2E-04	4.1E-04	9.9E-04
Indoor dust Ingestion	4.3E+01	µg/g	1.4%	1.7E-02	3.4E-02	4.4E-03	2.2E-03	1.8E-03	4.3E-03
Home Produced Fruits & Vegetables	2.4E-02	µg/g fw	0.8%	0.0E+00	1.3E-02	1.0E-02	6.1E-03	4.7E-03	5.9E-03
Local Fruits & Vegetables	2.1E-02	µg/g fw	4.3%	0.0E+00	6.8E-02	5.4E-02	3.2E-02	2.4E-02	3.1E-02
Local Wild Blue Berries	1.6E-02	µg/g fw	0.9%	0.0E+00	1.9E-02	1.2E-02	4.6E-03	3.6E-03	5.5E-03
Local Wild Game	4.0E-02	µg/g fw	0.6%	0.0E+00	7.4E-03	5.9E-03	4.6E-03	6.0E-03	5.8E-03
Local Fish	1.9E-02	µg/g fw	1.0%	0.0E+00	1.2E-02	1.3E-02	8.3E-03	8.7E-03	9.3E-03
Drinking Water	2.0E-01	µg/L	0.6%	7.1E-03	7.1E-03	4.8E-03	1.9E-03	3.7E-03	3.9E-03
Market Basket Contribution	NA	µg/g	89.9%	2.4E-01	1.5E+00	1.0E+00	6.0E-01	3.8E-01	5.4E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)	100.0%	2.7E-01	1.6E+00	1.1E+00	6.6E-01	4.3E-01	6.1E-01	6.1E-01	
<i>Inhalation Route Only</i>	0.0%	2.2E-04	5.1E-04	4.1E-04	2.4E-04	1.9E-04	2.4E-04		
<i>Direct Soil Contact Only</i>	1.8%	2.1E-02	4.2E-02	5.4E-03	2.8E-03	2.2E-03	5.3E-03		
<i>Market Basket Foods and Drinking Water</i>	90.5%	2.5E-01	1.5E+00	1.0E+00	6.0E-01	3.8E-01	5.4E-01		
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)	7.7%	0.0E+00	1.2E-01	9.5E-02	5.5E-02	4.7E-02	5.7E-02		

Cobalt

Scenario	
Region	Coniston
Metal	Cobalt
EPC	95% UCL
Receptor	Male - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Cobalt

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	2.4E-01	1.5E+00	1.0E+00	6.0E-01	3.8E-01	5.4E-01
Drinking Water	µg/kg/day	7.1E-03	7.1E-03	4.8E-03	1.9E-03	3.7E-03	3.9E-03
Inhalation Route	µg/kg/day	2.2E-04	5.1E-04	4.1E-04	2.4E-04	1.9E-04	2.4E-04
Direct Dermal Contact	µg/kg/day	2.2E-05	2.1E-05	1.6E-05	1.4E-05	4.7E-06	8.1E-06
Soil/Dust Ingestion	µg/kg/day	2.1E-02	4.2E-02	5.4E-03	2.7E-03	2.2E-03	5.3E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.3E-02	1.0E-02	6.1E-03	4.7E-03	5.9E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	6.8E-02	5.4E-02	3.2E-02	2.4E-02	3.1E-02
Wild Blue Berries	µg/kg/day	0.0E+00	1.9E-02	1.2E-02	4.6E-03	3.6E-03	5.5E-03
Wild Game & Fish	µg/kg/day	0.0E+00	2.0E-02	1.9E-02	1.3E-02	1.5E-02	1.5E-02
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	2.7E-01	1.6E+00	1.1E+00	6.6E-01	4.3E-01	6.0E-01
Hazard Quotient - inhal	unitless	1.6E-03	3.6E-03	2.9E-03	1.7E-03	1.3E-03	NA
Hazard Quotient - oral	unitless	1.4E-02	8.1E-02	5.7E-02	3.3E-02	2.2E-02	3.0E-02
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Coniston
COC	Cobalt
EPC	95% UCL
Receptor	Male - RME Estimate

Toxicity Information - Cobalt		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.143

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Copper



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	1.6E-02	µg/m3	0.0%	1.8E-04	3.8E-04	3.0E-04	1.8E-04	1.7E-04	2.0E-04
Inhalation of Fine Particulate- Indoors	1.6E-02	µg/m3	0.0%	3.7E-03	7.7E-03	6.1E-03	3.6E-03	3.4E-03	4.0E-03
Dermal Contact - Outdoors	3.2E+02	µg/g	0.0%	6.6E-04	6.3E-04	4.9E-04	4.6E-04	1.3E-04	2.4E-04
Dermal Contact - Indoors	6.2E+02	µg/g	0.0%	3.4E-04	3.1E-04	2.4E-04	2.2E-04	9.6E-05	1.4E-04
Soil Ingestion	3.2E+02	µg/g	0.3%	1.7E-01	3.4E-01	4.1E-02	2.5E-02	2.2E-02	4.6E-02
Indoor dust Ingestion	6.2E+02	µg/g	0.6%	3.9E-01	7.8E-01	9.6E-02	5.7E-02	5.1E-02	1.1E-01
Home Produced Fruits & Vegetables	8.1E-01	µg/g fw	0.2%	0.0E+00	1.6E-01	8.2E-02	4.5E-02	3.8E-02	5.1E-02
Local Fruits & Vegetables	7.5E-01	µg/g fw	0.4%	0.0E+00	4.3E-01	2.3E-01	1.3E-01	1.1E-01	1.4E-01
Local Wild Blue Berries	6.8E-01	µg/g fw	0.4%	0.0E+00	4.3E-01	2.1E-01	9.7E-02	8.2E-02	1.2E-01
Local Wild Game	6.8E-01	µg/g fw	0.1%	0.0E+00	1.1E-01	7.0E-02	4.8E-02	3.7E-02	4.6E-02
Local Fish	5.2E-01	µg/g fw	0.1%	0.0E+00	6.2E-02	7.6E-02	4.5E-02	5.8E-02	5.8E-02
Drinking Water	4.5E+01	µg/L	2.4%	1.3E+00	1.3E+00	9.1E-01	6.5E-01	9.0E-01	9.0E-01
Market Basket Contribution	NA	µg/g	95.5%	5.7E+01	7.0E+01	4.2E+01	2.2E+01	1.5E+01	2.2E+01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)	100.0%	5.9E+01	7.4E+01	4.4E+01	2.3E+01	1.6E+01	2.4E+01		
<i>Inhalation Route Only</i>	0.0%	3.8E-03	8.1E-03	6.4E-03	3.8E-03	3.6E-03	4.2E-03		
<i>Direct Soil Contact Only</i>	0.9%	5.6E-01	1.1E+00	1.4E-01	8.2E-02	7.3E-02	1.5E-01		
<i>Market Basket Foods and Drinking Water</i>	97.9%	5.8E+01	7.1E+01	4.3E+01	2.3E+01	1.6E+01	2.3E+01		
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)	1.2%	0.0E+00	1.2E+00	6.6E-01	3.6E-01	3.2E-01	4.2E-01		

Copper

Scenario	
Region	Coniston
Metal	Copper
EPC	95% UCL
Receptor	Female - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Copper

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	5.7E+01	7.0E+01	4.2E+01	2.2E+01	1.5E+01	2.2E+01
Drinking Water	µg/kg/day	1.3E+00	1.3E+00	9.1E-01	6.5E-01	9.0E-01	9.0E-01
Inhalation Route	µg/kg/day	3.8E-03	8.1E-03	6.4E-03	3.8E-03	3.6E-03	4.2E-03
Direct Dermal Contact	µg/kg/day	1.0E-03	9.5E-04	7.3E-04	6.8E-04	2.3E-04	3.8E-04
Soil/Dust Ingestion	µg/kg/day	5.6E-01	1.1E+00	1.4E-01	8.2E-02	7.3E-02	1.5E-01
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.6E-01	8.2E-02	4.5E-02	3.8E-02	5.1E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	4.3E-01	2.3E-01	1.3E-01	1.1E-01	1.4E-01
Wild Blue Berries	µg/kg/day	0.0E+00	4.3E-01	2.1E-01	9.7E-02	8.2E-02	1.2E-01
Wild Game & Fish	µg/kg/day	0.0E+00	1.7E-01	1.5E-01	9.3E-02	9.5E-02	1.0E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	5.9E+01	7.4E+01	4.4E+01	2.3E+01	1.6E+01	2.4E+01
Hazard Quotient - inhal	unitless	1.3E-02	2.8E-02	2.2E-02	1.3E-02	1.3E-02	NA
Hazard Quotient - oral	unitless	4.2E-01	5.3E-01	3.1E-01	1.7E-01	1.2E-01	1.7E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Coniston
COC	Copper
EPC	95% UCL
Receptor	Female - CTE Estimate

Toxicity Information - Copper		
Oral RfD	µg/kg/day	140
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.286

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Copper



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	1.6E-02	µg/m3	0.0%	2.6E-04	5.5E-04	4.3E-04	2.6E-04	2.4E-04	2.8E-04
Inhalation of Fine Particulate- Indoors	1.6E-02	µg/m3	0.0%	3.9E-03	8.2E-03	6.3E-03	3.8E-03	3.6E-03	4.2E-03
Dermal Contact - Outdoors	3.2E+02	µg/g	0.0%	7.0E-04	6.7E-04	5.2E-04	4.9E-04	1.4E-04	2.6E-04
Dermal Contact - Indoors	6.2E+02	µg/g	0.0%	3.5E-04	3.3E-04	2.5E-04	2.3E-04	9.9E-05	1.5E-04
Soil Ingestion	3.2E+02	µg/g	0.2%	1.8E-01	3.6E-01	4.4E-02	2.6E-02	2.3E-02	4.8E-02
Indoor dust Ingestion	6.2E+02	µg/g	0.5%	4.1E-01	8.1E-01	9.9E-02	5.9E-02	5.3E-02	1.1E-01
Home Produced Fruits & Vegetables	8.1E-01	µg/g fw	0.4%	0.0E+00	4.8E-01	3.1E-01	1.9E-01	1.5E-01	1.9E-01
Local Fruits & Vegetables	7.5E-01	µg/g fw	1.3%	0.0E+00	1.4E+00	9.7E-01	6.2E-01	4.9E-01	6.1E-01
Local Wild Blue Berries	6.8E-01	µg/g fw	0.6%	0.0E+00	8.7E-01	4.4E-01	2.1E-01	1.7E-01	2.5E-01
Local Wild Game	6.8E-01	µg/g fw	0.1%	0.0E+00	1.3E-01	8.9E-02	5.9E-02	4.7E-02	5.7E-02
Local Fish	5.2E-01	µg/g fw	0.4%	0.0E+00	2.4E-01	3.8E-01	2.0E-01	2.4E-01	2.5E-01
Drinking Water	4.5E+01	µg/L	2.3%	1.6E+00	1.6E+00	1.1E+00	7.9E-01	1.1E+00	1.1E+00
Market Basket Contribution	NA	µg/g	94.1%	7.4E+01	8.1E+01	5.3E+01	2.9E+01	1.9E+01	2.8E+01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	7.6E+01	8.7E+01	5.7E+01	3.1E+01	2.1E+01	3.0E+01
<i>Inhalation Route Only</i>			0.0%	4.2E-03	8.7E-03	6.8E-03	4.0E-03	3.8E-03	4.5E-03
<i>Direct Soil Contact Only</i>			0.8%	5.9E-01	1.2E+00	1.4E-01	8.6E-02	7.6E-02	1.6E-01
<i>Market Basket Foods and Drinking Water</i>			96.4%	7.5E+01	8.3E+01	5.4E+01	3.0E+01	2.0E+01	2.9E+01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			2.8%	0.0E+00	3.1E+00	2.2E+00	1.3E+00	1.1E+00	1.4E+00

Copper

Scenario	
Region	Coniston
Metal	Copper
EPC	95% UCL
Receptor	Female - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Copper

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	7.4E+01	8.1E+01	5.3E+01	2.9E+01	1.9E+01	2.8E+01
Drinking Water	µg/kg/day	1.6E+00	1.6E+00	1.1E+00	7.9E-01	1.1E+00	1.1E+00
Inhalation Route	µg/kg/day	4.2E-03	8.7E-03	6.8E-03	4.0E-03	3.8E-03	4.5E-03
Direct Dermal Contact	µg/kg/day	1.1E-03	1.0E-03	7.7E-04	7.2E-04	2.4E-04	4.0E-04
Soil/Dust Ingestion	µg/kg/day	5.9E-01	1.2E+00	1.4E-01	8.6E-02	7.6E-02	1.6E-01
HP Fruit & Vegetables	µg/kg/day	0.0E+00	4.8E-01	3.1E-01	1.9E-01	1.5E-01	1.9E-01
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.4E+00	9.7E-01	6.2E-01	4.9E-01	6.1E-01
Wild Blue Berries	µg/kg/day	0.0E+00	8.7E-01	4.4E-01	2.1E-01	1.7E-01	2.5E-01
Wild Game & Fish	µg/kg/day	0.0E+00	3.6E-01	4.7E-01	2.6E-01	2.9E-01	3.1E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	7.6E+01	8.7E+01	5.7E+01	3.1E+01	2.1E+01	3.0E+01
Hazard Quotient - inhal	unitless	1.5E-02	3.0E-02	2.4E-02	1.4E-02	1.3E-02	NA
Hazard Quotient - oral	unitless	5.4E-01	6.2E-01	4.0E-01	2.2E-01	1.5E-01	2.2E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Coniston
COC	Copper
EPC	95% UCL
Receptor	Female - RME Estimate

Toxicity Information - Copper		
Oral RfD	µg/kg/day	140
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.286

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Copper



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	1.6E-02	µg/m3	0.0%	1.8E-04	4.2E-04	3.3E-04	2.0E-04	1.5E-04	1.9E-04
Inhalation of Fine Particulate- Indoors	1.6E-02	µg/m3	0.0%	3.7E-03	8.5E-03	6.8E-03	4.1E-03	3.2E-03	4.0E-03
Dermal Contact - Outdoors	3.2E+02	µg/g	0.0%	6.6E-04	6.3E-04	5.0E-04	4.5E-04	1.3E-04	2.4E-04
Dermal Contact - Indoors	6.2E+02	µg/g	0.0%	3.4E-04	3.1E-04	2.4E-04	2.1E-04	8.9E-05	1.3E-04
Soil Ingestion	3.2E+02	µg/g	0.3%	1.7E-01	3.4E-01	4.3E-02	2.2E-02	1.8E-02	4.2E-02
Indoor dust Ingestion	6.2E+02	µg/g	0.6%	3.9E-01	7.8E-01	1.0E-01	5.1E-02	4.1E-02	9.8E-02
Home Produced Fruits & Vegetables	8.1E-01	µg/g fw	0.1%	0.0E+00	1.4E-01	8.7E-02	4.4E-02	3.6E-02	4.8E-02
Local Fruits & Vegetables	7.5E-01	µg/g fw	0.4%	0.0E+00	3.7E-01	2.4E-01	1.3E-01	1.1E-01	1.4E-01
Local Wild Blue Berries	6.8E-01	µg/g fw	0.4%	0.0E+00	4.2E-01	2.2E-01	8.6E-02	7.2E-02	1.1E-01
Local Wild Game	6.8E-01	µg/g fw	0.1%	0.0E+00	9.7E-02	8.1E-02	6.1E-02	6.2E-02	6.6E-02
Local Fish	5.2E-01	µg/g fw	0.1%	0.0E+00	6.5E-02	7.2E-02	5.3E-02	5.4E-02	5.6E-02
Drinking Water	4.5E+01	µg/L	2.3%	1.3E+00	1.3E+00	9.5E-01	5.8E-01	7.2E-01	7.7E-01
Market Basket Contribution	NA	µg/g	95.6%	4.5E+01	6.5E+01	4.7E+01	2.7E+01	1.7E+01	2.5E+01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	4.7E+01	6.8E+01	4.9E+01	2.8E+01	1.9E+01	2.6E+01
<i>Inhalation Route Only</i>			0.0%	3.8E-03	8.9E-03	7.1E-03	4.3E-03	3.3E-03	4.2E-03
<i>Direct Soil Contact Only</i>			0.9%	5.6E-01	1.1E+00	1.4E-01	7.4E-02	5.9E-02	1.4E-01
<i>Market Basket Foods and Drinking Water</i>			97.9%	4.6E+01	6.6E+01	4.8E+01	2.7E+01	1.8E+01	2.6E+01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			1.2%	0.0E+00	1.1E+00	7.0E-01	3.8E-01	3.3E-01	4.2E-01

Copper

Scenario	
Region	Coniston
Metal	Copper
EPC	95% UCL
Receptor	Male - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Copper

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	4.5E+01	6.5E+01	4.7E+01	2.7E+01	1.7E+01	2.5E+01
Drinking Water	µg/kg/day	1.3E+00	1.3E+00	9.5E-01	5.8E-01	7.2E-01	7.7E-01
Inhalation Route	µg/kg/day	3.8E-03	8.9E-03	7.1E-03	4.3E-03	3.3E-03	4.2E-03
Direct Dermal Contact	µg/kg/day	1.0E-03	9.5E-04	7.4E-04	6.6E-04	2.1E-04	3.7E-04
Soil/Dust Ingestion	µg/kg/day	5.6E-01	1.1E+00	1.4E-01	7.3E-02	5.8E-02	1.4E-01
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.4E-01	8.7E-02	4.4E-02	3.6E-02	4.8E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	3.7E-01	2.4E-01	1.3E-01	1.1E-01	1.4E-01
Wild Blue Berries	µg/kg/day	0.0E+00	4.2E-01	2.2E-01	8.6E-02	7.2E-02	1.1E-01
Wild Game & Fish	µg/kg/day	0.0E+00	1.6E-01	1.5E-01	1.1E-01	1.2E-01	1.2E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	4.7E+01	6.8E+01	4.9E+01	2.8E+01	1.9E+01	2.6E+01
Hazard Quotient - inhal	unitless	1.3E-02	3.1E-02	2.5E-02	1.5E-02	1.2E-02	NA
Hazard Quotient - oral	unitless	3.3E-01	4.9E-01	3.5E-01	2.0E-01	1.3E-01	1.9E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Coniston
COC	Copper
EPC	95% UCL
Receptor	Male - CTE Estimate

Toxicity Information - Copper		
Oral RfD	µg/kg/day	140
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.286

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Copper



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	1.6E-02	µg/m3	0.0%	2.6E-04	6.0E-04	4.8E-04	2.6E-04	2.2E-04	2.8E-04
Inhalation of Fine Particulate- Indoors	1.6E-02	µg/m3	0.0%	3.9E-03	8.9E-03	7.1E-03	4.3E-03	3.3E-03	4.2E-03
Dermal Contact - Outdoors	3.2E+02	µg/g	0.0%	7.0E-04	6.7E-04	5.3E-04	4.8E-04	1.3E-04	2.5E-04
Dermal Contact - Indoors	6.2E+02	µg/g	0.0%	3.5E-04	3.2E-04	2.5E-04	2.2E-04	9.3E-05	1.4E-04
Soil Ingestion	3.2E+02	µg/g	0.2%	1.8E-01	3.6E-01	4.6E-02	2.3E-02	1.9E-02	4.5E-02
Indoor dust Ingestion	6.2E+02	µg/g	0.5%	4.1E-01	8.1E-01	1.0E-01	5.3E-02	4.2E-02	1.0E-01
Home Produced Fruits & Vegetables	8.1E-01	µg/g fw	0.5%	0.0E+00	4.7E-01	3.6E-01	2.0E-01	1.5E-01	2.0E-01
Local Fruits & Vegetables	7.5E-01	µg/g fw	1.4%	0.0E+00	1.4E+00	1.1E+00	6.7E-01	5.1E-01	6.4E-01
Local Wild Blue Berries	6.8E-01	µg/g fw	0.6%	0.0E+00	8.2E-01	5.0E-01	2.0E-01	1.5E-01	2.4E-01
Local Wild Game	6.8E-01	µg/g fw	0.2%	0.0E+00	1.3E-01	1.0E-01	7.8E-02	1.0E-01	1.0E-01
Local Fish	5.2E-01	µg/g fw	0.5%	0.0E+00	3.5E-01	3.8E-01	2.3E-01	2.4E-01	2.6E-01
Drinking Water	4.5E+01	µg/L	2.1%	1.6E+00	1.6E+00	1.1E+00	4.2E-01	8.5E-01	8.8E-01
Market Basket Contribution	NA	µg/g	94.0%	4.8E+01	8.1E+01	6.0E+01	3.6E+01	2.3E+01	3.2E+01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	5.0E+01	8.7E+01	6.4E+01	3.8E+01	2.5E+01	3.5E+01
Inhalation Route Only			0.0%	4.2E-03	9.5E-03	7.6E-03	4.6E-03	3.5E-03	4.5E-03
Direct Soil Contact Only			0.8%	5.9E-01	1.2E+00	1.5E-01	7.7E-02	6.1E-02	1.5E-01
Market Basket Foods and Drinking Water			96.1%	5.0E+01	8.2E+01	6.1E+01	3.6E+01	2.4E+01	3.3E+01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			3.1%	0.0E+00	3.2E+00	2.5E+00	1.4E+00	1.2E+00	1.4E+00

Copper

Scenario	
Region	Coniston
Metal	Copper
EPC	95% UCL
Receptor	Male - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Copper

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	4.8E+01	8.1E+01	6.0E+01	3.6E+01	2.3E+01	3.2E+01
Drinking Water	µg/kg/day	1.6E+00	1.6E+00	1.1E+00	4.2E-01	8.5E-01	8.8E-01
Inhalation Route	µg/kg/day	4.2E-03	9.5E-03	7.6E-03	4.6E-03	3.5E-03	4.5E-03
Direct Dermal Contact	µg/kg/day	1.1E-03	1.0E-03	7.8E-04	6.9E-04	2.3E-04	3.9E-04
Soil/Dust Ingestion	µg/kg/day	5.9E-01	1.2E+00	1.5E-01	7.6E-02	6.1E-02	1.5E-01
HP Fruit & Vegetables	µg/kg/day	0.0E+00	4.7E-01	3.6E-01	2.0E-01	1.5E-01	2.0E-01
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.4E+00	1.1E+00	6.7E-01	5.1E-01	6.4E-01
Wild Blue Berries	µg/kg/day	0.0E+00	8.2E-01	5.0E-01	2.0E-01	1.5E-01	2.4E-01
Wild Game & Fish	µg/kg/day	0.0E+00	4.7E-01	4.8E-01	3.1E-01	3.5E-01	3.6E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	5.0E+01	8.7E+01	6.4E+01	3.8E+01	2.5E+01	3.5E+01
Hazard Quotient - inhal	unitless	1.5E-02	3.3E-02	2.7E-02	1.6E-02	1.2E-02	NA
Hazard Quotient - oral	unitless	3.6E-01	6.2E-01	4.6E-01	2.7E-01	1.8E-01	2.5E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Coniston
COC	Copper
EPC	95% UCL
Receptor	Male - RME Estimate

Toxicity Information - Copper		
Oral RfD	µg/kg/day	140
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.286

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Lead

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units							
Inhalation of Fine Particulate- Outdoors	8.0E-03	µg/m3	0.0%	8.8E-05	1.9E-04	1.5E-04	8.8E-05	8.3E-05	9.7E-05
Inhalation of Fine Particulate- Indoors	8.0E-03	µg/m3	0.5%	1.8E-03	3.8E-03	3.0E-03	1.8E-03	1.7E-03	2.0E-03
Dermal Contact - Outdoors	5.2E+01	µg/g	0.0%	3.6E-05	3.5E-05	2.7E-05	2.6E-05	7.4E-06	1.3E-05
Dermal Contact - Indoors	1.3E+02	µg/g	0.0%	2.3E-05	2.1E-05	1.6E-05	1.5E-05	6.6E-06	9.6E-06
Soil Ingestion	5.2E+01	µg/g	3.5%	2.5E-02	5.0E-02	6.1E-03	3.6E-03	3.2E-03	6.7E-03
Indoor dust Ingestion	1.3E+02	µg/g	19.2%	1.4E-01	2.7E-01	3.3E-02	2.0E-02	1.8E-02	3.7E-02
Home Produced Fruits & Vegetables	2.6E-01	µg/g fw	1.5%	0.0E+00	1.7E-02	9.7E-03	6.2E-03	4.9E-03	6.3E-03
Local Fruits & Vegetables	1.3E-01	µg/g fw	3.1%	0.0E+00	3.7E-02	1.9E-02	1.2E-02	9.9E-03	1.3E-02
Local Wild Blue Berries	7.4E-02	µg/g fw	3.6%	0.0E+00	4.7E-02	2.3E-02	1.1E-02	9.0E-03	1.3E-02
Local Wild Game	4.0E-03	µg/g fw	0.1%	0.0E+00	6.3E-04	4.1E-04	2.8E-04	2.1E-04	2.7E-04
Local Fish	3.0E-01	µg/g fw	5.6%	0.0E+00	3.6E-02	4.4E-02	2.6E-02	3.3E-02	3.4E-02
Drinking Water	3.1E-01	µg/L	1.4%	9.2E-03	9.2E-03	6.4E-03	4.6E-03	6.3E-03	6.3E-03
Market Basket Contribution	NA	µg/g	61.5%	1.4E-01	7.0E-01	3.8E-01	1.9E-01	1.2E-01	1.9E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	3.2E-01	1.2E+00	5.3E-01	2.8E-01	2.1E-01	3.1E-01
Inhalation Route Only			0.5%	1.9E-03	4.0E-03	3.1E-03	1.9E-03	1.8E-03	2.1E-03
Direct Soil Contact Only			22.7%	1.6E-01	3.2E-01	3.9E-02	2.4E-02	2.1E-02	4.4E-02
Market Basket Foods and Drinking Water			62.9%	1.5E-01	7.0E-01	3.9E-01	2.0E-01	1.3E-01	2.0E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			13.9%	0.0E+00	1.4E-01	9.6E-02	5.5E-02	5.8E-02	6.6E-02

Lead

Scenario	
Region	Coniston
Metal	Lead
EPC	95% UCL
Receptor	Female - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Lead

	µg/kg/day	1.4E-01	7.0E-01	3.8E-01	1.9E-01	1.2E-01	1.9E-01
	µg/kg/day	9.2E-03	9.2E-03	6.4E-03	4.6E-03	6.3E-03	6.3E-03
	µg/kg/day	1.9E-03	4.0E-03	3.1E-03	1.9E-03	1.8E-03	2.1E-03
	µg/kg/day	5.9E-05	5.6E-05	4.4E-05	4.0E-05	1.4E-05	2.3E-05
	µg/kg/day	1.6E-01	3.2E-01	3.9E-02	2.4E-02	2.1E-02	4.3E-02
	µg/kg/day	0.0E+00	1.7E-02	9.7E-03	6.2E-03	4.9E-03	6.3E-03
	µg/kg/day	0.0E+00	3.7E-02	1.9E-02	1.2E-02	9.9E-03	1.3E-02
	µg/kg/day	0.0E+00	4.7E-02	2.3E-02	1.1E-02	9.0E-03	1.3E-02
	µg/kg/day	0.0E+00	3.7E-02	4.4E-02	2.6E-02	3.4E-02	3.4E-02
	µg/kg/day	3.2E-01	1.2E+00	5.3E-01	2.8E-01	2.1E-01	3.1E-01
	unitless	NA	NA	NA	NA	NA	NA
	unitless	1.7E-01	6.3E-01	2.9E-01	1.5E-01	1.1E-01	1.7E-01

	µg/kg/day	1.85
	(µg/kg/day)-1	NA
	(µg/kg/day)-1	NA
	µg/kg/day	NA

- | | |
|--|--|
| <input checked="" type="checkbox"/> Local Fruit & Vegetables
<input checked="" type="checkbox"/> Drinking Water
<input checked="" type="checkbox"/> HP Fruit & Vegetables
<input checked="" type="checkbox"/> Soil/Dust Ingestion | <input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Wild Game & Fish |
|--|--|

ESTIMATED TOTAL DAILY INTAKE



Lead

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	8.0E-03	µg/m3	0.0%	1.3E-04	2.7E-04	2.1E-04	1.3E-04	1.2E-04	1.4E-04
Inhalation of Fine Particulate- Indoors	8.0E-03	µg/m3	0.3%	1.9E-03	4.0E-03	3.1E-03	1.9E-03	1.8E-03	2.1E-03
Dermal Contact - Outdoors	5.2E+01	µg/g	0.0%	3.8E-05	3.7E-05	2.9E-05	2.7E-05	7.9E-06	1.4E-05
Dermal Contact - Indoors	1.3E+02	µg/g	0.0%	2.4E-05	2.2E-05	1.7E-05	1.5E-05	6.8E-06	1.0E-05
Soil Ingestion	5.2E+01	µg/g	2.4%	2.6E-02	5.3E-02	6.4E-03	3.8E-03	3.4E-03	7.1E-03
Indoor dust Ingestion	1.3E+02	µg/g	12.9%	1.4E-01	2.8E-01	3.5E-02	2.1E-02	1.8E-02	3.8E-02
Home Produced Fruits & Vegetables	2.6E-01	µg/g fw	4.8%	0.0E+00	7.0E-02	5.2E-02	3.6E-02	2.7E-02	3.3E-02
Local Fruits & Vegetables	1.3E-01	µg/g fw	8.5%	0.0E+00	1.3E-01	9.3E-02	6.2E-02	4.8E-02	5.9E-02
Local Wild Blue Berries	7.4E-02	µg/g fw	4.7%	0.0E+00	9.4E-02	4.8E-02	2.3E-02	1.8E-02	2.7E-02
Local Wild Game	4.0E-03	µg/g fw	0.0%	0.0E+00	7.3E-04	5.2E-04	3.4E-04	2.7E-04	3.3E-04
Local Fish	3.0E-01	µg/g fw	15.8%	0.0E+00	1.4E-01	2.2E-01	1.2E-01	1.4E-01	1.5E-01
Drinking Water	3.1E-01	µg/L	1.1%	1.1E-02	1.1E-02	7.5E-03	5.6E-03	7.4E-03	7.5E-03
Market Basket Contribution	NA	µg/g	49.4%	1.9E-01	8.2E-01	4.9E-01	2.6E-01	1.6E-01	2.5E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)	100.0%	3.7E-01	1.6E+00	9.6E-01	5.3E-01	4.3E-01	5.7E-01		
<i>Inhalation Route Only</i>	0.3%	2.0E-03	4.3E-03	3.3E-03	2.0E-03	1.9E-03	2.2E-03		
<i>Direct Soil Contact Only</i>	15.3%	1.7E-01	3.4E-01	4.1E-02	2.5E-02	2.2E-02	4.5E-02		
<i>Market Basket Foods and Drinking Water</i>	50.5%	2.0E-01	8.3E-01	5.0E-01	2.6E-01	1.7E-01	2.6E-01		
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)	33.9%	0.0E+00	4.3E-01	4.1E-01	2.4E-01	2.4E-01	2.6E-01		

Lead

Scenario	
Region	Coniston
Metal	Lead
EPC	95% UCL
Receptor	Female - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Lead

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	1.9E-01	8.2E-01	4.9E-01	2.6E-01	1.6E-01	2.5E-01
Drinking Water	µg/kg/day	1.1E-02	1.1E-02	7.5E-03	5.6E-03	7.4E-03	7.5E-03
Inhalation Route	µg/kg/day	2.0E-03	4.3E-03	3.3E-03	2.0E-03	1.9E-03	2.2E-03
Direct Dermal Contact	µg/kg/day	6.3E-05	5.9E-05	4.6E-05	4.3E-05	1.5E-05	2.4E-05
Soil/Dust Ingestion	µg/kg/day	1.7E-01	3.4E-01	4.1E-02	2.5E-02	2.2E-02	4.5E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	7.0E-02	5.2E-02	3.6E-02	2.7E-02	3.3E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.3E-01	9.3E-02	6.2E-02	4.8E-02	5.9E-02
Wild Blue Berries	µg/kg/day	0.0E+00	9.4E-02	4.8E-02	2.3E-02	1.8E-02	2.7E-02
Wild Game & Fish	µg/kg/day	0.0E+00	1.4E-01	2.2E-01	1.2E-01	1.4E-01	1.5E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	3.7E-01	1.6E+00	9.6E-01	5.3E-01	4.3E-01	5.7E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	2.0E-01	8.6E-01	5.2E-01	2.8E-01	2.3E-01	3.1E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Coniston
COC	Lead
EPC	95% UCL
Receptor	Female - RME Estimate

Toxicity Information - Lead		
Oral RfD	µg/kg/day	1.85
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Lead

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units							
Inhalation of Fine Particulate- Outdoors	8.0E-03	µg/m3	0.0%	8.8E-05	2.0E-04	1.6E-04	9.8E-05	7.6E-05	9.6E-05
Inhalation of Fine Particulate- Indoors	8.0E-03	µg/m3	0.5%	1.8E-03	4.2E-03	3.4E-03	2.0E-03	1.6E-03	2.0E-03
Dermal Contact - Outdoors	5.2E+01	µg/g	0.0%	3.6E-05	3.5E-05	2.7E-05	2.5E-05	6.9E-06	1.3E-05
Dermal Contact - Indoors	1.3E+02	µg/g	0.0%	2.3E-05	2.1E-05	1.7E-05	1.4E-05	6.1E-06	9.2E-06
Soil Ingestion	5.2E+01	µg/g	3.5%	2.5E-02	4.9E-02	6.3E-03	3.2E-03	2.6E-03	6.2E-03
Indoor dust Ingestion	1.3E+02	µg/g	18.9%	1.4E-01	2.7E-01	3.5E-02	1.8E-02	1.4E-02	3.4E-02
Home Produced Fruits & Vegetables	2.6E-01	µg/g fw	1.5%	0.0E+00	1.4E-02	1.1E-02	6.8E-03	5.1E-03	6.4E-03
Local Fruits & Vegetables	1.3E-01	µg/g fw	2.9%	0.0E+00	3.0E-02	2.0E-02	1.2E-02	9.8E-03	1.2E-02
Local Wild Blue Berries	7.4E-02	µg/g fw	3.5%	0.0E+00	4.6E-02	2.4E-02	9.3E-03	7.9E-03	1.2E-02
Local Wild Game	4.0E-03	µg/g fw	0.1%	0.0E+00	5.7E-04	4.7E-04	3.5E-04	3.6E-04	3.8E-04
Local Fish	3.0E-01	µg/g fw	5.6%	0.0E+00	3.7E-02	4.1E-02	3.1E-02	3.2E-02	3.3E-02
Drinking Water	3.1E-01	µg/L	1.4%	9.2E-03	9.1E-03	6.7E-03	4.1E-03	5.1E-03	5.4E-03
Market Basket Contribution	NA	µg/g	62.2%	1.1E-01	6.3E-01	4.3E-01	2.4E-01	1.4E-01	2.1E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	2.9E-01	1.1E+00	5.8E-01	3.2E-01	2.2E-01	3.3E-01
<i>Inhalation Route Only</i>			0.5%	1.9E-03	4.4E-03	3.5E-03	2.1E-03	1.6E-03	2.1E-03
<i>Direct Soil Contact Only</i>			22.4%	1.6E-01	3.2E-01	4.1E-02	2.1E-02	1.7E-02	4.0E-02
<i>Market Basket Foods and Drinking Water</i>			63.5%	1.2E-01	6.4E-01	4.4E-01	2.4E-01	1.5E-01	2.2E-01
<i>Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)</i>			13.5%	0.0E+00	1.3E-01	9.7E-02	5.9E-02	5.5E-02	6.4E-02

Lead

Scenario	
Region	Coniston
Metal	Lead
EPC	95% UCL
Receptor	Male - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Lead

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	1.1E-01	6.3E-01	4.3E-01	2.4E-01	1.4E-01	2.1E-01
Drinking Water	µg/kg/day	9.2E-03	9.1E-03	6.7E-03	4.1E-03	5.1E-03	5.4E-03
Inhalation Route	µg/kg/day	1.9E-03	4.4E-03	3.5E-03	2.1E-03	1.6E-03	2.1E-03
Direct Dermal Contact	µg/kg/day	5.9E-05	5.6E-05	4.4E-05	3.9E-05	1.3E-05	2.2E-05
Soil/Dust Ingestion	µg/kg/day	1.6E-01	3.2E-01	4.1E-02	2.1E-02	1.7E-02	4.0E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.4E-02	1.1E-02	6.8E-03	5.1E-03	6.4E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	3.0E-02	2.0E-02	1.2E-02	9.8E-03	1.2E-02
Wild Blue Berries	µg/kg/day	0.0E+00	4.6E-02	2.4E-02	9.3E-03	7.9E-03	1.2E-02
Wild Game & Fish	µg/kg/day	0.0E+00	3.8E-02	4.2E-02	3.1E-02	3.2E-02	3.3E-02
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	2.9E-01	1.1E+00	5.8E-01	3.2E-01	2.2E-01	3.2E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	1.6E-01	5.9E-01	3.1E-01	1.8E-01	1.2E-01	1.8E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Coniston
COC	Lead
EPC	95% UCL
Receptor	Male - CTE Estimate

Toxicity Information - Lead		
Oral RfD	µg/kg/day	1.85
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Lead

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	8.0E-03	µg/m3	0.0%	1.3E-04	3.0E-04	2.4E-04	1.3E-04	1.1E-04	1.4E-04
Inhalation of Fine Particulate- Indoors	8.0E-03	µg/m3	0.3%	1.9E-03	4.4E-03	3.5E-03	2.1E-03	1.6E-03	2.1E-03
Dermal Contact - Outdoors	5.2E+01	µg/g	0.0%	3.8E-05	3.7E-05	2.9E-05	2.6E-05	7.3E-06	1.4E-05
Dermal Contact - Indoors	1.3E+02	µg/g	0.0%	2.4E-05	2.2E-05	1.7E-05	1.5E-05	6.4E-06	9.6E-06
Soil Ingestion	5.2E+01	µg/g	2.2%	2.6E-02	5.2E-02	6.7E-03	3.4E-03	2.7E-03	6.6E-03
Indoor dust Ingestion	1.3E+02	µg/g	12.0%	1.4E-01	2.8E-01	3.6E-02	1.8E-02	1.5E-02	3.5E-02
Home Produced Fruits & Vegetables	2.6E-01	µg/g fw	5.0%	0.0E+00	7.2E-02	6.2E-02	3.9E-02	3.0E-02	3.7E-02
Local Fruits & Vegetables	1.3E-01	µg/g fw	8.7%	0.0E+00	1.3E-01	1.1E-01	6.7E-02	5.1E-02	6.3E-02
Local Wild Blue Berries	7.4E-02	µg/g fw	4.4%	0.0E+00	8.9E-02	5.4E-02	2.2E-02	1.7E-02	2.6E-02
Local Wild Game	4.0E-03	µg/g fw	0.1%	0.0E+00	7.3E-04	5.9E-04	4.5E-04	5.9E-04	5.8E-04
Local Fish	3.0E-01	µg/g fw	17.0%	0.0E+00	2.0E-01	2.2E-01	1.3E-01	1.4E-01	1.5E-01
Drinking Water	3.1E-01	µg/L	1.0%	1.1E-02	1.1E-02	7.8E-03	3.0E-03	6.0E-03	6.2E-03
Market Basket Contribution	NA	µg/g	49.2%	1.2E-01	8.1E-01	5.6E-01	3.3E-01	2.0E-01	2.9E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	3.0E-01	1.7E+00	1.1E+00	6.2E-01	4.6E-01	6.1E-01
Inhalation Route Only			0.4%	2.0E-03	4.7E-03	3.8E-03	2.2E-03	1.7E-03	2.2E-03
Direct Soil Contact Only			14.3%	1.7E-01	3.3E-01	4.3E-02	2.2E-02	1.8E-02	4.2E-02
Market Basket Foods and Drinking Water			50.2%	1.3E-01	8.2E-01	5.7E-01	3.3E-01	2.0E-01	2.9E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			35.2%	0.0E+00	4.9E-01	4.4E-01	2.6E-01	2.4E-01	2.8E-01

Lead

Scenario	
Region	Coniston
Metal	Lead
EPC	95% UCL
Receptor	Male - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Lead

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	1.2E-01	8.1E-01	5.6E-01	3.3E-01	2.0E-01	2.9E-01
Drinking Water	µg/kg/day	1.1E-02	1.1E-02	7.8E-03	3.0E-03	6.0E-03	6.2E-03
Inhalation Route	µg/kg/day	2.0E-03	4.7E-03	3.8E-03	2.2E-03	1.7E-03	2.2E-03
Direct Dermal Contact	µg/kg/day	6.3E-05	5.9E-05	4.7E-05	4.1E-05	1.4E-05	2.3E-05
Soil/Dust Ingestion	µg/kg/day	1.7E-01	3.3E-01	4.3E-02	2.2E-02	1.7E-02	4.2E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	7.2E-02	6.2E-02	3.9E-02	3.0E-02	3.7E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.3E-01	1.1E-01	6.7E-02	5.1E-02	6.3E-02
Wild Blue Berries	µg/kg/day	0.0E+00	8.9E-02	5.4E-02	2.2E-02	1.7E-02	2.6E-02
Wild Game & Fish	µg/kg/day	0.0E+00	2.0E-01	2.2E-01	1.3E-01	1.4E-01	1.5E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	3.0E-01	1.7E+00	1.1E+00	6.2E-01	4.6E-01	6.1E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	1.6E-01	8.9E-01	5.7E-01	3.4E-01	2.5E-01	3.3E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Coniston
COC	Lead
EPC	95% UCL
Receptor	Male - RME Estimate

Toxicity Information - Lead		
Oral RfD	µg/kg/day	1.85
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Nickel



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	1.2E-02	µg/m3	0.0%	1.3E-04	2.8E-04	2.2E-04	1.3E-04	1.3E-04	1.5E-04
Inhalation of Fine Particulate- Indoors	1.2E-02	µg/m3	0.1%	2.7E-03	5.8E-03	4.5E-03	2.7E-03	2.6E-03	3.0E-03
Dermal Contact - Outdoors	4.3E+02	µg/g	0.0%	3.0E-04	2.9E-04	2.3E-04	2.1E-04	6.2E-05	1.1E-04
Dermal Contact - Indoors	6.7E+02	µg/g	0.0%	1.2E-04	1.1E-04	8.7E-05	7.8E-05	3.4E-05	5.0E-05
Soil Ingestion	4.3E+02	µg/g	1.9%	1.3E-01	2.6E-01	3.2E-02	1.9E-02	1.7E-02	3.6E-02
Indoor dust Ingestion	6.7E+02	µg/g	3.8%	2.6E-01	5.2E-01	6.3E-02	3.8E-02	3.4E-02	7.0E-02
Home Produced Fruits & Vegetables	5.6E-01	µg/g fw	3.1%	0.0E+00	3.8E-01	1.9E-01	9.3E-02	8.0E-02	1.1E-01
Local Fruits & Vegetables	1.3E+00	µg/g fw	6.7%	0.0E+00	8.0E-01	4.0E-01	2.2E-01	1.9E-01	2.5E-01
Local Wild Blue Berries	7.1E-01	µg/g fw	3.5%	0.0E+00	4.5E-01	2.2E-01	1.0E-01	8.6E-02	1.2E-01
Local Wild Game	6.2E-01	µg/g fw	1.0%	0.0E+00	9.9E-02	6.4E-02	4.4E-02	3.4E-02	4.2E-02
Local Fish	3.2E-02	µg/g fw	0.1%	0.0E+00	3.8E-03	4.7E-03	2.8E-03	3.6E-03	3.6E-03
Drinking Water	5.3E+01	µg/L	24.9%	1.5E+00	1.5E+00	1.1E+00	7.7E-01	1.1E+00	1.1E+00
Market Basket Contribution	NA	µg/g	54.9%	6.9E-01	5.9E+00	3.5E+00	1.9E+00	1.3E+00	1.9E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	2.6E+00	1.0E+01	5.5E+00	3.1E+00	2.8E+00	3.6E+00
<i>Inhalation Route Only</i>			0.1%	2.9E-03	6.0E-03	4.8E-03	2.8E-03	2.7E-03	3.1E-03
<i>Direct Soil Contact Only</i>			5.7%	3.9E-01	7.8E-01	9.6E-02	5.7E-02	5.1E-02	1.1E-01
<i>Market Basket Foods and Drinking Water</i>			79.8%	2.2E+00	7.5E+00	4.5E+00	2.6E+00	2.3E+00	2.9E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			14.4%	0.0E+00	1.7E+00	8.8E-01	4.6E-01	3.9E-01	5.3E-01

Nickel

Scenario	
Region	Coniston
Metal	Nickel
EPC	95% UCL
Receptor	Female - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Nickel

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	6.9E-01	5.9E+00	3.5E+00	1.9E+00	1.3E+00	1.9E+00
Drinking Water	µg/kg/day	1.5E+00	1.5E+00	1.1E+00	7.7E-01	1.1E+00	1.1E+00
Inhalation Route	µg/kg/day	2.9E-03	6.0E-03	4.8E-03	2.8E-03	2.7E-03	3.1E-03
Direct Dermal Contact	µg/kg/day	4.2E-04	4.0E-04	3.1E-04	2.9E-04	9.6E-05	1.6E-04
Soil/Dust Ingestion	µg/kg/day	3.9E-01	7.8E-01	9.5E-02	5.7E-02	5.1E-02	1.1E-01
HP Fruit & Vegetables	µg/kg/day	0.0E+00	3.8E-01	1.9E-01	9.3E-02	8.0E-02	1.1E-01
Local Fruit & Vegetables	µg/kg/day	0.0E+00	8.0E-01	4.0E-01	2.2E-01	1.9E-01	2.5E-01
Wild Blue Berries	µg/kg/day	0.0E+00	4.5E-01	2.2E-01	1.0E-01	8.6E-02	1.2E-01
Wild Game & Fish	µg/kg/day	0.0E+00	1.0E-01	6.9E-02	4.7E-02	3.7E-02	4.5E-02
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	2.6E+00	1.0E+01	5.5E+00	3.1E+00	2.8E+00	3.6E+00
Hazard Quotient - inhal	unitless	5.0E-01	1.1E+00	8.3E-01	5.0E-01	4.7E-01	NA
Hazard Quotient - oral	unitless	1.3E-01	5.0E-01	2.8E-01	1.6E-01	1.4E-01	1.8E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Coniston
COC	Nickel
EPC	95% UCL
Receptor	Female - CTE Estimate

Toxicity Information - Nickel		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.00571

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Nickel



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units							
Inhalation of Fine Particulate- Outdoors	1.2E-02	µg/m3	0.0%	2.0E-04	4.1E-04	3.2E-04	1.9E-04	1.8E-04	2.1E-04
Inhalation of Fine Particulate- Indoors	1.2E-02	µg/m3	0.1%	2.9E-03	6.1E-03	4.7E-03	2.8E-03	2.7E-03	3.1E-03
Dermal Contact - Outdoors	4.3E+02	µg/g	0.0%	3.2E-04	3.1E-04	2.4E-04	2.3E-04	6.5E-05	1.2E-04
Dermal Contact - Indoors	6.7E+02	µg/g	0.0%	1.3E-04	1.2E-04	9.0E-05	8.1E-05	3.6E-05	5.2E-05
Soil Ingestion	4.3E+02	µg/g	1.4%	1.4E-01	2.8E-01	3.4E-02	2.0E-02	1.8E-02	3.8E-02
Indoor dust Ingestion	6.7E+02	µg/g	2.8%	2.7E-01	5.4E-01	6.6E-02	3.9E-02	3.5E-02	7.3E-02
Home Produced Fruits & Vegetables	5.6E-01	µg/g fw	6.0%	0.0E+00	9.6E-01	5.5E-01	3.0E-01	2.4E-01	3.2E-01
Local Fruits & Vegetables	1.3E+00	µg/g fw	15.7%	0.0E+00	2.3E+00	1.5E+00	9.0E-01	7.2E-01	9.1E-01
Local Wild Blue Berries	7.1E-01	µg/g fw	5.1%	0.0E+00	9.0E-01	4.6E-01	2.2E-01	1.8E-01	2.5E-01
Local Wild Game	6.2E-01	µg/g fw	0.9%	0.0E+00	1.1E-01	8.2E-02	5.4E-02	4.2E-02	5.2E-02
Local Fish	3.2E-02	µg/g fw	0.2%	0.0E+00	1.5E-02	2.3E-02	1.2E-02	1.5E-02	1.5E-02
Drinking Water	5.3E+01	µg/L	21.4%	1.9E+00	1.9E+00	1.3E+00	9.4E-01	1.3E+00	1.3E+00
Market Basket Contribution	NA	µg/g	46.4%	9.0E-01	6.3E+00	4.5E+00	2.5E+00	1.7E+00	2.3E+00

Nickel

Scenario	
Region	Coniston
Metal	Nickel
EPC	95% UCL
Receptor	Female - RME Estimate

SUMMARY									
Estimated Total Daily Intake(ug/kg/day)	100.0%	3.2E+00	1.3E+01	8.5E+00	5.0E+00	4.2E+00	5.3E+00		
<i>Inhalation Route Only</i>	0.1%	3.1E-03	6.5E-03	5.1E-03	3.0E-03	2.9E-03	3.3E-03		
<i>Direct Soil Contact Only</i>	4.2%	4.1E-01	8.2E-01	1.0E-01	6.0E-02	5.3E-02	1.1E-01		
<i>Market Basket Foods and Drinking Water</i>	67.8%	2.8E+00	8.2E+00	5.8E+00	3.5E+00	2.9E+00	3.6E+00		
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)	27.9%	0.0E+00	4.3E+00	2.6E+00	1.5E+00	1.2E+00	1.6E+00		



HUMAN HEALTH RISK ESTIMATES

Nickel

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	9.0E-01	6.3E+00	4.5E+00	2.5E+00	1.7E+00	2.3E+00
Drinking Water	µg/kg/day	1.9E+00	1.9E+00	1.3E+00	9.4E-01	1.3E+00	1.3E+00
Inhalation Route	µg/kg/day	3.1E-03	6.5E-03	5.1E-03	3.0E-03	2.9E-03	3.3E-03
Direct Dermal Contact	µg/kg/day	4.5E-04	4.3E-04	3.3E-04	3.1E-04	1.0E-04	1.7E-04
Soil/Dust Ingestion	µg/kg/day	4.1E-01	8.2E-01	1.0E-01	6.0E-02	5.3E-02	1.1E-01
HP Fruit & Vegetables	µg/kg/day	0.0E+00	9.6E-01	5.5E-01	3.0E-01	2.4E-01	3.2E-01
Local Fruit & Vegetables	µg/kg/day	0.0E+00	2.3E+00	1.5E+00	9.0E-01	7.2E-01	9.1E-01
Wild Blue Berries	µg/kg/day	0.0E+00	9.0E-01	4.6E-01	2.2E-01	1.8E-01	2.5E-01
Wild Game & Fish	µg/kg/day	0.0E+00	1.3E-01	1.0E-01	6.7E-02	5.8E-02	6.8E-02
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	3.2E+00	1.3E+01	8.5E+00	5.0E+00	4.2E+00	5.3E+00
Hazard Quotient - inhal	unitless	5.4E-01	1.1E+00	8.9E-01	5.3E-01	5.0E-01	NA
Hazard Quotient - oral	unitless	1.6E-01	6.7E-01	4.2E-01	2.5E-01	2.1E-01	2.6E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Coniston
COC	Nickel
EPC	95% UCL
Receptor	Female - RME Estimate

Toxicity Information - Nickel		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.00571

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Nickel



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	1.2E-02	µg/m3	0.0%	1.3E-04	3.1E-04	2.5E-04	1.5E-04	1.2E-04	1.5E-04
Inhalation of Fine Particulate- Indoors	1.2E-02	µg/m3	0.1%	2.7E-03	6.4E-03	5.1E-03	3.0E-03	2.4E-03	3.0E-03
Dermal Contact - Outdoors	4.3E+02	µg/g	0.0%	3.0E-04	2.9E-04	2.3E-04	2.0E-04	5.7E-05	1.1E-04
Dermal Contact - Indoors	6.7E+02	µg/g	0.0%	1.2E-04	1.1E-04	8.8E-05	7.5E-05	3.2E-05	4.8E-05
Soil Ingestion	4.3E+02	µg/g	2.0%	1.3E-01	2.6E-01	3.4E-02	1.7E-02	1.4E-02	3.3E-02
Indoor dust Ingestion	6.7E+02	µg/g	3.9%	2.6E-01	5.1E-01	6.6E-02	3.4E-02	2.7E-02	6.5E-02
Home Produced Fruits & Vegetables	5.6E-01	µg/g fw	3.1%	0.0E+00	3.6E-01	2.0E-01	8.6E-02	7.2E-02	1.0E-01
Local Fruits & Vegetables	1.3E+00	µg/g fw	6.5%	0.0E+00	7.0E-01	4.2E-01	2.1E-01	1.7E-01	2.4E-01
Local Wild Blue Berries	7.1E-01	µg/g fw	3.6%	0.0E+00	4.4E-01	2.3E-01	8.9E-02	7.5E-02	1.1E-01
Local Wild Game	6.2E-01	µg/g fw	1.2%	0.0E+00	8.9E-02	7.4E-02	5.6E-02	5.7E-02	6.0E-02
Local Fish	3.2E-02	µg/g fw	0.1%	0.0E+00	4.0E-03	4.4E-03	3.3E-03	3.4E-03	3.5E-03
Drinking Water	5.3E+01	µg/L	24.7%	1.5E+00	1.5E+00	1.1E+00	6.9E-01	8.5E-01	9.1E-01
Market Basket Contribution	NA	µg/g	55.0%	5.5E-01	4.7E+00	3.8E+00	2.2E+00	1.4E+00	2.0E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	2.5E+00	8.7E+00	6.0E+00	3.4E+00	2.7E+00	3.5E+00
<i>Inhalation Route Only</i>			0.1%	2.9E-03	6.7E-03	5.3E-03	3.2E-03	2.5E-03	3.1E-03
<i>Direct Soil Contact Only</i>			5.8%	3.9E-01	7.8E-01	1.0E-01	5.1E-02	4.1E-02	9.8E-02
<i>Market Basket Foods and Drinking Water</i>			79.7%	2.1E+00	6.3E+00	5.0E+00	2.9E+00	2.3E+00	2.9E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			14.4%	0.0E+00	1.6E+00	9.2E-01	4.4E-01	3.8E-01	5.2E-01

Nickel

Scenario	
Region	Coniston
Metal	Nickel
EPC	95% UCL
Receptor	Male - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Nickel

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	5.5E-01	4.7E+00	3.8E+00	2.2E+00	1.4E+00	2.0E+00
Drinking Water	µg/kg/day	1.5E+00	1.5E+00	1.1E+00	6.9E-01	8.5E-01	9.1E-01
Inhalation Route	µg/kg/day	2.9E-03	6.7E-03	5.3E-03	3.2E-03	2.5E-03	3.1E-03
Direct Dermal Contact	µg/kg/day	4.2E-04	4.0E-04	3.2E-04	2.8E-04	9.0E-05	1.6E-04
Soil/Dust Ingestion	µg/kg/day	3.9E-01	7.8E-01	9.9E-02	5.1E-02	4.1E-02	9.7E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	3.6E-01	2.0E-01	8.6E-02	7.2E-02	1.0E-01
Local Fruit & Vegetables	µg/kg/day	0.0E+00	7.0E-01	4.2E-01	2.1E-01	1.7E-01	2.4E-01
Wild Blue Berries	µg/kg/day	0.0E+00	4.4E-01	2.3E-01	8.9E-02	7.5E-02	1.1E-01
Wild Game & Fish	µg/kg/day	0.0E+00	9.3E-02	7.9E-02	5.9E-02	6.0E-02	6.4E-02
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	2.5E+00	8.6E+00	6.0E+00	3.4E+00	2.7E+00	3.5E+00
Hazard Quotient - inhal	unitless	5.0E-01	1.2E+00	9.4E-01	5.6E-01	4.3E-01	NA
Hazard Quotient - oral	unitless	1.2E-01	4.3E-01	3.0E-01	1.7E-01	1.4E-01	1.7E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Coniston
COC	Nickel
EPC	95% UCL
Receptor	Male - CTE Estimate

Toxicity Information - Nickel		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.00571

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Nickel



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	1.2E-02	µg/m3	0.0%	2.0E-04	4.5E-04	3.6E-04	2.0E-04	1.7E-04	2.1E-04
Inhalation of Fine Particulate- Indoors	1.2E-02	µg/m3	0.1%	2.9E-03	6.7E-03	5.3E-03	3.2E-03	2.5E-03	3.1E-03
Dermal Contact - Outdoors	4.3E+02	µg/g	0.0%	3.2E-04	3.1E-04	2.4E-04	2.2E-04	6.1E-05	1.1E-04
Dermal Contact - Indoors	6.7E+02	µg/g	0.0%	1.3E-04	1.2E-04	9.1E-05	7.8E-05	3.3E-05	5.0E-05
Soil Ingestion	4.3E+02	µg/g	1.4%	1.4E-01	2.8E-01	3.6E-02	1.8E-02	1.5E-02	3.5E-02
Indoor dust Ingestion	6.7E+02	µg/g	2.7%	2.7E-01	5.3E-01	6.9E-02	3.5E-02	2.8E-02	6.7E-02
Home Produced Fruits & Vegetables	5.6E-01	µg/g fw	6.0%	0.0E+00	9.3E-01	6.3E-01	3.0E-01	2.3E-01	3.2E-01
Local Fruits & Vegetables	1.3E+00	µg/g fw	16.0%	0.0E+00	2.3E+00	1.7E+00	9.5E-01	7.2E-01	9.4E-01
Local Wild Blue Berries	7.1E-01	µg/g fw	5.0%	0.0E+00	8.5E-01	5.2E-01	2.1E-01	1.6E-01	2.4E-01
Local Wild Game	6.2E-01	µg/g fw	1.1%	0.0E+00	1.2E-01	9.3E-02	7.1E-02	9.3E-02	9.1E-02
Local Fish	3.2E-02	µg/g fw	0.2%	0.0E+00	2.1E-02	2.3E-02	1.4E-02	1.5E-02	1.6E-02
Drinking Water	5.3E+01	µg/L	19.0%	1.9E+00	1.9E+00	1.3E+00	5.0E-01	1.0E+00	1.0E+00
Market Basket Contribution	NA	µg/g	48.6%	5.9E-01	6.2E+00	5.1E+00	3.3E+00	1.9E+00	2.6E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)	100.0%	2.9E+00	1.3E+01	9.5E+00	5.4E+00	4.2E+00	5.4E+00		
<i>Inhalation Route Only</i>	0.1%	3.1E-03	7.1E-03	5.7E-03	3.4E-03	2.7E-03	3.3E-03		
<i>Direct Soil Contact Only</i>	4.1%	4.1E-01	8.1E-01	1.0E-01	5.3E-02	4.3E-02	1.0E-01		
<i>Market Basket Foods and Drinking Water</i>	67.7%	2.5E+00	8.1E+00	6.4E+00	3.8E+00	2.9E+00	3.7E+00		
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)	28.2%	0.0E+00	4.2E+00	2.9E+00	1.5E+00	1.2E+00	1.6E+00		

Nickel

Scenario	
Region	Coniston
Metal	Nickel
EPC	95% UCL
Receptor	Male - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Nickel

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	5.9E-01	6.2E+00	5.1E+00	3.3E+00	1.9E+00	2.6E+00
Drinking Water	µg/kg/day	1.9E+00	1.9E+00	1.3E+00	5.0E-01	1.0E+00	1.0E+00
Inhalation Route	µg/kg/day	3.1E-03	7.1E-03	5.7E-03	3.4E-03	2.7E-03	3.3E-03
Direct Dermal Contact	µg/kg/day	4.5E-04	4.2E-04	3.3E-04	3.0E-04	9.4E-05	1.7E-04
Soil/Dust Ingestion	µg/kg/day	4.1E-01	8.1E-01	1.0E-01	5.3E-02	4.3E-02	1.0E-01
HP Fruit & Vegetables	µg/kg/day	0.0E+00	9.3E-01	6.3E-01	3.0E-01	2.3E-01	3.2E-01
Local Fruit & Vegetables	µg/kg/day	0.0E+00	2.3E+00	1.7E+00	9.5E-01	7.2E-01	9.4E-01
Wild Blue Berries	µg/kg/day	0.0E+00	8.5E-01	5.2E-01	2.1E-01	1.6E-01	2.4E-01
Wild Game & Fish	µg/kg/day	0.0E+00	1.4E-01	1.2E-01	8.6E-02	1.1E-01	1.1E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	2.9E+00	1.3E+01	9.4E+00	5.4E+00	4.2E+00	5.4E+00
Hazard Quotient - inhal	unitless	5.4E-01	1.3E+00	1.0E+00	6.0E-01	4.6E-01	NA
Hazard Quotient - oral	unitless	1.5E-01	6.6E-01	4.7E-01	2.7E-01	2.1E-01	2.7E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Coniston
COC	Nickel
EPC	95% UCL
Receptor	Male - RME Estimate

Toxicity Information - Nickel		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.00571

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Selenium

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	3.4E-03	µg/m3	0.0%	3.7E-05	7.9E-05	6.2E-05	3.7E-05	3.5E-05	4.1E-05
Inhalation of Fine Particulate- Indoors	3.4E-03	µg/m3	0.0%	7.6E-04	1.6E-03	1.3E-03	7.6E-04	7.2E-04	8.4E-04
Dermal Contact - Outdoors	1.3E+00	µg/g	0.0%	9.1E-07	8.8E-07	6.8E-07	6.4E-07	1.9E-07	3.4E-07
Dermal Contact - Indoors	2.7E+00	µg/g	0.0%	4.9E-07	4.5E-07	3.5E-07	3.1E-07	1.4E-07	2.0E-07
Soil Ingestion	1.3E+00	µg/g	0.0%	2.5E-04	4.9E-04	6.0E-05	3.6E-05	3.2E-05	6.7E-05
Indoor dust Ingestion	2.7E+00	µg/g	0.1%	2.3E-03	4.6E-03	5.7E-04	3.4E-04	3.0E-04	6.3E-04
Home Produced Fruits & Vegetables	2.9E-02	µg/g fw	0.1%	0.0E+00	9.6E-03	4.8E-03	2.5E-03	2.2E-03	2.9E-03
Local Fruits & Vegetables	3.9E-02	µg/g fw	0.5%	0.0E+00	3.5E-02	1.9E-02	1.2E-02	1.0E-02	1.3E-02
Local Wild Blue Berries	1.6E-02	µg/g fw	0.1%	0.0E+00	1.0E-02	4.9E-03	2.3E-03	1.9E-03	2.8E-03
Local Wild Game	1.4E+00	µg/g fw	3.7%	0.0E+00	2.2E-01	1.4E-01	9.6E-02	7.4E-02	9.1E-02
Local Fish	2.0E+00	µg/g fw	6.4%	0.0E+00	2.3E-01	2.9E-01	1.7E-01	2.2E-01	2.2E-01
Drinking Water	1.3E+00	µg/L	1.0%	3.8E-02	3.7E-02	2.6E-02	1.9E-02	2.6E-02	2.6E-02
Market Basket Contribution	NA	µg/g	87.9%	1.3E+00	5.0E+00	3.3E+00	1.7E+00	1.0E+00	1.6E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	1.3E+00	5.5E+00	3.8E+00	2.0E+00	1.4E+00	2.0E+00
<i>Inhalation Route Only</i>			0.0%	8.0E-04	1.7E-03	1.3E-03	7.9E-04	7.5E-04	8.8E-04
<i>Direct Soil Contact Only</i>			0.1%	2.6E-03	5.1E-03	6.3E-04	3.8E-04	3.3E-04	6.9E-04
<i>Market Basket Foods and Drinking Water</i>			88.9%	1.3E+00	5.0E+00	3.4E+00	1.7E+00	1.1E+00	1.6E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			11.0%	0.0E+00	5.0E-01	4.5E-01	2.8E-01	3.1E-01	3.3E-01

Selenium

Scenario	
Region	Coniston
Metal	Selenium
EPC	95% UCL
Receptor	Female - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Selenium

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	1.3E+00	5.0E+00	3.3E+00	1.7E+00	1.0E+00	1.6E+00
Drinking Water	µg/kg/day	3.8E-02	3.7E-02	2.6E-02	1.9E-02	2.6E-02	2.6E-02
Inhalation Route	µg/kg/day	8.0E-04	1.7E-03	1.3E-03	7.9E-04	7.5E-04	8.8E-04
Direct Dermal Contact	µg/kg/day	1.4E-06	1.3E-06	1.0E-06	9.6E-07	3.3E-07	5.4E-07
Soil/Dust Ingestion	µg/kg/day	2.6E-03	5.1E-03	6.3E-04	3.8E-04	3.3E-04	6.9E-04
HP Fruit & Vegetables	µg/kg/day	0.0E+00	9.6E-03	4.8E-03	2.5E-03	2.2E-03	2.9E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	3.5E-02	1.9E-02	1.2E-02	1.0E-02	1.3E-02
Wild Blue Berries	µg/kg/day	0.0E+00	1.0E-02	4.9E-03	2.3E-03	1.9E-03	2.8E-03
Wild Game & Fish	µg/kg/day	0.0E+00	4.5E-01	4.3E-01	2.6E-01	2.9E-01	3.1E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	1.3E+00	5.5E+00	3.8E+00	2.0E+00	1.4E+00	2.0E+00
Hazard Quotient - inhal	unitless	1.4E-04	3.0E-04	2.3E-04	1.4E-04	1.3E-04	NA
Hazard Quotient - oral	unitless	2.6E-01	1.1E+00	7.7E-01	4.1E-01	2.7E-01	3.9E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Coniston
COC	Selenium
EPC	95% UCL
Receptor	Female - CTE Estimate

Toxicity Information - Selenium		
Oral RfD	µg/kg/day	5
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	5.71

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Selenium



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	3.4E-03	µg/m3	0.0%	5.5E-05	1.1E-04	8.9E-05	5.3E-05	5.1E-05	5.9E-05
Inhalation of Fine Particulate- Indoors	3.4E-03	µg/m3	0.0%	8.1E-04	1.7E-03	1.3E-03	7.9E-04	7.5E-04	8.7E-04
Dermal Contact - Outdoors	1.3E+00	µg/g	0.0%	9.7E-07	9.3E-07	7.3E-07	6.8E-07	2.0E-07	3.6E-07
Dermal Contact - Indoors	2.7E+00	µg/g	0.0%	5.1E-07	4.7E-07	3.6E-07	3.3E-07	1.4E-07	2.1E-07
Soil Ingestion	1.3E+00	µg/g	0.0%	2.6E-04	5.2E-04	6.4E-05	3.8E-05	3.4E-05	7.1E-05
Indoor dust Ingestion	2.7E+00	µg/g	0.0%	2.4E-03	4.8E-03	5.9E-04	3.5E-04	3.1E-04	6.5E-04
Home Produced Fruits & Vegetables	2.9E-02	µg/g fw	0.3%	0.0E+00	2.6E-02	1.7E-02	9.7E-03	7.8E-03	1.0E-02
Local Fruits & Vegetables	3.9E-02	µg/g fw	1.7%	0.0E+00	1.3E-01	1.0E-01	7.1E-02	5.5E-02	6.7E-02
Local Wild Blue Berries	1.6E-02	µg/g fw	0.2%	0.0E+00	2.0E-02	1.0E-02	4.9E-03	4.0E-03	5.7E-03
Local Wild Game	1.4E+00	µg/g fw	3.1%	0.0E+00	2.5E-01	1.8E-01	1.2E-01	9.3E-02	1.1E-01
Local Fish	2.0E+00	µg/g fw	19.1%	0.0E+00	8.9E-01	1.4E+00	7.5E-01	9.2E-01	9.4E-01
Drinking Water	1.3E+00	µg/L	0.9%	4.7E-02	4.7E-02	3.0E-02	2.3E-02	3.0E-02	3.1E-02
Market Basket Contribution	NA	µg/g	74.7%	1.6E+00	6.4E+00	4.0E+00	2.2E+00	1.3E+00	2.0E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	1.7E+00	7.8E+00	5.8E+00	3.1E+00	2.4E+00	3.2E+00
<i>Inhalation Route Only</i>			0.0%	8.7E-04	1.8E-03	1.4E-03	8.4E-04	8.0E-04	9.3E-04
<i>Direct Soil Contact Only</i>			0.0%	2.7E-03	5.4E-03	6.5E-04	3.9E-04	3.5E-04	7.2E-04
<i>Market Basket Foods and Drinking Water</i>			75.5%	1.7E+00	6.5E+00	4.1E+00	2.2E+00	1.3E+00	2.0E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			24.4%	0.0E+00	1.3E+00	1.7E+00	9.6E-01	1.1E+00	1.1E+00

Selenium

Scenario	
Region	Coniston
Metal	Selenium
EPC	95% UCL
Receptor	Female - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Selenium

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	1.6E+00	6.4E+00	4.0E+00	2.2E+00	1.3E+00	2.0E+00
Drinking Water	µg/kg/day	4.7E-02	4.7E-02	3.0E-02	2.3E-02	3.0E-02	3.1E-02
Inhalation Route	µg/kg/day	8.7E-04	1.8E-03	1.4E-03	8.4E-04	8.0E-04	9.3E-04
Direct Dermal Contact	µg/kg/day	1.5E-06	1.4E-06	1.1E-06	1.0E-06	3.4E-07	5.7E-07
Soil/Dust Ingestion	µg/kg/day	2.7E-03	5.4E-03	6.5E-04	3.9E-04	3.5E-04	7.2E-04
HP Fruit & Vegetables	µg/kg/day	0.0E+00	2.6E-02	1.7E-02	9.7E-03	7.8E-03	1.0E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.3E-01	1.0E-01	7.1E-02	5.5E-02	6.7E-02
Wild Blue Berries	µg/kg/day	0.0E+00	2.0E-02	1.0E-02	4.9E-03	4.0E-03	5.7E-03
Wild Game & Fish	µg/kg/day	0.0E+00	1.1E+00	1.6E+00	8.7E-01	1.0E+00	1.1E+00
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	1.7E+00	7.8E+00	5.8E+00	3.1E+00	2.4E+00	3.2E+00
Hazard Quotient - inhal	unitless	1.5E-04	3.2E-04	2.5E-04	1.5E-04	1.4E-04	NA
Hazard Quotient - oral	unitless	3.4E-01	1.6E+00	1.2E+00	6.3E-01	4.8E-01	6.3E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Coniston
COC	Selenium
EPC	95% UCL
Receptor	Female - RME Estimate

Toxicity Information - Selenium		
Oral RfD	µg/kg/day	5
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	5.71

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Selenium



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	3.4E-03	µg/m3	0.0%	3.7E-05	8.7E-05	7.0E-05	4.2E-05	3.2E-05	4.1E-05
Inhalation of Fine Particulate- Indoors	3.4E-03	µg/m3	0.0%	7.6E-04	1.8E-03	1.4E-03	8.5E-04	6.6E-04	8.3E-04
Dermal Contact - Outdoors	1.3E+00	µg/g	0.0%	9.1E-07	8.8E-07	6.9E-07	6.2E-07	1.7E-07	3.3E-07
Dermal Contact - Indoors	2.7E+00	µg/g	0.0%	4.9E-07	4.5E-07	3.5E-07	3.0E-07	1.3E-07	1.9E-07
Soil Ingestion	1.3E+00	µg/g	0.0%	2.5E-04	4.9E-04	6.3E-05	3.2E-05	2.6E-05	6.2E-05
Indoor dust Ingestion	2.7E+00	µg/g	0.1%	2.3E-03	4.6E-03	5.9E-04	3.0E-04	2.4E-04	5.8E-04
Home Produced Fruits & Vegetables	2.9E-02	µg/g fw	0.1%	0.0E+00	8.6E-03	5.0E-03	2.4E-03	2.0E-03	2.7E-03
Local Fruits & Vegetables	3.9E-02	µg/g fw	0.4%	0.0E+00	2.6E-02	2.0E-02	1.3E-02	1.0E-02	1.3E-02
Local Wild Blue Berries	1.6E-02	µg/g fw	0.1%	0.0E+00	9.9E-03	5.1E-03	2.0E-03	1.7E-03	2.6E-03
Local Wild Game	1.4E+00	µg/g fw	3.8%	0.0E+00	1.9E-01	1.6E-01	1.2E-01	1.2E-01	1.3E-01
Local Fish	2.0E+00	µg/g fw	5.9%	0.0E+00	2.4E-01	2.7E-01	2.0E-01	2.0E-01	2.1E-01
Drinking Water	1.3E+00	µg/L	0.9%	3.8E-02	3.7E-02	2.7E-02	1.7E-02	2.1E-02	2.2E-02
Market Basket Contribution	NA	µg/g	88.6%	1.0E+00	5.4E+00	3.8E+00	2.2E+00	1.4E+00	2.0E+00

Selenium

Scenario	
Region	Coniston
Metal	Selenium
EPC	95% UCL
Receptor	Male - CTE Estimate

SUMMARY									
Estimated Total Daily Intake(ug/kg/day)	100.0%	1.0E+00	5.9E+00	4.3E+00	2.6E+00	1.8E+00	2.4E+00		
<i>Inhalation Route Only</i>	0.0%	8.0E-04	1.9E-03	1.5E-03	8.9E-04	6.9E-04	8.7E-04		
<i>Direct Soil Contact Only</i>	0.1%	2.6E-03	5.1E-03	6.6E-04	3.4E-04	2.7E-04	6.4E-04		
<i>Market Basket Foods and Drinking Water</i>	89.5%	1.0E+00	5.4E+00	3.8E+00	2.3E+00	1.5E+00	2.0E+00		
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)	10.4%	0.0E+00	4.8E-01	4.6E-01	3.4E-01	3.4E-01	3.6E-01		



HUMAN HEALTH RISK ESTIMATES

Selenium

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	1.0E+00	5.4E+00	3.8E+00	2.2E+00	1.4E+00	2.0E+00
Drinking Water	µg/kg/day	3.8E-02	3.7E-02	2.7E-02	1.7E-02	2.1E-02	2.2E-02
Inhalation Route	µg/kg/day	8.0E-04	1.9E-03	1.5E-03	8.9E-04	6.9E-04	8.7E-04
Direct Dermal Contact	µg/kg/day	1.4E-06	1.3E-06	1.0E-06	9.2E-07	3.0E-07	5.2E-07
Soil/Dust Ingestion	µg/kg/day	2.6E-03	5.1E-03	6.5E-04	3.3E-04	2.7E-04	6.4E-04
HP Fruit & Vegetables	µg/kg/day	0.0E+00	8.6E-03	5.0E-03	2.4E-03	2.0E-03	2.7E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	2.6E-02	2.0E-02	1.3E-02	1.0E-02	1.3E-02
Wild Blue Berries	µg/kg/day	0.0E+00	9.9E-03	5.1E-03	2.0E-03	1.7E-03	2.6E-03
Wild Game & Fish	µg/kg/day	0.0E+00	4.4E-01	4.3E-01	3.2E-01	3.3E-01	3.4E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	1.0E+00	5.9E+00	4.3E+00	2.6E+00	1.8E+00	2.4E+00
Hazard Quotient - inhal	unitless	1.4E-04	3.3E-04	2.6E-04	1.6E-04	1.2E-04	NA
Hazard Quotient - oral	unitless	2.1E-01	1.2E+00	8.6E-01	5.2E-01	3.6E-01	4.8E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Coniston
COC	Selenium
EPC	95% UCL
Receptor	Male - CTE Estimate

Toxicity Information - Selenium		
Oral RfD	µg/kg/day	5
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	5.71

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Selenium



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	3.4E-03	µg/m3	0.0%	5.5E-05	1.3E-04	1.0E-04	5.5E-05	4.7E-05	5.8E-05
Inhalation of Fine Particulate- Indoors	3.4E-03	µg/m3	0.0%	8.1E-04	1.9E-03	1.5E-03	9.0E-04	6.9E-04	8.7E-04
Dermal Contact - Outdoors	1.3E+00	µg/g	0.0%	9.7E-07	9.3E-07	7.4E-07	6.6E-07	1.8E-07	3.5E-07
Dermal Contact - Indoors	2.7E+00	µg/g	0.0%	5.1E-07	4.7E-07	3.7E-07	3.2E-07	1.3E-07	2.0E-07
Soil Ingestion	1.3E+00	µg/g	0.0%	2.6E-04	5.2E-04	6.7E-05	3.4E-05	2.7E-05	6.5E-05
Indoor dust Ingestion	2.7E+00	µg/g	0.0%	2.4E-03	4.8E-03	6.2E-04	3.1E-04	2.5E-04	6.0E-04
Home Produced Fruits & Vegetables	2.9E-02	µg/g fw	0.3%	0.0E+00	2.6E-02	1.9E-02	1.0E-02	7.8E-03	1.0E-02
Local Fruits & Vegetables	3.9E-02	µg/g fw	1.7%	0.0E+00	1.4E-01	1.2E-01	7.8E-02	5.9E-02	7.2E-02
Local Wild Blue Berries	1.6E-02	µg/g fw	0.2%	0.0E+00	1.9E-02	1.2E-02	4.6E-03	3.6E-03	5.5E-03
Local Wild Game	1.4E+00	µg/g fw	3.5%	0.0E+00	2.5E-01	2.0E-01	1.6E-01	2.0E-01	2.0E-01
Local Fish	2.0E+00	µg/g fw	19.6%	0.0E+00	1.3E+00	1.4E+00	8.7E-01	9.2E-01	9.8E-01
Drinking Water	1.3E+00	µg/L	0.7%	4.7E-02	4.7E-02	3.2E-02	1.2E-02	2.4E-02	2.5E-02
Market Basket Contribution	NA	µg/g	73.9%	1.1E+00	6.5E+00	4.5E+00	2.8E+00	2.0E+00	2.7E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	1.1E+00	8.3E+00	6.3E+00	3.9E+00	3.3E+00	4.0E+00
<i>Inhalation Route Only</i>			0.0%	8.7E-04	2.0E-03	1.6E-03	9.5E-04	7.4E-04	9.3E-04
<i>Direct Soil Contact Only</i>			0.0%	2.7E-03	5.3E-03	6.8E-04	3.5E-04	2.8E-04	6.7E-04
<i>Market Basket Foods and Drinking Water</i>			74.6%	1.1E+00	6.6E+00	4.6E+00	2.8E+00	2.1E+00	2.7E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			25.3%	0.0E+00	1.7E+00	1.8E+00	1.1E+00	1.2E+00	1.3E+00

Selenium

Scenario	
Region	Coniston
Metal	Selenium
EPC	95% UCL
Receptor	Male - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Selenium

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	1.1E+00	6.5E+00	4.5E+00	2.8E+00	2.0E+00	2.7E+00
Drinking Water	µg/kg/day	4.7E-02	4.7E-02	3.2E-02	1.2E-02	2.4E-02	2.5E-02
Inhalation Route	µg/kg/day	8.7E-04	2.0E-03	1.6E-03	9.5E-04	7.4E-04	9.3E-04
Direct Dermal Contact	µg/kg/day	1.5E-06	1.4E-06	1.1E-06	9.7E-07	3.2E-07	5.5E-07
Soil/Dust Ingestion	µg/kg/day	2.7E-03	5.3E-03	6.8E-04	3.5E-04	2.8E-04	6.7E-04
HP Fruit & Vegetables	µg/kg/day	0.0E+00	2.6E-02	1.9E-02	1.0E-02	7.8E-03	1.0E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.4E-01	1.2E-01	7.8E-02	5.9E-02	7.2E-02
Wild Blue Berries	µg/kg/day	0.0E+00	1.9E-02	1.2E-02	4.6E-03	3.6E-03	5.5E-03
Wild Game & Fish	µg/kg/day	0.0E+00	1.6E+00	1.6E+00	1.0E+00	1.1E+00	1.2E+00
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	1.1E+00	8.3E+00	6.3E+00	3.9E+00	3.3E+00	4.0E+00
Hazard Quotient - inhal	unitless	1.5E-04	3.5E-04	2.8E-04	1.7E-04	1.3E-04	NA
Hazard Quotient - oral	unitless	2.2E-01	1.7E+00	1.3E+00	7.8E-01	6.5E-01	7.9E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Coniston
COC	Selenium
EPC	95% UCL
Receptor	Male - RME Estimate

Toxicity Information - Selenium		
Oral RfD	µg/kg/day	5
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	5.71

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Arsenic

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	5.0E-03	µg/m3	0.0%	5.5E-05	1.2E-04	9.1E-05	5.5E-05	5.2E-05	1.1E-04
Inhalation of Fine Particulate- Indoors	5.0E-03	µg/m3	0.8%	1.1E-03	2.4E-03	1.9E-03	1.1E-03	1.1E-03	2.2E-03
Dermal Contact - Outdoors	1.9E+01	µg/g	0.2%	4.0E-04	3.8E-04	3.0E-04	2.8E-04	8.1E-05	3.4E-04
Dermal Contact - Indoors	1.8E+01	µg/g	0.0%	1.0E-04	9.3E-05	7.2E-05	6.5E-05	2.9E-05	8.9E-05
Soil Ingestion	1.9E+01	µg/g	2.1%	5.4E-03	1.1E-02	1.3E-03	7.8E-04	7.0E-04	3.6E-03
Indoor dust Ingestion	1.8E+01	µg/g	4.2%	1.1E-02	2.1E-02	2.6E-03	1.6E-03	1.4E-03	7.2E-03
Home Produced Fruits & Vegetables	8.8E-03	µg/g fw	0.4%	0.0E+00	1.8E-03	9.2E-04	5.5E-04	4.9E-04	1.2E-03
Local Fruits & Vegetables	1.0E-02	µg/g fw	0.9%	0.0E+00	4.0E-03	2.1E-03	1.2E-03	1.0E-03	2.5E-03
Local Wild Blue Berries	5.2E-03	µg/g fw	0.7%	0.0E+00	3.2E-03	1.5E-03	7.1E-04	6.0E-04	1.7E-03
Local Wild Game	1.3E-04	µg/g fw	0.0%	0.0E+00	1.9E-05	1.2E-05	8.4E-06	6.5E-06	1.5E-05
Local Fish	2.2E-04	µg/g fw	0.0%	0.0E+00	2.5E-05	3.1E-05	1.8E-05	2.3E-05	3.7E-05
Drinking Water	2.5E+00	µg/L	32.3%	7.4E-02	7.4E-02	5.2E-02	3.7E-02	5.1E-02	8.4E-02
Market Basket Contribution	NA	µg/g	58.3%	4.1E-04	2.5E-01	1.5E-01	7.6E-02	4.8E-02	1.5E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	9.2E-02	3.7E-01	2.1E-01	1.2E-01	1.0E-01	2.6E-01
Inhalation Route Only			0.9%	1.2E-03	2.5E-03	2.0E-03	1.2E-03	1.1E-03	2.3E-03
Direct Soil Contact Only			6.5%	1.7E-02	3.3E-02	4.3E-03	2.7E-03	2.2E-03	1.1E-02
Market Basket Foods and Drinking Water			90.5%	7.5E-02	3.2E-01	2.0E-01	1.1E-01	9.9E-02	2.4E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			2.0%	0.0E+00	9.0E-03	4.6E-03	2.5E-03	2.1E-03	5.5E-03

Arsenic

Scenario	
Region	Copper Cliff
Metal	Arsenic
EPC	95% UCL
Receptor	Female - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Arsenic

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	4.1E-04	2.5E-01	1.5E-01	7.6E-02	4.8E-02	1.5E-01
Drinking Water	µg/kg/day	7.4E-02	7.4E-02	5.2E-02	3.7E-02	5.1E-02	8.4E-02
Inhalation Route	µg/kg/day	1.2E-03	2.5E-03	2.0E-03	1.2E-03	1.1E-03	2.3E-03
Direct Dermal Contact	µg/kg/day	5.0E-04	4.8E-04	3.7E-04	3.4E-04	1.1E-04	4.3E-04
Soil/Dust Ingestion	µg/kg/day	1.6E-02	3.2E-02	3.9E-03	2.3E-03	2.1E-03	1.1E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.8E-03	9.2E-04	5.5E-04	4.9E-04	1.2E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	4.0E-03	2.1E-03	1.2E-03	1.0E-03	2.5E-03
Wild Blue Berries	µg/kg/day	0.0E+00	3.2E-03	1.5E-03	7.1E-04	6.0E-04	1.7E-03
Wild Game & Fish	µg/kg/day	0.0E+00	4.4E-05	4.3E-05	2.6E-05	3.0E-05	5.2E-05
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	9.1E-02	3.6E-01	2.1E-01	1.2E-01	1.0E-01	2.5E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	3.0E-01	1.2E+00	7.0E-01	4.0E-01	3.4E-01	4.4E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		3.5E-05		1.5E-04		1.9E-04	

Scenario	
COI	Copper Cliff
COC	Arsenic
EPC	95% UCL
Receptor	Female - CTE Estimate

Toxicity Information - Arsenic		
Oral RfD	µg/kg/day	0.3
Oral S.F.	(µg/kg/day) ⁻¹	1.50E-03
Inhalation S.F.	(µg/kg/day) ⁻¹	1.50E-02
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Arsenic



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	5.0E-03	µg/m3	0.0%	8.1E-05	1.7E-04	1.3E-04	7.8E-05	7.4E-05	1.6E-04
Inhalation of Fine Particulate- Indoors	5.0E-03	µg/m3	0.7%	1.2E-03	2.5E-03	1.9E-03	1.2E-03	1.1E-03	2.3E-03
Dermal Contact - Outdoors	1.9E+01	µg/g	0.1%	4.2E-04	4.1E-04	3.1E-04	3.0E-04	8.6E-05	3.7E-04
Dermal Contact - Indoors	1.8E+01	µg/g	0.0%	1.1E-04	9.7E-05	7.5E-05	6.7E-05	3.0E-05	9.3E-05
Soil Ingestion	1.9E+01	µg/g	1.8%	5.7E-03	1.1E-02	1.4E-03	8.3E-04	7.4E-04	3.8E-03
Indoor dust Ingestion	1.8E+01	µg/g	3.5%	1.1E-02	2.2E-02	2.7E-03	1.6E-03	1.5E-03	7.5E-03
Home Produced Fruits & Vegetables	8.8E-03	µg/g fw	1.3%	0.0E+00	5.8E-03	4.2E-03	2.8E-03	2.3E-03	5.0E-03
Local Fruits & Vegetables	1.0E-02	µg/g fw	2.9%	0.0E+00	1.3E-02	9.0E-03	5.8E-03	4.6E-03	1.0E-02
Local Wild Blue Berries	5.2E-03	µg/g fw	1.1%	0.0E+00	6.3E-03	3.2E-03	1.5E-03	1.2E-03	3.6E-03
Local Wild Game	1.3E-04	µg/g fw	0.0%	0.0E+00	2.2E-05	1.6E-05	1.0E-05	8.1E-06	1.8E-05
Local Fish	2.2E-04	µg/g fw	0.0%	0.0E+00	9.6E-05	1.5E-04	8.1E-05	9.9E-05	1.6E-04
Drinking Water	2.5E+00	µg/L	31.2%	9.3E-02	9.3E-02	6.0E-02	4.5E-02	6.0E-02	1.0E-01
Market Basket Contribution	NA	µg/g	57.2%	5.3E-04	2.9E-01	1.9E-01	1.0E-01	6.3E-02	1.9E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	1.1E-01	4.5E-01	2.7E-01	1.6E-01	1.3E-01	3.3E-01
Inhalation Route Only			0.8%	1.3E-03	2.7E-03	2.1E-03	1.2E-03	1.2E-03	2.5E-03
Direct Soil Contact Only			5.5%	1.7E-02	3.4E-02	4.5E-03	2.8E-03	2.3E-03	1.2E-02
Market Basket Foods and Drinking Water			88.4%	9.3E-02	3.9E-01	2.5E-01	1.5E-01	1.2E-01	2.9E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			5.3%	0.0E+00	2.5E-02	1.7E-02	1.0E-02	8.2E-03	1.9E-02

Arsenic

Scenario	
Region	Copper Cliff
Metal	Arsenic
EPC	95% UCL
Receptor	Female - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Arsenic

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	5.3E-04	2.9E-01	1.9E-01	1.0E-01	6.3E-02	1.9E-01
Drinking Water	µg/kg/day	9.3E-02	9.3E-02	6.0E-02	4.5E-02	6.0E-02	1.0E-01
Inhalation Route	µg/kg/day	1.3E-03	2.7E-03	2.1E-03	1.2E-03	1.2E-03	2.5E-03
Direct Dermal Contact	µg/kg/day	5.3E-04	5.0E-04	3.9E-04	3.6E-04	1.2E-04	4.6E-04
Soil/Dust Ingestion	µg/kg/day	1.7E-02	3.4E-02	4.1E-03	2.5E-03	2.2E-03	1.1E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	5.8E-03	4.2E-03	2.8E-03	2.3E-03	5.0E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.3E-02	9.0E-03	5.8E-03	4.6E-03	1.0E-02
Wild Blue Berries	µg/kg/day	0.0E+00	6.3E-03	3.2E-03	1.5E-03	1.2E-03	3.6E-03
Wild Game & Fish	µg/kg/day	0.0E+00	1.2E-04	1.7E-04	9.1E-05	1.1E-04	1.8E-04
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	1.1E-01	4.4E-01	2.7E-01	1.6E-01	1.3E-01	3.2E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	3.7E-01	1.5E+00	8.9E-01	5.3E-01	4.4E-01	5.6E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	<i>Inhalation ILCR</i>		<i>Oral ILCR</i>		<i>Total ILCR</i>	
		3.7E-05		2.0E-04		2.4E-04	

Scenario	
<i>COI</i>	Copper Cliff
<i>COC</i>	Arsenic
<i>EPC</i>	95% UCL
<i>Receptor</i>	Female - RME Estimate

Toxicity Information - Arsenic		
<i>Oral RfD</i>	µg/kg/day	0.3
<i>Oral S.F.</i>	(µg/kg/day) ⁻¹	1.50E-03
<i>Inhalation S.F.</i>	(µg/kg/day) ⁻¹	1.50E-02
<i>Inhalation RfD</i>	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Arsenic

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	5.0E-03	µg/m3	0.0%	5.5E-05	1.3E-04	1.0E-04	6.1E-05	4.7E-05	1.1E-04
Inhalation of Fine Particulate- Indoors	5.0E-03	µg/m3	0.9%	1.1E-03	2.6E-03	2.1E-03	1.2E-03	9.7E-04	2.3E-03
Dermal Contact - Outdoors	1.9E+01	µg/g	0.2%	4.0E-04	3.8E-04	3.0E-04	2.7E-04	7.6E-05	3.4E-04
Dermal Contact - Indoors	1.8E+01	µg/g	0.0%	1.0E-04	9.3E-05	7.3E-05	6.3E-05	2.7E-05	8.7E-05
Soil Ingestion	1.9E+01	µg/g	2.0%	5.4E-03	1.1E-02	1.4E-03	7.0E-04	5.6E-04	3.5E-03
Indoor dust Ingestion	1.8E+01	µg/g	4.1%	1.1E-02	2.1E-02	2.7E-03	1.4E-03	1.1E-03	7.0E-03
Home Produced Fruits & Vegetables	8.8E-03	µg/g fw	0.4%	0.0E+00	1.4E-03	9.4E-04	5.4E-04	4.6E-04	1.1E-03
Local Fruits & Vegetables	1.0E-02	µg/g fw	0.8%	0.0E+00	3.3E-03	2.2E-03	1.2E-03	9.9E-04	2.4E-03
Local Wild Blue Berries	5.2E-03	µg/g fw	0.6%	0.0E+00	3.1E-03	1.6E-03	6.3E-04	5.3E-04	1.7E-03
Local Wild Game	1.3E-04	µg/g fw	0.0%	0.0E+00	1.7E-05	1.4E-05	1.1E-05	1.1E-05	1.9E-05
Local Fish	2.2E-04	µg/g fw	0.0%	0.0E+00	2.6E-05	2.9E-05	2.1E-05	2.2E-05	3.7E-05
Drinking Water	2.5E+00	µg/L	30.3%	7.4E-02	7.4E-02	5.4E-02	3.3E-02	4.1E-02	7.6E-02
Market Basket Contribution	NA	µg/g	60.6%	3.2E-04	2.4E-01	1.7E-01	9.4E-02	5.4E-02	1.7E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)	100.0%	9.2E-02	3.6E-01	2.3E-01	1.3E-01	9.9E-02	2.6E-01		
<i>Inhalation Route Only</i>	0.9%	1.2E-03	2.7E-03	2.2E-03	1.3E-03	1.0E-03	2.4E-03		
<i>Direct Soil Contact Only</i>	6.3%	1.7E-02	3.2E-02	4.5E-03	2.4E-03	1.8E-03	1.1E-02		
<i>Market Basket Foods and Drinking Water</i>	90.9%	7.4E-02	3.1E-01	2.2E-01	1.3E-01	9.5E-02	2.4E-01		
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)	1.9%	0.0E+00	7.9E-03	4.8E-03	2.4E-03	2.0E-03	5.2E-03		

Arsenic

Scenario	
Region	Copper Cliff
Metal	Arsenic
EPC	95% UCL
Receptor	Male - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Arsenic

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	3.2E-04	2.4E-01	1.7E-01	9.4E-02	5.4E-02	1.7E-01
Drinking Water	µg/kg/day	7.4E-02	7.4E-02	5.4E-02	3.3E-02	4.1E-02	7.6E-02
Inhalation Route	µg/kg/day	1.2E-03	2.7E-03	2.2E-03	1.3E-03	1.0E-03	2.4E-03
Direct Dermal Contact	µg/kg/day	5.0E-04	4.7E-04	3.7E-04	3.3E-04	1.0E-04	4.3E-04
Soil/Dust Ingestion	µg/kg/day	1.6E-02	3.2E-02	4.1E-03	2.1E-03	1.7E-03	1.0E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.4E-03	9.4E-04	5.4E-04	4.6E-04	1.1E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	3.3E-03	2.2E-03	1.2E-03	9.9E-04	2.4E-03
Wild Blue Berries	µg/kg/day	0.0E+00	3.1E-03	1.6E-03	6.3E-04	5.3E-04	1.7E-03
Wild Game & Fish	µg/kg/day	0.0E+00	4.3E-05	4.3E-05	3.2E-05	3.3E-05	5.6E-05
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	9.1E-02	3.5E-01	2.3E-01	1.3E-01	9.8E-02	2.6E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	3.0E-01	1.2E+00	7.6E-01	4.4E-01	3.3E-01	4.4E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		3.7E-05		1.4E-04		1.8E-04	

Scenario	
COI	Copper Cliff
COC	Arsenic
EPC	95% UCL
Receptor	Male - CTE Estimate

Toxicity Information - Arsenic		
Oral RfD	µg/kg/day	0.3
Oral S.F.	(µg/kg/day) ⁻¹	1.50E-03
Inhalation S.F.	(µg/kg/day) ⁻¹	1.50E-02
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Arsenic



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units							
Inhalation of Fine Particulate- Outdoors	5.0E-03	µg/m3	0.0%	8.1E-05	1.9E-04	1.5E-04	8.1E-05	6.9E-05	1.6E-04
Inhalation of Fine Particulate- Indoors	5.0E-03	µg/m3	0.7%	1.2E-03	2.7E-03	2.2E-03	1.3E-03	1.0E-03	2.4E-03
Dermal Contact - Outdoors	1.9E+01	µg/g	0.1%	4.2E-04	4.0E-04	3.2E-04	2.9E-04	8.0E-05	3.6E-04
Dermal Contact - Indoors	1.8E+01	µg/g	0.0%	1.1E-04	9.7E-05	7.6E-05	6.5E-05	2.8E-05	9.1E-05
Soil Ingestion	1.9E+01	µg/g	1.7%	5.7E-03	1.1E-02	1.4E-03	7.4E-04	5.9E-04	3.7E-03
Indoor dust Ingestion	1.8E+01	µg/g	3.4%	1.1E-02	2.2E-02	2.8E-03	1.5E-03	1.2E-03	7.3E-03
Home Produced Fruits & Vegetables	8.8E-03	µg/g fw	1.4%	0.0E+00	5.8E-03	4.8E-03	3.1E-03	2.3E-03	5.2E-03
Local Fruits & Vegetables	1.0E-02	µg/g fw	3.0%	0.0E+00	1.3E-02	1.0E-02	6.3E-03	4.7E-03	1.1E-02
Local Wild Blue Berries	5.2E-03	µg/g fw	1.1%	0.0E+00	6.0E-03	3.6E-03	1.4E-03	1.1E-03	3.6E-03
Local Wild Game	1.3E-04	µg/g fw	0.0%	0.0E+00	2.2E-05	1.8E-05	1.4E-05	1.8E-05	2.7E-05
Local Fish	2.2E-04	µg/g fw	0.0%	0.0E+00	1.4E-04	1.5E-04	9.3E-05	9.9E-05	1.8E-04
Drinking Water	2.5E+00	µg/L	27.7%	9.3E-02	9.2E-02	6.3E-02	2.4E-02	4.8E-02	8.6E-02
Market Basket Contribution	NA	µg/g	60.8%	3.4E-04	3.0E-01	2.1E-01	1.2E-01	7.1E-02	2.1E-01

Arsenic

Scenario	
Region	Copper Cliff
Metal	Arsenic
EPC	95% UCL
Receptor	Male - RME Estimate

SUMMARY									
Estimated Total Daily Intake(ug/kg/day)	100.0%	1.1E-01	4.5E-01	3.0E-01	1.6E-01	1.3E-01	3.3E-01		
Inhalation Route Only	0.8%	1.3E-03	2.9E-03	2.3E-03	1.4E-03	1.1E-03	2.6E-03		
Direct Soil Contact Only	5.2%	1.7E-02	3.4E-02	4.7E-03	2.5E-03	1.9E-03	1.1E-02		
Market Basket Foods and Drinking Water	88.5%	9.3E-02	3.9E-01	2.7E-01	1.5E-01	1.2E-01	3.0E-01		
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)	5.5%	0.0E+00	2.5E-02	1.9E-02	1.1E-02	8.3E-03	2.0E-02		



HUMAN HEALTH RISK ESTIMATES

Arsenic

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	3.4E-04	3.0E-01	2.1E-01	1.2E-01	7.1E-02	2.1E-01
Drinking Water	µg/kg/day	9.3E-02	9.2E-02	6.3E-02	2.4E-02	4.8E-02	8.6E-02
Inhalation Route	µg/kg/day	1.3E-03	2.9E-03	2.3E-03	1.4E-03	1.1E-03	2.6E-03
Direct Dermal Contact	µg/kg/day	5.3E-04	5.0E-04	3.9E-04	3.5E-04	1.1E-04	4.5E-04
Soil/Dust Ingestion	µg/kg/day	1.7E-02	3.3E-02	4.3E-03	2.2E-03	1.8E-03	1.1E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	5.8E-03	4.8E-03	3.1E-03	2.3E-03	5.2E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.3E-02	1.0E-02	6.3E-03	4.7E-03	1.1E-02
Wild Blue Berries	µg/kg/day	0.0E+00	6.0E-03	3.6E-03	1.4E-03	1.1E-03	3.6E-03
Wild Game & Fish	µg/kg/day	0.0E+00	1.6E-04	1.7E-04	1.1E-04	1.2E-04	2.0E-04
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	1.1E-01	4.5E-01	2.9E-01	1.6E-01	1.3E-01	3.3E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	3.7E-01	1.5E+00	9.8E-01	5.4E-01	4.3E-01	5.7E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		3.9E-05		1.8E-04		2.2E-04	

Scenario	
COI	Copper Cliff
COC	Arsenic
EPC	95% UCL
Receptor	Male - RME Estimate

Toxicity Information - Arsenic		
Oral RfD	µg/kg/day	0.3
Oral S.F.	(µg/kg/day) ⁻¹	1.50E-03
Inhalation S.F.	(µg/kg/day) ⁻¹	1.50E-02
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Cobalt



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	2.5E-03	µg/m3	0.0%	2.8E-05	5.8E-05	4.6E-05	2.7E-05	2.6E-05	3.0E-05
Inhalation of Fine Particulate- Indoors	2.5E-03	µg/m3	0.1%	5.7E-04	1.2E-03	9.4E-04	5.6E-04	5.3E-04	6.2E-04
Dermal Contact - Outdoors	3.3E+01	µg/g	0.0%	2.3E-05	2.2E-05	1.7E-05	1.6E-05	4.8E-06	8.6E-06
Dermal Contact - Indoors	6.0E+01	µg/g	0.0%	1.1E-05	1.0E-05	7.7E-06	7.0E-06	3.1E-06	4.5E-06
Soil Ingestion	3.3E+01	µg/g	0.8%	6.8E-03	1.4E-02	1.7E-03	9.9E-04	8.8E-04	1.8E-03
Indoor dust Ingestion	6.0E+01	µg/g	2.6%	2.3E-02	4.6E-02	5.6E-03	3.4E-03	3.0E-03	6.2E-03
Home Produced Fruits & Vegetables	1.9E-02	µg/g fw	0.7%	0.0E+00	1.0E-02	5.3E-03	3.3E-03	3.1E-03	3.8E-03
Local Fruits & Vegetables	5.7E-02	µg/g fw	1.5%	0.0E+00	2.2E-02	1.1E-02	6.4E-03	5.5E-03	7.3E-03
Local Wild Blue Berries	1.6E-02	µg/g fw	0.6%	0.0E+00	1.0E-02	4.9E-03	2.3E-03	1.9E-03	2.8E-03
Local Wild Game	4.0E-02	µg/g fw	0.5%	0.0E+00	6.3E-03	4.1E-03	2.8E-03	2.2E-03	2.7E-03
Local Fish	1.9E-02	µg/g fw	0.3%	0.0E+00	2.2E-03	2.7E-03	1.6E-03	2.1E-03	2.1E-03
Drinking Water	4.5E-02	µg/L	0.2%	1.3E-03	1.3E-03	9.2E-04	6.6E-04	9.1E-04	9.1E-04
Market Basket Contribution	NA	µg/g	92.8%	2.9E-01	1.2E+00	7.3E-01	3.9E-01	2.5E-01	3.8E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	3.2E-01	1.3E+00	7.7E-01	4.1E-01	2.7E-01	4.0E-01
Inhalation Route Only			0.1%	5.9E-04	1.2E-03	9.8E-04	5.9E-04	5.6E-04	6.5E-04
Direct Soil Contact Only			3.4%	3.0E-02	6.0E-02	7.3E-03	4.4E-03	3.9E-03	8.1E-03
Market Basket Foods and Drinking Water			92.9%	2.9E-01	1.2E+00	7.4E-01	3.9E-01	2.5E-01	3.8E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			3.6%	0.0E+00	5.1E-02	2.8E-02	1.6E-02	1.5E-02	1.9E-02

Cobalt

Scenario	
Region	Copper Cliff
Metal	Cobalt
EPC	95% UCL
Receptor	Female - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Cobalt

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	2.9E-01	1.2E+00	7.3E-01	3.9E-01	2.5E-01	3.8E-01
Drinking Water	µg/kg/day	1.3E-03	1.3E-03	9.2E-04	6.6E-04	9.1E-04	9.1E-04
Inhalation Route	µg/kg/day	5.9E-04	1.2E-03	9.8E-04	5.9E-04	5.6E-04	6.5E-04
Direct Dermal Contact	µg/kg/day	3.4E-05	3.2E-05	2.5E-05	2.3E-05	7.8E-06	1.3E-05
Soil/Dust Ingestion	µg/kg/day	3.0E-02	6.0E-02	7.3E-03	4.4E-03	3.9E-03	8.1E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.0E-02	5.3E-03	3.3E-03	3.1E-03	3.8E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	2.2E-02	1.1E-02	6.4E-03	5.5E-03	7.3E-03
Wild Blue Berries	µg/kg/day	0.0E+00	1.0E-02	4.9E-03	2.3E-03	1.9E-03	2.8E-03
Wild Game & Fish	µg/kg/day	0.0E+00	8.5E-03	6.8E-03	4.4E-03	4.2E-03	4.7E-03
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	3.2E-01	1.3E+00	7.7E-01	4.1E-01	2.7E-01	4.0E-01
Hazard Quotient - inhal	unitless	4.2E-03	8.7E-03	6.9E-03	4.1E-03	3.9E-03	NA
Hazard Quotient - oral	unitless	1.6E-02	6.7E-02	3.9E-02	2.0E-02	1.3E-02	2.0E-02
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Copper Cliff
COC	Cobalt
EPC	95% UCL
Receptor	Female - CTE Estimate

Toxicity Information - Cobalt		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.143

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Cobalt



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	2.5E-03	µg/m3	0.0%	4.1E-05	8.5E-05	6.6E-05	3.9E-05	3.7E-05	4.4E-05
Inhalation of Fine Particulate- Indoors	2.5E-03	µg/m3	0.1%	6.0E-04	1.3E-03	9.8E-04	5.9E-04	5.5E-04	6.5E-04
Dermal Contact - Outdoors	3.3E+01	µg/g	0.0%	2.5E-05	2.4E-05	1.8E-05	1.7E-05	5.0E-06	9.1E-06
Dermal Contact - Indoors	6.0E+01	µg/g	0.0%	1.1E-05	1.0E-05	8.0E-06	7.3E-06	3.2E-06	4.7E-06
Soil Ingestion	3.3E+01	µg/g	0.6%	7.2E-03	1.4E-02	1.8E-03	1.0E-03	9.3E-04	1.9E-03
Indoor dust Ingestion	6.0E+01	µg/g	2.1%	2.4E-02	4.8E-02	5.9E-03	3.5E-03	3.1E-03	6.5E-03
Home Produced Fruits & Vegetables	1.9E-02	µg/g fw	2.3%	0.0E+00	3.4E-02	2.7E-02	1.8E-02	1.5E-02	1.8E-02
Local Fruits & Vegetables	5.7E-02	µg/g fw	4.2%	0.0E+00	6.8E-02	4.7E-02	2.9E-02	2.4E-02	2.9E-02
Local Wild Blue Berries	1.6E-02	µg/g fw	1.0%	0.0E+00	2.0E-02	1.0E-02	4.9E-03	4.0E-03	5.7E-03
Local Wild Game	4.0E-02	µg/g fw	0.5%	0.0E+00	7.3E-03	5.2E-03	3.5E-03	2.7E-03	3.3E-03
Local Fish	1.9E-02	µg/g fw	0.9%	0.0E+00	8.5E-03	1.3E-02	7.2E-03	8.7E-03	8.9E-03
Drinking Water	4.5E-02	µg/L	0.2%	1.6E-03	1.6E-03	1.1E-03	8.0E-04	1.1E-03	1.1E-03
Market Basket Contribution	NA	µg/g	88.2%	3.7E-01	1.5E+00	9.1E-01	5.0E-01	3.2E-01	4.7E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	4.1E-01	1.7E+00	1.0E+00	5.7E-01	3.8E-01	5.5E-01
Inhalation Route Only			0.1%	6.4E-04	1.3E-03	1.0E-03	6.2E-04	5.9E-04	6.9E-04
Direct Soil Contact Only			2.7%	3.1E-02	6.2E-02	7.6E-03	4.6E-03	4.1E-03	8.4E-03
Market Basket Foods and Drinking Water			88.3%	3.8E-01	1.5E+00	9.1E-01	5.0E-01	3.2E-01	4.7E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			8.9%	0.0E+00	1.4E-01	1.0E-01	6.3E-02	5.4E-02	6.5E-02

Cobalt

Scenario	
Region	Copper Cliff
Metal	Cobalt
EPC	95% UCL
Receptor	Female - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Cobalt

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	3.7E-01	1.5E+00	9.1E-01	5.0E-01	3.2E-01	4.7E-01
Drinking Water	µg/kg/day	1.6E-03	1.6E-03	1.1E-03	8.0E-04	1.1E-03	1.1E-03
Inhalation Route	µg/kg/day	6.4E-04	1.3E-03	1.0E-03	6.2E-04	5.9E-04	6.9E-04
Direct Dermal Contact	µg/kg/day	3.6E-05	3.4E-05	2.7E-05	2.5E-05	8.2E-06	1.4E-05
Soil/Dust Ingestion	µg/kg/day	3.1E-02	6.2E-02	7.6E-03	4.6E-03	4.1E-03	8.4E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	3.4E-02	2.7E-02	1.8E-02	1.5E-02	1.8E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	6.8E-02	4.7E-02	2.9E-02	2.4E-02	2.9E-02
Wild Blue Berries	µg/kg/day	0.0E+00	2.0E-02	1.0E-02	4.9E-03	4.0E-03	5.7E-03
Wild Game & Fish	µg/kg/day	0.0E+00	1.6E-02	1.9E-02	1.1E-02	1.1E-02	1.2E-02
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	4.1E-01	1.7E+00	1.0E+00	5.7E-01	3.8E-01	5.5E-01
Hazard Quotient - inhal	unitless	4.5E-03	9.4E-03	7.3E-03	4.4E-03	4.1E-03	NA
Hazard Quotient - oral	unitless	2.0E-02	8.3E-02	5.1E-02	2.8E-02	1.9E-02	2.7E-02
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Copper Cliff
COC	Cobalt
EPC	95% UCL
Receptor	Female - RME Estimate

Toxicity Information - Cobalt		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.143

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Cobalt



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	2.5E-03	µg/m3	0.0%	2.8E-05	6.4E-05	5.1E-05	3.1E-05	2.4E-05	3.0E-05
Inhalation of Fine Particulate- Indoors	2.5E-03	µg/m3	0.1%	5.7E-04	1.3E-03	1.1E-03	6.3E-04	4.9E-04	6.1E-04
Dermal Contact - Outdoors	3.3E+01	µg/g	0.0%	2.3E-05	2.2E-05	1.8E-05	1.6E-05	4.4E-06	8.3E-06
Dermal Contact - Indoors	6.0E+01	µg/g	0.0%	1.1E-05	1.0E-05	7.8E-06	6.7E-06	2.9E-06	4.3E-06
Soil Ingestion	3.3E+01	µg/g	0.7%	6.8E-03	1.3E-02	1.7E-03	8.8E-04	7.1E-04	1.7E-03
Indoor dust Ingestion	6.0E+01	µg/g	2.5%	2.3E-02	4.6E-02	5.9E-03	3.0E-03	2.4E-03	5.8E-03
Home Produced Fruits & Vegetables	1.9E-02	µg/g fw	0.6%	0.0E+00	7.2E-03	5.2E-03	3.1E-03	2.9E-03	3.4E-03
Local Fruits & Vegetables	5.7E-02	µg/g fw	1.3%	0.0E+00	1.9E-02	1.2E-02	6.3E-03	5.3E-03	6.9E-03
Local Wild Blue Berries	1.6E-02	µg/g fw	0.6%	0.0E+00	9.9E-03	5.1E-03	2.0E-03	1.7E-03	2.6E-03
Local Wild Game	4.0E-02	µg/g fw	0.5%	0.0E+00	5.7E-03	4.7E-03	3.6E-03	3.6E-03	3.8E-03
Local Fish	1.9E-02	µg/g fw	0.3%	0.0E+00	2.3E-03	2.6E-03	1.9E-03	1.9E-03	2.0E-03
Drinking Water	4.5E-02	µg/L	0.2%	1.3E-03	1.3E-03	9.6E-04	5.9E-04	7.3E-04	7.8E-04
Market Basket Contribution	NA	µg/g	93.2%	2.3E-01	1.2E+00	8.3E-01	4.8E-01	2.9E-01	4.2E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	2.6E-01	1.3E+00	8.7E-01	5.0E-01	3.1E-01	4.5E-01
Inhalation Route Only			0.1%	5.9E-04	1.4E-03	1.1E-03	6.6E-04	5.1E-04	6.4E-04
Direct Soil Contact Only			3.2%	3.0E-02	5.9E-02	7.6E-03	3.9E-03	3.1E-03	7.5E-03
Market Basket Foods and Drinking Water			93.4%	2.3E-01	1.2E+00	8.3E-01	4.8E-01	2.9E-01	4.2E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			3.3%	0.0E+00	4.4E-02	2.9E-02	1.7E-02	1.5E-02	1.9E-02

Cobalt

Scenario	
Region	Copper Cliff
Metal	Cobalt
EPC	95% UCL
Receptor	Male - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Cobalt

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	2.3E-01	1.2E+00	8.3E-01	4.8E-01	2.9E-01	4.2E-01
Drinking Water	µg/kg/day	1.3E-03	1.3E-03	9.6E-04	5.9E-04	7.3E-04	7.8E-04
Inhalation Route	µg/kg/day	5.9E-04	1.4E-03	1.1E-03	6.6E-04	5.1E-04	6.4E-04
Direct Dermal Contact	µg/kg/day	3.4E-05	3.2E-05	2.5E-05	2.3E-05	7.3E-06	1.3E-05
Soil/Dust Ingestion	µg/kg/day	3.0E-02	5.9E-02	7.6E-03	3.9E-03	3.1E-03	7.5E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	7.2E-03	5.2E-03	3.1E-03	2.9E-03	3.4E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.9E-02	1.2E-02	6.3E-03	5.3E-03	6.9E-03
Wild Blue Berries	µg/kg/day	0.0E+00	9.9E-03	5.1E-03	2.0E-03	1.7E-03	2.6E-03
Wild Game & Fish	µg/kg/day	0.0E+00	8.0E-03	7.3E-03	5.5E-03	5.6E-03	5.9E-03
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	2.6E-01	1.3E+00	8.7E-01	5.0E-01	3.1E-01	4.5E-01
Hazard Quotient - inhal	unitless	4.2E-03	9.6E-03	7.7E-03	4.6E-03	3.6E-03	NA
Hazard Quotient - oral	unitless	1.3E-02	6.5E-02	4.3E-02	2.5E-02	1.5E-02	2.2E-02
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Copper Cliff
COC	Cobalt
EPC	95% UCL
Receptor	Male - CTE Estimate

Toxicity Information - Cobalt		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.143

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Cobalt



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	2.5E-03	µg/m3	0.0%	4.1E-05	9.3E-05	7.4E-05	4.1E-05	3.5E-05	4.3E-05
Inhalation of Fine Particulate- Indoors	2.5E-03	µg/m3	0.1%	6.0E-04	1.4E-03	1.1E-03	6.6E-04	5.1E-04	6.5E-04
Dermal Contact - Outdoors	3.3E+01	µg/g	0.0%	2.5E-05	2.4E-05	1.9E-05	1.7E-05	4.7E-06	8.9E-06
Dermal Contact - Indoors	6.0E+01	µg/g	0.0%	1.1E-05	1.0E-05	8.1E-06	7.0E-06	3.0E-06	4.5E-06
Soil Ingestion	3.3E+01	µg/g	0.6%	7.2E-03	1.4E-02	1.8E-03	9.3E-04	7.5E-04	1.8E-03
Indoor dust Ingestion	6.0E+01	µg/g	2.0%	2.4E-02	4.8E-02	6.1E-03	3.1E-03	2.5E-03	6.0E-03
Home Produced Fruits & Vegetables	1.9E-02	µg/g fw	2.3%	0.0E+00	3.4E-02	2.9E-02	2.0E-02	1.5E-02	1.8E-02
Local Fruits & Vegetables	5.7E-02	µg/g fw	4.2%	0.0E+00	6.8E-02	5.4E-02	3.2E-02	2.4E-02	3.1E-02
Local Wild Blue Berries	1.6E-02	µg/g fw	0.9%	0.0E+00	1.9E-02	1.2E-02	4.6E-03	3.6E-03	5.5E-03
Local Wild Game	4.0E-02	µg/g fw	0.6%	0.0E+00	7.4E-03	5.9E-03	4.6E-03	6.0E-03	5.8E-03
Local Fish	1.9E-02	µg/g fw	1.0%	0.0E+00	1.2E-02	1.3E-02	8.3E-03	8.7E-03	9.3E-03
Drinking Water	4.5E-02	µg/L	0.1%	1.6E-03	1.6E-03	1.1E-03	4.3E-04	8.6E-04	8.9E-04
Market Basket Contribution	NA	µg/g	88.1%	2.4E-01	1.5E+00	1.0E+00	6.0E-01	3.8E-01	5.4E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	2.8E-01	1.7E+00	1.2E+00	6.8E-01	4.4E-01	6.2E-01
<i>Inhalation Route Only</i>			0.1%	6.4E-04	1.5E-03	1.2E-03	7.0E-04	5.5E-04	6.9E-04
<i>Direct Soil Contact Only</i>			2.6%	3.1E-02	6.2E-02	8.0E-03	4.1E-03	3.3E-03	7.8E-03
<i>Market Basket Foods and Drinking Water</i>			88.3%	2.5E-01	1.5E+00	1.0E+00	6.0E-01	3.8E-01	5.4E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			9.0%	0.0E+00	1.4E-01	1.1E-01	6.9E-02	5.7E-02	6.9E-02

Cobalt

Scenario	
Region	Copper Cliff
Metal	Cobalt
EPC	95% UCL
Receptor	Male - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Cobalt

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	2.4E-01	1.5E+00	1.0E+00	6.0E-01	3.8E-01	5.4E-01
Drinking Water	µg/kg/day	1.6E-03	1.6E-03	1.1E-03	4.3E-04	8.6E-04	8.9E-04
Inhalation Route	µg/kg/day	6.4E-04	1.5E-03	1.2E-03	7.0E-04	5.5E-04	6.9E-04
Direct Dermal Contact	µg/kg/day	3.6E-05	3.4E-05	2.7E-05	2.4E-05	7.7E-06	1.3E-05
Soil/Dust Ingestion	µg/kg/day	3.1E-02	6.2E-02	7.9E-03	4.1E-03	3.2E-03	7.8E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	3.4E-02	2.9E-02	2.0E-02	1.5E-02	1.8E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	6.8E-02	5.4E-02	3.2E-02	2.4E-02	3.1E-02
Wild Blue Berries	µg/kg/day	0.0E+00	1.9E-02	1.2E-02	4.6E-03	3.6E-03	5.5E-03
Wild Game & Fish	µg/kg/day	0.0E+00	2.0E-02	1.9E-02	1.3E-02	1.5E-02	1.5E-02
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	2.8E-01	1.7E+00	1.2E+00	6.8E-01	4.4E-01	6.2E-01
Hazard Quotient - inhal	unitless	4.5E-03	1.0E-02	8.2E-03	4.9E-03	3.8E-03	NA
Hazard Quotient - oral	unitless	1.4E-02	8.3E-02	5.8E-02	3.4E-02	2.2E-02	3.1E-02
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Copper Cliff
COC	Cobalt
EPC	95% UCL
Receptor	Male - RME Estimate

Toxicity Information - Cobalt		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.143

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Copper



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	8.1E-02	µg/m3	0.0%	8.9E-04	1.9E-03	1.5E-03	8.9E-04	8.4E-04	9.8E-04
Inhalation of Fine Particulate- Indoors	8.1E-02	µg/m3	0.1%	1.8E-02	3.8E-02	3.0E-02	1.8E-02	1.7E-02	2.0E-02
Dermal Contact - Outdoors	1.4E+03	µg/g	0.0%	2.9E-03	2.8E-03	2.1E-03	2.0E-03	5.9E-04	1.1E-03
Dermal Contact - Indoors	8.4E+02	µg/g	0.0%	4.6E-04	4.3E-04	3.3E-04	3.0E-04	1.3E-04	1.9E-04
Soil Ingestion	1.4E+03	µg/g	1.1%	7.4E-01	1.5E+00	1.8E-01	1.1E-01	9.6E-02	2.0E-01
Indoor dust Ingestion	8.4E+02	µg/g	0.8%	5.3E-01	1.1E+00	1.3E-01	7.8E-02	6.9E-02	1.4E-01
Home Produced Fruits & Vegetables	1.2E+00	µg/g fw	0.2%	0.0E+00	1.9E-01	1.0E-01	5.7E-02	4.8E-02	6.3E-02
Local Fruits & Vegetables	1.0E+00	µg/g fw	0.4%	0.0E+00	4.3E-01	2.3E-01	1.3E-01	1.1E-01	1.4E-01
Local Wild Blue Berries	6.8E-01	µg/g fw	0.4%	0.0E+00	4.3E-01	2.1E-01	9.7E-02	8.2E-02	1.2E-01
Local Wild Game	6.8E-01	µg/g fw	0.1%	0.0E+00	1.1E-01	7.0E-02	4.8E-02	3.7E-02	4.6E-02
Local Fish	5.2E-01	µg/g fw	0.1%	0.0E+00	6.2E-02	7.6E-02	4.5E-02	5.8E-02	5.8E-02
Drinking Water	1.7E+02	µg/L	8.3%	5.0E+00	5.0E+00	3.5E+00	2.5E+00	3.4E+00	3.4E+00
Market Basket Contribution	NA	µg/g	88.6%	5.7E+01	7.0E+01	4.2E+01	2.2E+01	1.5E+01	2.2E+01

Copper

Scenario	
Region	Copper Cliff
Metal	Copper
EPC	95% UCL
Receptor	Female - CTE Estimate

SUMMARY									
Estimated Total Daily Intake(ug/kg/day)	100.0%	6.3E+01	7.9E+01	4.7E+01	2.5E+01	1.9E+01	2.6E+01		
<i>Inhalation Route Only</i>	0.1%	1.9E-02	4.0E-02	3.2E-02	1.9E-02	1.8E-02	2.1E-02		
<i>Direct Soil Contact Only</i>	1.9%	1.3E+00	2.5E+00	3.1E-01	1.9E-01	1.7E-01	3.4E-01		
<i>Market Basket Foods and Drinking Water</i>	96.9%	6.2E+01	7.5E+01	4.6E+01	2.5E+01	1.8E+01	2.6E+01		
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)	1.1%	0.0E+00	1.2E+00	6.8E-01	3.8E-01	3.4E-01	4.3E-01		



HUMAN HEALTH RISK ESTIMATES

Copper

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	5.7E+01	7.0E+01	4.2E+01	2.2E+01	1.5E+01	2.2E+01
Drinking Water	µg/kg/day	5.0E+00	5.0E+00	3.5E+00	2.5E+00	3.4E+00	3.4E+00
Inhalation Route	µg/kg/day	1.9E-02	4.0E-02	3.2E-02	1.9E-02	1.8E-02	2.1E-02
Direct Dermal Contact	µg/kg/day	3.3E-03	3.2E-03	2.5E-03	2.3E-03	7.2E-04	1.3E-03
Soil/Dust Ingestion	µg/kg/day	1.3E+00	2.5E+00	3.1E-01	1.9E-01	1.6E-01	3.4E-01
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.9E-01	1.0E-01	5.7E-02	4.8E-02	6.3E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	4.3E-01	2.3E-01	1.3E-01	1.1E-01	1.4E-01
Wild Blue Berries	µg/kg/day	0.0E+00	4.3E-01	2.1E-01	9.7E-02	8.2E-02	1.2E-01
Wild Game & Fish	µg/kg/day	0.0E+00	1.7E-01	1.5E-01	9.3E-02	9.5E-02	1.0E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	6.3E+01	7.9E+01	4.7E+01	2.5E+01	1.9E+01	2.6E+01
Hazard Quotient - inhal	unitless	6.7E-02	1.4E-01	1.1E-01	6.6E-02	6.3E-02	NA
Hazard Quotient - oral	unitless	4.5E-01	5.6E-01	3.3E-01	1.8E-01	1.3E-01	1.9E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Copper Cliff
COC	Copper
EPC	95% UCL
Receptor	Female - CTE Estimate

Toxicity Information - Copper		
Oral RfD	µg/kg/day	140
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.286

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Copper



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	8.1E-02	µg/m3	0.0%	1.3E-03	2.7E-03	2.1E-03	1.3E-03	1.2E-03	1.4E-03
Inhalation of Fine Particulate- Indoors	8.1E-02	µg/m3	0.0%	1.9E-02	4.1E-02	3.2E-02	1.9E-02	1.8E-02	2.1E-02
Dermal Contact - Outdoors	1.4E+03	µg/g	0.0%	3.0E-03	2.9E-03	2.3E-03	2.1E-03	6.2E-04	1.1E-03
Dermal Contact - Indoors	8.4E+02	µg/g	0.0%	4.8E-04	4.4E-04	3.4E-04	3.1E-04	1.4E-04	2.0E-04
Soil Ingestion	1.4E+03	µg/g	0.9%	7.8E-01	1.6E+00	1.9E-01	1.1E-01	1.0E-01	2.1E-01
Indoor dust Ingestion	8.4E+02	µg/g	0.7%	5.5E-01	1.1E+00	1.4E-01	8.1E-02	7.2E-02	1.5E-01
Home Produced Fruits & Vegetables	1.2E+00	µg/g fw	0.5%	0.0E+00	6.1E-01	4.2E-01	2.7E-01	2.1E-01	2.6E-01
Local Fruits & Vegetables	1.0E+00	µg/g fw	1.2%	0.0E+00	1.4E+00	9.7E-01	6.2E-01	4.9E-01	6.1E-01
Local Wild Blue Berries	6.8E-01	µg/g fw	0.6%	0.0E+00	8.7E-01	4.4E-01	2.1E-01	1.7E-01	2.5E-01
Local Wild Game	6.8E-01	µg/g fw	0.1%	0.0E+00	1.3E-01	8.9E-02	5.9E-02	4.7E-02	5.7E-02
Local Fish	5.2E-01	µg/g fw	0.4%	0.0E+00	2.4E-01	3.8E-01	2.0E-01	2.4E-01	2.5E-01
Drinking Water	1.7E+02	µg/L	8.1%	6.2E+00	6.2E+00	4.1E+00	3.0E+00	4.0E+00	4.1E+00
Market Basket Contribution	NA	µg/g	87.5%	7.4E+01	8.1E+01	5.3E+01	2.9E+01	1.9E+01	2.8E+01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	8.1E+01	9.3E+01	6.0E+01	3.3E+01	2.4E+01	3.4E+01
<i>Inhalation Route Only</i>			0.0%	2.1E-02	4.3E-02	3.4E-02	2.0E-02	1.9E-02	2.2E-02
<i>Direct Soil Contact Only</i>			1.6%	1.3E+00	2.7E+00	3.3E-01	2.0E-01	1.7E-01	3.6E-01
<i>Market Basket Foods and Drinking Water</i>			95.6%	8.0E+01	8.7E+01	5.7E+01	3.2E+01	2.3E+01	3.2E+01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			2.8%	0.0E+00	3.2E+00	2.3E+00	1.4E+00	1.2E+00	1.4E+00

Copper

Scenario	
Region	Copper Cliff
Metal	Copper
EPC	95% UCL
Receptor	Female - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Copper

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	7.4E+01	8.1E+01	5.3E+01	2.9E+01	1.9E+01	2.8E+01
Drinking Water	µg/kg/day	6.2E+00	6.2E+00	4.1E+00	3.0E+00	4.0E+00	4.1E+00
Inhalation Route	µg/kg/day	2.1E-02	4.3E-02	3.4E-02	2.0E-02	1.9E-02	2.2E-02
Direct Dermal Contact	µg/kg/day	3.5E-03	3.4E-03	2.6E-03	2.4E-03	7.6E-04	1.3E-03
Soil/Dust Ingestion	µg/kg/day	1.3E+00	2.7E+00	3.3E-01	1.9E-01	1.7E-01	3.6E-01
HP Fruit & Vegetables	µg/kg/day	0.0E+00	6.1E-01	4.2E-01	2.7E-01	2.1E-01	2.6E-01
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.4E+00	9.7E-01	6.2E-01	4.9E-01	6.1E-01
Wild Blue Berries	µg/kg/day	0.0E+00	8.7E-01	4.4E-01	2.1E-01	1.7E-01	2.5E-01
Wild Game & Fish	µg/kg/day	0.0E+00	3.6E-01	4.7E-01	2.6E-01	2.9E-01	3.1E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	8.1E+01	9.3E+01	6.0E+01	3.3E+01	2.4E+01	3.4E+01
Hazard Quotient - inhal	unitless	7.2E-02	1.5E-01	1.2E-01	7.0E-02	6.7E-02	NA
Hazard Quotient - oral	unitless	5.8E-01	6.6E-01	4.3E-01	2.4E-01	1.7E-01	2.4E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Copper Cliff
COC	Copper
EPC	95% UCL
Receptor	Female - RME Estimate

Toxicity Information - Copper		
Oral RfD	µg/kg/day	140
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.286

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Copper



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	8.1E-02	µg/m3	0.0%	8.9E-04	2.1E-03	1.7E-03	9.9E-04	7.7E-04	9.7E-04
Inhalation of Fine Particulate- Indoors	8.1E-02	µg/m3	0.1%	1.8E-02	4.2E-02	3.4E-02	2.0E-02	1.6E-02	2.0E-02
Dermal Contact - Outdoors	1.4E+03	µg/g	0.0%	2.9E-03	2.8E-03	2.2E-03	1.9E-03	5.5E-04	1.0E-03
Dermal Contact - Indoors	8.4E+02	µg/g	0.0%	4.6E-04	4.3E-04	3.3E-04	2.8E-04	1.2E-04	1.8E-04
Soil Ingestion	1.4E+03	µg/g	1.1%	7.4E-01	1.5E+00	1.9E-01	9.6E-02	7.7E-02	1.8E-01
Indoor dust Ingestion	8.4E+02	µg/g	0.8%	5.3E-01	1.1E+00	1.4E-01	6.9E-02	5.5E-02	1.3E-01
Home Produced Fruits & Vegetables	1.2E+00	µg/g fw	0.2%	0.0E+00	1.6E-01	1.1E-01	5.7E-02	4.6E-02	6.1E-02
Local Fruits & Vegetables	1.0E+00	µg/g fw	0.4%	0.0E+00	3.7E-01	2.4E-01	1.3E-01	1.1E-01	1.4E-01
Local Wild Blue Berries	6.8E-01	µg/g fw	0.4%	0.0E+00	4.2E-01	2.2E-01	8.6E-02	7.2E-02	1.1E-01
Local Wild Game	6.8E-01	µg/g fw	0.1%	0.0E+00	9.7E-02	8.1E-02	6.1E-02	6.2E-02	6.6E-02
Local Fish	5.2E-01	µg/g fw	0.1%	0.0E+00	6.5E-02	7.2E-02	5.3E-02	5.4E-02	5.6E-02
Drinking Water	1.7E+02	µg/L	8.2%	5.0E+00	4.9E+00	3.6E+00	2.2E+00	2.7E+00	2.9E+00
Market Basket Contribution	NA	µg/g	88.7%	4.5E+01	6.5E+01	4.7E+01	2.7E+01	1.7E+01	2.5E+01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	5.1E+01	7.3E+01	5.2E+01	3.0E+01	2.1E+01	2.8E+01
<i>Inhalation Route Only</i>			0.1%	1.9E-02	4.4E-02	3.6E-02	2.1E-02	1.7E-02	2.1E-02
<i>Direct Soil Contact Only</i>			1.9%	1.3E+00	2.5E+00	3.3E-01	1.7E-01	1.3E-01	3.2E-01
<i>Market Basket Foods and Drinking Water</i>			96.9%	5.0E+01	7.0E+01	5.1E+01	2.9E+01	2.0E+01	2.8E+01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			1.1%	0.0E+00	1.1E+00	7.2E-01	3.9E-01	3.4E-01	4.3E-01

Copper

Scenario	
Region	Copper Cliff
Metal	Copper
EPC	95% UCL
Receptor	Male - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Copper

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	4.5E+01	6.5E+01	4.7E+01	2.7E+01	1.7E+01	2.5E+01
Drinking Water	µg/kg/day	5.0E+00	4.9E+00	3.6E+00	2.2E+00	2.7E+00	2.9E+00
Inhalation Route	µg/kg/day	1.9E-02	4.4E-02	3.6E-02	2.1E-02	1.7E-02	2.1E-02
Direct Dermal Contact	µg/kg/day	3.3E-03	3.2E-03	2.5E-03	2.2E-03	6.7E-04	1.2E-03
Soil/Dust Ingestion	µg/kg/day	1.3E+00	2.5E+00	3.2E-01	1.6E-01	1.3E-01	3.2E-01
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.6E-01	1.1E-01	5.7E-02	4.6E-02	6.1E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	3.7E-01	2.4E-01	1.3E-01	1.1E-01	1.4E-01
Wild Blue Berries	µg/kg/day	0.0E+00	4.2E-01	2.2E-01	8.6E-02	7.2E-02	1.1E-01
Wild Game & Fish	µg/kg/day	0.0E+00	1.6E-01	1.5E-01	1.1E-01	1.2E-01	1.2E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	5.1E+01	7.3E+01	5.2E+01	3.0E+01	2.1E+01	2.8E+01
Hazard Quotient - inhal	unitless	6.7E-02	1.6E-01	1.2E-01	7.4E-02	5.8E-02	NA
Hazard Quotient - oral	unitless	3.7E-01	5.2E-01	3.7E-01	2.1E-01	1.5E-01	2.0E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Copper Cliff
COC	Copper
EPC	95% UCL
Receptor	Male - CTE Estimate

Toxicity Information - Copper		
Oral RfD	µg/kg/day	140
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.286

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Copper



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units							
Inhalation of Fine Particulate- Outdoors	8.1E-02	µg/m3	0.0%	1.3E-03	3.0E-03	2.4E-03	1.3E-03	1.1E-03	1.4E-03
Inhalation of Fine Particulate- Indoors	8.1E-02	µg/m3	0.0%	1.9E-02	4.5E-02	3.6E-02	2.1E-02	1.7E-02	2.1E-02
Dermal Contact - Outdoors	1.4E+03	µg/g	0.0%	3.0E-03	2.9E-03	2.3E-03	2.1E-03	5.8E-04	1.1E-03
Dermal Contact - Indoors	8.4E+02	µg/g	0.0%	4.8E-04	4.4E-04	3.5E-04	3.0E-04	1.3E-04	1.9E-04
Soil Ingestion	1.4E+03	µg/g	1.0%	7.8E-01	1.5E+00	2.0E-01	1.0E-01	8.1E-02	1.9E-01
Indoor dust Ingestion	8.4E+02	µg/g	0.7%	5.5E-01	1.1E+00	1.4E-01	7.2E-02	5.8E-02	1.4E-01
Home Produced Fruits & Vegetables	1.2E+00	µg/g fw	0.6%	0.0E+00	6.2E-01	4.9E-01	2.9E-01	2.2E-01	2.8E-01
Local Fruits & Vegetables	1.0E+00	µg/g fw	1.3%	0.0E+00	1.4E+00	1.1E+00	6.7E-01	5.1E-01	6.4E-01
Local Wild Blue Berries	6.8E-01	µg/g fw	0.6%	0.0E+00	8.2E-01	5.0E-01	2.0E-01	1.5E-01	2.4E-01
Local Wild Game	6.8E-01	µg/g fw	0.1%	0.0E+00	1.3E-01	1.0E-01	7.8E-02	1.0E-01	1.0E-01
Local Fish	5.2E-01	µg/g fw	0.4%	0.0E+00	3.5E-01	3.8E-01	2.3E-01	2.4E-01	2.6E-01
Drinking Water	1.7E+02	µg/L	7.6%	6.2E+00	6.2E+00	4.2E+00	1.6E+00	3.2E+00	3.4E+00
Market Basket Contribution	NA	µg/g	87.6%	4.8E+01	8.1E+01	6.0E+01	3.6E+01	2.3E+01	3.2E+01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	5.5E+01	9.3E+01	6.7E+01	3.9E+01	2.8E+01	3.7E+01
<i>Inhalation Route Only</i>			0.1%	2.1E-02	4.8E-02	3.8E-02	2.3E-02	1.8E-02	2.2E-02
<i>Direct Soil Contact Only</i>			1.6%	1.3E+00	2.7E+00	3.4E-01	1.8E-01	1.4E-01	3.3E-01
<i>Market Basket Foods and Drinking Water</i>			95.3%	5.4E+01	8.7E+01	6.4E+01	3.7E+01	2.6E+01	3.6E+01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			3.0%	0.0E+00	3.3E+00	2.6E+00	1.5E+00	1.2E+00	1.5E+00

Copper

Scenario	
Region	Copper Cliff
Metal	Copper
EPC	95% UCL
Receptor	Male - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Copper

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	4.8E+01	8.1E+01	6.0E+01	3.6E+01	2.3E+01	3.2E+01
Drinking Water	µg/kg/day	6.2E+00	6.2E+00	4.2E+00	1.6E+00	3.2E+00	3.4E+00
Inhalation Route	µg/kg/day	2.1E-02	4.8E-02	3.8E-02	2.3E-02	1.8E-02	2.2E-02
Direct Dermal Contact	µg/kg/day	3.5E-03	3.4E-03	2.6E-03	2.4E-03	7.1E-04	1.3E-03
Soil/Dust Ingestion	µg/kg/day	1.3E+00	2.6E+00	3.4E-01	1.7E-01	1.4E-01	3.3E-01
HP Fruit & Vegetables	µg/kg/day	0.0E+00	6.2E-01	4.9E-01	2.9E-01	2.2E-01	2.8E-01
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.4E+00	1.1E+00	6.7E-01	5.1E-01	6.4E-01
Wild Blue Berries	µg/kg/day	0.0E+00	8.2E-01	5.0E-01	2.0E-01	1.5E-01	2.4E-01
Wild Game & Fish	µg/kg/day	0.0E+00	4.7E-01	4.8E-01	3.1E-01	3.5E-01	3.6E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	5.5E+01	9.3E+01	6.7E+01	3.9E+01	2.8E+01	3.7E+01
Hazard Quotient - inhal	unitless	7.2E-02	1.7E-01	1.3E-01	7.9E-02	6.2E-02	NA
Hazard Quotient - oral	unitless	4.0E-01	6.6E-01	4.8E-01	2.8E-01	2.0E-01	2.7E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Copper Cliff
COC	Copper
EPC	95% UCL
Receptor	Male - RME Estimate

Toxicity Information - Copper		
Oral RfD	µg/kg/day	140
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.286

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Lead

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	2.2E-02	µg/m3	0.1%	2.4E-04	5.1E-04	4.0E-04	2.4E-04	2.3E-04	2.7E-04
Inhalation of Fine Particulate- Indoors	2.2E-02	µg/m3	1.2%	5.0E-03	1.0E-02	8.2E-03	4.9E-03	4.7E-03	5.4E-03
Dermal Contact - Outdoors	9.8E+01	µg/g	0.0%	6.8E-05	6.6E-05	5.1E-05	4.8E-05	1.4E-05	2.5E-05
Dermal Contact - Indoors	1.5E+02	µg/g	0.0%	2.7E-05	2.5E-05	1.9E-05	1.8E-05	7.7E-06	1.1E-05
Soil Ingestion	9.8E+01	µg/g	5.9%	4.7E-02	9.4E-02	1.1E-02	6.8E-03	6.1E-03	1.3E-02
Indoor dust Ingestion	1.5E+02	µg/g	20.2%	1.6E-01	3.2E-01	3.9E-02	2.3E-02	2.1E-02	4.3E-02
Home Produced Fruits & Vegetables	1.3E-01	µg/g fw	1.3%	0.0E+00	1.7E-02	8.7E-03	5.4E-03	4.7E-03	5.9E-03
Local Fruits & Vegetables	1.0E-01	µg/g fw	2.8%	0.0E+00	3.7E-02	1.9E-02	1.2E-02	9.9E-03	1.3E-02
Local Wild Blue Berries	7.4E-02	µg/g fw	3.2%	0.0E+00	4.7E-02	2.3E-02	1.1E-02	9.0E-03	1.3E-02
Local Wild Game	4.0E-03	µg/g fw	0.1%	0.0E+00	6.3E-04	4.1E-04	2.8E-04	2.1E-04	2.7E-04
Local Fish	3.0E-01	µg/g fw	5.0%	0.0E+00	3.6E-02	4.4E-02	2.6E-02	3.3E-02	3.4E-02
Drinking Water	1.4E+00	µg/L	5.6%	4.1E-02	4.1E-02	2.8E-02	2.0E-02	2.8E-02	2.8E-02
Market Basket Contribution	NA	µg/g	54.8%	1.4E-01	7.0E-01	3.8E-01	1.9E-01	1.2E-01	1.9E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	4.0E-01	1.3E+00	5.7E-01	3.0E-01	2.4E-01	3.5E-01
Inhalation Route Only			1.2%	5.2E-03	1.1E-02	8.6E-03	5.2E-03	4.9E-03	5.7E-03
Direct Soil Contact Only			26.1%	2.1E-01	4.2E-01	5.1E-02	3.0E-02	2.7E-02	5.6E-02
Market Basket Foods and Drinking Water			60.4%	1.9E-01	7.4E-01	4.1E-01	2.1E-01	1.5E-01	2.2E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			12.2%	0.0E+00	1.4E-01	9.5E-02	5.4E-02	5.7E-02	6.5E-02

Lead

Scenario	
Region	Copper Cliff
Metal	Lead
EPC	95% UCL
Receptor	Female - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Lead

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	1.4E-01	7.0E-01	3.8E-01	1.9E-01	1.2E-01	1.9E-01
Drinking Water	µg/kg/day	4.1E-02	4.1E-02	2.8E-02	2.0E-02	2.8E-02	2.8E-02
Inhalation Route	µg/kg/day	5.2E-03	1.1E-02	8.6E-03	5.2E-03	4.9E-03	5.7E-03
Direct Dermal Contact	µg/kg/day	9.6E-05	9.1E-05	7.0E-05	6.6E-05	2.2E-05	3.7E-05
Soil/Dust Ingestion	µg/kg/day	2.1E-01	4.2E-01	5.1E-02	3.0E-02	2.7E-02	5.6E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.7E-02	8.7E-03	5.4E-03	4.7E-03	5.9E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	3.7E-02	1.9E-02	1.2E-02	9.9E-03	1.3E-02
Wild Blue Berries	µg/kg/day	0.0E+00	4.7E-02	2.3E-02	1.1E-02	9.0E-03	1.3E-02
Wild Game & Fish	µg/kg/day	0.0E+00	3.7E-02	4.4E-02	2.6E-02	3.4E-02	3.4E-02
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	4.0E-01	1.3E+00	5.7E-01	3.0E-01	2.4E-01	3.4E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	2.2E-01	7.0E-01	3.1E-01	1.6E-01	1.3E-01	1.9E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Copper Cliff
COC	Lead
EPC	95% UCL
Receptor	Female - CTE Estimate

Toxicity Information - Lead		
Oral RfD	µg/kg/day	1.85
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Lead

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	2.2E-02	µg/m3	0.1%	3.6E-04	7.5E-04	5.8E-04	3.5E-04	3.3E-04	3.8E-04
Inhalation of Fine Particulate- Indoors	2.2E-02	µg/m3	0.8%	5.3E-03	1.1E-02	8.6E-03	5.1E-03	4.9E-03	5.7E-03
Dermal Contact - Outdoors	9.8E+01	µg/g	0.0%	7.2E-05	7.0E-05	5.4E-05	5.1E-05	1.5E-05	2.7E-05
Dermal Contact - Indoors	1.5E+02	µg/g	0.0%	2.8E-05	2.6E-05	2.0E-05	1.8E-05	8.0E-06	1.2E-05
Soil Ingestion	9.8E+01	µg/g	4.2%	5.0E-02	9.9E-02	1.2E-02	7.2E-03	6.4E-03	1.3E-02
Indoor dust Ingestion	1.5E+02	µg/g	14.0%	1.7E-01	3.3E-01	4.1E-02	2.4E-02	2.2E-02	4.5E-02
Home Produced Fruits & Vegetables	1.3E-01	µg/g fw	3.7%	0.0E+00	5.8E-02	4.4E-02	2.9E-02	2.3E-02	2.8E-02
Local Fruits & Vegetables	1.0E-01	µg/g fw	7.9%	0.0E+00	1.3E-01	9.3E-02	6.2E-02	4.8E-02	5.9E-02
Local Wild Blue Berries	7.4E-02	µg/g fw	4.4%	0.0E+00	9.4E-02	4.8E-02	2.3E-02	1.8E-02	2.7E-02
Local Wild Game	4.0E-03	µg/g fw	0.0%	0.0E+00	7.3E-04	5.2E-04	3.4E-04	2.7E-04	3.3E-04
Local Fish	3.0E-01	µg/g fw	14.6%	0.0E+00	1.4E-01	2.2E-01	1.2E-01	1.4E-01	1.5E-01
Drinking Water	1.4E+00	µg/L	4.6%	5.1E-02	5.1E-02	3.3E-02	2.5E-02	3.3E-02	3.3E-02
Market Basket Contribution	NA	µg/g	45.7%	1.9E-01	8.2E-01	4.9E-01	2.6E-01	1.6E-01	2.5E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	4.6E-01	1.7E+00	9.9E-01	5.5E-01	4.6E-01	6.1E-01
<i>Inhalation Route Only</i>			0.9%	5.6E-03	1.2E-02	9.2E-03	5.5E-03	5.2E-03	6.1E-03
<i>Direct Soil Contact Only</i>			18.2%	2.2E-01	4.3E-01	5.3E-02	3.2E-02	2.8E-02	5.8E-02
<i>Market Basket Foods and Drinking Water</i>			50.3%	2.4E-01	8.7E-01	5.3E-01	2.8E-01	2.0E-01	2.8E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			30.6%	0.0E+00	4.2E-01	4.0E-01	2.3E-01	2.3E-01	2.6E-01

Lead

Scenario	
Region	Copper Cliff
Metal	Lead
EPC	95% UCL
Receptor	Female - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Lead

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	1.9E-01	8.2E-01	4.9E-01	2.6E-01	1.6E-01	2.5E-01
Drinking Water	µg/kg/day	5.1E-02	5.1E-02	3.3E-02	2.5E-02	3.3E-02	3.3E-02
Inhalation Route	µg/kg/day	5.6E-03	1.2E-02	9.2E-03	5.5E-03	5.2E-03	6.1E-03
Direct Dermal Contact	µg/kg/day	1.0E-04	9.6E-05	7.4E-05	6.9E-05	2.3E-05	3.9E-05
Soil/Dust Ingestion	µg/kg/day	2.2E-01	4.3E-01	5.3E-02	3.2E-02	2.8E-02	5.8E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	5.8E-02	4.4E-02	2.9E-02	2.3E-02	2.8E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.3E-01	9.3E-02	6.2E-02	4.8E-02	5.9E-02
Wild Blue Berries	µg/kg/day	0.0E+00	9.4E-02	4.8E-02	2.3E-02	1.8E-02	2.7E-02
Wild Game & Fish	µg/kg/day	0.0E+00	1.4E-01	2.2E-01	1.2E-01	1.4E-01	1.5E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	4.6E-01	1.7E+00	9.9E-01	5.5E-01	4.6E-01	6.0E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	2.5E-01	9.3E-01	5.4E-01	3.0E-01	2.5E-01	3.3E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Copper Cliff
COC	Lead
EPC	95% UCL
Receptor	Female - RME Estimate

Toxicity Information - Lead		
Oral RfD	µg/kg/day	1.85
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Lead

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	2.2E-02	µg/m3	0.1%	2.4E-04	5.6E-04	4.5E-04	2.7E-04	2.1E-04	2.6E-04
Inhalation of Fine Particulate- Indoors	2.2E-02	µg/m3	1.3%	5.0E-03	1.2E-02	9.2E-03	5.5E-03	4.3E-03	5.4E-03
Dermal Contact - Outdoors	9.8E+01	µg/g	0.0%	6.8E-05	6.6E-05	5.2E-05	4.6E-05	1.3E-05	2.4E-05
Dermal Contact - Indoors	1.5E+02	µg/g	0.0%	2.7E-05	2.5E-05	2.0E-05	1.7E-05	7.2E-06	1.1E-05
Soil Ingestion	9.8E+01	µg/g	5.8%	4.7E-02	9.3E-02	1.2E-02	6.1E-03	4.9E-03	1.2E-02
Indoor dust Ingestion	1.5E+02	µg/g	20.0%	1.6E-01	3.2E-01	4.1E-02	2.1E-02	1.7E-02	4.0E-02
Home Produced Fruits & Vegetables	1.3E-01	µg/g fw	1.1%	0.0E+00	1.3E-02	9.1E-03	5.5E-03	4.6E-03	5.6E-03
Local Fruits & Vegetables	1.0E-01	µg/g fw	2.6%	0.0E+00	3.0E-02	2.0E-02	1.2E-02	9.8E-03	1.2E-02
Local Wild Blue Berries	7.4E-02	µg/g fw	3.1%	0.0E+00	4.6E-02	2.4E-02	9.3E-03	7.9E-03	1.2E-02
Local Wild Game	4.0E-03	µg/g fw	0.1%	0.0E+00	5.7E-04	4.7E-04	3.5E-04	3.6E-04	3.8E-04
Local Fish	3.0E-01	µg/g fw	5.0%	0.0E+00	3.7E-02	4.1E-02	3.1E-02	3.2E-02	3.3E-02
Drinking Water	1.4E+00	µg/L	5.4%	4.1E-02	4.0E-02	3.0E-02	1.8E-02	2.2E-02	2.4E-02
Market Basket Contribution	NA	µg/g	55.5%	1.1E-01	6.3E-01	4.3E-01	2.4E-01	1.4E-01	2.1E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	3.7E-01	1.2E+00	6.2E-01	3.5E-01	2.5E-01	3.6E-01
Inhalation Route Only			1.3%	5.2E-03	1.2E-02	9.7E-03	5.8E-03	4.5E-03	5.7E-03
Direct Soil Contact Only			25.8%	2.1E-01	4.1E-01	5.3E-02	2.7E-02	2.2E-02	5.2E-02
Market Basket Foods and Drinking Water			61.0%	1.6E-01	6.7E-01	4.6E-01	2.6E-01	1.7E-01	2.4E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			11.9%	0.0E+00	1.3E-01	9.5E-02	5.8E-02	5.4E-02	6.3E-02

Lead

Scenario	
Region	Copper Cliff
Metal	Lead
EPC	95% UCL
Receptor	Male - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Lead

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	1.1E-01	6.3E-01	4.3E-01	2.4E-01	1.4E-01	2.1E-01
Drinking Water	µg/kg/day	4.1E-02	4.0E-02	3.0E-02	1.8E-02	2.2E-02	2.4E-02
Inhalation Route	µg/kg/day	5.2E-03	1.2E-02	9.7E-03	5.8E-03	4.5E-03	5.7E-03
Direct Dermal Contact	µg/kg/day	9.6E-05	9.1E-05	7.1E-05	6.3E-05	2.0E-05	3.5E-05
Soil/Dust Ingestion	µg/kg/day	2.1E-01	4.1E-01	5.3E-02	2.7E-02	2.2E-02	5.2E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.3E-02	9.1E-03	5.5E-03	4.6E-03	5.6E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	3.0E-02	2.0E-02	1.2E-02	9.8E-03	1.2E-02
Wild Blue Berries	µg/kg/day	0.0E+00	4.6E-02	2.4E-02	9.3E-03	7.9E-03	1.2E-02
Wild Game & Fish	µg/kg/day	0.0E+00	3.8E-02	4.2E-02	3.1E-02	3.2E-02	3.3E-02
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	3.7E-01	1.2E+00	6.2E-01	3.5E-01	2.5E-01	3.5E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	2.0E-01	6.6E-01	3.4E-01	1.9E-01	1.3E-01	1.9E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Copper Cliff
COC	Lead
EPC	95% UCL
Receptor	Male - CTE Estimate

Toxicity Information - Lead		
Oral RfD	µg/kg/day	1.85
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Lead

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	2.2E-02	µg/m3	0.1%	3.6E-04	8.2E-04	6.5E-04	3.6E-04	3.0E-04	3.8E-04
Inhalation of Fine Particulate- Indoors	2.2E-02	µg/m3	0.9%	5.3E-03	1.2E-02	9.7E-03	5.8E-03	4.5E-03	5.7E-03
Dermal Contact - Outdoors	9.8E+01	µg/g	0.0%	7.2E-05	7.0E-05	5.5E-05	4.9E-05	1.4E-05	2.6E-05
Dermal Contact - Indoors	1.5E+02	µg/g	0.0%	2.8E-05	2.6E-05	2.0E-05	1.8E-05	7.5E-06	1.1E-05
Soil Ingestion	9.8E+01	µg/g	3.9%	5.0E-02	9.9E-02	1.3E-02	6.4E-03	5.2E-03	1.2E-02
Indoor dust Ingestion	1.5E+02	µg/g	13.3%	1.7E-01	3.3E-01	4.3E-02	2.2E-02	1.7E-02	4.2E-02
Home Produced Fruits & Vegetables	1.3E-01	µg/g fw	3.8%	0.0E+00	5.9E-02	5.0E-02	3.2E-02	2.4E-02	3.0E-02
Local Fruits & Vegetables	1.0E-01	µg/g fw	8.1%	0.0E+00	1.3E-01	1.1E-01	6.7E-02	5.1E-02	6.3E-02
Local Wild Blue Berries	7.4E-02	µg/g fw	4.1%	0.0E+00	8.9E-02	5.4E-02	2.2E-02	1.7E-02	2.6E-02
Local Wild Game	4.0E-03	µg/g fw	0.1%	0.0E+00	7.3E-04	5.9E-04	4.5E-04	5.9E-04	5.8E-04
Local Fish	3.0E-01	µg/g fw	15.9%	0.0E+00	2.0E-01	2.2E-01	1.3E-01	1.4E-01	1.5E-01
Drinking Water	1.4E+00	µg/L	4.0%	5.1E-02	5.1E-02	3.5E-02	1.3E-02	2.6E-02	2.7E-02
Market Basket Contribution	NA	µg/g	45.9%	1.2E-01	8.1E-01	5.6E-01	3.3E-01	2.0E-01	2.9E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	4.0E-01	1.8E+00	1.1E+00	6.4E-01	4.8E-01	6.4E-01
<i>Inhalation Route Only</i>			0.9%	5.6E-03	1.3E-02	1.0E-02	6.2E-03	4.8E-03	6.0E-03
<i>Direct Soil Contact Only</i>			17.2%	2.2E-01	4.3E-01	5.5E-02	2.8E-02	2.3E-02	5.4E-02
<i>Market Basket Foods and Drinking Water</i>			49.9%	1.7E-01	8.6E-01	5.9E-01	3.5E-01	2.2E-01	3.1E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			32.0%	0.0E+00	4.8E-01	4.3E-01	2.6E-01	2.3E-01	2.7E-01

Lead

Scenario	
Region	Copper Cliff
Metal	Lead
EPC	95% UCL
Receptor	Male - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Lead

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	1.2E-01	8.1E-01	5.6E-01	3.3E-01	2.0E-01	2.9E-01
Drinking Water	µg/kg/day	5.1E-02	5.1E-02	3.5E-02	1.3E-02	2.6E-02	2.7E-02
Inhalation Route	µg/kg/day	5.6E-03	1.3E-02	1.0E-02	6.2E-03	4.8E-03	6.0E-03
Direct Dermal Contact	µg/kg/day	1.0E-04	9.6E-05	7.5E-05	6.7E-05	2.1E-05	3.7E-05
Soil/Dust Ingestion	µg/kg/day	2.2E-01	4.3E-01	5.5E-02	2.8E-02	2.3E-02	5.4E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	5.9E-02	5.0E-02	3.2E-02	2.4E-02	3.0E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.3E-01	1.1E-01	6.7E-02	5.1E-02	6.3E-02
Wild Blue Berries	µg/kg/day	0.0E+00	8.9E-02	5.4E-02	2.2E-02	1.7E-02	2.6E-02
Wild Game & Fish	µg/kg/day	0.0E+00	2.0E-01	2.2E-01	1.3E-01	1.4E-01	1.5E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	4.0E-01	1.8E+00	1.1E+00	6.4E-01	4.8E-01	6.4E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	2.1E-01	9.6E-01	5.9E-01	3.4E-01	2.6E-01	3.5E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Copper Cliff
COC	Lead
EPC	95% UCL
Receptor	Male - RME Estimate

Toxicity Information - Lead		
Oral RfD	µg/kg/day	1.85
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Nickel

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	5.9E-02	µg/m3	0.0%	6.6E-04	1.4E-03	1.1E-03	6.5E-04	6.2E-04	7.2E-04
Inhalation of Fine Particulate- Indoors	5.9E-02	µg/m3	0.4%	1.3E-02	2.8E-02	2.2E-02	1.3E-02	1.3E-02	1.5E-02
Dermal Contact - Outdoors	9.8E+02	µg/g	0.0%	6.8E-04	6.5E-04	5.1E-04	4.8E-04	1.4E-04	2.5E-04
Dermal Contact - Indoors	9.0E+02	µg/g	0.0%	1.6E-04	1.5E-04	1.2E-04	1.0E-04	4.6E-05	6.7E-05
Soil Ingestion	9.8E+02	µg/g	4.2%	3.0E-01	5.9E-01	7.3E-02	4.3E-02	3.9E-02	8.0E-02
Indoor dust Ingestion	9.0E+02	µg/g	4.9%	3.5E-01	6.9E-01	8.5E-02	5.1E-02	4.5E-02	9.4E-02
Home Produced Fruits & Vegetables	1.7E+00	µg/g fw	3.9%	0.0E+00	4.8E-01	2.4E-01	1.3E-01	1.1E-01	1.5E-01
Local Fruits & Vegetables	2.1E+00	µg/g fw	6.5%	0.0E+00	8.0E-01	4.0E-01	2.2E-01	1.9E-01	2.5E-01
Local Wild Blue Berries	7.1E-01	µg/g fw	3.4%	0.0E+00	4.5E-01	2.2E-01	1.0E-01	8.6E-02	1.2E-01
Local Wild Game	6.2E-01	µg/g fw	1.0%	0.0E+00	9.9E-02	6.4E-02	4.4E-02	3.4E-02	4.2E-02
Local Fish	3.2E-02	µg/g fw	0.1%	0.0E+00	3.8E-03	4.7E-03	2.8E-03	3.6E-03	3.6E-03
Drinking Water	4.9E+01	µg/L	22.5%	1.4E+00	1.4E+00	1.0E+00	7.2E-01	9.9E-01	1.0E+00
Market Basket Contribution	NA	µg/g	53.2%	6.9E-01	5.9E+00	3.5E+00	1.9E+00	1.3E+00	1.9E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	2.8E+00	1.1E+01	5.6E+00	3.2E+00	2.8E+00	3.6E+00
<i>Inhalation Route Only</i>			0.4%	1.4E-02	3.0E-02	2.3E-02	1.4E-02	1.3E-02	1.5E-02
<i>Direct Soil Contact Only</i>			9.1%	6.5E-01	1.3E+00	1.6E-01	9.5E-02	8.4E-02	1.7E-01
<i>Market Basket Foods and Drinking Water</i>			75.7%	2.1E+00	7.4E+00	4.5E+00	2.6E+00	2.3E+00	2.9E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			14.8%	0.0E+00	1.8E+00	9.3E-01	5.0E-01	4.2E-01	5.7E-01

Nickel

Scenario	
Region	Copper Cliff
Metal	Nickel
EPC	95% UCL
Receptor	Female - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Nickel

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	6.9E-01	5.9E+00	3.5E+00	1.9E+00	1.3E+00	1.9E+00
Drinking Water	µg/kg/day	1.4E+00	1.4E+00	1.0E+00	7.2E-01	9.9E-01	1.0E+00
Inhalation Route	µg/kg/day	1.4E-02	3.0E-02	2.3E-02	1.4E-02	1.3E-02	1.5E-02
Direct Dermal Contact	µg/kg/day	8.4E-04	8.1E-04	6.2E-04	5.8E-04	1.9E-04	3.2E-04
Soil/Dust Ingestion	µg/kg/day	6.4E-01	1.3E+00	1.6E-01	9.4E-02	8.4E-02	1.7E-01
HP Fruit & Vegetables	µg/kg/day	0.0E+00	4.8E-01	2.4E-01	1.3E-01	1.1E-01	1.5E-01
Local Fruit & Vegetables	µg/kg/day	0.0E+00	8.0E-01	4.0E-01	2.2E-01	1.9E-01	2.5E-01
Wild Blue Berries	µg/kg/day	0.0E+00	4.5E-01	2.2E-01	1.0E-01	8.6E-02	1.2E-01
Wild Game & Fish	µg/kg/day	0.0E+00	1.0E-01	6.9E-02	4.7E-02	3.7E-02	4.5E-02
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	2.8E+00	1.1E+01	5.6E+00	3.2E+00	2.8E+00	3.6E+00
Hazard Quotient - inhal	unitless	2.5E+00	5.2E+00	4.1E+00	2.4E+00	2.3E+00	NA
Hazard Quotient - oral	unitless	1.4E-01	5.3E-01	2.8E-01	1.6E-01	1.4E-01	1.8E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Copper Cliff
COC	Nickel
EPC	95% UCL
Receptor	Female - CTE Estimate

Toxicity Information - Nickel		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.00571

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Nickel



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units							
Inhalation of Fine Particulate- Outdoors	5.9E-02	µg/m3	0.0%	9.6E-04	2.0E-03	1.6E-03	9.4E-04	8.9E-04	1.0E-03
Inhalation of Fine Particulate- Indoors	5.9E-02	µg/m3	0.3%	1.4E-02	3.0E-02	2.3E-02	1.4E-02	1.3E-02	1.5E-02
Dermal Contact - Outdoors	9.8E+02	µg/g	0.0%	7.2E-04	6.9E-04	5.4E-04	5.1E-04	1.5E-04	2.7E-04
Dermal Contact - Indoors	9.0E+02	µg/g	0.0%	1.7E-04	1.6E-04	1.2E-04	1.1E-04	4.8E-05	7.0E-05
Soil Ingestion	9.8E+02	µg/g	3.1%	3.1E-01	6.3E-01	7.7E-02	4.6E-02	4.1E-02	8.5E-02
Indoor dust Ingestion	9.0E+02	µg/g	3.5%	3.6E-01	7.2E-01	8.8E-02	5.3E-02	4.7E-02	9.7E-02
Home Produced Fruits & Vegetables	1.7E+00	µg/g fw	9.0%	0.0E+00	1.4E+00	8.9E-01	5.3E-01	4.3E-01	5.4E-01
Local Fruits & Vegetables	2.1E+00	µg/g fw	15.0%	0.0E+00	2.3E+00	1.5E+00	9.0E-01	7.2E-01	9.1E-01
Local Wild Blue Berries	7.1E-01	µg/g fw	4.9%	0.0E+00	9.0E-01	4.6E-01	2.2E-01	1.8E-01	2.5E-01
Local Wild Game	6.2E-01	µg/g fw	0.8%	0.0E+00	1.1E-01	8.2E-02	5.4E-02	4.2E-02	5.2E-02
Local Fish	3.2E-02	µg/g fw	0.2%	0.0E+00	1.5E-02	2.3E-02	1.2E-02	1.5E-02	1.5E-02
Drinking Water	4.9E+01	µg/L	19.0%	1.8E+00	1.8E+00	1.2E+00	8.8E-01	1.2E+00	1.2E+00
Market Basket Contribution	NA	µg/g	44.3%	9.0E-01	6.3E+00	4.5E+00	2.5E+00	1.7E+00	2.3E+00

Nickel

Scenario	
Region	Copper Cliff
Metal	Nickel
EPC	95% UCL
Receptor	Female - RME Estimate

SUMMARY									
Estimated Total Daily Intake(ug/kg/day)	100.0%	3.4E+00	1.4E+01	8.8E+00	5.2E+00	4.3E+00	5.5E+00		
<i>Inhalation Route Only</i>	0.3%	1.5E-02	3.2E-02	2.5E-02	1.5E-02	1.4E-02	1.6E-02		
<i>Direct Soil Contact Only</i>	6.6%	6.8E-01	1.4E+00	1.7E-01	9.9E-02	8.8E-02	1.8E-01		
<i>Market Basket Foods and Drinking Water</i>	63.3%	2.7E+00	8.1E+00	5.7E+00	3.4E+00	2.8E+00	3.5E+00		
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)	29.8%	0.0E+00	4.7E+00	2.9E+00	1.7E+00	1.4E+00	1.8E+00		



HUMAN HEALTH RISK ESTIMATES

Nickel

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	9.0E-01	6.3E+00	4.5E+00	2.5E+00	1.7E+00	2.3E+00
Drinking Water	µg/kg/day	1.8E+00	1.8E+00	1.2E+00	8.8E-01	1.2E+00	1.2E+00
Inhalation Route	µg/kg/day	1.5E-02	3.2E-02	2.5E-02	1.5E-02	1.4E-02	1.6E-02
Direct Dermal Contact	µg/kg/day	8.9E-04	8.5E-04	6.6E-04	6.2E-04	2.0E-04	3.4E-04
Soil/Dust Ingestion	µg/kg/day	6.8E-01	1.4E+00	1.6E-01	9.9E-02	8.8E-02	1.8E-01
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.4E+00	8.9E-01	5.3E-01	4.3E-01	5.4E-01
Local Fruit & Vegetables	µg/kg/day	0.0E+00	2.3E+00	1.5E+00	9.0E-01	7.2E-01	9.1E-01
Wild Blue Berries	µg/kg/day	0.0E+00	9.0E-01	4.6E-01	2.2E-01	1.8E-01	2.5E-01
Wild Game & Fish	µg/kg/day	0.0E+00	1.3E-01	1.0E-01	6.7E-02	5.8E-02	6.8E-02
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	3.4E+00	1.4E+01	8.8E+00	5.2E+00	4.3E+00	5.5E+00
Hazard Quotient - inhal	unitless	2.7E+00	5.6E+00	4.3E+00	2.6E+00	2.5E+00	NA
Hazard Quotient - oral	unitless	1.7E-01	7.1E-01	4.4E-01	2.6E-01	2.1E-01	2.7E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Copper Cliff
COC	Nickel
EPC	95% UCL
Receptor	Female - RME Estimate

Toxicity Information - Nickel		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.00571

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Nickel



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	5.9E-02	µg/m3	0.0%	6.6E-04	1.5E-03	1.2E-03	7.3E-04	5.7E-04	7.1E-04
Inhalation of Fine Particulate- Indoors	5.9E-02	µg/m3	0.4%	1.3E-02	3.1E-02	2.5E-02	1.5E-02	1.2E-02	1.5E-02
Dermal Contact - Outdoors	9.8E+02	µg/g	0.0%	6.8E-04	6.5E-04	5.2E-04	4.6E-04	1.3E-04	2.4E-04
Dermal Contact - Indoors	9.0E+02	µg/g	0.0%	1.6E-04	1.5E-04	1.2E-04	1.0E-04	4.3E-05	6.5E-05
Soil Ingestion	9.8E+02	µg/g	4.3%	3.0E-01	5.9E-01	7.6E-02	3.9E-02	3.1E-02	7.4E-02
Indoor dust Ingestion	9.0E+02	µg/g	5.0%	3.5E-01	6.9E-01	8.8E-02	4.5E-02	3.6E-02	8.7E-02
Home Produced Fruits & Vegetables	1.7E+00	µg/g fw	3.8%	0.0E+00	4.3E-01	2.5E-01	1.3E-01	1.0E-01	1.4E-01
Local Fruits & Vegetables	2.1E+00	µg/g fw	6.3%	0.0E+00	7.0E-01	4.2E-01	2.1E-01	1.7E-01	2.4E-01
Local Wild Blue Berries	7.1E-01	µg/g fw	3.5%	0.0E+00	4.4E-01	2.3E-01	8.9E-02	7.5E-02	1.1E-01
Local Wild Game	6.2E-01	µg/g fw	1.1%	0.0E+00	8.9E-02	7.4E-02	5.6E-02	5.7E-02	6.0E-02
Local Fish	3.2E-02	µg/g fw	0.1%	0.0E+00	4.0E-03	4.4E-03	3.3E-03	3.4E-03	3.5E-03
Drinking Water	4.9E+01	µg/L	22.3%	1.4E+00	1.4E+00	1.1E+00	6.4E-01	8.0E-01	8.5E-01
Market Basket Contribution	NA	µg/g	53.2%	5.5E-01	4.7E+00	3.8E+00	2.2E+00	1.4E+00	2.0E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	2.7E+00	9.1E+00	6.0E+00	3.5E+00	2.7E+00	3.6E+00
<i>Inhalation Route Only</i>			0.4%	1.4E-02	3.3E-02	2.6E-02	1.6E-02	1.2E-02	1.5E-02
<i>Direct Soil Contact Only</i>			9.3%	6.5E-01	1.3E+00	1.6E-01	8.4E-02	6.7E-02	1.6E-01
<i>Market Basket Foods and Drinking Water</i>			75.5%	2.0E+00	6.2E+00	4.9E+00	2.9E+00	2.2E+00	2.8E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			14.7%	0.0E+00	1.7E+00	9.8E-01	4.8E-01	4.1E-01	5.6E-01

Nickel

Scenario	
Region	Copper Cliff
Metal	Nickel
EPC	95% UCL
Receptor	Male - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Nickel

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	5.5E-01	4.7E+00	3.8E+00	2.2E+00	1.4E+00	2.0E+00
Drinking Water	µg/kg/day	1.4E+00	1.4E+00	1.1E+00	6.4E-01	8.0E-01	8.5E-01
Inhalation Route	µg/kg/day	1.4E-02	3.3E-02	2.6E-02	1.6E-02	1.2E-02	1.5E-02
Direct Dermal Contact	µg/kg/day	8.4E-04	8.0E-04	6.3E-04	5.6E-04	1.7E-04	3.1E-04
Soil/Dust Ingestion	µg/kg/day	6.4E-01	1.3E+00	1.6E-01	8.4E-02	6.7E-02	1.6E-01
HP Fruit & Vegetables	µg/kg/day	0.0E+00	4.3E-01	2.5E-01	1.3E-01	1.0E-01	1.4E-01
Local Fruit & Vegetables	µg/kg/day	0.0E+00	7.0E-01	4.2E-01	2.1E-01	1.7E-01	2.4E-01
Wild Blue Berries	µg/kg/day	0.0E+00	4.4E-01	2.3E-01	8.9E-02	7.5E-02	1.1E-01
Wild Game & Fish	µg/kg/day	0.0E+00	9.3E-02	7.9E-02	5.9E-02	6.0E-02	6.4E-02
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	2.6E+00	9.1E+00	6.0E+00	3.5E+00	2.7E+00	3.5E+00
Hazard Quotient - inhal	unitless	2.5E+00	5.7E+00	4.6E+00	2.7E+00	2.1E+00	NA
Hazard Quotient - oral	unitless	1.3E-01	4.6E-01	3.0E-01	1.7E-01	1.4E-01	1.8E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Copper Cliff
COC	Nickel
EPC	95% UCL
Receptor	Male - CTE Estimate

Toxicity Information - Nickel		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.00571

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Nickel



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units							
Inhalation of Fine Particulate- Outdoors	5.9E-02	µg/m3	0.0%	9.6E-04	2.2E-03	1.8E-03	9.6E-04	8.2E-04	1.0E-03
Inhalation of Fine Particulate- Indoors	5.9E-02	µg/m3	0.3%	1.4E-02	3.3E-02	2.6E-02	1.6E-02	1.2E-02	1.5E-02
Dermal Contact - Outdoors	9.8E+02	µg/g	0.0%	7.2E-04	6.9E-04	5.5E-04	4.9E-04	1.4E-04	2.6E-04
Dermal Contact - Indoors	9.0E+02	µg/g	0.0%	1.7E-04	1.6E-04	1.2E-04	1.0E-04	4.5E-05	6.7E-05
Soil Ingestion	9.8E+02	µg/g	3.0%	3.1E-01	6.3E-01	8.0E-02	4.1E-02	3.3E-02	7.9E-02
Indoor dust Ingestion	9.0E+02	µg/g	3.4%	3.6E-01	7.2E-01	9.2E-02	4.7E-02	3.8E-02	9.0E-02
Home Produced Fruits & Vegetables	1.7E+00	µg/g fw	9.1%	0.0E+00	1.4E+00	1.0E+00	5.6E-01	4.3E-01	5.6E-01
Local Fruits & Vegetables	2.1E+00	µg/g fw	15.2%	0.0E+00	2.3E+00	1.7E+00	9.5E-01	7.2E-01	9.4E-01
Local Wild Blue Berries	7.1E-01	µg/g fw	4.7%	0.0E+00	8.5E-01	5.2E-01	2.1E-01	1.6E-01	2.4E-01
Local Wild Game	6.2E-01	µg/g fw	1.0%	0.0E+00	1.2E-01	9.3E-02	7.1E-02	9.3E-02	9.1E-02
Local Fish	3.2E-02	µg/g fw	0.2%	0.0E+00	2.1E-02	2.3E-02	1.4E-02	1.5E-02	1.6E-02
Drinking Water	4.9E+01	µg/L	16.9%	1.8E+00	1.8E+00	1.2E+00	4.7E-01	9.4E-01	9.7E-01
Market Basket Contribution	NA	µg/g	46.2%	5.9E-01	6.2E+00	5.1E+00	3.3E+00	1.9E+00	2.6E+00

Nickel

Scenario	
Region	Copper Cliff
Metal	Nickel
EPC	95% UCL
Receptor	Male - RME Estimate

SUMMARY									
Estimated Total Daily Intake(ug/kg/day)	100.0%	3.1E+00	1.4E+01	9.8E+00	5.7E+00	4.3E+00	5.6E+00		
Inhalation Route Only	0.3%	1.5E-02	3.5E-02	2.8E-02	1.7E-02	1.3E-02	1.6E-02		
Direct Soil Contact Only	6.4%	6.8E-01	1.3E+00	1.7E-01	8.8E-02	7.0E-02	1.7E-01		
Market Basket Foods and Drinking Water	63.1%	2.4E+00	8.0E+00	6.3E+00	3.7E+00	2.8E+00	3.6E+00		
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)	30.3%	0.0E+00	4.6E+00	3.3E+00	1.8E+00	1.4E+00	1.8E+00		



HUMAN HEALTH RISK ESTIMATES

Nickel

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	5.9E-01	6.2E+00	5.1E+00	3.3E+00	1.9E+00	2.6E+00
Drinking Water	µg/kg/day	1.8E+00	1.8E+00	1.2E+00	4.7E-01	9.4E-01	9.7E-01
Inhalation Route	µg/kg/day	1.5E-02	3.5E-02	2.8E-02	1.7E-02	1.3E-02	1.6E-02
Direct Dermal Contact	µg/kg/day	8.9E-04	8.5E-04	6.7E-04	6.0E-04	1.8E-04	3.3E-04
Soil/Dust Ingestion	µg/kg/day	6.8E-01	1.3E+00	1.7E-01	8.8E-02	7.0E-02	1.7E-01
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.4E+00	1.0E+00	5.6E-01	4.3E-01	5.6E-01
Local Fruit & Vegetables	µg/kg/day	0.0E+00	2.3E+00	1.7E+00	9.5E-01	7.2E-01	9.4E-01
Wild Blue Berries	µg/kg/day	0.0E+00	8.5E-01	5.2E-01	2.1E-01	1.6E-01	2.4E-01
Wild Game & Fish	µg/kg/day	0.0E+00	1.4E-01	1.2E-01	8.6E-02	1.1E-01	1.1E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	3.1E+00	1.4E+01	9.8E+00	5.6E+00	4.3E+00	5.6E+00
Hazard Quotient - inhal	unitless	2.7E+00	6.1E+00	4.9E+00	2.9E+00	2.3E+00	NA
Hazard Quotient - oral	unitless	1.5E-01	7.0E-01	4.9E-01	2.8E-01	2.2E-01	2.8E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Copper Cliff
COC	Nickel
EPC	95% UCL
Receptor	Male - RME Estimate

Toxicity Information - Nickel		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.00571

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Selenium



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	5.5E-03	µg/m3	0.0%	6.0E-05	1.3E-04	1.0E-04	6.0E-05	5.7E-05	6.6E-05
Inhalation of Fine Particulate- Indoors	5.5E-03	µg/m3	0.1%	1.2E-03	2.6E-03	2.0E-03	1.2E-03	1.2E-03	1.3E-03
Dermal Contact - Outdoors	7.5E+00	µg/g	0.0%	5.2E-06	5.0E-06	3.9E-06	3.7E-06	1.1E-06	1.9E-06
Dermal Contact - Indoors	1.5E+01	µg/g	0.0%	2.8E-06	2.6E-06	2.0E-06	1.8E-06	7.9E-07	1.2E-06
Soil Ingestion	7.5E+00	µg/g	0.0%	1.4E-03	2.8E-03	3.5E-04	2.1E-04	1.8E-04	3.8E-04
Indoor dust Ingestion	1.5E+01	µg/g	0.3%	1.3E-02	2.7E-02	3.2E-03	1.9E-03	1.7E-03	3.6E-03
Home Produced Fruits & Vegetables	4.2E-01	µg/g fw	0.9%	0.0E+00	5.7E-02	3.0E-02	2.0E-02	1.8E-02	2.2E-02
Local Fruits & Vegetables	3.9E-01	µg/g fw	0.5%	0.0E+00	3.5E-02	1.9E-02	1.2E-02	1.0E-02	1.3E-02
Local Wild Blue Berries	1.6E-02	µg/g fw	0.1%	0.0E+00	1.0E-02	4.9E-03	2.3E-03	1.9E-03	2.8E-03
Local Wild Game	1.4E+00	µg/g fw	3.6%	0.0E+00	2.2E-01	1.4E-01	9.6E-02	7.4E-02	9.1E-02
Local Fish	2.0E+00	µg/g fw	6.3%	0.0E+00	2.3E-01	2.9E-01	1.7E-01	2.2E-01	2.2E-01
Drinking Water	3.0E+00	µg/L	2.4%	8.8E-02	8.8E-02	6.1E-02	4.4E-02	6.1E-02	6.1E-02
Market Basket Contribution	NA	µg/g	85.8%	1.3E+00	5.0E+00	3.3E+00	1.7E+00	1.0E+00	1.6E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	1.4E+00	5.7E+00	3.9E+00	2.1E+00	1.4E+00	2.0E+00
<i>Inhalation Route Only</i>			0.1%	1.3E-03	2.7E-03	2.1E-03	1.3E-03	1.2E-03	1.4E-03
<i>Direct Soil Contact Only</i>			0.4%	1.5E-02	2.9E-02	3.6E-03	2.2E-03	1.9E-03	4.0E-03
<i>Market Basket Foods and Drinking Water</i>			88.1%	1.4E+00	5.1E+00	3.4E+00	1.8E+00	1.1E+00	1.7E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			11.4%	0.0E+00	5.5E-01	4.8E-01	3.0E-01	3.2E-01	3.5E-01

Selenium

Scenario	
Region	Copper Cliff
Metal	Selenium
EPC	95% UCL
Receptor	Female - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Selenium

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	1.3E+00	5.0E+00	3.3E+00	1.7E+00	1.0E+00	1.6E+00
Drinking Water	µg/kg/day	8.8E-02	8.8E-02	6.1E-02	4.4E-02	6.1E-02	6.1E-02
Inhalation Route	µg/kg/day	1.3E-03	2.7E-03	2.1E-03	1.3E-03	1.2E-03	1.4E-03
Direct Dermal Contact	µg/kg/day	8.0E-06	7.6E-06	5.9E-06	5.5E-06	1.9E-06	3.1E-06
Soil/Dust Ingestion	µg/kg/day	1.5E-02	2.9E-02	3.6E-03	2.1E-03	1.9E-03	4.0E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	5.7E-02	3.0E-02	2.0E-02	1.8E-02	2.2E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	3.5E-02	1.9E-02	1.2E-02	1.0E-02	1.3E-02
Wild Blue Berries	µg/kg/day	0.0E+00	1.0E-02	4.9E-03	2.3E-03	1.9E-03	2.8E-03
Wild Game & Fish	µg/kg/day	0.0E+00	4.5E-01	4.3E-01	2.6E-01	2.9E-01	3.1E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	1.4E+00	5.7E+00	3.9E+00	2.1E+00	1.4E+00	2.0E+00
Hazard Quotient - inhal	unitless	2.3E-04	4.8E-04	3.7E-04	2.2E-04	2.1E-04	NA
Hazard Quotient - oral	unitless	2.7E-01	1.1E+00	7.8E-01	4.1E-01	2.8E-01	4.0E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Copper Cliff
COC	Selenium
EPC	95% UCL
Receptor	Female - CTE Estimate

Toxicity Information - Selenium		
Oral RfD	µg/kg/day	5
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	5.71

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Selenium



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	5.5E-03	µg/m3	0.0%	8.8E-05	1.8E-04	1.4E-04	8.6E-05	8.1E-05	9.5E-05
Inhalation of Fine Particulate- Indoors	5.5E-03	µg/m3	0.0%	1.3E-03	2.7E-03	2.1E-03	1.3E-03	1.2E-03	1.4E-03
Dermal Contact - Outdoors	7.5E+00	µg/g	0.0%	5.6E-06	5.3E-06	4.2E-06	3.9E-06	1.1E-06	2.1E-06
Dermal Contact - Indoors	1.5E+01	µg/g	0.0%	2.9E-06	2.7E-06	2.1E-06	1.9E-06	8.2E-07	1.2E-06
Soil Ingestion	7.5E+00	µg/g	0.0%	1.5E-03	3.0E-03	3.7E-04	2.2E-04	1.9E-04	4.0E-04
Indoor dust Ingestion	1.5E+01	µg/g	0.2%	1.4E-02	2.8E-02	3.4E-03	2.0E-03	1.8E-03	3.7E-03
Home Produced Fruits & Vegetables	4.2E-01	µg/g fw	2.7%	0.0E+00	2.1E-01	1.7E-01	1.2E-01	9.5E-02	1.1E-01
Local Fruits & Vegetables	3.9E-01	µg/g fw	1.7%	0.0E+00	1.3E-01	1.0E-01	7.1E-02	5.5E-02	6.7E-02
Local Wild Blue Berries	1.6E-02	µg/g fw	0.2%	0.0E+00	2.0E-02	1.0E-02	4.9E-03	4.0E-03	5.7E-03
Local Wild Game	1.4E+00	µg/g fw	2.9%	0.0E+00	2.5E-01	1.8E-01	1.2E-01	9.3E-02	1.1E-01
Local Fish	2.0E+00	µg/g fw	18.4%	0.0E+00	8.9E-01	1.4E+00	7.5E-01	9.2E-01	9.4E-01
Drinking Water	3.0E+00	µg/L	1.9%	1.1E-01	1.1E-01	7.1E-02	5.3E-02	7.1E-02	7.2E-02
Market Basket Contribution	NA	µg/g	71.8%	1.6E+00	6.4E+00	4.0E+00	2.2E+00	1.3E+00	2.0E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	1.8E+00	8.1E+00	6.0E+00	3.3E+00	2.5E+00	3.3E+00
<i>Inhalation Route Only</i>			0.0%	1.4E-03	2.9E-03	2.3E-03	1.4E-03	1.3E-03	1.5E-03
<i>Direct Soil Contact Only</i>			0.2%	1.5E-02	3.1E-02	3.7E-03	2.2E-03	2.0E-03	4.1E-03
<i>Market Basket Foods and Drinking Water</i>			73.8%	1.8E+00	6.6E+00	4.1E+00	2.2E+00	1.4E+00	2.1E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			26.0%	0.0E+00	1.5E+00	1.9E+00	1.1E+00	1.2E+00	1.2E+00

Selenium

Scenario	
Region	Copper Cliff
Metal	Selenium
EPC	95% UCL
Receptor	Female - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Selenium

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	1.6E+00	6.4E+00	4.0E+00	2.2E+00	1.3E+00	2.0E+00
Drinking Water	µg/kg/day	1.1E-01	1.1E-01	7.1E-02	5.3E-02	7.1E-02	7.2E-02
Inhalation Route	µg/kg/day	1.4E-03	2.9E-03	2.3E-03	1.4E-03	1.3E-03	1.5E-03
Direct Dermal Contact	µg/kg/day	8.5E-06	8.0E-06	6.2E-06	5.8E-06	2.0E-06	3.3E-06
Soil/Dust Ingestion	µg/kg/day	1.5E-02	3.1E-02	3.7E-03	2.2E-03	2.0E-03	4.1E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	2.1E-01	1.7E-01	1.2E-01	9.5E-02	1.1E-01
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.3E-01	1.0E-01	7.1E-02	5.5E-02	6.7E-02
Wild Blue Berries	µg/kg/day	0.0E+00	2.0E-02	1.0E-02	4.9E-03	4.0E-03	5.7E-03
Wild Game & Fish	µg/kg/day	0.0E+00	1.1E+00	1.6E+00	8.7E-01	1.0E+00	1.1E+00
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	1.8E+00	8.1E+00	6.0E+00	3.3E+00	2.5E+00	3.3E+00
Hazard Quotient - inhal	unitless	2.4E-04	5.1E-04	4.0E-04	2.4E-04	2.3E-04	NA
Hazard Quotient - oral	unitless	3.5E-01	1.6E+00	1.2E+00	6.5E-01	5.1E-01	6.6E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Copper Cliff
COC	Selenium
EPC	95% UCL
Receptor	Female - RME Estimate

Toxicity Information - Selenium		
Oral RfD	µg/kg/day	5
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	5.71

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Selenium

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	5.5E-03	µg/m3	0.0%	6.0E-05	1.4E-04	1.1E-04	6.7E-05	5.2E-05	6.5E-05
Inhalation of Fine Particulate- Indoors	5.5E-03	µg/m3	0.1%	1.2E-03	2.9E-03	2.3E-03	1.4E-03	1.1E-03	1.3E-03
Dermal Contact - Outdoors	7.5E+00	µg/g	0.0%	5.2E-06	5.0E-06	4.0E-06	3.6E-06	1.0E-06	1.9E-06
Dermal Contact - Indoors	1.5E+01	µg/g	0.0%	2.8E-06	2.6E-06	2.0E-06	1.7E-06	7.4E-07	1.1E-06
Soil Ingestion	7.5E+00	µg/g	0.0%	1.4E-03	2.8E-03	3.6E-04	1.8E-04	1.5E-04	3.5E-04
Indoor dust Ingestion	1.5E+01	µg/g	0.3%	1.3E-02	2.6E-02	3.4E-03	1.7E-03	1.4E-03	3.3E-03
Home Produced Fruits & Vegetables	4.2E-01	µg/g fw	0.7%	0.0E+00	3.9E-02	3.1E-02	2.0E-02	1.7E-02	2.0E-02
Local Fruits & Vegetables	3.9E-01	µg/g fw	0.4%	0.0E+00	2.6E-02	2.0E-02	1.3E-02	1.0E-02	1.3E-02
Local Wild Blue Berries	1.6E-02	µg/g fw	0.1%	0.0E+00	9.9E-03	5.1E-03	2.0E-03	1.7E-03	2.6E-03
Local Wild Game	1.4E+00	µg/g fw	3.8%	0.0E+00	1.9E-01	1.6E-01	1.2E-01	1.2E-01	1.3E-01
Local Fish	2.0E+00	µg/g fw	5.7%	0.0E+00	2.4E-01	2.7E-01	2.0E-01	2.0E-01	2.1E-01
Drinking Water	3.0E+00	µg/L	2.0%	8.8E-02	8.7E-02	6.4E-02	3.9E-02	4.8E-02	5.2E-02
Market Basket Contribution	NA	µg/g	86.8%	1.0E+00	5.4E+00	3.8E+00	2.2E+00	1.4E+00	2.0E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	1.1E+00	6.0E+00	4.4E+00	2.6E+00	1.9E+00	2.5E+00
<i>Inhalation Route Only</i>			0.1%	1.3E-03	3.0E-03	2.4E-03	1.4E-03	1.1E-03	1.4E-03
<i>Direct Soil Contact Only</i>			0.3%	1.5E-02	2.9E-02	3.8E-03	1.9E-03	1.5E-03	3.7E-03
<i>Market Basket Foods and Drinking Water</i>			88.9%	1.1E+00	5.4E+00	3.9E+00	2.3E+00	1.5E+00	2.1E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			10.7%	0.0E+00	5.1E-01	4.9E-01	3.6E-01	3.6E-01	3.8E-01

Selenium

Scenario	
Region	Copper Cliff
Metal	Selenium
EPC	95% UCL
Receptor	Male - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Selenium

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	1.0E+00	5.4E+00	3.8E+00	2.2E+00	1.4E+00	2.0E+00
Drinking Water	µg/kg/day	8.8E-02	8.7E-02	6.4E-02	3.9E-02	4.8E-02	5.2E-02
Inhalation Route	µg/kg/day	1.3E-03	3.0E-03	2.4E-03	1.4E-03	1.1E-03	1.4E-03
Direct Dermal Contact	µg/kg/day	8.0E-06	7.6E-06	6.0E-06	5.3E-06	1.7E-06	3.0E-06
Soil/Dust Ingestion	µg/kg/day	1.5E-02	2.9E-02	3.7E-03	1.9E-03	1.5E-03	3.7E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	3.9E-02	3.1E-02	2.0E-02	1.7E-02	2.0E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	2.6E-02	2.0E-02	1.3E-02	1.0E-02	1.3E-02
Wild Blue Berries	µg/kg/day	0.0E+00	9.9E-03	5.1E-03	2.0E-03	1.7E-03	2.6E-03
Wild Game & Fish	µg/kg/day	0.0E+00	4.4E-01	4.3E-01	3.2E-01	3.3E-01	3.4E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	1.1E+00	6.0E+00	4.4E+00	2.6E+00	1.9E+00	2.5E+00
Hazard Quotient - inhal	unitless	2.3E-04	5.2E-04	4.2E-04	2.5E-04	1.9E-04	NA
Hazard Quotient - oral	unitless	2.2E-01	1.2E+00	8.8E-01	5.3E-01	3.7E-01	4.9E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Copper Cliff
COC	Selenium
EPC	95% UCL
Receptor	Male - CTE Estimate

Toxicity Information - Selenium		
Oral RfD	µg/kg/day	5
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	5.71

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Selenium



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	5.5E-03	µg/m3	0.0%	8.8E-05	2.0E-04	1.6E-04	8.8E-05	7.5E-05	9.4E-05
Inhalation of Fine Particulate- Indoors	5.5E-03	µg/m3	0.0%	1.3E-03	3.0E-03	2.4E-03	1.4E-03	1.1E-03	1.4E-03
Dermal Contact - Outdoors	7.5E+00	µg/g	0.0%	5.6E-06	5.3E-06	4.2E-06	3.8E-06	1.1E-06	2.0E-06
Dermal Contact - Indoors	1.5E+01	µg/g	0.0%	2.9E-06	2.7E-06	2.1E-06	1.8E-06	7.7E-07	1.2E-06
Soil Ingestion	7.5E+00	µg/g	0.0%	1.5E-03	3.0E-03	3.8E-04	1.9E-04	1.6E-04	3.7E-04
Indoor dust Ingestion	1.5E+01	µg/g	0.2%	1.4E-02	2.8E-02	3.5E-03	1.8E-03	1.4E-03	3.5E-03
Home Produced Fruits & Vegetables	4.2E-01	µg/g fw	2.7%	0.0E+00	2.2E-01	1.9E-01	1.3E-01	9.8E-02	1.2E-01
Local Fruits & Vegetables	3.9E-01	µg/g fw	1.7%	0.0E+00	1.4E-01	1.2E-01	7.8E-02	5.9E-02	7.2E-02
Local Wild Blue Berries	1.6E-02	µg/g fw	0.2%	0.0E+00	1.9E-02	1.2E-02	4.6E-03	3.6E-03	5.5E-03
Local Wild Game	1.4E+00	µg/g fw	3.4%	0.0E+00	2.5E-01	2.0E-01	1.6E-01	2.0E-01	2.0E-01
Local Fish	2.0E+00	µg/g fw	19.0%	0.0E+00	1.3E+00	1.4E+00	8.7E-01	9.2E-01	9.8E-01
Drinking Water	3.0E+00	µg/L	1.6%	1.1E-01	1.1E-01	7.5E-02	2.9E-02	5.7E-02	5.9E-02
Market Basket Contribution	NA	µg/g	71.3%	1.1E+00	6.5E+00	4.5E+00	2.8E+00	2.0E+00	2.7E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	1.2E+00	8.6E+00	6.6E+00	4.1E+00	3.4E+00	4.1E+00
<i>Inhalation Route Only</i>			0.0%	1.4E-03	3.2E-03	2.6E-03	1.5E-03	1.2E-03	1.5E-03
<i>Direct Soil Contact Only</i>			0.2%	1.5E-02	3.0E-02	3.9E-03	2.0E-03	1.6E-03	3.8E-03
<i>Market Basket Foods and Drinking Water</i>			72.9%	1.2E+00	6.7E+00	4.6E+00	2.8E+00	2.1E+00	2.7E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			26.9%	0.0E+00	1.9E+00	1.9E+00	1.2E+00	1.3E+00	1.4E+00

Selenium

Scenario	
Region	Copper Cliff
Metal	Selenium
EPC	95% UCL
Receptor	Male - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Selenium

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	1.1E+00	6.5E+00	4.5E+00	2.8E+00	2.0E+00	2.7E+00
Drinking Water	µg/kg/day	1.1E-01	1.1E-01	7.5E-02	2.9E-02	5.7E-02	5.9E-02
Inhalation Route	µg/kg/day	1.4E-03	3.2E-03	2.6E-03	1.5E-03	1.2E-03	1.5E-03
Direct Dermal Contact	µg/kg/day	8.5E-06	8.0E-06	6.3E-06	5.6E-06	1.8E-06	3.1E-06
Soil/Dust Ingestion	µg/kg/day	1.5E-02	3.0E-02	3.9E-03	2.0E-03	1.6E-03	3.8E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	2.2E-01	1.9E-01	1.3E-01	9.8E-02	1.2E-01
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.4E-01	1.2E-01	7.8E-02	5.9E-02	7.2E-02
Wild Blue Berries	µg/kg/day	0.0E+00	1.9E-02	1.2E-02	4.6E-03	3.6E-03	5.5E-03
Wild Game & Fish	µg/kg/day	0.0E+00	1.6E+00	1.6E+00	1.0E+00	1.1E+00	1.2E+00
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	1.2E+00	8.6E+00	6.6E+00	4.1E+00	3.4E+00	4.1E+00
Hazard Quotient - inhal	unitless	2.4E-04	5.6E-04	4.5E-04	2.7E-04	2.1E-04	NA
Hazard Quotient - oral	unitless	2.4E-01	1.7E+00	1.3E+00	8.1E-01	6.8E-01	8.2E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Copper Cliff
COC	Selenium
EPC	95% UCL
Receptor	Male - RME Estimate

Toxicity Information - Selenium		
Oral RfD	µg/kg/day	5
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	5.71

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Arsenic

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	2.4E-03	µg/m3	0.0%	2.7E-05	5.7E-05	4.5E-05	2.7E-05	2.5E-05	5.3E-05
Inhalation of Fine Particulate- Indoors	2.4E-03	µg/m3	0.4%	5.5E-04	1.2E-03	9.1E-04	5.4E-04	5.2E-04	1.1E-03
Dermal Contact - Outdoors	7.9E+01	µg/g	0.6%	1.6E-03	1.6E-03	1.2E-03	1.2E-03	3.4E-04	1.4E-03
Dermal Contact - Indoors	2.5E+01	µg/g	0.1%	1.4E-04	1.3E-04	9.8E-05	8.9E-05	3.9E-05	1.2E-04
Soil Ingestion	7.9E+01	µg/g	8.0%	2.2E-02	4.4E-02	5.4E-03	3.2E-03	2.9E-03	1.5E-02
Indoor dust Ingestion	2.5E+01	µg/g	5.3%	1.5E-02	2.9E-02	3.6E-03	2.1E-03	1.9E-03	9.9E-03
Home Produced Fruits & Vegetables	2.5E-02	µg/g fw	0.9%	0.0E+00	4.2E-03	2.2E-03	1.4E-03	1.3E-03	2.9E-03
Local Fruits & Vegetables	2.8E-02	µg/g fw	0.9%	0.0E+00	4.0E-03	2.1E-03	1.2E-03	1.0E-03	2.5E-03
Local Wild Blue Berries	5.2E-03	µg/g fw	0.6%	0.0E+00	3.2E-03	1.5E-03	7.1E-04	6.0E-04	1.7E-03
Local Wild Game	1.3E-04	µg/g fw	0.0%	0.0E+00	1.9E-05	1.2E-05	8.4E-06	6.5E-06	1.5E-05
Local Fish	2.2E-04	µg/g fw	0.0%	0.0E+00	2.5E-05	3.1E-05	1.8E-05	2.3E-05	3.7E-05
Drinking Water	2.6E+00	µg/L	30.0%	7.5E-02	7.5E-02	5.3E-02	3.8E-02	5.2E-02	8.6E-02
Market Basket Contribution	NA	µg/g	53.3%	4.1E-04	2.5E-01	1.5E-01	7.6E-02	4.8E-02	1.5E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	1.2E-01	4.1E-01	2.2E-01	1.2E-01	1.1E-01	2.7E-01
<i>Inhalation Route Only</i>			0.4%	5.8E-04	1.2E-03	9.5E-04	5.7E-04	5.4E-04	1.1E-03
<i>Direct Soil Contact Only</i>			14.0%	3.9E-02	7.6E-02	1.0E-02	6.6E-03	5.2E-03	2.6E-02
<i>Market Basket Foods and Drinking Water</i>			83.2%	7.6E-02	3.2E-01	2.0E-01	1.1E-01	9.9E-02	2.4E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			2.4%	0.0E+00	1.1E-02	5.8E-03	3.3E-03	2.9E-03	7.2E-03

Arsenic

Scenario	
Region	Falconbridge
Metal	Arsenic
EPC	95% UCL
Receptor	Female - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Arsenic

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	4.1E-04	2.5E-01	1.5E-01	7.6E-02	4.8E-02	1.5E-01
Drinking Water	µg/kg/day	7.5E-02	7.5E-02	5.3E-02	3.8E-02	5.2E-02	8.6E-02
Inhalation Route	µg/kg/day	5.8E-04	1.2E-03	9.5E-04	5.7E-04	5.4E-04	1.1E-03
Direct Dermal Contact	µg/kg/day	1.8E-03	1.7E-03	1.3E-03	1.2E-03	3.8E-04	1.6E-03
Soil/Dust Ingestion	µg/kg/day	3.7E-02	7.4E-02	9.0E-03	5.4E-03	4.8E-03	2.5E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	4.2E-03	2.2E-03	1.4E-03	1.3E-03	2.9E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	4.0E-03	2.1E-03	1.2E-03	1.0E-03	2.5E-03
Wild Blue Berries	µg/kg/day	0.0E+00	3.2E-03	1.5E-03	7.1E-04	6.0E-04	1.7E-03
Wild Game & Fish	µg/kg/day	0.0E+00	4.4E-05	4.3E-05	2.6E-05	3.0E-05	5.2E-05
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	1.1E-01	4.1E-01	2.2E-01	1.2E-01	1.1E-01	2.7E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	3.8E-01	1.4E+00	7.2E-01	4.1E-01	3.6E-01	4.7E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		1.7E-05		1.8E-04		2.0E-04	

Scenario	
COI	Falconbridge
COC	Arsenic
EPC	95% UCL
Receptor	Female - CTE Estimate

Toxicity Information - Arsenic		
Oral RfD	µg/kg/day	0.3
Oral S.F.	(µg/kg/day) ⁻¹	1.50E-03
Inhalation S.F.	(µg/kg/day) ⁻¹	1.50E-02
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Arsenic

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	2.4E-03	µg/m3	0.0%	3.9E-05	8.3E-05	6.4E-05	3.8E-05	3.6E-05	7.7E-05
Inhalation of Fine Particulate- Indoors	2.4E-03	µg/m3	0.3%	5.8E-04	1.2E-03	9.5E-04	5.7E-04	5.4E-04	1.1E-03
Dermal Contact - Outdoors	7.9E+01	µg/g	0.5%	1.7E-03	1.7E-03	1.3E-03	1.2E-03	3.6E-04	1.5E-03
Dermal Contact - Indoors	2.5E+01	µg/g	0.0%	1.4E-04	1.3E-04	1.0E-04	9.2E-05	4.1E-05	1.3E-04
Soil Ingestion	7.9E+01	µg/g	6.7%	2.4E-02	4.7E-02	5.7E-03	3.4E-03	3.1E-03	1.6E-02
Indoor dust Ingestion	2.5E+01	µg/g	4.4%	1.5E-02	3.1E-02	3.7E-03	2.2E-03	2.0E-03	1.0E-02
Home Produced Fruits & Vegetables	2.5E-02	µg/g fw	3.3%	0.0E+00	1.5E-02	1.2E-02	7.9E-03	6.6E-03	1.4E-02
Local Fruits & Vegetables	2.8E-02	µg/g fw	2.6%	0.0E+00	1.3E-02	9.0E-03	5.8E-03	4.6E-03	1.0E-02
Local Wild Blue Berries	5.2E-03	µg/g fw	1.0%	0.0E+00	6.3E-03	3.2E-03	1.5E-03	1.2E-03	3.6E-03
Local Wild Game	1.3E-04	µg/g fw	0.0%	0.0E+00	2.2E-05	1.6E-05	1.0E-05	8.1E-06	1.8E-05
Local Fish	2.2E-04	µg/g fw	0.0%	0.0E+00	9.6E-05	1.5E-04	8.1E-05	9.9E-05	1.6E-04
Drinking Water	2.6E+00	µg/L	28.9%	9.4E-02	9.4E-02	6.1E-02	4.6E-02	6.1E-02	1.0E-01
Market Basket Contribution	NA	µg/g	52.1%	5.3E-04	2.9E-01	1.9E-01	1.0E-01	6.3E-02	1.9E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	1.4E-01	5.0E-01	2.8E-01	1.7E-01	1.4E-01	3.5E-01
<i>Inhalation Route Only</i>			0.3%	6.2E-04	1.3E-03	1.0E-03	6.1E-04	5.7E-04	1.2E-03
<i>Direct Soil Contact Only</i>			11.6%	4.1E-02	7.9E-02	1.1E-02	7.0E-03	5.4E-03	2.8E-02
<i>Market Basket Foods and Drinking Water</i>			81.0%	9.5E-02	3.9E-01	2.5E-01	1.5E-01	1.2E-01	2.9E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			7.0%	0.0E+00	3.4E-02	2.4E-02	1.5E-02	1.3E-02	2.8E-02

Arsenic

Scenario	
Region	Falconbridge
Metal	Arsenic
EPC	95% UCL
Receptor	Female - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Arsenic

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	5.3E-04	2.9E-01	1.9E-01	1.0E-01	6.3E-02	1.9E-01
Drinking Water	µg/kg/day	9.4E-02	9.4E-02	6.1E-02	4.6E-02	6.1E-02	1.0E-01
Inhalation Route	µg/kg/day	6.2E-04	1.3E-03	1.0E-03	6.1E-04	5.7E-04	1.2E-03
Direct Dermal Contact	µg/kg/day	1.9E-03	1.8E-03	1.4E-03	1.3E-03	4.0E-04	1.6E-03
Soil/Dust Ingestion	µg/kg/day	3.9E-02	7.8E-02	9.5E-03	5.7E-03	5.0E-03	2.6E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.5E-02	1.2E-02	7.9E-03	6.6E-03	1.4E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.3E-02	9.0E-03	5.8E-03	4.6E-03	1.0E-02
Wild Blue Berries	µg/kg/day	0.0E+00	6.3E-03	3.2E-03	1.5E-03	1.2E-03	3.6E-03
Wild Game & Fish	µg/kg/day	0.0E+00	1.2E-04	1.7E-04	9.1E-05	1.1E-04	1.8E-04
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	1.4E-01	5.0E-01	2.8E-01	1.7E-01	1.4E-01	3.5E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	4.5E-01	1.7E+00	9.4E-01	5.6E-01	4.7E-01	6.1E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		1.8E-05		2.4E-04		2.6E-04	

Scenario	
COI	Falconbridge
COC	Arsenic
EPC	95% UCL
Receptor	Female - RME Estimate

Toxicity Information - Arsenic		
Oral RfD	µg/kg/day	0.3
Oral S.F.	(µg/kg/day) ⁻¹	1.50E-03
Inhalation S.F.	(µg/kg/day) ⁻¹	1.50E-02
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Arsenic



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	2.4E-03	µg/m3	0.0%	2.7E-05	6.2E-05	5.0E-05	3.0E-05	2.3E-05	5.6E-05
Inhalation of Fine Particulate- Indoors	2.4E-03	µg/m3	0.4%	5.5E-04	1.3E-03	1.0E-03	6.1E-04	4.7E-04	1.1E-03
Dermal Contact - Outdoors	7.9E+01	µg/g	0.6%	1.6E-03	1.6E-03	1.2E-03	1.1E-03	3.1E-04	1.4E-03
Dermal Contact - Indoors	2.5E+01	µg/g	0.0%	1.4E-04	1.3E-04	1.0E-04	8.5E-05	3.6E-05	1.2E-04
Soil Ingestion	7.9E+01	µg/g	7.8%	2.2E-02	4.4E-02	5.7E-03	2.9E-03	2.3E-03	1.4E-02
Indoor dust Ingestion	2.5E+01	µg/g	5.1%	1.5E-02	2.9E-02	3.7E-03	1.9E-03	1.5E-03	9.5E-03
Home Produced Fruits & Vegetables	2.5E-02	µg/g fw	0.8%	0.0E+00	2.9E-03	2.2E-03	1.4E-03	1.2E-03	2.6E-03
Local Fruits & Vegetables	2.8E-02	µg/g fw	0.8%	0.0E+00	3.3E-03	2.2E-03	1.2E-03	9.9E-04	2.4E-03
Local Wild Blue Berries	5.2E-03	µg/g fw	0.6%	0.0E+00	3.1E-03	1.6E-03	6.3E-04	5.3E-04	1.7E-03
Local Wild Game	1.3E-04	µg/g fw	0.0%	0.0E+00	1.7E-05	1.4E-05	1.1E-05	1.1E-05	1.9E-05
Local Fish	2.2E-04	µg/g fw	0.0%	0.0E+00	2.6E-05	2.9E-05	2.1E-05	2.2E-05	3.7E-05
Drinking Water	2.6E+00	µg/L	28.2%	7.5E-02	7.5E-02	5.5E-02	3.4E-02	4.2E-02	7.7E-02
Market Basket Contribution	NA	µg/g	55.6%	3.2E-04	2.4E-01	1.7E-01	9.4E-02	5.4E-02	1.7E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	1.1E-01	4.0E-01	2.4E-01	1.4E-01	1.0E-01	2.8E-01
<i>Inhalation Route Only</i>			0.4%	5.8E-04	1.3E-03	1.1E-03	6.4E-04	5.0E-04	1.2E-03
<i>Direct Soil Contact Only</i>			13.6%	3.9E-02	7.5E-02	1.1E-02	6.0E-03	4.2E-03	2.6E-02
<i>Market Basket Foods and Drinking Water</i>			83.8%	7.6E-02	3.1E-01	2.2E-01	1.3E-01	9.5E-02	2.4E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			2.2%	0.0E+00	9.4E-03	6.0E-03	3.3E-03	2.8E-03	6.7E-03

Arsenic

Scenario	
Region	Falconbridge
Metal	Arsenic
EPC	95% UCL
Receptor	Male - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Arsenic

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	3.2E-04	2.4E-01	1.7E-01	9.4E-02	5.4E-02	1.7E-01
Drinking Water	µg/kg/day	7.5E-02	7.5E-02	5.5E-02	3.4E-02	4.2E-02	7.7E-02
Inhalation Route	µg/kg/day	5.8E-04	1.3E-03	1.1E-03	6.4E-04	5.0E-04	1.2E-03
Direct Dermal Contact	µg/kg/day	1.8E-03	1.7E-03	1.3E-03	1.2E-03	3.5E-04	1.5E-03
Soil/Dust Ingestion	µg/kg/day	3.7E-02	7.3E-02	9.4E-03	4.8E-03	3.8E-03	2.4E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	2.9E-03	2.2E-03	1.4E-03	1.2E-03	2.6E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	3.3E-03	2.2E-03	1.2E-03	9.9E-04	2.4E-03
Wild Blue Berries	µg/kg/day	0.0E+00	3.1E-03	1.6E-03	6.3E-04	5.3E-04	1.7E-03
Wild Game & Fish	µg/kg/day	0.0E+00	4.3E-05	4.3E-05	3.2E-05	3.3E-05	5.6E-05
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	1.1E-01	4.0E-01	2.4E-01	1.4E-01	1.0E-01	2.8E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	3.8E-01	1.3E+00	7.9E-01	4.5E-01	3.4E-01	4.6E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		1.8E-05		1.6E-04		1.8E-04	

Scenario	
COI	Falconbridge
COC	Arsenic
EPC	95% UCL
Receptor	Male - CTE Estimate

Toxicity Information - Arsenic		
Oral RfD	µg/kg/day	0.3
Oral S.F.	(µg/kg/day) ⁻¹	1.50E-03
Inhalation S.F.	(µg/kg/day) ⁻¹	1.50E-02
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Arsenic



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units							
Inhalation of Fine Particulate- Outdoors	2.4E-03	µg/m3	0.0%	3.9E-05	9.0E-05	7.2E-05	3.9E-05	3.4E-05	7.9E-05
Inhalation of Fine Particulate- Indoors	2.4E-03	µg/m3	0.3%	5.8E-04	1.3E-03	1.1E-03	6.4E-04	5.0E-04	1.2E-03
Dermal Contact - Outdoors	7.9E+01	µg/g	0.5%	1.7E-03	1.7E-03	1.3E-03	1.2E-03	3.3E-04	1.5E-03
Dermal Contact - Indoors	2.5E+01	µg/g	0.0%	1.4E-04	1.3E-04	1.0E-04	8.9E-05	3.8E-05	1.2E-04
Soil Ingestion	7.9E+01	µg/g	6.5%	2.4E-02	4.7E-02	6.0E-03	3.1E-03	2.4E-03	1.5E-02
Indoor dust Ingestion	2.5E+01	µg/g	4.2%	1.5E-02	3.0E-02	3.9E-03	2.0E-03	1.6E-03	9.9E-03
Home Produced Fruits & Vegetables	2.5E-02	µg/g fw	3.5%	0.0E+00	1.5E-02	1.3E-02	8.9E-03	6.7E-03	1.5E-02
Local Fruits & Vegetables	2.8E-02	µg/g fw	2.7%	0.0E+00	1.3E-02	1.0E-02	6.3E-03	4.7E-03	1.1E-02
Local Wild Blue Berries	5.2E-03	µg/g fw	1.0%	0.0E+00	6.0E-03	3.6E-03	1.4E-03	1.1E-03	3.6E-03
Local Wild Game	1.3E-04	µg/g fw	0.0%	0.0E+00	2.2E-05	1.8E-05	1.4E-05	1.8E-05	2.7E-05
Local Fish	2.2E-04	µg/g fw	0.0%	0.0E+00	1.4E-04	1.5E-04	9.3E-05	9.9E-05	1.8E-04
Drinking Water	2.6E+00	µg/L	25.7%	9.4E-02	9.3E-02	6.4E-02	2.4E-02	4.9E-02	8.7E-02
Market Basket Contribution	NA	µg/g	55.5%	3.4E-04	3.0E-01	2.1E-01	1.2E-01	7.1E-02	2.1E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	1.4E-01	5.0E-01	3.1E-01	1.7E-01	1.4E-01	3.6E-01
<i>Inhalation Route Only</i>			0.3%	6.2E-04	1.4E-03	1.1E-03	6.8E-04	5.3E-04	1.3E-03
<i>Direct Soil Contact Only</i>			11.2%	4.1E-02	7.9E-02	1.1E-02	6.3E-03	4.4E-03	2.7E-02
<i>Market Basket Foods and Drinking Water</i>			81.2%	9.4E-02	3.9E-01	2.7E-01	1.5E-01	1.2E-01	3.0E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			7.2%	0.0E+00	3.4E-02	2.7E-02	1.7E-02	1.3E-02	3.0E-02

Arsenic

Scenario	
Region	Falconbridge
Metal	Arsenic
EPC	95% UCL
Receptor	Male - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Arsenic

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	3.4E-04	3.0E-01	2.1E-01	1.2E-01	7.1E-02	2.1E-01
Drinking Water	µg/kg/day	9.4E-02	9.3E-02	6.4E-02	2.4E-02	4.9E-02	8.7E-02
Inhalation Route	µg/kg/day	6.2E-04	1.4E-03	1.1E-03	6.8E-04	5.3E-04	1.3E-03
Direct Dermal Contact	µg/kg/day	1.9E-03	1.8E-03	1.4E-03	1.3E-03	3.7E-04	1.6E-03
Soil/Dust Ingestion	µg/kg/day	3.9E-02	7.7E-02	9.9E-03	5.0E-03	4.0E-03	2.5E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.5E-02	1.3E-02	8.9E-03	6.7E-03	1.5E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.3E-02	1.0E-02	6.3E-03	4.7E-03	1.1E-02
Wild Blue Berries	µg/kg/day	0.0E+00	6.0E-03	3.6E-03	1.4E-03	1.1E-03	3.6E-03
Wild Game & Fish	µg/kg/day	0.0E+00	1.6E-04	1.7E-04	1.1E-04	1.2E-04	2.0E-04
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	1.4E-01	5.0E-01	3.1E-01	1.7E-01	1.4E-01	3.6E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	4.5E-01	1.7E+00	1.0E+00	5.7E-01	4.6E-01	6.1E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		1.9E-05		2.2E-04		2.3E-04	

Scenario	
COI	Falconbridge
COC	Arsenic
EPC	95% UCL
Receptor	Male - RME Estimate

Toxicity Information - Arsenic		
Oral RfD	µg/kg/day	0.3
Oral S.F.	(µg/kg/day) ⁻¹	1.50E-03
Inhalation S.F.	(µg/kg/day) ⁻¹	1.50E-02
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Cobalt



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	2.5E-03	µg/m3	0.0%	2.7E-05	5.8E-05	4.5E-05	2.7E-05	2.6E-05	3.0E-05
Inhalation of Fine Particulate- Indoors	2.5E-03	µg/m3	0.1%	5.6E-04	1.2E-03	9.2E-04	5.5E-04	5.3E-04	6.1E-04
Dermal Contact - Outdoors	5.7E+01	µg/g	0.0%	3.9E-05	3.8E-05	2.9E-05	2.8E-05	8.1E-06	1.5E-05
Dermal Contact - Indoors	8.1E+01	µg/g	0.0%	1.5E-05	1.4E-05	1.0E-05	9.4E-06	4.2E-06	6.1E-06
Soil Ingestion	5.7E+01	µg/g	1.3%	1.1E-02	2.3E-02	2.8E-03	1.7E-03	1.5E-03	3.1E-03
Indoor dust Ingestion	8.1E+01	µg/g	3.5%	3.1E-02	6.2E-02	7.6E-03	4.6E-03	4.1E-03	8.4E-03
Home Produced Fruits & Vegetables	1.3E-01	µg/g fw	0.8%	0.0E+00	1.2E-02	6.5E-03	4.2E-03	3.6E-03	4.5E-03
Local Fruits & Vegetables	8.7E-02	µg/g fw	1.4%	0.0E+00	2.2E-02	1.1E-02	6.4E-03	5.5E-03	7.3E-03
Local Wild Blue Berries	1.6E-02	µg/g fw	0.6%	0.0E+00	1.0E-02	4.9E-03	2.3E-03	1.9E-03	2.8E-03
Local Wild Game	4.0E-02	µg/g fw	0.5%	0.0E+00	6.3E-03	4.1E-03	2.8E-03	2.2E-03	2.7E-03
Local Fish	1.9E-02	µg/g fw	0.3%	0.0E+00	2.2E-03	2.7E-03	1.6E-03	2.1E-03	2.1E-03
Drinking Water	2.0E-01	µg/L	0.7%	5.7E-03	5.7E-03	4.0E-03	2.9E-03	3.9E-03	3.9E-03
Market Basket Contribution	NA	µg/g	90.8%	2.9E-01	1.2E+00	7.3E-01	3.9E-01	2.5E-01	3.8E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	3.4E-01	1.4E+00	7.8E-01	4.1E-01	2.7E-01	4.1E-01
Inhalation Route Only			0.1%	5.9E-04	1.2E-03	9.7E-04	5.8E-04	5.5E-04	6.4E-04
Direct Soil Contact Only			4.7%	4.3E-02	8.5E-02	1.0E-02	6.3E-03	5.6E-03	1.2E-02
Market Basket Foods and Drinking Water			91.5%	2.9E-01	1.2E+00	7.4E-01	3.9E-01	2.5E-01	3.8E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			3.6%	0.0E+00	5.3E-02	3.0E-02	1.7E-02	1.5E-02	1.9E-02

Cobalt

Scenario	
Region	Falconbridge
Metal	Cobalt
EPC	95% UCL
Receptor	Female - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Cobalt

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	2.9E-01	1.2E+00	7.3E-01	3.9E-01	2.5E-01	3.8E-01
Drinking Water	µg/kg/day	5.7E-03	5.7E-03	4.0E-03	2.9E-03	3.9E-03	3.9E-03
Inhalation Route	µg/kg/day	5.9E-04	1.2E-03	9.7E-04	5.8E-04	5.5E-04	6.4E-04
Direct Dermal Contact	µg/kg/day	5.4E-05	5.2E-05	4.0E-05	3.7E-05	1.2E-05	2.1E-05
Soil/Dust Ingestion	µg/kg/day	4.3E-02	8.5E-02	1.0E-02	6.2E-03	5.5E-03	1.2E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.2E-02	6.5E-03	4.2E-03	3.6E-03	4.5E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	2.2E-02	1.1E-02	6.4E-03	5.5E-03	7.3E-03
Wild Blue Berries	µg/kg/day	0.0E+00	1.0E-02	4.9E-03	2.3E-03	1.9E-03	2.8E-03
Wild Game & Fish	µg/kg/day	0.0E+00	8.5E-03	6.8E-03	4.4E-03	4.2E-03	4.7E-03
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	3.4E-01	1.4E+00	7.8E-01	4.1E-01	2.7E-01	4.1E-01
Hazard Quotient - inhal	unitless	4.1E-03	8.6E-03	6.8E-03	4.1E-03	3.9E-03	NA
Hazard Quotient - oral	unitless	1.7E-02	6.9E-02	3.9E-02	2.1E-02	1.4E-02	2.0E-02
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Falconbridge
COC	Cobalt
EPC	95% UCL
Receptor	Female - CTE Estimate

Toxicity Information - Cobalt		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.143

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Cobalt



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	2.5E-03	µg/m3	0.0%	4.0E-05	8.4E-05	6.5E-05	3.9E-05	3.7E-05	4.3E-05
Inhalation of Fine Particulate- Indoors	2.5E-03	µg/m3	0.1%	5.9E-04	1.2E-03	9.7E-04	5.8E-04	5.5E-04	6.4E-04
Dermal Contact - Outdoors	5.7E+01	µg/g	0.0%	4.2E-05	4.0E-05	3.1E-05	2.9E-05	8.5E-06	1.5E-05
Dermal Contact - Indoors	8.1E+01	µg/g	0.0%	1.5E-05	1.4E-05	1.1E-05	9.8E-06	4.3E-06	6.3E-06
Soil Ingestion	5.7E+01	µg/g	1.0%	1.2E-02	2.4E-02	3.0E-03	1.8E-03	1.6E-03	3.3E-03
Indoor dust Ingestion	8.1E+01	µg/g	2.8%	3.2E-02	6.5E-02	7.9E-03	4.7E-03	4.2E-03	8.7E-03
Home Produced Fruits & Vegetables	1.3E-01	µg/g fw	3.1%	0.0E+00	4.6E-02	3.6E-02	2.5E-02	2.0E-02	2.3E-02
Local Fruits & Vegetables	8.7E-02	µg/g fw	4.1%	0.0E+00	6.8E-02	4.7E-02	2.9E-02	2.4E-02	2.9E-02
Local Wild Blue Berries	1.6E-02	µg/g fw	1.0%	0.0E+00	2.0E-02	1.0E-02	4.9E-03	4.0E-03	5.7E-03
Local Wild Game	4.0E-02	µg/g fw	0.5%	0.0E+00	7.3E-03	5.2E-03	3.5E-03	2.7E-03	3.3E-03
Local Fish	1.9E-02	µg/g fw	0.9%	0.0E+00	8.5E-03	1.3E-02	7.2E-03	8.7E-03	8.9E-03
Drinking Water	2.0E-01	µg/L	0.7%	7.1E-03	7.1E-03	4.6E-03	3.5E-03	4.6E-03	4.7E-03
Market Basket Contribution	NA	µg/g	86.0%	3.7E-01	1.5E+00	9.1E-01	5.0E-01	3.2E-01	4.7E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	4.3E-01	1.7E+00	1.0E+00	5.8E-01	3.9E-01	5.6E-01
<i>Inhalation Route Only</i>			0.1%	6.3E-04	1.3E-03	1.0E-03	6.2E-04	5.8E-04	6.8E-04
<i>Direct Soil Contact Only</i>			3.8%	4.5E-02	8.9E-02	1.1E-02	6.5E-03	5.8E-03	1.2E-02
<i>Market Basket Foods and Drinking Water</i>			86.7%	3.8E-01	1.5E+00	9.2E-01	5.0E-01	3.2E-01	4.8E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			9.4%	0.0E+00	1.5E-01	1.1E-01	7.0E-02	5.8E-02	7.1E-02

Cobalt

Scenario	
Region	Falconbridge
Metal	Cobalt
EPC	95% UCL
Receptor	Female - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Cobalt

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	3.7E-01	1.5E+00	9.1E-01	5.0E-01	3.2E-01	4.7E-01
Drinking Water	µg/kg/day	7.1E-03	7.1E-03	4.6E-03	3.5E-03	4.6E-03	4.7E-03
Inhalation Route	µg/kg/day	6.3E-04	1.3E-03	1.0E-03	6.2E-04	5.8E-04	6.8E-04
Direct Dermal Contact	µg/kg/day	5.7E-05	5.4E-05	4.2E-05	3.9E-05	1.3E-05	2.2E-05
Soil/Dust Ingestion	µg/kg/day	4.5E-02	8.9E-02	1.1E-02	6.5E-03	5.8E-03	1.2E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	4.6E-02	3.6E-02	2.5E-02	2.0E-02	2.3E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	6.8E-02	4.7E-02	2.9E-02	2.4E-02	2.9E-02
Wild Blue Berries	µg/kg/day	0.0E+00	2.0E-02	1.0E-02	4.9E-03	4.0E-03	5.7E-03
Wild Game & Fish	µg/kg/day	0.0E+00	1.6E-02	1.9E-02	1.1E-02	1.1E-02	1.2E-02
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	4.3E-01	1.7E+00	1.0E+00	5.8E-01	3.9E-01	5.6E-01
Hazard Quotient - inhal	unitless	4.4E-03	9.3E-03	7.2E-03	4.3E-03	4.1E-03	NA
Hazard Quotient - oral	unitless	2.1E-02	8.5E-02	5.2E-02	2.9E-02	1.9E-02	2.8E-02
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Falconbridge
COC	Cobalt
EPC	95% UCL
Receptor	Female - RME Estimate

Toxicity Information - Cobalt		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.143

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Cobalt



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	2.5E-03	µg/m3	0.0%	2.7E-05	6.3E-05	5.1E-05	3.0E-05	2.4E-05	3.0E-05
Inhalation of Fine Particulate- Indoors	2.5E-03	µg/m3	0.1%	5.6E-04	1.3E-03	1.0E-03	6.2E-04	4.8E-04	6.1E-04
Dermal Contact - Outdoors	5.7E+01	µg/g	0.0%	3.9E-05	3.8E-05	3.0E-05	2.7E-05	7.5E-06	1.4E-05
Dermal Contact - Indoors	8.1E+01	µg/g	0.0%	1.5E-05	1.4E-05	1.1E-05	9.1E-06	3.9E-06	5.8E-06
Soil Ingestion	5.7E+01	µg/g	1.2%	1.1E-02	2.3E-02	2.9E-03	1.5E-03	1.2E-03	2.9E-03
Indoor dust Ingestion	8.1E+01	µg/g	3.3%	3.1E-02	6.2E-02	7.9E-03	4.1E-03	3.2E-03	7.8E-03
Home Produced Fruits & Vegetables	1.3E-01	µg/g fw	0.7%	0.0E+00	8.7E-03	6.8E-03	4.5E-03	3.6E-03	4.3E-03
Local Fruits & Vegetables	8.7E-02	µg/g fw	1.3%	0.0E+00	1.9E-02	1.2E-02	6.3E-03	5.3E-03	6.9E-03
Local Wild Blue Berries	1.6E-02	µg/g fw	0.6%	0.0E+00	9.9E-03	5.1E-03	2.0E-03	1.7E-03	2.6E-03
Local Wild Game	4.0E-02	µg/g fw	0.5%	0.0E+00	5.7E-03	4.7E-03	3.6E-03	3.6E-03	3.8E-03
Local Fish	1.9E-02	µg/g fw	0.3%	0.0E+00	2.3E-03	2.6E-03	1.9E-03	1.9E-03	2.0E-03
Drinking Water	2.0E-01	µg/L	0.6%	5.7E-03	5.7E-03	4.2E-03	2.5E-03	3.2E-03	3.4E-03
Market Basket Contribution	NA	µg/g	91.4%	2.3E-01	1.2E+00	8.3E-01	4.8E-01	2.9E-01	4.2E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	2.8E-01	1.3E+00	8.8E-01	5.0E-01	3.1E-01	4.6E-01
<i>Inhalation Route Only</i>			0.1%	5.9E-04	1.4E-03	1.1E-03	6.5E-04	5.1E-04	6.4E-04
<i>Direct Soil Contact Only</i>			4.5%	4.3E-02	8.5E-02	1.1E-02	5.6E-03	4.5E-03	1.1E-02
<i>Market Basket Foods and Drinking Water</i>			92.0%	2.3E-01	1.2E+00	8.3E-01	4.8E-01	2.9E-01	4.3E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			3.4%	0.0E+00	4.5E-02	3.1E-02	1.8E-02	1.6E-02	2.0E-02

Cobalt

Scenario	
Region	Falconbridge
Metal	Cobalt
EPC	95% UCL
Receptor	Male - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Cobalt

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	2.3E-01	1.2E+00	8.3E-01	4.8E-01	2.9E-01	4.2E-01
Drinking Water	µg/kg/day	5.7E-03	5.7E-03	4.2E-03	2.5E-03	3.2E-03	3.4E-03
Inhalation Route	µg/kg/day	5.9E-04	1.4E-03	1.1E-03	6.5E-04	5.1E-04	6.4E-04
Direct Dermal Contact	µg/kg/day	5.4E-05	5.1E-05	4.0E-05	3.6E-05	1.1E-05	2.0E-05
Soil/Dust Ingestion	µg/kg/day	4.3E-02	8.5E-02	1.1E-02	5.5E-03	4.4E-03	1.1E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	8.7E-03	6.8E-03	4.5E-03	3.6E-03	4.3E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.9E-02	1.2E-02	6.3E-03	5.3E-03	6.9E-03
Wild Blue Berries	µg/kg/day	0.0E+00	9.9E-03	5.1E-03	2.0E-03	1.7E-03	2.6E-03
Wild Game & Fish	µg/kg/day	0.0E+00	8.0E-03	7.3E-03	5.5E-03	5.6E-03	5.9E-03
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	2.8E-01	1.3E+00	8.8E-01	5.0E-01	3.1E-01	4.6E-01
Hazard Quotient - inhal	unitless	4.1E-03	9.5E-03	7.6E-03	4.5E-03	3.5E-03	NA
Hazard Quotient - oral	unitless	1.4E-02	6.6E-02	4.4E-02	2.5E-02	1.6E-02	2.3E-02
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Falconbridge
COC	Cobalt
EPC	95% UCL
Receptor	Male - CTE Estimate

Toxicity Information - Cobalt		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.143

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Cobalt



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units							
Inhalation of Fine Particulate- Outdoors	2.5E-03	µg/m3	0.0%	4.0E-05	9.2E-05	7.3E-05	4.0E-05	3.4E-05	4.2E-05
Inhalation of Fine Particulate- Indoors	2.5E-03	µg/m3	0.1%	5.9E-04	1.4E-03	1.1E-03	6.5E-04	5.1E-04	6.4E-04
Dermal Contact - Outdoors	5.7E+01	µg/g	0.0%	4.2E-05	4.0E-05	3.2E-05	2.8E-05	8.0E-06	1.5E-05
Dermal Contact - Indoors	8.1E+01	µg/g	0.0%	1.5E-05	1.4E-05	1.1E-05	9.4E-06	4.0E-06	6.1E-06
Soil Ingestion	5.7E+01	µg/g	1.0%	1.2E-02	2.4E-02	3.1E-03	1.6E-03	1.3E-03	3.0E-03
Indoor dust Ingestion	8.1E+01	µg/g	2.6%	3.2E-02	6.5E-02	8.3E-03	4.2E-03	3.4E-03	8.1E-03
Home Produced Fruits & Vegetables	1.3E-01	µg/g fw	3.2%	0.0E+00	4.8E-02	4.2E-02	2.8E-02	2.1E-02	2.5E-02
Local Fruits & Vegetables	8.7E-02	µg/g fw	4.1%	0.0E+00	6.8E-02	5.4E-02	3.2E-02	2.4E-02	3.1E-02
Local Wild Blue Berries	1.6E-02	µg/g fw	0.9%	0.0E+00	1.9E-02	1.2E-02	4.6E-03	3.6E-03	5.5E-03
Local Wild Game	4.0E-02	µg/g fw	0.6%	0.0E+00	7.4E-03	5.9E-03	4.6E-03	6.0E-03	5.8E-03
Local Fish	1.9E-02	µg/g fw	1.0%	0.0E+00	1.2E-02	1.3E-02	8.3E-03	8.7E-03	9.3E-03
Drinking Water	2.0E-01	µg/L	0.6%	7.1E-03	7.1E-03	4.8E-03	1.9E-03	3.7E-03	3.9E-03
Market Basket Contribution	NA	µg/g	86.0%	2.4E-01	1.5E+00	1.0E+00	6.0E-01	3.8E-01	5.4E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	3.0E-01	1.7E+00	1.2E+00	6.9E-01	4.5E-01	6.3E-01
<i>Inhalation Route Only</i>			0.1%	6.3E-04	1.5E-03	1.2E-03	6.9E-04	5.4E-04	6.8E-04
<i>Direct Soil Contact Only</i>			3.6%	4.5E-02	8.9E-02	1.1E-02	5.8E-03	4.7E-03	1.1E-02
<i>Market Basket Foods and Drinking Water</i>			86.6%	2.5E-01	1.5E+00	1.0E+00	6.0E-01	3.8E-01	5.4E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			9.7%	0.0E+00	1.5E-01	1.3E-01	7.7E-02	6.3E-02	7.6E-02

Cobalt

Scenario	
Region	Falconbridge
Metal	Cobalt
EPC	95% UCL
Receptor	Male - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Cobalt

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	2.4E-01	1.5E+00	1.0E+00	6.0E-01	3.8E-01	5.4E-01
Drinking Water	µg/kg/day	7.1E-03	7.1E-03	4.8E-03	1.9E-03	3.7E-03	3.9E-03
Inhalation Route	µg/kg/day	6.3E-04	1.5E-03	1.2E-03	6.9E-04	5.4E-04	6.8E-04
Direct Dermal Contact	µg/kg/day	5.7E-05	5.4E-05	4.3E-05	3.8E-05	1.2E-05	2.1E-05
Soil/Dust Ingestion	µg/kg/day	4.5E-02	8.9E-02	1.1E-02	5.8E-03	4.6E-03	1.1E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	4.8E-02	4.2E-02	2.8E-02	2.1E-02	2.5E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	6.8E-02	5.4E-02	3.2E-02	2.4E-02	3.1E-02
Wild Blue Berries	µg/kg/day	0.0E+00	1.9E-02	1.2E-02	4.6E-03	3.6E-03	5.5E-03
Wild Game & Fish	µg/kg/day	0.0E+00	2.0E-02	1.9E-02	1.3E-02	1.5E-02	1.5E-02
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	3.0E-01	1.7E+00	1.2E+00	6.9E-01	4.5E-01	6.3E-01
Hazard Quotient - inhal	unitless	4.4E-03	1.0E-02	8.1E-03	4.9E-03	3.8E-03	NA
Hazard Quotient - oral	unitless	1.5E-02	8.6E-02	5.9E-02	3.4E-02	2.3E-02	3.2E-02
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Falconbridge
COC	Cobalt
EPC	95% UCL
Receptor	Male - RME Estimate

Toxicity Information - Cobalt		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.143

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Copper



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	2.6E-02	µg/m3	0.0%	2.9E-04	6.1E-04	4.8E-04	2.9E-04	2.7E-04	3.2E-04
Inhalation of Fine Particulate- Indoors	2.6E-02	µg/m3	0.0%	6.0E-03	1.3E-02	9.9E-03	5.9E-03	5.6E-03	6.5E-03
Dermal Contact - Outdoors	1.0E+03	µg/g	0.0%	2.1E-03	2.0E-03	1.6E-03	1.5E-03	4.3E-04	7.8E-04
Dermal Contact - Indoors	7.9E+02	µg/g	0.0%	4.3E-04	4.0E-04	3.1E-04	2.8E-04	1.2E-04	1.8E-04
Soil Ingestion	1.0E+03	µg/g	0.9%	5.4E-01	1.1E+00	1.3E-01	7.9E-02	7.0E-02	1.5E-01
Indoor dust Ingestion	7.9E+02	µg/g	0.8%	5.0E-01	1.0E+00	1.2E-01	7.3E-02	6.5E-02	1.3E-01
Home Produced Fruits & Vegetables	1.2E+00	µg/g fw	0.2%	0.0E+00	1.8E-01	9.4E-02	5.3E-02	4.5E-02	5.9E-02
Local Fruits & Vegetables	9.4E-01	µg/g fw	0.4%	0.0E+00	4.3E-01	2.3E-01	1.3E-01	1.1E-01	1.4E-01
Local Wild Blue Berries	6.8E-01	µg/g fw	0.4%	0.0E+00	4.3E-01	2.1E-01	9.7E-02	8.2E-02	1.2E-01
Local Wild Game	6.8E-01	µg/g fw	0.1%	0.0E+00	1.1E-01	7.0E-02	4.8E-02	3.7E-02	4.6E-02
Local Fish	5.2E-01	µg/g fw	0.1%	0.0E+00	6.2E-02	7.6E-02	4.5E-02	5.8E-02	5.8E-02
Drinking Water	3.0E+01	µg/L	1.6%	8.9E-01	8.9E-01	6.2E-01	4.5E-01	6.1E-01	6.2E-01
Market Basket Contribution	NA	µg/g	95.5%	5.7E+01	7.0E+01	4.2E+01	2.2E+01	1.5E+01	2.2E+01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	5.9E+01	7.4E+01	4.4E+01	2.3E+01	1.6E+01	2.4E+01
<i>Inhalation Route Only</i>			0.0%	6.3E-03	1.3E-02	1.0E-02	6.2E-03	5.9E-03	6.8E-03
<i>Direct Soil Contact Only</i>			1.7%	1.0E+00	2.1E+00	2.6E-01	1.5E-01	1.4E-01	2.8E-01
<i>Market Basket Foods and Drinking Water</i>			97.1%	5.8E+01	7.1E+01	4.3E+01	2.3E+01	1.5E+01	2.3E+01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			1.2%	0.0E+00	1.2E+00	6.8E-01	3.7E-01	3.3E-01	4.3E-01

Copper

Scenario	
Region	Falconbridge
Metal	Copper
EPC	95% UCL
Receptor	Female - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Copper

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	5.7E+01	7.0E+01	4.2E+01	2.2E+01	1.5E+01	2.2E+01
Drinking Water	µg/kg/day	8.9E-01	8.9E-01	6.2E-01	4.5E-01	6.1E-01	6.2E-01
Inhalation Route	µg/kg/day	6.3E-03	1.3E-02	1.0E-02	6.2E-03	5.9E-03	6.8E-03
Direct Dermal Contact	µg/kg/day	2.5E-03	2.4E-03	1.9E-03	1.8E-03	5.5E-04	9.6E-04
Soil/Dust Ingestion	µg/kg/day	1.0E+00	2.1E+00	2.5E-01	1.5E-01	1.4E-01	2.8E-01
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.8E-01	9.4E-02	5.3E-02	4.5E-02	5.9E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	4.3E-01	2.3E-01	1.3E-01	1.1E-01	1.4E-01
Wild Blue Berries	µg/kg/day	0.0E+00	4.3E-01	2.1E-01	9.7E-02	8.2E-02	1.2E-01
Wild Game & Fish	µg/kg/day	0.0E+00	1.7E-01	1.5E-01	9.3E-02	9.5E-02	1.0E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	5.9E+01	7.4E+01	4.4E+01	2.3E+01	1.6E+01	2.4E+01
Hazard Quotient - inhal	unitless	2.2E-02	4.6E-02	3.6E-02	2.2E-02	2.1E-02	NA
Hazard Quotient - oral	unitless	4.2E-01	5.3E-01	3.1E-01	1.6E-01	1.1E-01	1.7E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Falconbridge
COC	Copper
EPC	95% UCL
Receptor	Female - CTE Estimate

Toxicity Information - Copper		
Oral RfD	µg/kg/day	140
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.286

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Copper



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	2.6E-02	µg/m3	0.0%	4.3E-04	9.0E-04	7.0E-04	4.2E-04	3.9E-04	4.6E-04
Inhalation of Fine Particulate- Indoors	2.6E-02	µg/m3	0.0%	6.3E-03	1.3E-02	1.0E-02	6.2E-03	5.8E-03	6.8E-03
Dermal Contact - Outdoors	1.0E+03	µg/g	0.0%	2.2E-03	2.1E-03	1.7E-03	1.6E-03	4.6E-04	8.3E-04
Dermal Contact - Indoors	7.9E+02	µg/g	0.0%	4.5E-04	4.2E-04	3.2E-04	2.9E-04	1.3E-04	1.9E-04
Soil Ingestion	1.0E+03	µg/g	0.7%	5.7E-01	1.1E+00	1.4E-01	8.3E-02	7.4E-02	1.5E-01
Indoor dust Ingestion	7.9E+02	µg/g	0.7%	5.2E-01	1.0E+00	1.3E-01	7.6E-02	6.7E-02	1.4E-01
Home Produced Fruits & Vegetables	1.2E+00	µg/g fw	0.5%	0.0E+00	5.7E-01	3.9E-01	2.5E-01	1.9E-01	2.4E-01
Local Fruits & Vegetables	9.4E-01	µg/g fw	1.3%	0.0E+00	1.4E+00	9.7E-01	6.2E-01	4.9E-01	6.1E-01
Local Wild Blue Berries	6.8E-01	µg/g fw	0.6%	0.0E+00	8.7E-01	4.4E-01	2.1E-01	1.7E-01	2.5E-01
Local Wild Game	6.8E-01	µg/g fw	0.1%	0.0E+00	1.3E-01	8.9E-02	5.9E-02	4.7E-02	5.7E-02
Local Fish	5.2E-01	µg/g fw	0.4%	0.0E+00	2.4E-01	3.8E-01	2.0E-01	2.4E-01	2.5E-01
Drinking Water	3.0E+01	µg/L	1.6%	1.1E+00	1.1E+00	7.2E-01	5.4E-01	7.2E-01	7.3E-01
Market Basket Contribution	NA	µg/g	94.1%	7.4E+01	8.1E+01	5.3E+01	2.9E+01	1.9E+01	2.8E+01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	7.6E+01	8.7E+01	5.6E+01	3.1E+01	2.1E+01	3.0E+01
<i>Inhalation Route Only</i>			0.0%	6.8E-03	1.4E-02	1.1E-02	6.6E-03	6.2E-03	7.3E-03
<i>Direct Soil Contact Only</i>			1.4%	1.1E+00	2.2E+00	2.7E-01	1.6E-01	1.4E-01	2.9E-01
<i>Market Basket Foods and Drinking Water</i>			95.6%	7.5E+01	8.2E+01	5.4E+01	2.9E+01	1.9E+01	2.8E+01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			2.9%	0.0E+00	3.2E+00	2.3E+00	1.3E+00	1.1E+00	1.4E+00

Copper

Scenario	
Region	Falconbridge
Metal	Copper
EPC	95% UCL
Receptor	Female - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Copper

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	7.4E+01	8.1E+01	5.3E+01	2.9E+01	1.9E+01	2.8E+01
Drinking Water	µg/kg/day	1.1E+00	1.1E+00	7.2E-01	5.4E-01	7.2E-01	7.3E-01
Inhalation Route	µg/kg/day	6.8E-03	1.4E-02	1.1E-02	6.6E-03	6.2E-03	7.3E-03
Direct Dermal Contact	µg/kg/day	2.7E-03	2.6E-03	2.0E-03	1.9E-03	5.8E-04	1.0E-03
Soil/Dust Ingestion	µg/kg/day	1.1E+00	2.2E+00	2.7E-01	1.6E-01	1.4E-01	2.9E-01
HP Fruit & Vegetables	µg/kg/day	0.0E+00	5.7E-01	3.9E-01	2.5E-01	1.9E-01	2.4E-01
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.4E+00	9.7E-01	6.2E-01	4.9E-01	6.1E-01
Wild Blue Berries	µg/kg/day	0.0E+00	8.7E-01	4.4E-01	2.1E-01	1.7E-01	2.5E-01
Wild Game & Fish	µg/kg/day	0.0E+00	3.6E-01	4.7E-01	2.6E-01	2.9E-01	3.1E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	7.6E+01	8.7E+01	5.6E+01	3.1E+01	2.1E+01	3.0E+01
Hazard Quotient - inhal	unitless	2.4E-02	5.0E-02	3.8E-02	2.3E-02	2.2E-02	NA
Hazard Quotient - oral	unitless	5.4E-01	6.2E-01	4.0E-01	2.2E-01	1.5E-01	2.2E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Falconbridge
COC	Copper
EPC	95% UCL
Receptor	Female - RME Estimate

Toxicity Information - Copper		
Oral RfD	µg/kg/day	140
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.286

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Copper



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units							
Inhalation of Fine Particulate- Outdoors	2.6E-02	µg/m3	0.0%	2.9E-04	6.8E-04	5.4E-04	3.2E-04	2.5E-04	3.2E-04
Inhalation of Fine Particulate- Indoors	2.6E-02	µg/m3	0.0%	6.0E-03	1.4E-02	1.1E-02	6.6E-03	5.1E-03	6.5E-03
Dermal Contact - Outdoors	1.0E+03	µg/g	0.0%	2.1E-03	2.0E-03	1.6E-03	1.4E-03	4.0E-04	7.5E-04
Dermal Contact - Indoors	7.9E+02	µg/g	0.0%	4.3E-04	4.0E-04	3.1E-04	2.7E-04	1.1E-04	1.7E-04
Soil Ingestion	1.0E+03	µg/g	0.9%	5.4E-01	1.1E+00	1.4E-01	7.0E-02	5.6E-02	1.3E-01
Indoor dust Ingestion	7.9E+02	µg/g	0.8%	5.0E-01	9.9E-01	1.3E-01	6.5E-02	5.2E-02	1.2E-01
Home Produced Fruits & Vegetables	1.2E+00	µg/g fw	0.2%	0.0E+00	1.6E-01	1.0E-01	5.4E-02	4.3E-02	5.7E-02
Local Fruits & Vegetables	9.4E-01	µg/g fw	0.4%	0.0E+00	3.7E-01	2.4E-01	1.3E-01	1.1E-01	1.4E-01
Local Wild Blue Berries	6.8E-01	µg/g fw	0.4%	0.0E+00	4.2E-01	2.2E-01	8.6E-02	7.2E-02	1.1E-01
Local Wild Game	6.8E-01	µg/g fw	0.1%	0.0E+00	9.7E-02	8.1E-02	6.1E-02	6.2E-02	6.6E-02
Local Fish	5.2E-01	µg/g fw	0.1%	0.0E+00	6.5E-02	7.2E-02	5.3E-02	5.4E-02	5.6E-02
Drinking Water	3.0E+01	µg/L	1.6%	8.9E-01	8.8E-01	6.5E-01	4.0E-01	4.9E-01	5.2E-01
Market Basket Contribution	NA	µg/g	95.5%	4.5E+01	6.5E+01	4.7E+01	2.7E+01	1.7E+01	2.5E+01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	4.7E+01	6.9E+01	4.9E+01	2.8E+01	1.8E+01	2.6E+01
<i>Inhalation Route Only</i>			0.0%	6.3E-03	1.4E-02	1.2E-02	6.9E-03	5.4E-03	6.8E-03
<i>Direct Soil Contact Only</i>			1.7%	1.0E+00	2.1E+00	2.7E-01	1.4E-01	1.1E-01	2.6E-01
<i>Market Basket Foods and Drinking Water</i>			97.1%	4.6E+01	6.6E+01	4.8E+01	2.7E+01	1.8E+01	2.5E+01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			1.2%	0.0E+00	1.1E+00	7.1E-01	3.9E-01	3.4E-01	4.3E-01

Copper

Scenario	
Region	Falconbridge
Metal	Copper
EPC	95% UCL
Receptor	Male - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Copper

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	4.5E+01	6.5E+01	4.7E+01	2.7E+01	1.7E+01	2.5E+01
Drinking Water	µg/kg/day	8.9E-01	8.8E-01	6.5E-01	4.0E-01	4.9E-01	5.2E-01
Inhalation Route	µg/kg/day	6.3E-03	1.4E-02	1.2E-02	6.9E-03	5.4E-03	6.8E-03
Direct Dermal Contact	µg/kg/day	2.5E-03	2.4E-03	1.9E-03	1.7E-03	5.1E-04	9.2E-04
Soil/Dust Ingestion	µg/kg/day	1.0E+00	2.1E+00	2.6E-01	1.4E-01	1.1E-01	2.6E-01
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.6E-01	1.0E-01	5.4E-02	4.3E-02	5.7E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	3.7E-01	2.4E-01	1.3E-01	1.1E-01	1.4E-01
Wild Blue Berries	µg/kg/day	0.0E+00	4.2E-01	2.2E-01	8.6E-02	7.2E-02	1.1E-01
Wild Game & Fish	µg/kg/day	0.0E+00	1.6E-01	1.5E-01	1.1E-01	1.2E-01	1.2E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	4.7E+01	6.9E+01	4.9E+01	2.8E+01	1.8E+01	2.6E+01
Hazard Quotient - inhal	unitless	2.2E-02	5.1E-02	4.1E-02	2.4E-02	1.9E-02	NA
Hazard Quotient - oral	unitless	3.4E-01	4.9E-01	3.5E-01	2.0E-01	1.3E-01	1.9E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Falconbridge
COC	Copper
EPC	95% UCL
Receptor	Male - CTE Estimate

Toxicity Information - Copper		
Oral RfD	µg/kg/day	140
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.286

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Copper



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units							
Inhalation of Fine Particulate- Outdoors	2.6E-02	µg/m3	0.0%	4.3E-04	9.8E-04	7.8E-04	4.3E-04	3.6E-04	4.5E-04
Inhalation of Fine Particulate- Indoors	2.6E-02	µg/m3	0.0%	6.3E-03	1.5E-02	1.2E-02	7.0E-03	5.4E-03	6.8E-03
Dermal Contact - Outdoors	1.0E+03	µg/g	0.0%	2.2E-03	2.1E-03	1.7E-03	1.5E-03	4.2E-04	8.0E-04
Dermal Contact - Indoors	7.9E+02	µg/g	0.0%	4.5E-04	4.1E-04	3.2E-04	2.8E-04	1.2E-04	1.8E-04
Soil Ingestion	1.0E+03	µg/g	0.8%	5.7E-01	1.1E+00	1.5E-01	7.4E-02	5.9E-02	1.4E-01
Indoor dust Ingestion	7.9E+02	µg/g	0.7%	5.2E-01	1.0E+00	1.3E-01	6.7E-02	5.4E-02	1.3E-01
Home Produced Fruits & Vegetables	1.2E+00	µg/g fw	0.6%	0.0E+00	5.7E-01	4.5E-01	2.6E-01	2.0E-01	2.5E-01
Local Fruits & Vegetables	9.4E-01	µg/g fw	1.4%	0.0E+00	1.4E+00	1.1E+00	6.7E-01	5.1E-01	6.4E-01
Local Wild Blue Berries	6.8E-01	µg/g fw	0.6%	0.0E+00	8.2E-01	5.0E-01	2.0E-01	1.5E-01	2.4E-01
Local Wild Game	6.8E-01	µg/g fw	0.2%	0.0E+00	1.3E-01	1.0E-01	7.8E-02	1.0E-01	1.0E-01
Local Fish	5.2E-01	µg/g fw	0.5%	0.0E+00	3.5E-01	3.8E-01	2.3E-01	2.4E-01	2.6E-01
Drinking Water	3.0E+01	µg/L	1.5%	1.1E+00	1.1E+00	7.6E-01	2.9E-01	5.8E-01	6.0E-01
Market Basket Contribution	NA	µg/g	93.9%	4.8E+01	8.1E+01	6.0E+01	3.6E+01	2.3E+01	3.2E+01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	5.0E+01	8.7E+01	6.4E+01	3.8E+01	2.5E+01	3.5E+01
<i>Inhalation Route Only</i>			0.0%	6.8E-03	1.6E-02	1.2E-02	7.4E-03	5.8E-03	7.2E-03
<i>Direct Soil Contact Only</i>			1.4%	1.1E+00	2.2E+00	2.8E-01	1.4E-01	1.1E-01	2.7E-01
<i>Market Basket Foods and Drinking Water</i>			95.3%	4.9E+01	8.2E+01	6.1E+01	3.6E+01	2.4E+01	3.3E+01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			3.2%	0.0E+00	3.3E+00	2.6E+00	1.4E+00	1.2E+00	1.5E+00

Copper

Scenario	
Region	Falconbridge
Metal	Copper
EPC	95% UCL
Receptor	Male - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Copper

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	4.8E+01	8.1E+01	6.0E+01	3.6E+01	2.3E+01	3.2E+01
Drinking Water	µg/kg/day	1.1E+00	1.1E+00	7.6E-01	2.9E-01	5.8E-01	6.0E-01
Inhalation Route	µg/kg/day	6.8E-03	1.6E-02	1.2E-02	7.4E-03	5.8E-03	7.2E-03
Direct Dermal Contact	µg/kg/day	2.7E-03	2.6E-03	2.0E-03	1.8E-03	5.4E-04	9.8E-04
Soil/Dust Ingestion	µg/kg/day	1.1E+00	2.2E+00	2.8E-01	1.4E-01	1.1E-01	2.7E-01
HP Fruit & Vegetables	µg/kg/day	0.0E+00	5.7E-01	4.5E-01	2.6E-01	2.0E-01	2.5E-01
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.4E+00	1.1E+00	6.7E-01	5.1E-01	6.4E-01
Wild Blue Berries	µg/kg/day	0.0E+00	8.2E-01	5.0E-01	2.0E-01	1.5E-01	2.4E-01
Wild Game & Fish	µg/kg/day	0.0E+00	4.7E-01	4.8E-01	3.1E-01	3.5E-01	3.6E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	5.0E+01	8.7E+01	6.4E+01	3.8E+01	2.5E+01	3.5E+01
Hazard Quotient - inhal	unitless	2.4E-02	5.4E-02	4.3E-02	2.6E-02	2.0E-02	NA
Hazard Quotient - oral	unitless	3.6E-01	6.2E-01	4.6E-01	2.7E-01	1.8E-01	2.5E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Falconbridge
COC	Copper
EPC	95% UCL
Receptor	Male - RME Estimate

Toxicity Information - Copper		
Oral RfD	µg/kg/day	140
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.286

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Lead

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	1.5E-02	µg/m3	0.0%	1.7E-04	3.5E-04	2.8E-04	1.7E-04	1.6E-04	1.8E-04
Inhalation of Fine Particulate- Indoors	1.5E-02	µg/m3	0.9%	3.4E-03	7.2E-03	5.7E-03	3.4E-03	3.2E-03	3.8E-03
Dermal Contact - Outdoors	8.2E+01	µg/g	0.0%	5.7E-05	5.5E-05	4.3E-05	4.0E-05	1.2E-05	2.1E-05
Dermal Contact - Indoors	1.4E+02	µg/g	0.0%	2.6E-05	2.4E-05	1.9E-05	1.7E-05	7.4E-06	1.1E-05
Soil Ingestion	8.2E+01	µg/g	5.2%	3.9E-02	7.9E-02	9.6E-03	5.8E-03	5.1E-03	1.1E-02
Indoor dust Ingestion	1.4E+02	µg/g	20.1%	1.5E-01	3.1E-01	3.8E-02	2.2E-02	2.0E-02	4.1E-02
Home Produced Fruits & Vegetables	2.3E-01	µg/g fw	1.1%	0.0E+00	1.3E-02	7.5E-03	4.7E-03	3.6E-03	4.7E-03
Local Fruits & Vegetables	1.0E-01	µg/g fw	2.9%	0.0E+00	3.7E-02	1.9E-02	1.2E-02	9.9E-03	1.3E-02
Local Wild Blue Berries	7.4E-02	µg/g fw	3.3%	0.0E+00	4.7E-02	2.3E-02	1.1E-02	9.0E-03	1.3E-02
Local Wild Game	4.0E-03	µg/g fw	0.1%	0.0E+00	6.3E-04	4.1E-04	2.8E-04	2.1E-04	2.7E-04
Local Fish	3.0E-01	µg/g fw	5.2%	0.0E+00	3.6E-02	4.4E-02	2.6E-02	3.3E-02	3.4E-02
Drinking Water	9.7E-01	µg/L	4.1%	2.8E-02	2.8E-02	2.0E-02	1.4E-02	2.0E-02	2.0E-02
Market Basket Contribution	NA	µg/g	57.2%	1.4E-01	7.0E-01	3.8E-01	1.9E-01	1.2E-01	1.9E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	3.7E-01	1.3E+00	5.5E-01	2.9E-01	2.3E-01	3.3E-01
<i>Inhalation Route Only</i>			0.9%	3.6E-03	7.6E-03	6.0E-03	3.6E-03	3.4E-03	3.9E-03
<i>Direct Soil Contact Only</i>			25.3%	1.9E-01	3.9E-01	4.7E-02	2.8E-02	2.5E-02	5.2E-02
<i>Market Basket Foods and Drinking Water</i>			61.3%	1.7E-01	7.2E-01	4.0E-01	2.1E-01	1.4E-01	2.1E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			12.5%	0.0E+00	1.3E-01	9.4E-02	5.3E-02	5.6E-02	6.4E-02

Lead

Scenario	
Region	Falconbridge
Metal	Lead
EPC	95% UCL
Receptor	Female - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Lead

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	1.4E-01	7.0E-01	3.8E-01	1.9E-01	1.2E-01	1.9E-01
Drinking Water	µg/kg/day	2.8E-02	2.8E-02	2.0E-02	1.4E-02	2.0E-02	2.0E-02
Inhalation Route	µg/kg/day	3.6E-03	7.6E-03	6.0E-03	3.6E-03	3.4E-03	3.9E-03
Direct Dermal Contact	µg/kg/day	8.4E-05	7.9E-05	6.2E-05	5.7E-05	1.9E-05	3.2E-05
Soil/Dust Ingestion	µg/kg/day	1.9E-01	3.9E-01	4.7E-02	2.8E-02	2.5E-02	5.2E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.3E-02	7.5E-03	4.7E-03	3.6E-03	4.7E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	3.7E-02	1.9E-02	1.2E-02	9.9E-03	1.3E-02
Wild Blue Berries	µg/kg/day	0.0E+00	4.7E-02	2.3E-02	1.1E-02	9.0E-03	1.3E-02
Wild Game & Fish	µg/kg/day	0.0E+00	3.7E-02	4.4E-02	2.6E-02	3.4E-02	3.4E-02
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	3.7E-01	1.3E+00	5.5E-01	2.9E-01	2.3E-01	3.3E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	2.0E-01	6.8E-01	3.0E-01	1.6E-01	1.2E-01	1.8E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Falconbridge
COC	Lead
EPC	95% UCL
Receptor	Female - CTE Estimate

Toxicity Information - Lead		
Oral RfD	µg/kg/day	1.85
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Lead

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	1.5E-02	µg/m3	0.0%	2.5E-04	5.2E-04	4.0E-04	2.4E-04	2.3E-04	2.6E-04
Inhalation of Fine Particulate- Indoors	1.5E-02	µg/m3	0.6%	3.7E-03	7.7E-03	5.9E-03	3.6E-03	3.4E-03	3.9E-03
Dermal Contact - Outdoors	8.2E+01	µg/g	0.0%	6.1E-05	5.9E-05	4.6E-05	4.3E-05	1.2E-05	2.3E-05
Dermal Contact - Indoors	1.4E+02	µg/g	0.0%	2.7E-05	2.5E-05	1.9E-05	1.7E-05	7.7E-06	1.1E-05
Soil Ingestion	8.2E+01	µg/g	3.6%	4.2E-02	8.3E-02	1.0E-02	6.1E-03	5.4E-03	1.1E-02
Indoor dust Ingestion	1.4E+02	µg/g	13.9%	1.6E-01	3.2E-01	3.9E-02	2.3E-02	2.1E-02	4.3E-02
Home Produced Fruits & Vegetables	2.3E-01	µg/g fw	3.4%	0.0E+00	5.4E-02	3.9E-02	2.7E-02	1.9E-02	2.4E-02
Local Fruits & Vegetables	1.0E-01	µg/g fw	8.2%	0.0E+00	1.3E-01	9.3E-02	6.2E-02	4.8E-02	5.9E-02
Local Wild Blue Berries	7.4E-02	µg/g fw	4.5%	0.0E+00	9.4E-02	4.8E-02	2.3E-02	1.8E-02	2.7E-02
Local Wild Game	4.0E-03	µg/g fw	0.0%	0.0E+00	7.3E-04	5.2E-04	3.4E-04	2.7E-04	3.3E-04
Local Fish	3.0E-01	µg/g fw	15.1%	0.0E+00	1.4E-01	2.2E-01	1.2E-01	1.4E-01	1.5E-01
Drinking Water	9.7E-01	µg/L	3.3%	3.5E-02	3.5E-02	2.3E-02	1.7E-02	2.3E-02	2.3E-02
Market Basket Contribution	NA	µg/g	47.2%	1.9E-01	8.2E-01	4.9E-01	2.6E-01	1.6E-01	2.5E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	4.3E-01	1.7E+00	9.7E-01	5.4E-01	4.4E-01	5.9E-01
<i>Inhalation Route Only</i>			0.6%	3.9E-03	8.2E-03	6.3E-03	3.8E-03	3.6E-03	4.2E-03
<i>Direct Soil Contact Only</i>			17.5%	2.0E-01	4.0E-01	4.9E-02	2.9E-02	2.6E-02	5.4E-02
<i>Market Basket Foods and Drinking Water</i>			50.6%	2.2E-01	8.5E-01	5.2E-01	2.7E-01	1.9E-01	2.7E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			31.3%	0.0E+00	4.1E-01	4.0E-01	2.3E-01	2.3E-01	2.6E-01

Lead

Scenario	
Region	Falconbridge
Metal	Lead
EPC	95% UCL
Receptor	Female - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Lead

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	1.9E-01	8.2E-01	4.9E-01	2.6E-01	1.6E-01	2.5E-01
Drinking Water	µg/kg/day	3.5E-02	3.5E-02	2.3E-02	1.7E-02	2.3E-02	2.3E-02
Inhalation Route	µg/kg/day	3.9E-03	8.2E-03	6.3E-03	3.8E-03	3.6E-03	4.2E-03
Direct Dermal Contact	µg/kg/day	8.8E-05	8.4E-05	6.5E-05	6.0E-05	2.0E-05	3.4E-05
Soil/Dust Ingestion	µg/kg/day	2.0E-01	4.0E-01	4.9E-02	2.9E-02	2.6E-02	5.4E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	5.4E-02	3.9E-02	2.7E-02	1.9E-02	2.4E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.3E-01	9.3E-02	6.2E-02	4.8E-02	5.9E-02
Wild Blue Berries	µg/kg/day	0.0E+00	9.4E-02	4.8E-02	2.3E-02	1.8E-02	2.7E-02
Wild Game & Fish	µg/kg/day	0.0E+00	1.4E-01	2.2E-01	1.2E-01	1.4E-01	1.5E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	4.3E-01	1.7E+00	9.7E-01	5.4E-01	4.4E-01	5.8E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	2.3E-01	9.1E-01	5.2E-01	2.9E-01	2.4E-01	3.2E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Falconbridge
COC	Lead
EPC	95% UCL
Receptor	Female - RME Estimate

Toxicity Information - Lead		
Oral RfD	µg/kg/day	1.85
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Lead

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	1.5E-02	µg/m3	0.0%	1.7E-04	3.9E-04	3.1E-04	1.9E-04	1.5E-04	1.8E-04
Inhalation of Fine Particulate- Indoors	1.5E-02	µg/m3	0.9%	3.4E-03	8.0E-03	6.4E-03	3.8E-03	3.0E-03	3.7E-03
Dermal Contact - Outdoors	8.2E+01	µg/g	0.0%	5.7E-05	5.5E-05	4.4E-05	3.9E-05	1.1E-05	2.1E-05
Dermal Contact - Indoors	1.4E+02	µg/g	0.0%	2.6E-05	2.4E-05	1.9E-05	1.6E-05	6.9E-06	1.0E-05
Soil Ingestion	8.2E+01	µg/g	5.1%	3.9E-02	7.8E-02	1.0E-02	5.1E-03	4.1E-03	9.8E-03
Indoor dust Ingestion	1.4E+02	µg/g	19.9%	1.5E-01	3.1E-01	3.9E-02	2.0E-02	1.6E-02	3.8E-02
Home Produced Fruits & Vegetables	2.3E-01	µg/g fw	1.1%	0.0E+00	1.1E-02	8.3E-03	5.3E-03	3.8E-03	4.9E-03
Local Fruits & Vegetables	1.0E-01	µg/g fw	2.7%	0.0E+00	3.0E-02	2.0E-02	1.2E-02	9.8E-03	1.2E-02
Local Wild Blue Berries	7.4E-02	µg/g fw	3.2%	0.0E+00	4.6E-02	2.4E-02	9.3E-03	7.9E-03	1.2E-02
Local Wild Game	4.0E-03	µg/g fw	0.1%	0.0E+00	5.7E-04	4.7E-04	3.5E-04	3.6E-04	3.8E-04
Local Fish	3.0E-01	µg/g fw	5.2%	0.0E+00	3.7E-02	4.1E-02	3.1E-02	3.2E-02	3.3E-02
Drinking Water	9.7E-01	µg/L	3.9%	2.8E-02	2.8E-02	2.1E-02	1.3E-02	1.6E-02	1.7E-02
Market Basket Contribution	NA	µg/g	57.8%	1.1E-01	6.3E-01	4.3E-01	2.4E-01	1.4E-01	2.1E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	3.4E-01	1.2E+00	6.0E-01	3.4E-01	2.4E-01	3.5E-01
<i>Inhalation Route Only</i>			1.0%	3.6E-03	8.4E-03	6.7E-03	4.0E-03	3.1E-03	3.9E-03
<i>Direct Soil Contact Only</i>			25.0%	1.9E-01	3.8E-01	4.9E-02	2.5E-02	2.0E-02	4.8E-02
<i>Market Basket Foods and Drinking Water</i>			61.8%	1.4E-01	6.6E-01	4.5E-01	2.5E-01	1.6E-01	2.3E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			12.3%	0.0E+00	1.3E-01	9.5E-02	5.8E-02	5.3E-02	6.2E-02

Lead

Scenario	
Region	Falconbridge
Metal	Lead
EPC	95% UCL
Receptor	Male - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Lead

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	1.1E-01	6.3E-01	4.3E-01	2.4E-01	1.4E-01	2.1E-01
Drinking Water	µg/kg/day	2.8E-02	2.8E-02	2.1E-02	1.3E-02	1.6E-02	1.7E-02
Inhalation Route	µg/kg/day	3.6E-03	8.4E-03	6.7E-03	4.0E-03	3.1E-03	3.9E-03
Direct Dermal Contact	µg/kg/day	8.4E-05	7.9E-05	6.2E-05	5.5E-05	1.8E-05	3.1E-05
Soil/Dust Ingestion	µg/kg/day	1.9E-01	3.8E-01	4.9E-02	2.5E-02	2.0E-02	4.8E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.1E-02	8.3E-03	5.3E-03	3.8E-03	4.9E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	3.0E-02	2.0E-02	1.2E-02	9.8E-03	1.2E-02
Wild Blue Berries	µg/kg/day	0.0E+00	4.6E-02	2.4E-02	9.3E-03	7.9E-03	1.2E-02
Wild Game & Fish	µg/kg/day	0.0E+00	3.8E-02	4.2E-02	3.1E-02	3.2E-02	3.3E-02
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	3.4E-01	1.2E+00	6.0E-01	3.4E-01	2.4E-01	3.4E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	1.8E-01	6.3E-01	3.3E-01	1.8E-01	1.3E-01	1.9E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Falconbridge
COC	Lead
EPC	95% UCL
Receptor	Male - CTE Estimate

Toxicity Information - Lead		
Oral RfD	µg/kg/day	1.85
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Lead

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units							
Inhalation of Fine Particulate- Outdoors	1.5E-02	µg/m3	0.0%	2.5E-04	5.7E-04	4.5E-04	2.5E-04	2.1E-04	2.6E-04
Inhalation of Fine Particulate- Indoors	1.5E-02	µg/m3	0.6%	3.7E-03	8.4E-03	6.7E-03	4.0E-03	3.1E-03	3.9E-03
Dermal Contact - Outdoors	8.2E+01	µg/g	0.0%	6.1E-05	5.8E-05	4.6E-05	4.1E-05	1.2E-05	2.2E-05
Dermal Contact - Indoors	1.4E+02	µg/g	0.0%	2.7E-05	2.5E-05	2.0E-05	1.7E-05	7.2E-06	1.1E-05
Soil Ingestion	8.2E+01	µg/g	3.4%	4.2E-02	8.3E-02	1.1E-02	5.4E-03	4.3E-03	1.0E-02
Indoor dust Ingestion	1.4E+02	µg/g	13.1%	1.6E-01	3.2E-01	4.1E-02	2.1E-02	1.7E-02	4.0E-02
Home Produced Fruits & Vegetables	2.3E-01	µg/g fw	3.6%	0.0E+00	5.6E-02	4.7E-02	2.9E-02	2.2E-02	2.7E-02
Local Fruits & Vegetables	1.0E-01	µg/g fw	8.4%	0.0E+00	1.3E-01	1.1E-01	6.7E-02	5.1E-02	6.3E-02
Local Wild Blue Berries	7.4E-02	µg/g fw	4.3%	0.0E+00	8.9E-02	5.4E-02	2.2E-02	1.7E-02	2.6E-02
Local Wild Game	4.0E-03	µg/g fw	0.1%	0.0E+00	7.3E-04	5.9E-04	4.5E-04	5.9E-04	5.8E-04
Local Fish	3.0E-01	µg/g fw	16.3%	0.0E+00	2.0E-01	2.2E-01	1.3E-01	1.4E-01	1.5E-01
Drinking Water	9.7E-01	µg/L	2.9%	3.5E-02	3.5E-02	2.4E-02	9.2E-03	1.8E-02	1.9E-02
Market Basket Contribution	NA	µg/g	47.3%	1.2E-01	8.1E-01	5.6E-01	3.3E-01	2.0E-01	2.9E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	3.6E-01	1.7E+00	1.1E+00	6.2E-01	4.7E-01	6.3E-01
<i>Inhalation Route Only</i>			0.6%	3.9E-03	9.0E-03	7.1E-03	4.3E-03	3.3E-03	4.2E-03
<i>Direct Soil Contact Only</i>			16.5%	2.0E-01	4.0E-01	5.1E-02	2.6E-02	2.1E-02	5.0E-02
<i>Market Basket Foods and Drinking Water</i>			50.2%	1.6E-01	8.4E-01	5.8E-01	3.4E-01	2.1E-01	3.1E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			32.6%	0.0E+00	4.8E-01	4.3E-01	2.5E-01	2.3E-01	2.7E-01

Lead

Scenario	
Region	Falconbridge
Metal	Lead
EPC	95% UCL
Receptor	Male - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Lead

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	1.2E-01	8.1E-01	5.6E-01	3.3E-01	2.0E-01	2.9E-01
Drinking Water	µg/kg/day	3.5E-02	3.5E-02	2.4E-02	9.2E-03	1.8E-02	1.9E-02
Inhalation Route	µg/kg/day	3.9E-03	9.0E-03	7.1E-03	4.3E-03	3.3E-03	4.2E-03
Direct Dermal Contact	µg/kg/day	8.8E-05	8.4E-05	6.6E-05	5.8E-05	1.9E-05	3.3E-05
Soil/Dust Ingestion	µg/kg/day	2.0E-01	4.0E-01	5.1E-02	2.6E-02	2.1E-02	5.0E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	5.6E-02	4.7E-02	2.9E-02	2.2E-02	2.7E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.3E-01	1.1E-01	6.7E-02	5.1E-02	6.3E-02
Wild Blue Berries	µg/kg/day	0.0E+00	8.9E-02	5.4E-02	2.2E-02	1.7E-02	2.6E-02
Wild Game & Fish	µg/kg/day	0.0E+00	2.0E-01	2.2E-01	1.3E-01	1.4E-01	1.5E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	3.6E-01	1.7E+00	1.1E+00	6.2E-01	4.7E-01	6.2E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	2.0E-01	9.3E-01	5.8E-01	3.4E-01	2.5E-01	3.4E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Falconbridge
COC	Lead
EPC	95% UCL
Receptor	Male - RME Estimate

Toxicity Information - Lead		
Oral RfD	µg/kg/day	1.85
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Nickel



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	2.8E-02	µg/m3	0.0%	3.1E-04	6.5E-04	5.1E-04	3.1E-04	2.9E-04	3.4E-04
Inhalation of Fine Particulate- Indoors	2.8E-02	µg/m3	0.2%	6.3E-03	1.3E-02	1.0E-02	6.3E-03	6.0E-03	6.9E-03
Dermal Contact - Outdoors	1.1E+03	µg/g	0.0%	7.5E-04	7.2E-04	5.6E-04	5.3E-04	1.5E-04	2.8E-04
Dermal Contact - Indoors	9.3E+02	µg/g	0.0%	1.7E-04	1.6E-04	1.2E-04	1.1E-04	4.8E-05	7.0E-05
Soil Ingestion	1.1E+03	µg/g	5.0%	3.3E-01	6.5E-01	8.0E-02	4.8E-02	4.2E-02	8.8E-02
Indoor dust Ingestion	9.3E+02	µg/g	5.5%	3.6E-01	7.2E-01	8.8E-02	5.2E-02	4.7E-02	9.7E-02
Home Produced Fruits & Vegetables	3.7E+00	µg/g fw	4.8%	0.0E+00	5.5E-01	2.8E-01	1.6E-01	1.3E-01	1.8E-01
Local Fruits & Vegetables	2.8E+00	µg/g fw	7.0%	0.0E+00	8.0E-01	4.0E-01	2.2E-01	1.9E-01	2.5E-01
Local Wild Blue Berries	7.1E-01	µg/g fw	3.7%	0.0E+00	4.5E-01	2.2E-01	1.0E-01	8.6E-02	1.2E-01
Local Wild Game	6.2E-01	µg/g fw	1.0%	0.0E+00	9.9E-02	6.4E-02	4.4E-02	3.4E-02	4.2E-02
Local Fish	3.2E-02	µg/g fw	0.1%	0.0E+00	3.8E-03	4.7E-03	2.8E-03	3.6E-03	3.6E-03
Drinking Water	3.2E+01	µg/L	15.6%	9.3E-01	9.3E-01	6.5E-01	4.6E-01	6.4E-01	6.4E-01
Market Basket Contribution	NA	µg/g	57.2%	6.9E-01	5.9E+00	3.5E+00	1.9E+00	1.3E+00	1.9E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	2.3E+00	1.0E+01	5.3E+00	3.0E+00	2.5E+00	3.3E+00
<i>Inhalation Route Only</i>			0.2%	6.6E-03	1.4E-02	1.1E-02	6.6E-03	6.2E-03	7.3E-03
<i>Direct Soil Contact Only</i>			10.4%	6.9E-01	1.4E+00	1.7E-01	1.0E-01	8.9E-02	1.9E-01
<i>Market Basket Foods and Drinking Water</i>			72.8%	1.6E+00	6.9E+00	4.1E+00	2.3E+00	1.9E+00	2.5E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			16.6%	0.0E+00	1.9E+00	9.7E-01	5.2E-01	4.4E-01	6.0E-01

Nickel

Scenario	
Region	Falconbridge
Metal	Nickel
EPC	95% UCL
Receptor	Female - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Nickel

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	6.9E-01	5.9E+00	3.5E+00	1.9E+00	1.3E+00	1.9E+00
Drinking Water	µg/kg/day	9.3E-01	9.3E-01	6.5E-01	4.6E-01	6.4E-01	6.4E-01
Inhalation Route	µg/kg/day	6.6E-03	1.4E-02	1.1E-02	6.6E-03	6.2E-03	7.3E-03
Direct Dermal Contact	µg/kg/day	9.2E-04	8.7E-04	6.8E-04	6.3E-04	2.0E-04	3.5E-04
Soil/Dust Ingestion	µg/kg/day	6.9E-01	1.4E+00	1.7E-01	1.0E-01	8.9E-02	1.8E-01
HP Fruit & Vegetables	µg/kg/day	0.0E+00	5.5E-01	2.8E-01	1.6E-01	1.3E-01	1.8E-01
Local Fruit & Vegetables	µg/kg/day	0.0E+00	8.0E-01	4.0E-01	2.2E-01	1.9E-01	2.5E-01
Wild Blue Berries	µg/kg/day	0.0E+00	4.5E-01	2.2E-01	1.0E-01	8.6E-02	1.2E-01
Wild Game & Fish	µg/kg/day	0.0E+00	1.0E-01	6.9E-02	4.7E-02	3.7E-02	4.5E-02
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	2.3E+00	1.0E+01	5.3E+00	2.9E+00	2.5E+00	3.3E+00
Hazard Quotient - inhal	unitless	1.2E+00	2.4E+00	1.9E+00	1.2E+00	1.1E+00	NA
Hazard Quotient - oral	unitless	1.2E-01	5.1E-01	2.6E-01	1.5E-01	1.2E-01	1.6E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Falconbridge
COC	Nickel
EPC	95% UCL
Receptor	Female - CTE Estimate

Toxicity Information - Nickel		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.00571

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Nickel



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units							
Inhalation of Fine Particulate- Outdoors	2.8E-02	µg/m3	0.0%	4.5E-04	9.5E-04	7.4E-04	4.4E-04	4.2E-04	4.9E-04
Inhalation of Fine Particulate- Indoors	2.8E-02	µg/m3	0.1%	6.7E-03	1.4E-02	1.1E-02	6.5E-03	6.2E-03	7.2E-03
Dermal Contact - Outdoors	1.1E+03	µg/g	0.0%	7.9E-04	7.6E-04	5.9E-04	5.6E-04	1.6E-04	2.9E-04
Dermal Contact - Indoors	9.3E+02	µg/g	0.0%	1.8E-04	1.6E-04	1.2E-04	1.1E-04	5.0E-05	7.2E-05
Soil Ingestion	1.1E+03	µg/g	3.5%	3.5E-01	6.9E-01	8.4E-02	5.0E-02	4.5E-02	9.3E-02
Indoor dust Ingestion	9.3E+02	µg/g	3.8%	3.7E-01	7.5E-01	9.1E-02	5.4E-02	4.8E-02	1.0E-01
Home Produced Fruits & Vegetables	3.7E+00	µg/g fw	12.1%	0.0E+00	1.7E+00	1.2E+00	7.3E-01	5.7E-01	7.1E-01
Local Fruits & Vegetables	2.8E+00	µg/g fw	15.6%	0.0E+00	2.3E+00	1.5E+00	9.0E-01	7.2E-01	9.1E-01
Local Wild Blue Berries	7.1E-01	µg/g fw	5.1%	0.0E+00	9.0E-01	4.6E-01	2.2E-01	1.8E-01	2.5E-01
Local Wild Game	6.2E-01	µg/g fw	0.8%	0.0E+00	1.1E-01	8.2E-02	5.4E-02	4.2E-02	5.2E-02
Local Fish	3.2E-02	µg/g fw	0.2%	0.0E+00	1.5E-02	2.3E-02	1.2E-02	1.5E-02	1.5E-02
Drinking Water	3.2E+01	µg/L	12.7%	1.2E+00	1.2E+00	7.5E-01	5.6E-01	7.5E-01	7.6E-01
Market Basket Contribution	NA	µg/g	46.0%	9.0E-01	6.3E+00	4.5E+00	2.5E+00	1.7E+00	2.3E+00

Nickel

Scenario	
Region	Falconbridge
Metal	Nickel
EPC	95% UCL
Receptor	Female - RME Estimate

SUMMARY									
Estimated Total Daily Intake(ug/kg/day)	100.0%	2.8E+00	1.4E+01	8.7E+00	5.1E+00	4.0E+00	5.2E+00		
<i>Inhalation Route Only</i>	0.1%	7.2E-03	1.5E-02	1.2E-02	7.0E-03	6.6E-03	7.7E-03		
<i>Direct Soil Contact Only</i>	7.3%	7.2E-01	1.4E+00	1.8E-01	1.1E-01	9.4E-02	1.9E-01		
<i>Market Basket Foods and Drinking Water</i>	58.7%	2.1E+00	7.4E+00	5.3E+00	3.1E+00	2.4E+00	3.1E+00		
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)	33.8%	0.0E+00	5.0E+00	3.2E+00	1.9E+00	1.5E+00	1.9E+00		



HUMAN HEALTH RISK ESTIMATES

Nickel

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	9.0E-01	6.3E+00	4.5E+00	2.5E+00	1.7E+00	2.3E+00
Drinking Water	µg/kg/day	1.2E+00	1.2E+00	7.5E-01	5.6E-01	7.5E-01	7.6E-01
Inhalation Route	µg/kg/day	7.2E-03	1.5E-02	1.2E-02	7.0E-03	6.6E-03	7.7E-03
Direct Dermal Contact	µg/kg/day	9.7E-04	9.2E-04	7.2E-04	6.7E-04	2.1E-04	3.7E-04
Soil/Dust Ingestion	µg/kg/day	7.2E-01	1.4E+00	1.8E-01	1.0E-01	9.3E-02	1.9E-01
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.7E+00	1.2E+00	7.3E-01	5.7E-01	7.1E-01
Local Fruit & Vegetables	µg/kg/day	0.0E+00	2.3E+00	1.5E+00	9.0E-01	7.2E-01	9.1E-01
Wild Blue Berries	µg/kg/day	0.0E+00	9.0E-01	4.6E-01	2.2E-01	1.8E-01	2.5E-01
Wild Game & Fish	µg/kg/day	0.0E+00	1.3E-01	1.0E-01	6.7E-02	5.8E-02	6.8E-02
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	2.8E+00	1.4E+01	8.7E+00	5.1E+00	4.0E+00	5.2E+00
Hazard Quotient - inhal	unitless	1.3E+00	2.6E+00	2.0E+00	1.2E+00	1.2E+00	NA
Hazard Quotient - oral	unitless	1.4E-01	7.0E-01	4.3E-01	2.6E-01	2.0E-01	2.6E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Falconbridge
COC	Nickel
EPC	95% UCL
Receptor	Female - RME Estimate

Toxicity Information - Nickel		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.00571

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Nickel



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	2.8E-02	µg/m3	0.0%	3.1E-04	7.2E-04	5.8E-04	3.4E-04	2.7E-04	3.4E-04
Inhalation of Fine Particulate- Indoors	2.8E-02	µg/m3	0.2%	6.3E-03	1.5E-02	1.2E-02	7.0E-03	5.5E-03	6.9E-03
Dermal Contact - Outdoors	1.1E+03	µg/g	0.0%	7.5E-04	7.2E-04	5.7E-04	5.1E-04	1.4E-04	2.7E-04
Dermal Contact - Indoors	9.3E+02	µg/g	0.0%	1.7E-04	1.6E-04	1.2E-04	1.0E-04	4.4E-05	6.7E-05
Soil Ingestion	1.1E+03	µg/g	5.1%	3.3E-01	6.5E-01	8.3E-02	4.2E-02	3.4E-02	8.1E-02
Indoor dust Ingestion	9.3E+02	µg/g	5.6%	3.6E-01	7.1E-01	9.1E-02	4.7E-02	3.7E-02	9.0E-02
Home Produced Fruits & Vegetables	3.7E+00	µg/g fw	4.8%	0.0E+00	4.7E-01	3.0E-01	1.6E-01	1.3E-01	1.7E-01
Local Fruits & Vegetables	2.8E+00	µg/g fw	6.7%	0.0E+00	7.0E-01	4.2E-01	2.1E-01	1.7E-01	2.4E-01
Local Wild Blue Berries	7.1E-01	µg/g fw	3.7%	0.0E+00	4.4E-01	2.3E-01	8.9E-02	7.5E-02	1.1E-01
Local Wild Game	6.2E-01	µg/g fw	1.2%	0.0E+00	8.9E-02	7.4E-02	5.6E-02	5.7E-02	6.0E-02
Local Fish	3.2E-02	µg/g fw	0.1%	0.0E+00	4.0E-03	4.4E-03	3.3E-03	3.4E-03	3.5E-03
Drinking Water	3.2E+01	µg/L	15.4%	9.3E-01	9.2E-01	6.8E-01	4.1E-01	5.1E-01	5.5E-01
Market Basket Contribution	NA	µg/g	57.2%	5.5E-01	4.7E+00	3.8E+00	2.2E+00	1.4E+00	2.0E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	2.2E+00	8.7E+00	5.7E+00	3.3E+00	2.5E+00	3.3E+00
<i>Inhalation Route Only</i>			0.2%	6.6E-03	1.5E-02	1.2E-02	7.4E-03	5.7E-03	7.2E-03
<i>Direct Soil Contact Only</i>			10.7%	6.9E-01	1.4E+00	1.8E-01	9.0E-02	7.1E-02	1.7E-01
<i>Market Basket Foods and Drinking Water</i>			72.6%	1.5E+00	5.7E+00	4.5E+00	2.7E+00	1.9E+00	2.5E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			16.5%	0.0E+00	1.7E+00	1.0E+00	5.2E-01	4.4E-01	5.8E-01

Nickel

Scenario	
Region	Falconbridge
Metal	Nickel
EPC	95% UCL
Receptor	Male - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Nickel

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	5.5E-01	4.7E+00	3.8E+00	2.2E+00	1.4E+00	2.0E+00
Drinking Water	µg/kg/day	9.3E-01	9.2E-01	6.8E-01	4.1E-01	5.1E-01	5.5E-01
Inhalation Route	µg/kg/day	6.6E-03	1.5E-02	1.2E-02	7.4E-03	5.7E-03	7.2E-03
Direct Dermal Contact	µg/kg/day	9.2E-04	8.7E-04	6.9E-04	6.1E-04	1.9E-04	3.3E-04
Soil/Dust Ingestion	µg/kg/day	6.9E-01	1.4E+00	1.7E-01	8.9E-02	7.1E-02	1.7E-01
HP Fruit & Vegetables	µg/kg/day	0.0E+00	4.7E-01	3.0E-01	1.6E-01	1.3E-01	1.7E-01
Local Fruit & Vegetables	µg/kg/day	0.0E+00	7.0E-01	4.2E-01	2.1E-01	1.7E-01	2.4E-01
Wild Blue Berries	µg/kg/day	0.0E+00	4.4E-01	2.3E-01	8.9E-02	7.5E-02	1.1E-01
Wild Game & Fish	µg/kg/day	0.0E+00	9.3E-02	7.9E-02	5.9E-02	6.0E-02	6.4E-02
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	2.2E+00	8.7E+00	5.7E+00	3.3E+00	2.5E+00	3.3E+00
Hazard Quotient - inhal	unitless	1.2E+00	2.7E+00	2.2E+00	1.3E+00	1.0E+00	NA
Hazard Quotient - oral	unitless	1.1E-01	4.4E-01	2.9E-01	1.6E-01	1.2E-01	1.6E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Falconbridge
COC	Nickel
EPC	95% UCL
Receptor	Male - CTE Estimate

Toxicity Information - Nickel		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.00571

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Nickel



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units							
Inhalation of Fine Particulate- Outdoors	2.8E-02	µg/m3	0.0%	4.5E-04	1.0E-03	8.3E-04	4.5E-04	3.9E-04	4.8E-04
Inhalation of Fine Particulate- Indoors	2.8E-02	µg/m3	0.1%	6.7E-03	1.5E-02	1.2E-02	7.4E-03	5.7E-03	7.2E-03
Dermal Contact - Outdoors	1.1E+03	µg/g	0.0%	7.9E-04	7.6E-04	6.0E-04	5.4E-04	1.5E-04	2.8E-04
Dermal Contact - Indoors	9.3E+02	µg/g	0.0%	1.8E-04	1.6E-04	1.3E-04	1.1E-04	4.6E-05	7.0E-05
Soil Ingestion	1.1E+03	µg/g	3.3%	3.5E-01	6.9E-01	8.8E-02	4.5E-02	3.6E-02	8.6E-02
Indoor dust Ingestion	9.3E+02	µg/g	3.6%	3.7E-01	7.4E-01	9.5E-02	4.8E-02	3.9E-02	9.3E-02
Home Produced Fruits & Vegetables	3.7E+00	µg/g fw	12.4%	0.0E+00	1.7E+00	1.3E+00	7.8E-01	5.9E-01	7.6E-01
Local Fruits & Vegetables	2.8E+00	µg/g fw	15.7%	0.0E+00	2.3E+00	1.7E+00	9.5E-01	7.2E-01	9.4E-01
Local Wild Blue Berries	7.1E-01	µg/g fw	4.8%	0.0E+00	8.5E-01	5.2E-01	2.1E-01	1.6E-01	2.4E-01
Local Wild Game	6.2E-01	µg/g fw	1.0%	0.0E+00	1.2E-01	9.3E-02	7.1E-02	9.3E-02	9.1E-02
Local Fish	3.2E-02	µg/g fw	0.2%	0.0E+00	2.1E-02	2.3E-02	1.4E-02	1.5E-02	1.6E-02
Drinking Water	3.2E+01	µg/L	11.2%	1.2E+00	1.2E+00	7.9E-01	3.0E-01	6.0E-01	6.3E-01
Market Basket Contribution	NA	µg/g	47.6%	5.9E-01	6.2E+00	5.1E+00	3.3E+00	1.9E+00	2.6E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	2.5E+00	1.4E+01	9.7E+00	5.7E+00	4.2E+00	5.5E+00
<i>Inhalation Route Only</i>			0.1%	7.2E-03	1.6E-02	1.3E-02	7.9E-03	6.1E-03	7.7E-03
<i>Direct Soil Contact Only</i>			7.0%	7.2E-01	1.4E+00	1.8E-01	9.4E-02	7.5E-02	1.8E-01
<i>Market Basket Foods and Drinking Water</i>			58.7%	1.7E+00	7.4E+00	5.9E+00	3.6E+00	2.5E+00	3.3E+00
<i>Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)</i>			34.2%	0.0E+00	5.0E+00	3.7E+00	2.0E+00	1.6E+00	2.1E+00

Nickel

Scenario	
Region	Falconbridge
Metal	Nickel
EPC	95% UCL
Receptor	Male - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Nickel

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	5.9E-01	6.2E+00	5.1E+00	3.3E+00	1.9E+00	2.6E+00
Drinking Water	µg/kg/day	1.2E+00	1.2E+00	7.9E-01	3.0E-01	6.0E-01	6.3E-01
Inhalation Route	µg/kg/day	7.2E-03	1.6E-02	1.3E-02	7.9E-03	6.1E-03	7.7E-03
Direct Dermal Contact	µg/kg/day	9.7E-04	9.2E-04	7.3E-04	6.5E-04	2.0E-04	3.5E-04
Soil/Dust Ingestion	µg/kg/day	7.2E-01	1.4E+00	1.8E-01	9.3E-02	7.5E-02	1.8E-01
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.7E+00	1.3E+00	7.8E-01	5.9E-01	7.6E-01
Local Fruit & Vegetables	µg/kg/day	0.0E+00	2.3E+00	1.7E+00	9.5E-01	7.2E-01	9.4E-01
Wild Blue Berries	µg/kg/day	0.0E+00	8.5E-01	5.2E-01	2.1E-01	1.6E-01	2.4E-01
Wild Game & Fish	µg/kg/day	0.0E+00	1.4E-01	1.2E-01	8.6E-02	1.1E-01	1.1E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	2.5E+00	1.4E+01	9.7E+00	5.7E+00	4.1E+00	5.5E+00
Hazard Quotient - inhal	unitless	1.3E+00	2.9E+00	2.3E+00	1.4E+00	1.1E+00	NA
Hazard Quotient - oral	unitless	1.2E-01	6.9E-01	4.9E-01	2.9E-01	2.1E-01	2.7E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Falconbridge
COC	Nickel
EPC	95% UCL
Receptor	Male - RME Estimate

Toxicity Information - Nickel		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.00571

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Selenium



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	3.4E-03	µg/m3	0.0%	3.8E-05	7.9E-05	6.2E-05	3.7E-05	3.5E-05	4.1E-05
Inhalation of Fine Particulate- Indoors	3.4E-03	µg/m3	0.0%	7.7E-04	1.6E-03	1.3E-03	7.6E-04	7.2E-04	8.4E-04
Dermal Contact - Outdoors	3.1E+00	µg/g	0.0%	2.2E-06	2.1E-06	1.6E-06	1.5E-06	4.4E-07	8.0E-07
Dermal Contact - Indoors	6.3E+00	µg/g	0.0%	1.2E-06	1.1E-06	8.2E-07	7.4E-07	3.3E-07	4.8E-07
Soil Ingestion	3.1E+00	µg/g	0.0%	5.8E-04	1.2E-03	1.4E-04	8.5E-05	7.6E-05	1.6E-04
Indoor dust Ingestion	6.3E+00	µg/g	0.1%	5.5E-03	1.1E-02	1.3E-03	8.0E-04	7.1E-04	1.5E-03
Home Produced Fruits & Vegetables	1.6E-02	µg/g fw	0.1%	0.0E+00	9.1E-03	4.5E-03	2.3E-03	2.0E-03	2.7E-03
Local Fruits & Vegetables	3.4E-02	µg/g fw	0.5%	0.0E+00	3.5E-02	1.9E-02	1.2E-02	1.0E-02	1.3E-02
Local Wild Blue Berries	1.6E-02	µg/g fw	0.1%	0.0E+00	1.0E-02	4.9E-03	2.3E-03	1.9E-03	2.8E-03
Local Wild Game	1.4E+00	µg/g fw	3.7%	0.0E+00	2.2E-01	1.4E-01	9.6E-02	7.4E-02	9.1E-02
Local Fish	2.0E+00	µg/g fw	6.4%	0.0E+00	2.3E-01	2.9E-01	1.7E-01	2.2E-01	2.2E-01
Drinking Water	2.5E+00	µg/L	2.0%	7.3E-02	7.3E-02	5.1E-02	3.7E-02	5.0E-02	5.1E-02
Market Basket Contribution	NA	µg/g	87.0%	1.3E+00	5.0E+00	3.3E+00	1.7E+00	1.0E+00	1.6E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	1.3E+00	5.6E+00	3.9E+00	2.0E+00	1.4E+00	2.0E+00
<i>Inhalation Route Only</i>			0.0%	8.0E-04	1.7E-03	1.3E-03	8.0E-04	7.6E-04	8.8E-04
<i>Direct Soil Contact Only</i>			0.1%	6.1E-03	1.2E-02	1.5E-03	8.9E-04	7.9E-04	1.6E-03
<i>Market Basket Foods and Drinking Water</i>			89.0%	1.3E+00	5.1E+00	3.4E+00	1.8E+00	1.1E+00	1.6E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			10.9%	0.0E+00	5.0E-01	4.5E-01	2.8E-01	3.1E-01	3.3E-01

Selenium

Scenario	
Region	Falconbridge
Metal	Selenium
EPC	95% UCL
Receptor	Female - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Selenium

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	1.3E+00	5.0E+00	3.3E+00	1.7E+00	1.0E+00	1.6E+00
Drinking Water	µg/kg/day	7.3E-02	7.3E-02	5.1E-02	3.7E-02	5.0E-02	5.1E-02
Inhalation Route	µg/kg/day	8.0E-04	1.7E-03	1.3E-03	8.0E-04	7.6E-04	8.8E-04
Direct Dermal Contact	µg/kg/day	3.3E-06	3.1E-06	2.4E-06	2.3E-06	7.7E-07	1.3E-06
Soil/Dust Ingestion	µg/kg/day	6.1E-03	1.2E-02	1.5E-03	8.8E-04	7.9E-04	1.6E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	9.1E-03	4.5E-03	2.3E-03	2.0E-03	2.7E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	3.5E-02	1.9E-02	1.2E-02	1.0E-02	1.3E-02
Wild Blue Berries	µg/kg/day	0.0E+00	1.0E-02	4.9E-03	2.3E-03	1.9E-03	2.8E-03
Wild Game & Fish	µg/kg/day	0.0E+00	4.5E-01	4.3E-01	2.6E-01	2.9E-01	3.1E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	1.3E+00	5.6E+00	3.9E+00	2.0E+00	1.4E+00	2.0E+00
Hazard Quotient - inhal	unitless	1.4E-04	3.0E-04	2.3E-04	1.4E-04	1.3E-04	NA
Hazard Quotient - oral	unitless	2.7E-01	1.1E+00	7.7E-01	4.1E-01	2.8E-01	4.0E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Falconbridge
COC	Selenium
EPC	95% UCL
Receptor	Female - CTE Estimate

Toxicity Information - Selenium		
Oral RfD	µg/kg/day	5
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	5.71

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Selenium



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	3.4E-03	µg/m3	0.0%	5.5E-05	1.2E-04	8.9E-05	5.3E-05	5.1E-05	5.9E-05
Inhalation of Fine Particulate- Indoors	3.4E-03	µg/m3	0.0%	8.1E-04	1.7E-03	1.3E-03	7.9E-04	7.5E-04	8.7E-04
Dermal Contact - Outdoors	3.1E+00	µg/g	0.0%	2.3E-06	2.2E-06	1.7E-06	1.6E-06	4.7E-07	8.5E-07
Dermal Contact - Indoors	6.3E+00	µg/g	0.0%	1.2E-06	1.1E-06	8.5E-07	7.7E-07	3.4E-07	5.0E-07
Soil Ingestion	3.1E+00	µg/g	0.0%	6.2E-04	1.2E-03	1.5E-04	9.0E-05	8.0E-05	1.7E-04
Indoor dust Ingestion	6.3E+00	µg/g	0.1%	5.7E-03	1.1E-02	1.4E-03	8.3E-04	7.4E-04	1.5E-03
Home Produced Fruits & Vegetables	1.6E-02	µg/g fw	0.3%	0.0E+00	2.4E-02	1.5E-02	8.4E-03	6.8E-03	8.8E-03
Local Fruits & Vegetables	3.4E-02	µg/g fw	1.7%	0.0E+00	1.3E-01	1.0E-01	7.1E-02	5.5E-02	6.7E-02
Local Wild Blue Berries	1.6E-02	µg/g fw	0.2%	0.0E+00	2.0E-02	1.0E-02	4.9E-03	4.0E-03	5.7E-03
Local Wild Game	1.4E+00	µg/g fw	3.0%	0.0E+00	2.5E-01	1.8E-01	1.2E-01	9.3E-02	1.1E-01
Local Fish	2.0E+00	µg/g fw	19.0%	0.0E+00	8.9E-01	1.4E+00	7.5E-01	9.2E-01	9.4E-01
Drinking Water	2.5E+00	µg/L	1.6%	9.1E-02	9.1E-02	6.0E-02	4.4E-02	5.9E-02	6.0E-02
Market Basket Contribution	NA	µg/g	74.0%	1.6E+00	6.4E+00	4.0E+00	2.2E+00	1.3E+00	2.0E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	1.7E+00	7.9E+00	5.8E+00	3.2E+00	2.4E+00	3.2E+00
<i>Inhalation Route Only</i>			0.0%	8.7E-04	1.8E-03	1.4E-03	8.5E-04	8.0E-04	9.3E-04
<i>Direct Soil Contact Only</i>			0.1%	6.3E-03	1.3E-02	1.5E-03	9.2E-04	8.2E-04	1.7E-03
<i>Market Basket Foods and Drinking Water</i>			75.7%	1.7E+00	6.5E+00	4.1E+00	2.2E+00	1.4E+00	2.1E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			24.2%	0.0E+00	1.3E+00	1.7E+00	9.6E-01	1.1E+00	1.1E+00

Selenium

Scenario	
Region	Falconbridge
Metal	Selenium
EPC	95% UCL
Receptor	Female - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Selenium

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	1.6E+00	6.4E+00	4.0E+00	2.2E+00	1.3E+00	2.0E+00
Drinking Water	µg/kg/day	9.1E-02	9.1E-02	6.0E-02	4.4E-02	5.9E-02	6.0E-02
Inhalation Route	µg/kg/day	8.7E-04	1.8E-03	1.4E-03	8.5E-04	8.0E-04	9.3E-04
Direct Dermal Contact	µg/kg/day	3.5E-06	3.3E-06	2.6E-06	2.4E-06	8.1E-07	1.3E-06
Soil/Dust Ingestion	µg/kg/day	6.3E-03	1.3E-02	1.5E-03	9.2E-04	8.2E-04	1.7E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	2.4E-02	1.5E-02	8.4E-03	6.8E-03	8.8E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.3E-01	1.0E-01	7.1E-02	5.5E-02	6.7E-02
Wild Blue Berries	µg/kg/day	0.0E+00	2.0E-02	1.0E-02	4.9E-03	4.0E-03	5.7E-03
Wild Game & Fish	µg/kg/day	0.0E+00	1.1E+00	1.6E+00	8.7E-01	1.0E+00	1.1E+00
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	1.7E+00	7.9E+00	5.8E+00	3.2E+00	2.4E+00	3.2E+00
Hazard Quotient - inhal	unitless	1.5E-04	3.2E-04	2.5E-04	1.5E-04	1.4E-04	NA
Hazard Quotient - oral	unitless	3.5E-01	1.6E+00	1.2E+00	6.3E-01	4.9E-01	6.4E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Falconbridge
COC	Selenium
EPC	95% UCL
Receptor	Female - RME Estimate

Toxicity Information - Selenium		
Oral RfD	µg/kg/day	5
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	5.71

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Selenium

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	3.4E-03	µg/m3	0.0%	3.8E-05	8.7E-05	7.0E-05	4.2E-05	3.2E-05	4.1E-05
Inhalation of Fine Particulate- Indoors	3.4E-03	µg/m3	0.0%	7.7E-04	1.8E-03	1.4E-03	8.5E-04	6.6E-04	8.3E-04
Dermal Contact - Outdoors	3.1E+00	µg/g	0.0%	2.2E-06	2.1E-06	1.6E-06	1.5E-06	4.1E-07	7.7E-07
Dermal Contact - Indoors	6.3E+00	µg/g	0.0%	1.2E-06	1.1E-06	8.3E-07	7.1E-07	3.0E-07	4.6E-07
Soil Ingestion	3.1E+00	µg/g	0.0%	5.8E-04	1.2E-03	1.5E-04	7.6E-05	6.1E-05	1.5E-04
Indoor dust Ingestion	6.3E+00	µg/g	0.1%	5.5E-03	1.1E-02	1.4E-03	7.1E-04	5.7E-04	1.4E-03
Home Produced Fruits & Vegetables	1.6E-02	µg/g fw	0.1%	0.0E+00	8.3E-03	4.7E-03	2.2E-03	1.8E-03	2.6E-03
Local Fruits & Vegetables	3.4E-02	µg/g fw	0.4%	0.0E+00	2.6E-02	2.0E-02	1.3E-02	1.0E-02	1.3E-02
Local Wild Blue Berries	1.6E-02	µg/g fw	0.1%	0.0E+00	9.9E-03	5.1E-03	2.0E-03	1.7E-03	2.6E-03
Local Wild Game	1.4E+00	µg/g fw	3.8%	0.0E+00	1.9E-01	1.6E-01	1.2E-01	1.2E-01	1.3E-01
Local Fish	2.0E+00	µg/g fw	5.8%	0.0E+00	2.4E-01	2.7E-01	2.0E-01	2.0E-01	2.1E-01
Drinking Water	2.5E+00	µg/L	1.7%	7.3E-02	7.3E-02	5.3E-02	3.3E-02	4.0E-02	4.3E-02
Market Basket Contribution	NA	µg/g	87.8%	1.0E+00	5.4E+00	3.8E+00	2.2E+00	1.4E+00	2.0E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	1.1E+00	5.9E+00	4.3E+00	2.6E+00	1.8E+00	2.4E+00
<i>Inhalation Route Only</i>			0.0%	8.0E-04	1.9E-03	1.5E-03	8.9E-04	6.9E-04	8.7E-04
<i>Direct Soil Contact Only</i>			0.1%	6.1E-03	1.2E-02	1.5E-03	7.9E-04	6.3E-04	1.5E-03
<i>Market Basket Foods and Drinking Water</i>			89.6%	1.1E+00	5.4E+00	3.9E+00	2.3E+00	1.5E+00	2.1E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			10.3%	0.0E+00	4.8E-01	4.6E-01	3.4E-01	3.4E-01	3.6E-01

Selenium

Scenario	
Region	Falconbridge
Metal	Selenium
EPC	95% UCL
Receptor	Male - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Selenium

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	1.0E+00	5.4E+00	3.8E+00	2.2E+00	1.4E+00	2.0E+00
Drinking Water	µg/kg/day	7.3E-02	7.3E-02	5.3E-02	3.3E-02	4.0E-02	4.3E-02
Inhalation Route	µg/kg/day	8.0E-04	1.9E-03	1.5E-03	8.9E-04	6.9E-04	8.7E-04
Direct Dermal Contact	µg/kg/day	3.3E-06	3.1E-06	2.5E-06	2.2E-06	7.1E-07	1.2E-06
Soil/Dust Ingestion	µg/kg/day	6.1E-03	1.2E-02	1.5E-03	7.9E-04	6.3E-04	1.5E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	8.3E-03	4.7E-03	2.2E-03	1.8E-03	2.6E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	2.6E-02	2.0E-02	1.3E-02	1.0E-02	1.3E-02
Wild Blue Berries	µg/kg/day	0.0E+00	9.9E-03	5.1E-03	2.0E-03	1.7E-03	2.6E-03
Wild Game & Fish	µg/kg/day	0.0E+00	4.4E-01	4.3E-01	3.2E-01	3.3E-01	3.4E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	1.1E+00	5.9E+00	4.3E+00	2.6E+00	1.8E+00	2.4E+00
Hazard Quotient - inhal	unitless	1.4E-04	3.3E-04	2.6E-04	1.6E-04	1.2E-04	NA
Hazard Quotient - oral	unitless	2.2E-01	1.2E+00	8.7E-01	5.2E-01	3.7E-01	4.9E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Falconbridge
COC	Selenium
EPC	95% UCL
Receptor	Male - CTE Estimate

Toxicity Information - Selenium		
Oral RfD	µg/kg/day	5
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	5.71

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Selenium



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	3.4E-03	µg/m3	0.0%	5.5E-05	1.3E-04	1.0E-04	5.5E-05	4.7E-05	5.8E-05
Inhalation of Fine Particulate- Indoors	3.4E-03	µg/m3	0.0%	8.1E-04	1.9E-03	1.5E-03	9.0E-04	6.9E-04	8.7E-04
Dermal Contact - Outdoors	3.1E+00	µg/g	0.0%	2.3E-06	2.2E-06	1.7E-06	1.6E-06	4.3E-07	8.2E-07
Dermal Contact - Indoors	6.3E+00	µg/g	0.0%	1.2E-06	1.1E-06	8.6E-07	7.4E-07	3.2E-07	4.8E-07
Soil Ingestion	3.1E+00	µg/g	0.0%	6.2E-04	1.2E-03	1.6E-04	8.0E-05	6.4E-05	1.5E-04
Indoor dust Ingestion	6.3E+00	µg/g	0.1%	5.7E-03	1.1E-02	1.4E-03	7.4E-04	5.9E-04	1.4E-03
Home Produced Fruits & Vegetables	1.6E-02	µg/g fw	0.2%	0.0E+00	2.3E-02	1.7E-02	8.7E-03	6.6E-03	8.9E-03
Local Fruits & Vegetables	3.4E-02	µg/g fw	1.7%	0.0E+00	1.4E-01	1.2E-01	7.8E-02	5.9E-02	7.2E-02
Local Wild Blue Berries	1.6E-02	µg/g fw	0.2%	0.0E+00	1.9E-02	1.2E-02	4.6E-03	3.6E-03	5.5E-03
Local Wild Game	1.4E+00	µg/g fw	3.5%	0.0E+00	2.5E-01	2.0E-01	1.6E-01	2.0E-01	2.0E-01
Local Fish	2.0E+00	µg/g fw	19.5%	0.0E+00	1.3E+00	1.4E+00	8.7E-01	9.2E-01	9.8E-01
Drinking Water	2.5E+00	µg/L	1.4%	9.1E-02	9.1E-02	6.2E-02	2.4E-02	4.8E-02	4.9E-02
Market Basket Contribution	NA	µg/g	73.4%	1.1E+00	6.5E+00	4.5E+00	2.8E+00	2.0E+00	2.7E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	1.2E+00	8.4E+00	6.4E+00	3.9E+00	3.3E+00	4.0E+00
<i>Inhalation Route Only</i>			0.0%	8.7E-04	2.0E-03	1.6E-03	9.5E-04	7.4E-04	9.3E-04
<i>Direct Soil Contact Only</i>			0.1%	6.3E-03	1.3E-02	1.6E-03	8.2E-04	6.6E-04	1.6E-03
<i>Market Basket Foods and Drinking Water</i>			74.7%	1.2E+00	6.6E+00	4.6E+00	2.8E+00	2.1E+00	2.7E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			25.1%	0.0E+00	1.7E+00	1.8E+00	1.1E+00	1.2E+00	1.3E+00

Selenium

Scenario	
Region	Falconbridge
Metal	Selenium
EPC	95% UCL
Receptor	Male - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Selenium

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	1.1E+00	6.5E+00	4.5E+00	2.8E+00	2.0E+00	2.7E+00
Drinking Water	µg/kg/day	9.1E-02	9.1E-02	6.2E-02	2.4E-02	4.8E-02	4.9E-02
Inhalation Route	µg/kg/day	8.7E-04	2.0E-03	1.6E-03	9.5E-04	7.4E-04	9.3E-04
Direct Dermal Contact	µg/kg/day	3.5E-06	3.3E-06	2.6E-06	2.3E-06	7.5E-07	1.3E-06
Soil/Dust Ingestion	µg/kg/day	6.3E-03	1.3E-02	1.6E-03	8.2E-04	6.6E-04	1.6E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	2.3E-02	1.7E-02	8.7E-03	6.6E-03	8.9E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.4E-01	1.2E-01	7.8E-02	5.9E-02	7.2E-02
Wild Blue Berries	µg/kg/day	0.0E+00	1.9E-02	1.2E-02	4.6E-03	3.6E-03	5.5E-03
Wild Game & Fish	µg/kg/day	0.0E+00	1.6E+00	1.6E+00	1.0E+00	1.1E+00	1.2E+00
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	1.2E+00	8.4E+00	6.4E+00	3.9E+00	3.3E+00	4.0E+00
Hazard Quotient - inhal	unitless	1.5E-04	3.5E-04	2.8E-04	1.7E-04	1.3E-04	NA
Hazard Quotient - oral	unitless	2.3E-01	1.7E+00	1.3E+00	7.9E-01	6.6E-01	8.0E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Falconbridge
COC	Selenium
EPC	95% UCL
Receptor	Male - RME Estimate

Toxicity Information - Selenium		
Oral RfD	µg/kg/day	5
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	5.71

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Arsenic



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units							
Inhalation of Fine Particulate- Outdoors	5.6E-03	µg/m3	0.1%	6.2E-05	1.3E-04	1.0E-04	6.1E-05	5.8E-05	1.2E-04
Inhalation of Fine Particulate- Indoors	5.6E-03	µg/m3	1.1%	1.3E-03	2.7E-03	2.1E-03	1.3E-03	1.2E-03	2.5E-03
Dermal Contact - Outdoors	4.3E+00	µg/g	0.0%	8.9E-05	8.6E-05	6.7E-05	6.3E-05	1.8E-05	7.8E-05
Dermal Contact - Indoors	1.3E+01	µg/g	0.0%	7.3E-05	6.7E-05	5.2E-05	4.7E-05	2.1E-05	6.4E-05
Soil Ingestion	4.3E+00	µg/g	0.6%	1.2E-03	2.4E-03	2.9E-04	1.8E-04	1.6E-04	8.1E-04
Indoor dust Ingestion	1.3E+01	µg/g	3.6%	7.7E-03	1.5E-02	1.9E-03	1.1E-03	1.0E-03	5.2E-03
Home Produced Fruits & Vegetables	4.2E-02	µg/g fw	0.6%	0.0E+00	1.9E-03	1.1E-03	7.2E-04	5.3E-04	1.3E-03
Local Fruits & Vegetables	1.8E-02	µg/g fw	1.1%	0.0E+00	4.0E-03	2.1E-03	1.2E-03	1.0E-03	2.5E-03
Local Wild Blue Berries	5.2E-03	µg/g fw	0.8%	0.0E+00	3.2E-03	1.5E-03	7.1E-04	6.0E-04	1.7E-03
Local Wild Game	1.3E-04	µg/g fw	0.0%	0.0E+00	1.9E-05	1.2E-05	8.4E-06	6.5E-06	1.5E-05
Local Fish	2.2E-04	µg/g fw	0.0%	0.0E+00	2.5E-05	3.1E-05	1.8E-05	2.3E-05	3.7E-05
Drinking Water	1.5E+00	µg/L	22.3%	4.3E-02	4.3E-02	3.0E-02	2.1E-02	2.9E-02	4.9E-02
Market Basket Contribution	NA	µg/g	69.7%	4.1E-04	2.5E-01	1.5E-01	7.6E-02	4.8E-02	1.5E-01

Arsenic

Scenario	
Region	Hanmer
Metal	Arsenic
EPC	95% UCL
Receptor	Female - CTE Estimate

SUMMARY									
Estimated Total Daily Intake(ug/kg/day)	100.0%	5.4E-02	3.2E-01	1.9E-01	1.0E-01	8.2E-02	2.2E-01		
<i>Inhalation Route Only</i>	1.2%	1.3E-03	2.8E-03	2.2E-03	1.3E-03	1.3E-03	2.6E-03		
<i>Direct Soil Contact Only</i>	4.3%	9.1E-03	1.8E-02	2.3E-03	1.4E-03	1.2E-03	6.2E-03		
<i>Market Basket Foods and Drinking Water</i>	92.0%	4.3E-02	2.9E-01	1.8E-01	9.8E-02	7.7E-02	2.0E-01		
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)	2.5%	0.0E+00	9.2E-03	4.8E-03	2.7E-03	2.2E-03	5.7E-03		



HUMAN HEALTH RISK ESTIMATES

Arsenic

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	4.1E-04	2.5E-01	1.5E-01	7.6E-02	4.8E-02	1.5E-01
Drinking Water	µg/kg/day	4.3E-02	4.3E-02	3.0E-02	2.1E-02	2.9E-02	4.9E-02
Inhalation Route	µg/kg/day	1.3E-03	2.8E-03	2.2E-03	1.3E-03	1.3E-03	2.6E-03
Direct Dermal Contact	µg/kg/day	1.6E-04	1.5E-04	1.2E-04	1.1E-04	3.9E-05	1.4E-04
Soil/Dust Ingestion	µg/kg/day	8.9E-03	1.8E-02	2.2E-03	1.3E-03	1.2E-03	6.0E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.9E-03	1.1E-03	7.2E-04	5.3E-04	1.3E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	4.0E-03	2.1E-03	1.2E-03	1.0E-03	2.5E-03
Wild Blue Berries	µg/kg/day	0.0E+00	3.2E-03	1.5E-03	7.1E-04	6.0E-04	1.7E-03
Wild Game & Fish	µg/kg/day	0.0E+00	4.4E-05	4.3E-05	2.6E-05	3.0E-05	5.2E-05
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	5.2E-02	3.2E-01	1.8E-01	1.0E-01	8.0E-02	2.1E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	1.7E-01	1.1E+00	6.2E-01	3.4E-01	2.7E-01	3.6E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		4.0E-05		9.1E-05		1.3E-04	

Scenario	
COI	Hanmer
COC	Arsenic
EPC	95% UCL
Receptor	Female - CTE Estimate

Toxicity Information - Arsenic		
Oral RfD	µg/kg/day	0.3
Oral S.F.	(µg/kg/day) ⁻¹	1.50E-03
Inhalation S.F.	(µg/kg/day) ⁻¹	1.50E-02
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Arsenic

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	5.6E-03	µg/m3	0.1%	9.1E-05	1.9E-04	1.5E-04	8.8E-05	8.4E-05	1.8E-04
Inhalation of Fine Particulate- Indoors	5.6E-03	µg/m3	0.9%	1.3E-03	2.8E-03	2.2E-03	1.3E-03	1.2E-03	2.6E-03
Dermal Contact - Outdoors	4.3E+00	µg/g	0.0%	9.5E-05	9.1E-05	7.1E-05	6.7E-05	1.9E-05	8.2E-05
Dermal Contact - Indoors	1.3E+01	µg/g	0.0%	7.6E-05	7.0E-05	5.4E-05	4.9E-05	2.1E-05	6.7E-05
Soil Ingestion	4.3E+00	µg/g	0.5%	1.3E-03	2.6E-03	3.1E-04	1.9E-04	1.7E-04	8.6E-04
Indoor dust Ingestion	1.3E+01	µg/g	3.0%	8.0E-03	1.6E-02	2.0E-03	1.2E-03	1.0E-03	5.4E-03
Home Produced Fruits & Vegetables	4.2E-02	µg/g fw	2.3%	0.0E+00	8.4E-03	6.2E-03	4.3E-03	3.0E-03	7.1E-03
Local Fruits & Vegetables	1.8E-02	µg/g fw	3.4%	0.0E+00	1.3E-02	9.0E-03	5.8E-03	4.6E-03	1.0E-02
Local Wild Blue Berries	5.2E-03	µg/g fw	1.3%	0.0E+00	6.3E-03	3.2E-03	1.5E-03	1.2E-03	3.6E-03
Local Wild Game	1.3E-04	µg/g fw	0.0%	0.0E+00	2.2E-05	1.6E-05	1.0E-05	8.1E-06	1.8E-05
Local Fish	2.2E-04	µg/g fw	0.0%	0.0E+00	9.6E-05	1.5E-04	8.1E-05	9.9E-05	1.6E-04
Drinking Water	1.5E+00	µg/L	21.2%	5.3E-02	5.3E-02	3.5E-02	2.6E-02	3.5E-02	5.8E-02
Market Basket Contribution	NA	µg/g	67.3%	5.3E-04	2.9E-01	1.9E-01	1.0E-01	6.3E-02	1.9E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	6.5E-02	4.0E-01	2.4E-01	1.4E-01	1.1E-01	2.8E-01
<i>Inhalation Route Only</i>			1.0%	1.4E-03	3.0E-03	2.3E-03	1.4E-03	1.3E-03	2.8E-03
<i>Direct Soil Contact Only</i>			3.5%	9.5E-03	1.9E-02	2.4E-03	1.5E-03	1.3E-03	6.4E-03
<i>Market Basket Foods and Drinking Water</i>			88.5%	5.4E-02	3.5E-01	2.2E-01	1.3E-01	9.7E-02	2.5E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			7.0%	0.0E+00	2.8E-02	1.9E-02	1.2E-02	9.0E-03	2.1E-02

Arsenic

Scenario	
Region	Hanmer
Metal	Arsenic
EPC	95% UCL
Receptor	Female - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Arsenic

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	5.3E-04	2.9E-01	1.9E-01	1.0E-01	6.3E-02	1.9E-01
Drinking Water	µg/kg/day	5.3E-02	5.3E-02	3.5E-02	2.6E-02	3.5E-02	5.8E-02
Inhalation Route	µg/kg/day	1.4E-03	3.0E-03	2.3E-03	1.4E-03	1.3E-03	2.8E-03
Direct Dermal Contact	µg/kg/day	1.7E-04	1.6E-04	1.2E-04	1.2E-04	4.1E-05	1.5E-04
Soil/Dust Ingestion	µg/kg/day	9.3E-03	1.9E-02	2.3E-03	1.4E-03	1.2E-03	6.3E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	8.4E-03	6.2E-03	4.3E-03	3.0E-03	7.1E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.3E-02	9.0E-03	5.8E-03	4.6E-03	1.0E-02
Wild Blue Berries	µg/kg/day	0.0E+00	6.3E-03	3.2E-03	1.5E-03	1.2E-03	3.6E-03
Wild Game & Fish	µg/kg/day	0.0E+00	1.2E-04	1.7E-04	9.1E-05	1.1E-04	1.8E-04
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	6.3E-02	3.9E-01	2.4E-01	1.4E-01	1.1E-01	2.8E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	2.1E-01	1.3E+00	8.0E-01	4.7E-01	3.6E-01	4.8E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		4.2E-05		1.3E-04		1.7E-04	

Scenario	
COI	Hanmer
COC	Arsenic
EPC	95% UCL
Receptor	Female - RME Estimate

Toxicity Information - Arsenic		
Oral RfD	µg/kg/day	0.3
Oral S.F.	(µg/kg/day)-1	1.50E-03
Inhalation S.F.	(µg/kg/day)-1	1.50E-02
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Arsenic



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	5.6E-03	µg/m3	0.1%	6.2E-05	1.4E-04	1.2E-04	6.9E-05	5.4E-05	1.3E-04
Inhalation of Fine Particulate- Indoors	5.6E-03	µg/m3	1.2%	1.3E-03	2.9E-03	2.4E-03	1.4E-03	1.1E-03	2.6E-03
Dermal Contact - Outdoors	4.3E+00	µg/g	0.0%	8.9E-05	8.6E-05	6.8E-05	6.1E-05	1.7E-05	7.6E-05
Dermal Contact - Indoors	1.3E+01	µg/g	0.0%	7.3E-05	6.7E-05	5.2E-05	4.5E-05	1.9E-05	6.3E-05
Soil Ingestion	4.3E+00	µg/g	0.5%	1.2E-03	2.4E-03	3.1E-04	1.6E-04	1.3E-04	7.9E-04
Indoor dust Ingestion	1.3E+01	µg/g	3.5%	7.7E-03	1.5E-02	2.0E-03	1.0E-03	8.0E-04	5.0E-03
Home Produced Fruits & Vegetables	4.2E-02	µg/g fw	0.6%	0.0E+00	1.7E-03	1.3E-03	8.4E-04	5.8E-04	1.4E-03
Local Fruits & Vegetables	1.8E-02	µg/g fw	1.0%	0.0E+00	3.3E-03	2.2E-03	1.2E-03	9.9E-04	2.4E-03
Local Wild Blue Berries	5.2E-03	µg/g fw	0.8%	0.0E+00	3.1E-03	1.6E-03	6.3E-04	5.3E-04	1.7E-03
Local Wild Game	1.3E-04	µg/g fw	0.0%	0.0E+00	1.7E-05	1.4E-05	1.1E-05	1.1E-05	1.9E-05
Local Fish	2.2E-04	µg/g fw	0.0%	0.0E+00	2.6E-05	2.9E-05	2.1E-05	2.2E-05	3.7E-05
Drinking Water	1.5E+00	µg/L	20.7%	4.3E-02	4.2E-02	3.1E-02	1.9E-02	2.4E-02	4.4E-02
Market Basket Contribution	NA	µg/g	71.6%	3.2E-04	2.4E-01	1.7E-01	9.4E-02	5.4E-02	1.7E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	5.4E-02	3.1E-01	2.1E-01	1.2E-01	8.1E-02	2.2E-01
<i>Inhalation Route Only</i>			1.2%	1.3E-03	3.1E-03	2.5E-03	1.5E-03	1.1E-03	2.8E-03
<i>Direct Soil Contact Only</i>			4.1%	9.1E-03	1.8E-02	2.4E-03	1.3E-03	9.7E-04	6.0E-03
<i>Market Basket Foods and Drinking Water</i>			92.3%	4.3E-02	2.8E-01	2.0E-01	1.1E-01	7.7E-02	2.1E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			2.3%	0.0E+00	8.1E-03	5.1E-03	2.7E-03	2.1E-03	5.5E-03

Arsenic

Scenario	
Region	Hanmer
Metal	Arsenic
EPC	95% UCL
Receptor	Male - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Arsenic

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	3.2E-04	2.4E-01	1.7E-01	9.4E-02	5.4E-02	1.7E-01
Drinking Water	µg/kg/day	4.3E-02	4.2E-02	3.1E-02	1.9E-02	2.4E-02	4.4E-02
Inhalation Route	µg/kg/day	1.3E-03	3.1E-03	2.5E-03	1.5E-03	1.1E-03	2.8E-03
Direct Dermal Contact	µg/kg/day	1.6E-04	1.5E-04	1.2E-04	1.1E-04	3.6E-05	1.4E-04
Soil/Dust Ingestion	µg/kg/day	8.9E-03	1.8E-02	2.3E-03	1.2E-03	9.3E-04	5.8E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.7E-03	1.3E-03	8.4E-04	5.8E-04	1.4E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	3.3E-03	2.2E-03	1.2E-03	9.9E-04	2.4E-03
Wild Blue Berries	µg/kg/day	0.0E+00	3.1E-03	1.6E-03	6.3E-04	5.3E-04	1.7E-03
Wild Game & Fish	µg/kg/day	0.0E+00	4.3E-05	4.3E-05	3.2E-05	3.3E-05	5.6E-05
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	5.2E-02	3.1E-01	2.0E-01	1.2E-01	8.0E-02	2.2E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	1.7E-01	1.0E+00	6.8E-01	3.9E-01	2.7E-01	3.7E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	<i>Inhalation ILCR</i>		<i>Oral ILCR</i>		<i>Total ILCR</i>	
		4.1E-05		8.3E-05		1.2E-04	

Scenario	
COI	Hanmer
COC	Arsenic
EPC	95% UCL
Receptor	Male - CTE Estimate

Toxicity Information - Arsenic		
Oral RfD	µg/kg/day	0.3
Oral S.F.	(µg/kg/day) ⁻¹	1.50E-03
Inhalation S.F.	(µg/kg/day) ⁻¹	1.50E-02
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Arsenic

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	5.6E-03	µg/m3	0.1%	9.1E-05	2.1E-04	1.7E-04	9.1E-05	7.7E-05	1.8E-04
Inhalation of Fine Particulate- Indoors	5.6E-03	µg/m3	1.0%	1.3E-03	3.1E-03	2.5E-03	1.5E-03	1.1E-03	2.8E-03
Dermal Contact - Outdoors	4.3E+00	µg/g	0.0%	9.5E-05	9.1E-05	7.2E-05	6.4E-05	1.8E-05	8.1E-05
Dermal Contact - Indoors	1.3E+01	µg/g	0.0%	7.6E-05	7.0E-05	5.5E-05	4.7E-05	2.0E-05	6.6E-05
Soil Ingestion	4.3E+00	µg/g	0.4%	1.3E-03	2.5E-03	3.3E-04	1.7E-04	1.3E-04	8.3E-04
Indoor dust Ingestion	1.3E+01	µg/g	2.8%	8.0E-03	1.6E-02	2.0E-03	1.0E-03	8.4E-04	5.2E-03
Home Produced Fruits & Vegetables	4.2E-02	µg/g fw	2.4%	0.0E+00	8.7E-03	7.5E-03	4.6E-03	3.5E-03	8.0E-03
Local Fruits & Vegetables	1.8E-02	µg/g fw	3.4%	0.0E+00	1.3E-02	1.0E-02	6.3E-03	4.7E-03	1.1E-02
Local Wild Blue Berries	5.2E-03	µg/g fw	1.2%	0.0E+00	6.0E-03	3.6E-03	1.4E-03	1.1E-03	3.6E-03
Local Wild Game	1.3E-04	µg/g fw	0.0%	0.0E+00	2.2E-05	1.8E-05	1.4E-05	1.8E-05	2.7E-05
Local Fish	2.2E-04	µg/g fw	0.0%	0.0E+00	1.4E-04	1.5E-04	9.3E-05	9.9E-05	1.8E-04
Drinking Water	1.5E+00	µg/L	18.5%	5.3E-02	5.3E-02	3.6E-02	1.4E-02	2.8E-02	5.0E-02
Market Basket Contribution	NA	µg/g	70.1%	3.4E-04	3.0E-01	2.1E-01	1.2E-01	7.1E-02	2.1E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	6.5E-02	4.0E-01	2.7E-01	1.5E-01	1.1E-01	2.9E-01
Inhalation Route Only			1.0%	1.4E-03	3.3E-03	2.6E-03	1.6E-03	1.2E-03	2.9E-03
Direct Soil Contact Only			3.3%	9.5E-03	1.9E-02	2.5E-03	1.3E-03	1.0E-03	6.2E-03
Market Basket Foods and Drinking Water			88.5%	5.4E-02	3.5E-01	2.4E-01	1.4E-01	9.8E-02	2.6E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			7.1%	0.0E+00	2.8E-02	2.2E-02	1.2E-02	9.5E-03	2.3E-02

Arsenic

Scenario	
Region	Hanmer
Metal	Arsenic
EPC	95% UCL
Receptor	Male - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Arsenic

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	3.4E-04	3.0E-01	2.1E-01	1.2E-01	7.1E-02	2.1E-01
Drinking Water	µg/kg/day	5.3E-02	5.3E-02	3.6E-02	1.4E-02	2.8E-02	5.0E-02
Inhalation Route	µg/kg/day	1.4E-03	3.3E-03	2.6E-03	1.6E-03	1.2E-03	2.9E-03
Direct Dermal Contact	µg/kg/day	1.7E-04	1.6E-04	1.3E-04	1.1E-04	3.8E-05	1.5E-04
Soil/Dust Ingestion	µg/kg/day	9.3E-03	1.9E-02	2.4E-03	1.2E-03	9.7E-04	6.1E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	8.7E-03	7.5E-03	4.6E-03	3.5E-03	8.0E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.3E-02	1.0E-02	6.3E-03	4.7E-03	1.1E-02
Wild Blue Berries	µg/kg/day	0.0E+00	6.0E-03	3.6E-03	1.4E-03	1.1E-03	3.6E-03
Wild Game & Fish	µg/kg/day	0.0E+00	1.6E-04	1.7E-04	1.1E-04	1.2E-04	2.0E-04
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	6.3E-02	4.0E-01	2.7E-01	1.5E-01	1.1E-01	2.9E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	2.1E-01	1.3E+00	9.0E-01	5.1E-01	3.6E-01	4.9E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		4.4E-05		1.2E-04		1.6E-04	

Scenario	
COI	Hanmer
COC	Arsenic
EPC	95% UCL
Receptor	Male - RME Estimate

Toxicity Information - Arsenic		
Oral RfD	µg/kg/day	0.3
Oral S.F.	(µg/kg/day)-1	1.50E-03
Inhalation S.F.	(µg/kg/day)-1	1.50E-02
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Cobalt



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	6.6E-04	µg/m3	0.0%	7.3E-06	1.5E-05	1.2E-05	7.2E-06	6.8E-06	7.9E-06
Inhalation of Fine Particulate- Indoors	6.6E-04	µg/m3	0.0%	1.5E-04	3.1E-04	2.5E-04	1.5E-04	1.4E-04	1.6E-04
Dermal Contact - Outdoors	6.5E+00	µg/g	0.0%	4.6E-06	4.4E-06	3.4E-06	3.2E-06	9.3E-07	1.7E-06
Dermal Contact - Indoors	2.4E+01	µg/g	0.0%	4.3E-06	4.0E-06	3.1E-06	2.8E-06	1.2E-06	1.8E-06
Soil Ingestion	6.5E+00	µg/g	0.2%	1.3E-03	2.7E-03	3.2E-04	1.9E-04	1.7E-04	3.6E-04
Indoor dust Ingestion	2.4E+01	µg/g	1.1%	9.1E-03	1.8E-02	2.2E-03	1.3E-03	1.2E-03	2.5E-03
Home Produced Fruits & Vegetables	1.0E-01	µg/g fw	0.4%	0.0E+00	5.2E-03	2.9E-03	1.8E-03	1.4E-03	1.8E-03
Local Fruits & Vegetables	4.2E-02	µg/g fw	1.5%	0.0E+00	2.2E-02	1.1E-02	6.4E-03	5.5E-03	7.3E-03
Local Wild Blue Berries	1.6E-02	µg/g fw	0.6%	0.0E+00	1.0E-02	4.9E-03	2.3E-03	1.9E-03	2.8E-03
Local Wild Game	4.0E-02	µg/g fw	0.5%	0.0E+00	6.3E-03	4.1E-03	2.8E-03	2.2E-03	2.7E-03
Local Fish	1.9E-02	µg/g fw	0.3%	0.0E+00	2.2E-03	2.7E-03	1.6E-03	2.1E-03	2.1E-03
Drinking Water	5.6E-02	µg/L	0.2%	1.6E-03	1.6E-03	1.1E-03	8.2E-04	1.1E-03	1.1E-03
Market Basket Contribution	NA	µg/g	95.2%	2.9E-01	1.2E+00	7.3E-01	3.9E-01	2.5E-01	3.8E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	3.0E-01	1.3E+00	7.6E-01	4.0E-01	2.6E-01	4.0E-01
<i>Inhalation Route Only</i>			0.0%	1.6E-04	3.3E-04	2.6E-04	1.5E-04	1.5E-04	1.7E-04
<i>Direct Soil Contact Only</i>			1.2%	1.0E-02	2.1E-02	2.6E-03	1.5E-03	1.4E-03	2.8E-03
<i>Market Basket Foods and Drinking Water</i>			95.4%	2.9E-01	1.2E+00	7.4E-01	3.9E-01	2.5E-01	3.8E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			3.3%	0.0E+00	4.6E-02	2.6E-02	1.5E-02	1.3E-02	1.7E-02

Cobalt

Scenario	
Region	Hanmer
Metal	Cobalt
EPC	95% UCL
Receptor	Female - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Cobalt

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	2.9E-01	1.2E+00	7.3E-01	3.9E-01	2.5E-01	3.8E-01
Drinking Water	µg/kg/day	1.6E-03	1.6E-03	1.1E-03	8.2E-04	1.1E-03	1.1E-03
Inhalation Route	µg/kg/day	1.6E-04	3.3E-04	2.6E-04	1.5E-04	1.5E-04	1.7E-04
Direct Dermal Contact	µg/kg/day	8.9E-06	8.4E-06	6.5E-06	6.0E-06	2.1E-06	3.5E-06
Soil/Dust Ingestion	µg/kg/day	1.0E-02	2.1E-02	2.6E-03	1.5E-03	1.4E-03	2.8E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	5.2E-03	2.9E-03	1.8E-03	1.4E-03	1.8E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	2.2E-02	1.1E-02	6.4E-03	5.5E-03	7.3E-03
Wild Blue Berries	µg/kg/day	0.0E+00	1.0E-02	4.9E-03	2.3E-03	1.9E-03	2.8E-03
Wild Game & Fish	µg/kg/day	0.0E+00	8.5E-03	6.8E-03	4.4E-03	4.2E-03	4.7E-03
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	3.0E-01	1.3E+00	7.6E-01	4.0E-01	2.6E-01	4.0E-01
Hazard Quotient - inhal	unitless	1.1E-03	2.3E-03	1.8E-03	1.1E-03	1.0E-03	NA
Hazard Quotient - oral	unitless	1.5E-02	6.5E-02	3.8E-02	2.0E-02	1.3E-02	2.0E-02
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Hanmer
COC	Cobalt
EPC	95% UCL
Receptor	Female - CTE Estimate

Toxicity Information - Cobalt		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.143

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Cobalt



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	6.6E-04	µg/m3	0.0%	1.1E-05	2.2E-05	1.7E-05	1.0E-05	9.8E-06	1.1E-05
Inhalation of Fine Particulate- Indoors	6.6E-04	µg/m3	0.0%	1.6E-04	3.3E-04	2.6E-04	1.5E-04	1.5E-04	1.7E-04
Dermal Contact - Outdoors	6.5E+00	µg/g	0.0%	4.8E-06	4.7E-06	3.6E-06	3.4E-06	9.9E-07	1.8E-06
Dermal Contact - Indoors	2.4E+01	µg/g	0.0%	4.5E-06	4.1E-06	3.2E-06	2.9E-06	1.3E-06	1.8E-06
Soil Ingestion	6.5E+00	µg/g	0.1%	1.4E-03	2.8E-03	3.4E-04	2.1E-04	1.8E-04	3.8E-04
Indoor dust Ingestion	2.4E+01	µg/g	0.9%	9.5E-03	1.9E-02	2.3E-03	1.4E-03	1.2E-03	2.6E-03
Home Produced Fruits & Vegetables	1.0E-01	µg/g fw	1.4%	0.0E+00	2.2E-02	1.6E-02	1.1E-02	7.5E-03	9.5E-03
Local Fruits & Vegetables	4.2E-02	µg/g fw	4.3%	0.0E+00	6.8E-02	4.7E-02	2.9E-02	2.4E-02	2.9E-02
Local Wild Blue Berries	1.6E-02	µg/g fw	1.0%	0.0E+00	2.0E-02	1.0E-02	4.9E-03	4.0E-03	5.7E-03
Local Wild Game	4.0E-02	µg/g fw	0.5%	0.0E+00	7.3E-03	5.2E-03	3.5E-03	2.7E-03	3.3E-03
Local Fish	1.9E-02	µg/g fw	1.0%	0.0E+00	8.5E-03	1.3E-02	7.2E-03	8.7E-03	8.9E-03
Drinking Water	5.6E-02	µg/L	0.2%	2.0E-03	2.0E-03	1.3E-03	1.0E-03	1.3E-03	1.3E-03
Market Basket Contribution	NA	µg/g	90.7%	3.7E-01	1.5E+00	9.1E-01	5.0E-01	3.2E-01	4.7E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)	100.0%	3.9E-01	1.6E+00	1.0E+00	5.6E-01	3.7E-01	5.3E-01		
<i>Inhalation Route Only</i>	0.0%	1.7E-04	3.5E-04	2.7E-04	1.6E-04	1.5E-04	1.8E-04		
<i>Direct Soil Contact Only</i>	1.0%	1.1E-02	2.2E-02	2.7E-03	1.6E-03	1.4E-03	2.9E-03		
<i>Market Basket Foods and Drinking Water</i>	90.9%	3.8E-01	1.5E+00	9.1E-01	5.0E-01	3.2E-01	4.7E-01		
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)	8.1%	0.0E+00	1.3E-01	9.1E-02	5.6E-02	4.6E-02	5.7E-02		

Cobalt

Scenario	
Region	Hanmer
Metal	Cobalt
EPC	95% UCL
Receptor	Female - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Cobalt

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	3.7E-01	1.5E+00	9.1E-01	5.0E-01	3.2E-01	4.7E-01
Drinking Water	µg/kg/day	2.0E-03	2.0E-03	1.3E-03	1.0E-03	1.3E-03	1.3E-03
Inhalation Route	µg/kg/day	1.7E-04	3.5E-04	2.7E-04	1.6E-04	1.5E-04	1.8E-04
Direct Dermal Contact	µg/kg/day	9.3E-06	8.8E-06	6.8E-06	6.3E-06	2.3E-06	3.6E-06
Soil/Dust Ingestion	µg/kg/day	1.1E-02	2.2E-02	2.7E-03	1.6E-03	1.4E-03	2.9E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	2.2E-02	1.6E-02	1.1E-02	7.5E-03	9.5E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	6.8E-02	4.7E-02	2.9E-02	2.4E-02	2.9E-02
Wild Blue Berries	µg/kg/day	0.0E+00	2.0E-02	1.0E-02	4.9E-03	4.0E-03	5.7E-03
Wild Game & Fish	µg/kg/day	0.0E+00	1.6E-02	1.9E-02	1.1E-02	1.1E-02	1.2E-02
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	3.9E-01	1.6E+00	1.0E+00	5.6E-01	3.7E-01	5.3E-01
Hazard Quotient - inhal	unitless	1.2E-03	2.5E-03	1.9E-03	1.1E-03	1.1E-03	NA
Hazard Quotient - oral	unitless	1.9E-02	8.0E-02	5.0E-02	2.8E-02	1.8E-02	2.7E-02
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Hanmer
COC	Cobalt
EPC	95% UCL
Receptor	Female - RME Estimate

Toxicity Information - Cobalt		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day)-1	NA
Inhalation S.F.	(µg/kg/day)-1	NA
Inhalation RfD	µg/kg/day	0.143

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Cobalt



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	6.6E-04	µg/m3	0.0%	7.3E-06	1.7E-05	1.3E-05	8.0E-06	6.3E-06	7.9E-06
Inhalation of Fine Particulate- Indoors	6.6E-04	µg/m3	0.0%	1.5E-04	3.4E-04	2.8E-04	1.6E-04	1.3E-04	1.6E-04
Dermal Contact - Outdoors	6.5E+00	µg/g	0.0%	4.6E-06	4.4E-06	3.5E-06	3.1E-06	8.7E-07	1.6E-06
Dermal Contact - Indoors	2.4E+01	µg/g	0.0%	4.3E-06	4.0E-06	3.1E-06	2.7E-06	1.1E-06	1.7E-06
Soil Ingestion	6.5E+00	µg/g	0.1%	1.3E-03	2.6E-03	3.4E-04	1.7E-04	1.4E-04	3.3E-04
Indoor dust Ingestion	2.4E+01	µg/g	1.0%	9.1E-03	1.8E-02	2.3E-03	1.2E-03	9.5E-04	2.3E-03
Home Produced Fruits & Vegetables	1.0E-01	µg/g fw	0.4%	0.0E+00	4.5E-03	3.3E-03	2.1E-03	1.5E-03	1.9E-03
Local Fruits & Vegetables	4.2E-02	µg/g fw	1.3%	0.0E+00	1.9E-02	1.2E-02	6.3E-03	5.3E-03	6.9E-03
Local Wild Blue Berries	1.6E-02	µg/g fw	0.6%	0.0E+00	9.9E-03	5.1E-03	2.0E-03	1.7E-03	2.6E-03
Local Wild Game	4.0E-02	µg/g fw	0.6%	0.0E+00	5.7E-03	4.7E-03	3.6E-03	3.6E-03	3.8E-03
Local Fish	1.9E-02	µg/g fw	0.3%	0.0E+00	2.3E-03	2.6E-03	1.9E-03	1.9E-03	2.0E-03
Drinking Water	5.6E-02	µg/L	0.2%	1.6E-03	1.6E-03	1.2E-03	7.3E-04	9.0E-04	9.7E-04
Market Basket Contribution	NA	µg/g	95.5%	2.3E-01	1.2E+00	8.3E-01	4.8E-01	2.9E-01	4.2E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	2.4E-01	1.3E+00	8.6E-01	4.9E-01	3.0E-01	4.4E-01
Inhalation Route Only			0.0%	1.6E-04	3.6E-04	2.9E-04	1.7E-04	1.3E-04	1.7E-04
Direct Soil Contact Only			1.2%	1.0E-02	2.1E-02	2.7E-03	1.4E-03	1.1E-03	2.6E-03
Market Basket Foods and Drinking Water			95.7%	2.3E-01	1.2E+00	8.3E-01	4.8E-01	2.9E-01	4.2E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			3.1%	0.0E+00	4.1E-02	2.8E-02	1.6E-02	1.4E-02	1.7E-02

Cobalt

Scenario	
Region	Hanmer
Metal	Cobalt
EPC	95% UCL
Receptor	Male - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Cobalt

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	2.3E-01	1.2E+00	8.3E-01	4.8E-01	2.9E-01	4.2E-01
Drinking Water	µg/kg/day	1.6E-03	1.6E-03	1.2E-03	7.3E-04	9.0E-04	9.7E-04
Inhalation Route	µg/kg/day	1.6E-04	3.6E-04	2.9E-04	1.7E-04	1.3E-04	1.7E-04
Direct Dermal Contact	µg/kg/day	8.9E-06	8.3E-06	6.6E-06	5.8E-06	2.0E-06	3.3E-06
Soil/Dust Ingestion	µg/kg/day	1.0E-02	2.1E-02	2.7E-03	1.4E-03	1.1E-03	2.6E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	4.5E-03	3.3E-03	2.1E-03	1.5E-03	1.9E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.9E-02	1.2E-02	6.3E-03	5.3E-03	6.9E-03
Wild Blue Berries	µg/kg/day	0.0E+00	9.9E-03	5.1E-03	2.0E-03	1.7E-03	2.6E-03
Wild Game & Fish	µg/kg/day	0.0E+00	8.0E-03	7.3E-03	5.5E-03	5.6E-03	5.9E-03
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	2.4E-01	1.3E+00	8.6E-01	4.9E-01	3.0E-01	4.4E-01
Hazard Quotient - inhal	unitless	1.1E-03	2.5E-03	2.0E-03	1.2E-03	9.4E-04	NA
Hazard Quotient - oral	unitless	1.2E-02	6.3E-02	4.3E-02	2.5E-02	1.5E-02	2.2E-02
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Hanmer
COC	Cobalt
EPC	95% UCL
Receptor	Male - CTE Estimate

Toxicity Information - Cobalt		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.143

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Cobalt



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	6.6E-04	µg/m3	0.0%	1.1E-05	2.4E-05	1.9E-05	1.1E-05	9.0E-06	1.1E-05
Inhalation of Fine Particulate- Indoors	6.6E-04	µg/m3	0.0%	1.6E-04	3.6E-04	2.9E-04	1.7E-04	1.3E-04	1.7E-04
Dermal Contact - Outdoors	6.5E+00	µg/g	0.0%	4.8E-06	4.7E-06	3.7E-06	3.3E-06	9.2E-07	1.7E-06
Dermal Contact - Indoors	2.4E+01	µg/g	0.0%	4.5E-06	4.1E-06	3.2E-06	2.8E-06	1.2E-06	1.8E-06
Soil Ingestion	6.5E+00	µg/g	0.1%	1.4E-03	2.8E-03	3.6E-04	1.8E-04	1.5E-04	3.5E-04
Indoor dust Ingestion	2.4E+01	µg/g	0.8%	9.5E-03	1.9E-02	2.4E-03	1.2E-03	9.9E-04	2.4E-03
Home Produced Fruits & Vegetables	1.0E-01	µg/g fw	1.5%	0.0E+00	2.2E-02	1.9E-02	1.1E-02	8.7E-03	1.1E-02
Local Fruits & Vegetables	4.2E-02	µg/g fw	4.3%	0.0E+00	6.8E-02	5.4E-02	3.2E-02	2.4E-02	3.1E-02
Local Wild Blue Berries	1.6E-02	µg/g fw	0.9%	0.0E+00	1.9E-02	1.2E-02	4.6E-03	3.6E-03	5.5E-03
Local Wild Game	4.0E-02	µg/g fw	0.6%	0.0E+00	7.4E-03	5.9E-03	4.6E-03	6.0E-03	5.8E-03
Local Fish	1.9E-02	µg/g fw	1.0%	0.0E+00	1.2E-02	1.3E-02	8.3E-03	8.7E-03	9.3E-03
Drinking Water	5.6E-02	µg/L	0.2%	2.0E-03	2.0E-03	1.4E-03	5.3E-04	1.1E-03	1.1E-03
Market Basket Contribution	NA	µg/g	90.5%	2.4E-01	1.5E+00	1.0E+00	6.0E-01	3.8E-01	5.4E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	2.6E-01	1.6E+00	1.1E+00	6.6E-01	4.3E-01	6.0E-01
Inhalation Route Only			0.0%	1.7E-04	3.9E-04	3.1E-04	1.8E-04	1.4E-04	1.8E-04
Direct Soil Contact Only			0.9%	1.1E-02	2.2E-02	2.8E-03	1.4E-03	1.1E-03	2.7E-03
Market Basket Foods and Drinking Water			90.7%	2.5E-01	1.5E+00	1.0E+00	6.0E-01	3.8E-01	5.4E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			8.4%	0.0E+00	1.3E-01	1.0E-01	6.1E-02	5.1E-02	6.2E-02

Cobalt

Scenario	
Region	Hanmer
Metal	Cobalt
EPC	95% UCL
Receptor	Male - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Cobalt

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	2.4E-01	1.5E+00	1.0E+00	6.0E-01	3.8E-01	5.4E-01
Drinking Water	µg/kg/day	2.0E-03	2.0E-03	1.4E-03	5.3E-04	1.1E-03	1.1E-03
Inhalation Route	µg/kg/day	1.7E-04	3.9E-04	3.1E-04	1.8E-04	1.4E-04	1.8E-04
Direct Dermal Contact	µg/kg/day	9.3E-06	8.8E-06	6.9E-06	6.1E-06	2.1E-06	3.5E-06
Soil/Dust Ingestion	µg/kg/day	1.1E-02	2.2E-02	2.8E-03	1.4E-03	1.1E-03	2.7E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	2.2E-02	1.9E-02	1.1E-02	8.7E-03	1.1E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	6.8E-02	5.4E-02	3.2E-02	2.4E-02	3.1E-02
Wild Blue Berries	µg/kg/day	0.0E+00	1.9E-02	1.2E-02	4.6E-03	3.6E-03	5.5E-03
Wild Game & Fish	µg/kg/day	0.0E+00	2.0E-02	1.9E-02	1.3E-02	1.5E-02	1.5E-02
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	2.6E-01	1.6E+00	1.1E+00	6.6E-01	4.3E-01	6.0E-01
Hazard Quotient - inhal	unitless	1.2E-03	2.7E-03	2.2E-03	1.3E-03	1.0E-03	NA
Hazard Quotient - oral	unitless	1.3E-02	8.1E-02	5.7E-02	3.3E-02	2.2E-02	3.0E-02
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Hanmer
COC	Cobalt
EPC	95% UCL
Receptor	Male - RME Estimate

Toxicity Information - Cobalt		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day)-1	NA
Inhalation S.F.	(µg/kg/day)-1	NA
Inhalation RfD	µg/kg/day	0.143

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Copper



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units							
Inhalation of Fine Particulate- Outdoors	9.9E-02	µg/m3	0.0%	1.1E-03	2.3E-03	1.8E-03	1.1E-03	1.0E-03	1.2E-03
Inhalation of Fine Particulate- Indoors	9.9E-02	µg/m3	0.1%	2.2E-02	4.7E-02	3.7E-02	2.2E-02	2.1E-02	2.4E-02
Dermal Contact - Outdoors	6.7E+01	µg/g	0.0%	1.4E-04	1.3E-04	1.0E-04	9.9E-05	2.9E-05	5.2E-05
Dermal Contact - Indoors	4.5E+02	µg/g	0.0%	2.4E-04	2.3E-04	1.7E-04	1.6E-04	6.9E-05	1.0E-04
Soil Ingestion	6.7E+01	µg/g	0.1%	3.6E-02	7.2E-02	8.8E-03	5.2E-03	4.7E-03	9.7E-03
Indoor dust Ingestion	4.5E+02	µg/g	0.5%	2.8E-01	5.7E-01	6.9E-02	4.1E-02	3.7E-02	7.6E-02
Home Produced Fruits & Vegetables	1.1E+00	µg/g fw	0.2%	0.0E+00	1.6E-01	8.4E-02	4.7E-02	3.8E-02	5.2E-02
Local Fruits & Vegetables	8.2E-01	µg/g fw	0.4%	0.0E+00	4.3E-01	2.3E-01	1.3E-01	1.1E-01	1.4E-01
Local Wild Blue Berries	6.8E-01	µg/g fw	0.4%	0.0E+00	4.3E-01	2.1E-01	9.7E-02	8.2E-02	1.2E-01
Local Wild Game	6.8E-01	µg/g fw	0.1%	0.0E+00	1.1E-01	7.0E-02	4.8E-02	3.7E-02	4.6E-02
Local Fish	5.2E-01	µg/g fw	0.1%	0.0E+00	6.2E-02	7.6E-02	4.5E-02	5.8E-02	5.8E-02
Drinking Water	6.5E+01	µg/L	3.4%	1.9E+00	1.9E+00	1.3E+00	9.6E-01	1.3E+00	1.3E+00
Market Basket Contribution	NA	µg/g	94.8%	5.7E+01	7.0E+01	4.2E+01	2.2E+01	1.5E+01	2.2E+01

Copper

Scenario	
Region	Hanmer
Metal	Copper
EPC	95% UCL
Receptor	Female - CTE Estimate

SUMMARY									
Estimated Total Daily Intake(ug/kg/day)	100.0%	5.9E+01	7.4E+01	4.4E+01	2.3E+01	1.7E+01	2.4E+01		
<i>Inhalation Route Only</i>	0.1%	2.3E-02	4.9E-02	3.9E-02	2.3E-02	2.2E-02	2.6E-02		
<i>Direct Soil Contact Only</i>	0.5%	3.2E-01	6.4E-01	7.8E-02	4.7E-02	4.2E-02	8.6E-02		
<i>Market Basket Foods and Drinking Water</i>	98.2%	5.9E+01	7.2E+01	4.4E+01	2.3E+01	1.6E+01	2.4E+01		
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)	1.2%	0.0E+00	1.2E+00	6.7E-01	3.7E-01	3.3E-01	4.2E-01		



HUMAN HEALTH RISK ESTIMATES

Copper

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	5.7E+01	7.0E+01	4.2E+01	2.2E+01	1.5E+01	2.2E+01
Drinking Water	µg/kg/day	1.9E+00	1.9E+00	1.3E+00	9.6E-01	1.3E+00	1.3E+00
Inhalation Route	µg/kg/day	2.3E-02	4.9E-02	3.9E-02	2.3E-02	2.2E-02	2.6E-02
Direct Dermal Contact	µg/kg/day	3.8E-04	3.6E-04	2.8E-04	2.6E-04	9.8E-05	1.5E-04
Soil/Dust Ingestion	µg/kg/day	3.2E-01	6.4E-01	7.8E-02	4.6E-02	4.1E-02	8.6E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.6E-01	8.4E-02	4.7E-02	3.8E-02	5.2E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	4.3E-01	2.3E-01	1.3E-01	1.1E-01	1.4E-01
Wild Blue Berries	µg/kg/day	0.0E+00	4.3E-01	2.1E-01	9.7E-02	8.2E-02	1.2E-01
Wild Game & Fish	µg/kg/day	0.0E+00	1.7E-01	1.5E-01	9.3E-02	9.5E-02	1.0E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	5.9E+01	7.4E+01	4.4E+01	2.3E+01	1.6E+01	2.4E+01
Hazard Quotient - inhal	unitless	8.2E-02	1.7E-01	1.4E-01	8.1E-02	7.7E-02	NA
Hazard Quotient - oral	unitless	4.2E-01	5.3E-01	3.2E-01	1.7E-01	1.2E-01	1.7E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Hanmer
COC	Copper
EPC	95% UCL
Receptor	Female - CTE Estimate

Toxicity Information - Copper		
Oral RfD	µg/kg/day	140
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.286

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Copper



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	9.9E-02	µg/m3	0.0%	1.6E-03	3.4E-03	2.6E-03	1.6E-03	1.5E-03	1.7E-03
Inhalation of Fine Particulate- Indoors	9.9E-02	µg/m3	0.1%	2.4E-02	5.0E-02	3.9E-02	2.3E-02	2.2E-02	2.6E-02
Dermal Contact - Outdoors	6.7E+01	µg/g	0.0%	1.5E-04	1.4E-04	1.1E-04	1.0E-04	3.0E-05	5.5E-05
Dermal Contact - Indoors	4.5E+02	µg/g	0.0%	2.5E-04	2.3E-04	1.8E-04	1.6E-04	7.2E-05	1.0E-04
Soil Ingestion	6.7E+01	µg/g	0.0%	3.8E-02	7.6E-02	9.3E-03	5.6E-03	4.9E-03	1.0E-02
Indoor dust Ingestion	4.5E+02	µg/g	0.4%	2.9E-01	5.9E-01	7.2E-02	4.3E-02	3.8E-02	7.9E-02
Home Produced Fruits & Vegetables	1.1E+00	µg/g fw	0.4%	0.0E+00	5.0E-01	3.3E-01	2.1E-01	1.6E-01	2.0E-01
Local Fruits & Vegetables	8.2E-01	µg/g fw	1.3%	0.0E+00	1.4E+00	9.7E-01	6.2E-01	4.9E-01	6.1E-01
Local Wild Blue Berries	6.8E-01	µg/g fw	0.6%	0.0E+00	8.7E-01	4.4E-01	2.1E-01	1.7E-01	2.5E-01
Local Wild Game	6.8E-01	µg/g fw	0.1%	0.0E+00	1.3E-01	8.9E-02	5.9E-02	4.7E-02	5.7E-02
Local Fish	5.2E-01	µg/g fw	0.4%	0.0E+00	2.4E-01	3.8E-01	2.0E-01	2.4E-01	2.5E-01
Drinking Water	6.5E+01	µg/L	3.3%	2.4E+00	2.4E+00	1.6E+00	1.2E+00	1.5E+00	1.6E+00
Market Basket Contribution	NA	µg/g	93.4%	7.4E+01	8.1E+01	5.3E+01	2.9E+01	1.9E+01	2.8E+01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	7.6E+01	8.7E+01	5.7E+01	3.1E+01	2.1E+01	3.1E+01
<i>Inhalation Route Only</i>			0.1%	2.5E-02	5.3E-02	4.1E-02	2.5E-02	2.3E-02	2.7E-02
<i>Direct Soil Contact Only</i>			0.4%	3.3E-01	6.6E-01	8.1E-02	4.9E-02	4.3E-02	9.0E-02
<i>Market Basket Foods and Drinking Water</i>			96.7%	7.6E+01	8.3E+01	5.5E+01	3.0E+01	2.0E+01	2.9E+01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			2.8%	0.0E+00	3.1E+00	2.2E+00	1.3E+00	1.1E+00	1.4E+00

Copper

Scenario	
Region	Hanmer
Metal	Copper
EPC	95% UCL
Receptor	Female - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Copper

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	7.4E+01	8.1E+01	5.3E+01	2.9E+01	1.9E+01	2.8E+01
Drinking Water	µg/kg/day	2.4E+00	2.4E+00	1.6E+00	1.2E+00	1.5E+00	1.6E+00
Inhalation Route	µg/kg/day	2.5E-02	5.3E-02	4.1E-02	2.5E-02	2.3E-02	2.7E-02
Direct Dermal Contact	µg/kg/day	4.0E-04	3.8E-04	2.9E-04	2.7E-04	1.0E-04	1.6E-04
Soil/Dust Ingestion	µg/kg/day	3.3E-01	6.6E-01	8.1E-02	4.8E-02	4.3E-02	9.0E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	5.0E-01	3.3E-01	2.1E-01	1.6E-01	2.0E-01
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.4E+00	9.7E-01	6.2E-01	4.9E-01	6.1E-01
Wild Blue Berries	µg/kg/day	0.0E+00	8.7E-01	4.4E-01	2.1E-01	1.7E-01	2.5E-01
Wild Game & Fish	µg/kg/day	0.0E+00	3.6E-01	4.7E-01	2.6E-01	2.9E-01	3.1E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	7.6E+01	8.7E+01	5.7E+01	3.1E+01	2.1E+01	3.1E+01
Hazard Quotient - inhal	unitless	8.9E-02	1.9E-01	1.4E-01	8.6E-02	8.2E-02	NA
Hazard Quotient - oral	unitless	5.5E-01	6.2E-01	4.1E-01	2.2E-01	1.5E-01	2.2E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Hanmer
COC	Copper
EPC	95% UCL
Receptor	Female - RME Estimate

Toxicity Information - Copper		
Oral RfD	µg/kg/day	140
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.286

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Copper



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units							
Inhalation of Fine Particulate- Outdoors	9.9E-02	µg/m3	0.0%	1.1E-03	2.5E-03	2.0E-03	1.2E-03	9.5E-04	1.2E-03
Inhalation of Fine Particulate- Indoors	9.9E-02	µg/m3	0.1%	2.2E-02	5.2E-02	4.2E-02	2.5E-02	1.9E-02	2.4E-02
Dermal Contact - Outdoors	6.7E+01	µg/g	0.0%	1.4E-04	1.3E-04	1.1E-04	9.5E-05	2.7E-05	5.0E-05
Dermal Contact - Indoors	4.5E+02	µg/g	0.0%	2.4E-04	2.3E-04	1.8E-04	1.5E-04	6.4E-05	9.7E-05
Soil Ingestion	6.7E+01	µg/g	0.1%	3.6E-02	7.1E-02	9.2E-03	4.7E-03	3.7E-03	9.0E-03
Indoor dust Ingestion	4.5E+02	µg/g	0.5%	2.8E-01	5.6E-01	7.2E-02	3.7E-02	2.9E-02	7.1E-02
Home Produced Fruits & Vegetables	1.1E+00	µg/g fw	0.2%	0.0E+00	1.5E-01	9.0E-02	4.7E-02	3.7E-02	5.0E-02
Local Fruits & Vegetables	8.2E-01	µg/g fw	0.4%	0.0E+00	3.7E-01	2.4E-01	1.3E-01	1.1E-01	1.4E-01
Local Wild Blue Berries	6.8E-01	µg/g fw	0.4%	0.0E+00	4.2E-01	2.2E-01	8.6E-02	7.2E-02	1.1E-01
Local Wild Game	6.8E-01	µg/g fw	0.1%	0.0E+00	9.7E-02	8.1E-02	6.1E-02	6.2E-02	6.6E-02
Local Fish	5.2E-01	µg/g fw	0.1%	0.0E+00	6.5E-02	7.2E-02	5.3E-02	5.4E-02	5.6E-02
Drinking Water	6.5E+01	µg/L	3.3%	1.9E+00	1.9E+00	1.4E+00	8.5E-01	1.1E+00	1.1E+00
Market Basket Contribution	NA	µg/g	94.9%	4.5E+01	6.5E+01	4.7E+01	2.7E+01	1.7E+01	2.5E+01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	4.7E+01	6.8E+01	5.0E+01	2.8E+01	1.9E+01	2.6E+01
<i>Inhalation Route Only</i>			0.1%	2.3E-02	5.4E-02	4.4E-02	2.6E-02	2.0E-02	2.5E-02
<i>Direct Soil Contact Only</i>			0.5%	3.2E-01	6.3E-01	8.1E-02	4.2E-02	3.3E-02	8.0E-02
<i>Market Basket Foods and Drinking Water</i>			98.2%	4.7E+01	6.7E+01	4.9E+01	2.8E+01	1.9E+01	2.6E+01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			1.2%	0.0E+00	1.1E+00	7.0E-01	3.8E-01	3.3E-01	4.2E-01

Copper

Scenario	
Region	Hanmer
Metal	Copper
EPC	95% UCL
Receptor	Male - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Copper

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	4.5E+01	6.5E+01	4.7E+01	2.7E+01	1.7E+01	2.5E+01
Drinking Water	µg/kg/day	1.9E+00	1.9E+00	1.4E+00	8.5E-01	1.1E+00	1.1E+00
Inhalation Route	µg/kg/day	2.3E-02	5.4E-02	4.4E-02	2.6E-02	2.0E-02	2.5E-02
Direct Dermal Contact	µg/kg/day	3.8E-04	3.6E-04	2.8E-04	2.5E-04	9.1E-05	1.5E-04
Soil/Dust Ingestion	µg/kg/day	3.2E-01	6.3E-01	8.1E-02	4.1E-02	3.3E-02	8.0E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.5E-01	9.0E-02	4.7E-02	3.7E-02	5.0E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	3.7E-01	2.4E-01	1.3E-01	1.1E-01	1.4E-01
Wild Blue Berries	µg/kg/day	0.0E+00	4.2E-01	2.2E-01	8.6E-02	7.2E-02	1.1E-01
Wild Game & Fish	µg/kg/day	0.0E+00	1.6E-01	1.5E-01	1.1E-01	1.2E-01	1.2E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	4.7E+01	6.8E+01	5.0E+01	2.8E+01	1.9E+01	2.6E+01
Hazard Quotient - inhal	unitless	8.2E-02	1.9E-01	1.5E-01	9.1E-02	7.1E-02	NA
Hazard Quotient - oral	unitless	3.4E-01	4.9E-01	3.5E-01	2.0E-01	1.3E-01	1.9E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Hanmer
COC	Copper
EPC	95% UCL
Receptor	Male - CTE Estimate

Toxicity Information - Copper		
Oral RfD	µg/kg/day	140
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.286

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Copper



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units							
Inhalation of Fine Particulate- Outdoors	9.9E-02	µg/m3	0.0%	1.6E-03	3.7E-03	2.9E-03	1.6E-03	1.4E-03	1.7E-03
Inhalation of Fine Particulate- Indoors	9.9E-02	µg/m3	0.1%	2.4E-02	5.5E-02	4.4E-02	2.6E-02	2.0E-02	2.6E-02
Dermal Contact - Outdoors	6.7E+01	µg/g	0.0%	1.5E-04	1.4E-04	1.1E-04	1.0E-04	2.8E-05	5.3E-05
Dermal Contact - Indoors	4.5E+02	µg/g	0.0%	2.5E-04	2.3E-04	1.8E-04	1.6E-04	6.7E-05	1.0E-04
Soil Ingestion	6.7E+01	µg/g	0.0%	3.8E-02	7.6E-02	9.7E-03	4.9E-03	4.0E-03	9.5E-03
Indoor dust Ingestion	4.5E+02	µg/g	0.4%	2.9E-01	5.8E-01	7.5E-02	3.8E-02	3.1E-02	7.3E-02
Home Produced Fruits & Vegetables	1.1E+00	µg/g fw	0.5%	0.0E+00	5.0E-01	3.8E-01	2.2E-01	1.7E-01	2.1E-01
Local Fruits & Vegetables	8.2E-01	µg/g fw	1.4%	0.0E+00	1.4E+00	1.1E+00	6.7E-01	5.1E-01	6.4E-01
Local Wild Blue Berries	6.8E-01	µg/g fw	0.6%	0.0E+00	8.2E-01	5.0E-01	2.0E-01	1.5E-01	2.4E-01
Local Wild Game	6.8E-01	µg/g fw	0.2%	0.0E+00	1.3E-01	1.0E-01	7.8E-02	1.0E-01	1.0E-01
Local Fish	5.2E-01	µg/g fw	0.5%	0.0E+00	3.5E-01	3.8E-01	2.3E-01	2.4E-01	2.6E-01
Drinking Water	6.5E+01	µg/L	3.1%	2.4E+00	2.4E+00	1.6E+00	6.2E-01	1.2E+00	1.3E+00
Market Basket Contribution	NA	µg/g	93.3%	4.8E+01	8.1E+01	6.0E+01	3.6E+01	2.3E+01	3.2E+01

Copper

Scenario	
Region	Hanmer
Metal	Copper
EPC	95% UCL
Receptor	Male - RME Estimate

SUMMARY									
Estimated Total Daily Intake(ug/kg/day)	100.0%	5.1E+01	8.7E+01	6.4E+01	3.8E+01	2.6E+01	3.5E+01		
<i>Inhalation Route Only</i>	0.1%	2.5E-02	5.8E-02	4.7E-02	2.8E-02	2.2E-02	2.7E-02		
<i>Direct Soil Contact Only</i>	0.4%	3.3E-01	6.6E-01	8.5E-02	4.3E-02	3.5E-02	8.3E-02		
<i>Market Basket Foods and Drinking Water</i>	96.4%	5.0E+01	8.3E+01	6.2E+01	3.6E+01	2.4E+01	3.3E+01		
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)	3.1%	0.0E+00	3.2E+00	2.5E+00	1.4E+00	1.2E+00	1.5E+00		



HUMAN HEALTH RISK ESTIMATES

Copper

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	4.8E+01	8.1E+01	6.0E+01	3.6E+01	2.3E+01	3.2E+01
Drinking Water	µg/kg/day	2.4E+00	2.4E+00	1.6E+00	6.2E-01	1.2E+00	1.3E+00
Inhalation Route	µg/kg/day	2.5E-02	5.8E-02	4.7E-02	2.8E-02	2.2E-02	2.7E-02
Direct Dermal Contact	µg/kg/day	4.0E-04	3.8E-04	3.0E-04	2.6E-04	9.5E-05	1.5E-04
Soil/Dust Ingestion	µg/kg/day	3.3E-01	6.6E-01	8.5E-02	4.3E-02	3.5E-02	8.3E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	5.0E-01	3.8E-01	2.2E-01	1.7E-01	2.1E-01
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.4E+00	1.1E+00	6.7E-01	5.1E-01	6.4E-01
Wild Blue Berries	µg/kg/day	0.0E+00	8.2E-01	5.0E-01	2.0E-01	1.5E-01	2.4E-01
Wild Game & Fish	µg/kg/day	0.0E+00	4.7E-01	4.8E-01	3.1E-01	3.5E-01	3.6E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	5.1E+01	8.7E+01	6.4E+01	3.8E+01	2.6E+01	3.5E+01
Hazard Quotient - inhal	unitless	8.9E-02	2.0E-01	1.6E-01	9.7E-02	7.6E-02	NA
Hazard Quotient - oral	unitless	3.6E-01	6.2E-01	4.6E-01	2.7E-01	1.8E-01	2.5E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Hanmer
COC	Copper
EPC	95% UCL
Receptor	Male - RME Estimate

Toxicity Information - Copper		
Oral RfD	µg/kg/day	140
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.286

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Lead

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	9.8E-03	µg/m3	0.0%	1.1E-04	2.3E-04	1.8E-04	1.1E-04	1.0E-04	1.2E-04
Inhalation of Fine Particulate- Indoors	9.8E-03	µg/m3	0.6%	2.2E-03	4.6E-03	3.7E-03	2.2E-03	2.1E-03	2.4E-03
Dermal Contact - Outdoors	1.9E+01	µg/g	0.0%	1.3E-05	1.3E-05	1.0E-05	9.5E-06	2.7E-06	5.0E-06
Dermal Contact - Indoors	9.8E+01	µg/g	0.0%	1.8E-05	1.7E-05	1.3E-05	1.1E-05	5.1E-06	7.4E-06
Soil Ingestion	1.9E+01	µg/g	1.4%	9.2E-03	1.8E-02	2.2E-03	1.3E-03	1.2E-03	2.5E-03
Indoor dust Ingestion	9.8E+01	µg/g	15.7%	1.1E-01	2.1E-01	2.6E-02	1.5E-02	1.4E-02	2.8E-02
Home Produced Fruits & Vegetables	2.5E-01	µg/g fw	1.6%	0.0E+00	1.7E-02	9.3E-03	6.0E-03	4.7E-03	6.1E-03
Local Fruits & Vegetables	1.3E-01	µg/g fw	3.3%	0.0E+00	3.7E-02	1.9E-02	1.2E-02	9.9E-03	1.3E-02
Local Wild Blue Berries	7.4E-02	µg/g fw	3.8%	0.0E+00	4.7E-02	2.3E-02	1.1E-02	9.0E-03	1.3E-02
Local Wild Game	4.0E-03	µg/g fw	0.1%	0.0E+00	6.3E-04	4.1E-04	2.8E-04	2.1E-04	2.7E-04
Local Fish	3.0E-01	µg/g fw	5.9%	0.0E+00	3.6E-02	4.4E-02	2.6E-02	3.3E-02	3.4E-02
Drinking Water	4.9E-01	µg/L	2.4%	1.4E-02	1.4E-02	1.0E-02	7.2E-03	9.8E-03	9.9E-03
Market Basket Contribution	NA	µg/g	65.2%	1.4E-01	7.0E-01	3.8E-01	1.9E-01	1.2E-01	1.9E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	2.8E-01	1.1E+00	5.2E-01	2.7E-01	2.1E-01	3.0E-01
Inhalation Route Only			0.7%	2.3E-03	4.9E-03	3.8E-03	2.3E-03	2.2E-03	2.5E-03
Direct Soil Contact Only			17.1%	1.1E-01	2.3E-01	2.8E-02	1.7E-02	1.5E-02	3.1E-02
Market Basket Foods and Drinking Water			67.6%	1.6E-01	7.1E-01	3.9E-01	2.0E-01	1.3E-01	2.0E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			14.6%	0.0E+00	1.4E-01	9.6E-02	5.4E-02	5.7E-02	6.6E-02

Lead

Scenario	
Region	Hanmer
Metal	Lead
EPC	95% UCL
Receptor	Female - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Lead

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	1.4E-01	7.0E-01	3.8E-01	1.9E-01	1.2E-01	1.9E-01
Drinking Water	µg/kg/day	1.4E-02	1.4E-02	1.0E-02	7.2E-03	9.8E-03	9.9E-03
Inhalation Route	µg/kg/day	2.3E-03	4.9E-03	3.8E-03	2.3E-03	2.2E-03	2.5E-03
Direct Dermal Contact	µg/kg/day	3.1E-05	2.9E-05	2.3E-05	2.1E-05	7.8E-06	1.2E-05
Soil/Dust Ingestion	µg/kg/day	1.1E-01	2.3E-01	2.8E-02	1.7E-02	1.5E-02	3.1E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.7E-02	9.3E-03	6.0E-03	4.7E-03	6.1E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	3.7E-02	1.9E-02	1.2E-02	9.9E-03	1.3E-02
Wild Blue Berries	µg/kg/day	0.0E+00	4.7E-02	2.3E-02	1.1E-02	9.0E-03	1.3E-02
Wild Game & Fish	µg/kg/day	0.0E+00	3.7E-02	4.4E-02	2.6E-02	3.4E-02	3.4E-02
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	2.8E-01	1.1E+00	5.2E-01	2.7E-01	2.1E-01	3.0E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	1.5E-01	5.8E-01	2.8E-01	1.5E-01	1.1E-01	1.6E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Hanmer
COC	Lead
EPC	95% UCL
Receptor	Female - CTE Estimate

Toxicity Information - Lead		
Oral RfD	µg/kg/day	1.85
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Lead

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	9.8E-03	µg/m3	0.0%	1.6E-04	3.3E-04	2.6E-04	1.5E-04	1.5E-04	1.7E-04
Inhalation of Fine Particulate- Indoors	9.8E-03	µg/m3	0.4%	2.4E-03	4.9E-03	3.8E-03	2.3E-03	2.2E-03	2.5E-03
Dermal Contact - Outdoors	1.9E+01	µg/g	0.0%	1.4E-05	1.4E-05	1.1E-05	1.0E-05	2.9E-06	5.3E-06
Dermal Contact - Indoors	9.8E+01	µg/g	0.0%	1.9E-05	1.7E-05	1.3E-05	1.2E-05	5.3E-06	7.7E-06
Soil Ingestion	1.9E+01	µg/g	0.9%	9.7E-03	1.9E-02	2.4E-03	1.4E-03	1.3E-03	2.6E-03
Indoor dust Ingestion	9.8E+01	µg/g	10.3%	1.1E-01	2.2E-01	2.7E-02	1.6E-02	1.4E-02	3.0E-02
Home Produced Fruits & Vegetables	2.5E-01	µg/g fw	4.8%	0.0E+00	6.7E-02	5.0E-02	3.4E-02	2.6E-02	3.2E-02
Local Fruits & Vegetables	1.3E-01	µg/g fw	8.9%	0.0E+00	1.3E-01	9.3E-02	6.2E-02	4.8E-02	5.9E-02
Local Wild Blue Berries	7.4E-02	µg/g fw	4.9%	0.0E+00	9.4E-02	4.8E-02	2.3E-02	1.8E-02	2.7E-02
Local Wild Game	4.0E-03	µg/g fw	0.0%	0.0E+00	7.3E-04	5.2E-04	3.4E-04	2.7E-04	3.3E-04
Local Fish	3.0E-01	µg/g fw	16.5%	0.0E+00	1.4E-01	2.2E-01	1.2E-01	1.4E-01	1.5E-01
Drinking Water	4.9E-01	µg/L	1.8%	1.8E-02	1.8E-02	1.2E-02	8.7E-03	1.2E-02	1.2E-02
Market Basket Contribution	NA	µg/g	51.4%	1.9E-01	8.2E-01	4.9E-01	2.6E-01	1.6E-01	2.5E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	3.3E-01	1.5E+00	9.5E-01	5.2E-01	4.3E-01	5.6E-01
Inhalation Route Only			0.4%	2.5E-03	5.3E-03	4.1E-03	2.4E-03	2.3E-03	2.7E-03
Direct Soil Contact Only			11.3%	1.2E-01	2.4E-01	2.9E-02	1.7E-02	1.6E-02	3.2E-02
Market Basket Foods and Drinking Water			53.2%	2.1E-01	8.3E-01	5.0E-01	2.7E-01	1.7E-01	2.6E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			35.1%	0.0E+00	4.3E-01	4.1E-01	2.4E-01	2.3E-01	2.6E-01

Lead

Scenario	
Region	Hanmer
Metal	Lead
EPC	95% UCL
Receptor	Female - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Lead

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	1.9E-01	8.2E-01	4.9E-01	2.6E-01	1.6E-01	2.5E-01
Drinking Water	µg/kg/day	1.8E-02	1.8E-02	1.2E-02	8.7E-03	1.2E-02	1.2E-02
Inhalation Route	µg/kg/day	2.5E-03	5.3E-03	4.1E-03	2.4E-03	2.3E-03	2.7E-03
Direct Dermal Contact	µg/kg/day	3.3E-05	3.1E-05	2.4E-05	2.2E-05	8.2E-06	1.3E-05
Soil/Dust Ingestion	µg/kg/day	1.2E-01	2.4E-01	2.9E-02	1.7E-02	1.6E-02	3.2E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	6.7E-02	5.0E-02	3.4E-02	2.6E-02	3.2E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.3E-01	9.3E-02	6.2E-02	4.8E-02	5.9E-02
Wild Blue Berries	µg/kg/day	0.0E+00	9.4E-02	4.8E-02	2.3E-02	1.8E-02	2.7E-02
Wild Game & Fish	µg/kg/day	0.0E+00	1.4E-01	2.2E-01	1.2E-01	1.4E-01	1.5E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	3.3E-01	1.5E+00	9.5E-01	5.2E-01	4.3E-01	5.6E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	1.8E-01	8.1E-01	5.1E-01	2.8E-01	2.3E-01	3.0E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Hanmer
COC	Lead
EPC	95% UCL
Receptor	Female - RME Estimate

Toxicity Information - Lead		
Oral RfD	µg/kg/day	1.85
Oral S.F.	(µg/kg/day)-1	NA
Inhalation S.F.	(µg/kg/day)-1	NA
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Lead

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	9.8E-03	µg/m3	0.0%	1.1E-04	2.5E-04	2.0E-04	1.2E-04	9.3E-05	1.2E-04
Inhalation of Fine Particulate- Indoors	9.8E-03	µg/m3	0.7%	2.2E-03	5.1E-03	4.1E-03	2.5E-03	1.9E-03	2.4E-03
Dermal Contact - Outdoors	1.9E+01	µg/g	0.0%	1.3E-05	1.3E-05	1.0E-05	9.1E-06	2.6E-06	4.8E-06
Dermal Contact - Indoors	9.8E+01	µg/g	0.0%	1.8E-05	1.7E-05	1.3E-05	1.1E-05	4.7E-06	7.1E-06
Soil Ingestion	1.9E+01	µg/g	1.4%	9.2E-03	1.8E-02	2.3E-03	1.2E-03	9.6E-04	2.3E-03
Indoor dust Ingestion	9.8E+01	µg/g	15.5%	1.1E-01	2.1E-01	2.7E-02	1.4E-02	1.1E-02	2.6E-02
Home Produced Fruits & Vegetables	2.5E-01	µg/g fw	1.5%	0.0E+00	1.4E-02	1.0E-02	6.6E-03	4.9E-03	6.1E-03
Local Fruits & Vegetables	1.3E-01	µg/g fw	3.0%	0.0E+00	3.0E-02	2.0E-02	1.2E-02	9.8E-03	1.2E-02
Local Wild Blue Berries	7.4E-02	µg/g fw	3.7%	0.0E+00	4.6E-02	2.4E-02	9.3E-03	7.9E-03	1.2E-02
Local Wild Game	4.0E-03	µg/g fw	0.1%	0.0E+00	5.7E-04	4.7E-04	3.5E-04	3.6E-04	3.8E-04
Local Fish	3.0E-01	µg/g fw	6.0%	0.0E+00	3.7E-02	4.1E-02	3.1E-02	3.2E-02	3.3E-02
Drinking Water	4.9E-01	µg/L	2.3%	1.4E-02	1.4E-02	1.0E-02	6.4E-03	7.9E-03	8.4E-03
Market Basket Contribution	NA	µg/g	65.9%	1.1E-01	6.3E-01	4.3E-01	2.4E-01	1.4E-01	2.1E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)	100.0%	2.5E-01	1.0E+00	5.7E-01	3.2E-01	2.2E-01	3.2E-01		
<i>Inhalation Route Only</i>	0.7%	2.3E-03	5.4E-03	4.3E-03	2.6E-03	2.0E-03	2.5E-03		
<i>Direct Soil Contact Only</i>	16.9%	1.1E-01	2.3E-01	2.9E-02	1.5E-02	1.2E-02	2.9E-02		
<i>Market Basket Foods and Drinking Water</i>	68.1%	1.3E-01	6.4E-01	4.4E-01	2.4E-01	1.5E-01	2.2E-01		
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)	14.3%	0.0E+00	1.3E-01	9.6E-02	5.9E-02	5.4E-02	6.3E-02		

Lead

Scenario	
Region	Hanmer
Metal	Lead
EPC	95% UCL
Receptor	Male - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Lead

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	1.1E-01	6.3E-01	4.3E-01	2.4E-01	1.4E-01	2.1E-01
Drinking Water	µg/kg/day	1.4E-02	1.4E-02	1.0E-02	6.4E-03	7.9E-03	8.4E-03
Inhalation Route	µg/kg/day	2.3E-03	5.4E-03	4.3E-03	2.6E-03	2.0E-03	2.5E-03
Direct Dermal Contact	µg/kg/day	3.1E-05	2.9E-05	2.3E-05	2.0E-05	7.3E-06	1.2E-05
Soil/Dust Ingestion	µg/kg/day	1.1E-01	2.3E-01	2.9E-02	1.5E-02	1.2E-02	2.9E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.4E-02	1.0E-02	6.6E-03	4.9E-03	6.1E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	3.0E-02	2.0E-02	1.2E-02	9.8E-03	1.2E-02
Wild Blue Berries	µg/kg/day	0.0E+00	4.6E-02	2.4E-02	9.3E-03	7.9E-03	1.2E-02
Wild Game & Fish	µg/kg/day	0.0E+00	3.8E-02	4.2E-02	3.1E-02	3.2E-02	3.3E-02
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	2.5E-01	1.0E+00	5.7E-01	3.2E-01	2.2E-01	3.1E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	1.3E-01	5.4E-01	3.1E-01	1.7E-01	1.2E-01	1.7E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Hanmer
COC	Lead
EPC	95% UCL
Receptor	Male - CTE Estimate

Toxicity Information - Lead		
Oral RfD	µg/kg/day	1.85
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Lead

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	9.8E-03	µg/m3	0.0%	1.6E-04	3.6E-04	2.9E-04	1.6E-04	1.4E-04	1.7E-04
Inhalation of Fine Particulate- Indoors	9.8E-03	µg/m3	0.4%	2.4E-03	5.4E-03	4.3E-03	2.6E-03	2.0E-03	2.5E-03
Dermal Contact - Outdoors	1.9E+01	µg/g	0.0%	1.4E-05	1.4E-05	1.1E-05	9.7E-06	2.7E-06	5.1E-06
Dermal Contact - Indoors	9.8E+01	µg/g	0.0%	1.9E-05	1.7E-05	1.3E-05	1.2E-05	4.9E-06	7.4E-06
Soil Ingestion	1.9E+01	µg/g	0.9%	9.7E-03	1.9E-02	2.5E-03	1.3E-03	1.0E-03	2.4E-03
Indoor dust Ingestion	9.8E+01	µg/g	9.7%	1.1E-01	2.2E-01	2.8E-02	1.4E-02	1.1E-02	2.7E-02
Home Produced Fruits & Vegetables	2.5E-01	µg/g fw	4.9%	0.0E+00	6.9E-02	5.9E-02	3.7E-02	2.8E-02	3.5E-02
Local Fruits & Vegetables	1.3E-01	µg/g fw	9.0%	0.0E+00	1.3E-01	1.1E-01	6.7E-02	5.1E-02	6.3E-02
Local Wild Blue Berries	7.4E-02	µg/g fw	4.6%	0.0E+00	8.9E-02	5.4E-02	2.2E-02	1.7E-02	2.6E-02
Local Wild Game	4.0E-03	µg/g fw	0.1%	0.0E+00	7.3E-04	5.9E-04	4.5E-04	5.9E-04	5.8E-04
Local Fish	3.0E-01	µg/g fw	17.7%	0.0E+00	2.0E-01	2.2E-01	1.3E-01	1.4E-01	1.5E-01
Drinking Water	4.9E-01	µg/L	1.6%	1.8E-02	1.8E-02	1.2E-02	4.6E-03	9.3E-03	9.6E-03
Market Basket Contribution	NA	µg/g	51.1%	1.2E-01	8.1E-01	5.6E-01	3.3E-01	2.0E-01	2.9E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	2.6E-01	1.6E+00	1.0E+00	6.2E-01	4.6E-01	6.0E-01
Inhalation Route Only			0.5%	2.5E-03	5.8E-03	4.6E-03	2.7E-03	2.1E-03	2.7E-03
Direct Soil Contact Only			10.5%	1.2E-01	2.4E-01	3.0E-02	1.6E-02	1.2E-02	3.0E-02
Market Basket Foods and Drinking Water			52.7%	1.4E-01	8.3E-01	5.7E-01	3.4E-01	2.1E-01	3.0E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			36.3%	0.0E+00	4.9E-01	4.4E-01	2.6E-01	2.4E-01	2.8E-01

Lead

Scenario	
Region	Hanmer
Metal	Lead
EPC	95% UCL
Receptor	Male - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Lead

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	1.2E-01	8.1E-01	5.6E-01	3.3E-01	2.0E-01	2.9E-01
Drinking Water	µg/kg/day	1.8E-02	1.8E-02	1.2E-02	4.6E-03	9.3E-03	9.6E-03
Inhalation Route	µg/kg/day	2.5E-03	5.8E-03	4.6E-03	2.7E-03	2.1E-03	2.7E-03
Direct Dermal Contact	µg/kg/day	3.3E-05	3.1E-05	2.4E-05	2.1E-05	7.6E-06	1.3E-05
Soil/Dust Ingestion	µg/kg/day	1.2E-01	2.4E-01	3.0E-02	1.6E-02	1.2E-02	3.0E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	6.9E-02	5.9E-02	3.7E-02	2.8E-02	3.5E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.3E-01	1.1E-01	6.7E-02	5.1E-02	6.3E-02
Wild Blue Berries	µg/kg/day	0.0E+00	8.9E-02	5.4E-02	2.2E-02	1.7E-02	2.6E-02
Wild Game & Fish	µg/kg/day	0.0E+00	2.0E-01	2.2E-01	1.3E-01	1.4E-01	1.5E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	2.6E-01	1.6E+00	1.0E+00	6.2E-01	4.6E-01	6.0E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	1.4E-01	8.4E-01	5.6E-01	3.3E-01	2.5E-01	3.3E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Hanmer
COC	Lead
EPC	95% UCL
Receptor	Male - RME Estimate

Toxicity Information - Lead		
Oral RfD	µg/kg/day	1.85
Oral S.F.	(µg/kg/day)-1	NA
Inhalation S.F.	(µg/kg/day)-1	NA
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Nickel



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	1.2E-02	µg/m3	0.0%	1.4E-04	2.9E-04	2.3E-04	1.4E-04	1.3E-04	1.5E-04
Inhalation of Fine Particulate- Indoors	1.2E-02	µg/m3	0.1%	2.8E-03	5.9E-03	4.6E-03	2.8E-03	2.6E-03	3.0E-03
Dermal Contact - Outdoors	6.8E+01	µg/g	0.0%	4.7E-05	4.6E-05	3.5E-05	3.3E-05	9.7E-06	1.8E-05
Dermal Contact - Indoors	3.4E+02	µg/g	0.0%	6.2E-05	5.8E-05	4.4E-05	4.0E-05	1.8E-05	2.6E-05
Soil Ingestion	6.8E+01	µg/g	0.4%	2.1E-02	4.1E-02	5.1E-03	3.0E-03	2.7E-03	5.6E-03
Indoor dust Ingestion	3.4E+02	µg/g	2.7%	1.3E-01	2.7E-01	3.2E-02	1.9E-02	1.7E-02	3.6E-02
Home Produced Fruits & Vegetables	3.1E-01	µg/g fw	4.0%	0.0E+00	3.6E-01	1.8E-01	8.5E-02	7.2E-02	1.0E-01
Local Fruits & Vegetables	1.1E+00	µg/g fw	9.3%	0.0E+00	8.0E-01	4.0E-01	2.2E-01	1.9E-01	2.5E-01
Local Wild Blue Berries	7.1E-01	µg/g fw	4.9%	0.0E+00	4.5E-01	2.2E-01	1.0E-01	8.6E-02	1.2E-01
Local Wild Game	6.2E-01	µg/g fw	1.4%	0.0E+00	9.9E-02	6.4E-02	4.4E-02	3.4E-02	4.2E-02
Local Fish	3.2E-02	µg/g fw	0.1%	0.0E+00	3.8E-03	4.7E-03	2.8E-03	3.6E-03	3.6E-03
Drinking Water	8.0E-01	µg/L	0.5%	2.3E-02	2.3E-02	1.6E-02	1.2E-02	1.6E-02	1.6E-02
Market Basket Contribution	NA	µg/g	76.5%	6.9E-01	5.9E+00	3.5E+00	1.9E+00	1.3E+00	1.9E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)	100.0%	8.7E-01	8.0E+00	4.4E+00	2.3E+00	1.7E+00	2.4E+00		
<i>Inhalation Route Only</i>	0.1%	2.9E-03	6.1E-03	4.8E-03	2.9E-03	2.7E-03	3.2E-03		
<i>Direct Soil Contact Only</i>	3.1%	1.5E-01	3.1E-01	3.8E-02	2.2E-02	2.0E-02	4.1E-02		
<i>Market Basket Foods and Drinking Water</i>	77.0%	7.2E-01	6.0E+00	3.5E+00	1.9E+00	1.3E+00	1.9E+00		
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)	19.7%	0.0E+00	1.7E+00	8.6E-01	4.5E-01	3.8E-01	5.2E-01		

Nickel

Scenario	
Region	Hanmer
Metal	Nickel
EPC	95% UCL
Receptor	Female - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Nickel

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	6.9E-01	5.9E+00	3.5E+00	1.9E+00	1.3E+00	1.9E+00
Drinking Water	µg/kg/day	2.3E-02	2.3E-02	1.6E-02	1.2E-02	1.6E-02	1.6E-02
Inhalation Route	µg/kg/day	2.9E-03	6.1E-03	4.8E-03	2.9E-03	2.7E-03	3.2E-03
Direct Dermal Contact	µg/kg/day	1.1E-04	1.0E-04	8.0E-05	7.3E-05	2.7E-05	4.3E-05
Soil/Dust Ingestion	µg/kg/day	1.5E-01	3.1E-01	3.7E-02	2.2E-02	2.0E-02	4.1E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	3.6E-01	1.8E-01	8.5E-02	7.2E-02	1.0E-01
Local Fruit & Vegetables	µg/kg/day	0.0E+00	8.0E-01	4.0E-01	2.2E-01	1.9E-01	2.5E-01
Wild Blue Berries	µg/kg/day	0.0E+00	4.5E-01	2.2E-01	1.0E-01	8.6E-02	1.2E-01
Wild Game & Fish	µg/kg/day	0.0E+00	1.0E-01	6.9E-02	4.7E-02	3.7E-02	4.5E-02
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	8.7E-01	8.0E+00	4.4E+00	2.3E+00	1.7E+00	2.4E+00
Hazard Quotient - inhal	unitless	5.1E-01	1.1E+00	8.5E-01	5.1E-01	4.8E-01	NA
Hazard Quotient - oral	unitless	4.4E-02	4.0E-01	2.2E-01	1.2E-01	8.5E-02	1.2E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Hanmer
COC	Nickel
EPC	95% UCL
Receptor	Female - CTE Estimate

Toxicity Information - Nickel		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.00571

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Nickel



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	1.2E-02	µg/m3	0.0%	2.0E-04	4.2E-04	3.2E-04	1.9E-04	1.8E-04	2.1E-04
Inhalation of Fine Particulate- Indoors	1.2E-02	µg/m3	0.1%	3.0E-03	6.2E-03	4.8E-03	2.9E-03	2.7E-03	3.2E-03
Dermal Contact - Outdoors	6.8E+01	µg/g	0.0%	5.0E-05	4.8E-05	3.8E-05	3.5E-05	1.0E-05	1.9E-05
Dermal Contact - Indoors	3.4E+02	µg/g	0.0%	6.5E-05	6.0E-05	4.6E-05	4.2E-05	1.8E-05	2.7E-05
Soil Ingestion	6.8E+01	µg/g	0.3%	2.2E-02	4.4E-02	5.3E-03	3.2E-03	2.8E-03	5.9E-03
Indoor dust Ingestion	3.4E+02	µg/g	1.9%	1.4E-01	2.8E-01	3.4E-02	2.0E-02	1.8E-02	3.7E-02
Home Produced Fruits & Vegetables	3.1E-01	µg/g fw	6.9%	0.0E+00	8.7E-01	4.7E-01	2.4E-01	2.0E-01	2.7E-01
Local Fruits & Vegetables	1.1E+00	µg/g fw	20.8%	0.0E+00	2.3E+00	1.5E+00	9.0E-01	7.2E-01	9.1E-01
Local Wild Blue Berries	7.1E-01	µg/g fw	6.8%	0.0E+00	9.0E-01	4.6E-01	2.2E-01	1.8E-01	2.5E-01
Local Wild Game	6.2E-01	µg/g fw	1.1%	0.0E+00	1.1E-01	8.2E-02	5.4E-02	4.2E-02	5.2E-02
Local Fish	3.2E-02	µg/g fw	0.3%	0.0E+00	1.5E-02	2.3E-02	1.2E-02	1.5E-02	1.5E-02
Drinking Water	8.0E-01	µg/L	0.4%	2.9E-02	2.9E-02	1.9E-02	1.4E-02	1.9E-02	1.9E-02
Market Basket Contribution	NA	µg/g	61.4%	9.0E-01	6.3E+00	4.5E+00	2.5E+00	1.7E+00	2.3E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	1.1E+00	1.1E+01	7.1E+00	4.0E+00	2.9E+00	3.9E+00
<i>Inhalation Route Only</i>			0.1%	3.2E-03	6.6E-03	5.1E-03	3.1E-03	2.9E-03	3.4E-03
<i>Direct Soil Contact Only</i>			2.2%	1.6E-01	3.2E-01	3.9E-02	2.3E-02	2.1E-02	4.3E-02
<i>Market Basket Foods and Drinking Water</i>			61.9%	9.3E-01	6.3E+00	4.5E+00	2.5E+00	1.7E+00	2.4E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			35.9%	0.0E+00	4.2E+00	2.5E+00	1.4E+00	1.2E+00	1.5E+00

Nickel

Scenario	
Region	Hanmer
Metal	Nickel
EPC	95% UCL
Receptor	Female - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Nickel

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	9.0E-01	6.3E+00	4.5E+00	2.5E+00	1.7E+00	2.3E+00
Drinking Water	µg/kg/day	2.9E-02	2.9E-02	1.9E-02	1.4E-02	1.9E-02	1.9E-02
Inhalation Route	µg/kg/day	3.2E-03	6.6E-03	5.1E-03	3.1E-03	2.9E-03	3.4E-03
Direct Dermal Contact	µg/kg/day	1.2E-04	1.1E-04	8.4E-05	7.7E-05	2.9E-05	4.5E-05
Soil/Dust Ingestion	µg/kg/day	1.6E-01	3.2E-01	3.9E-02	2.3E-02	2.1E-02	4.3E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	8.7E-01	4.7E-01	2.4E-01	2.0E-01	2.7E-01
Local Fruit & Vegetables	µg/kg/day	0.0E+00	2.3E+00	1.5E+00	9.0E-01	7.2E-01	9.1E-01
Wild Blue Berries	µg/kg/day	0.0E+00	9.0E-01	4.6E-01	2.2E-01	1.8E-01	2.5E-01
Wild Game & Fish	µg/kg/day	0.0E+00	1.3E-01	1.0E-01	6.7E-02	5.8E-02	6.8E-02
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	1.1E+00	1.1E+01	7.1E+00	4.0E+00	2.8E+00	3.9E+00
Hazard Quotient - inhal	unitless	5.5E-01	1.2E+00	9.0E-01	5.4E-01	5.1E-01	NA
Hazard Quotient - oral	unitless	5.5E-02	5.4E-01	3.6E-01	2.0E-01	1.4E-01	2.0E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Hanmer
COC	Nickel
EPC	95% UCL
Receptor	Female - RME Estimate

Toxicity Information - Nickel		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.00571

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Nickel



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	1.2E-02	µg/m3	0.0%	1.4E-04	3.2E-04	2.5E-04	1.5E-04	1.2E-04	1.5E-04
Inhalation of Fine Particulate- Indoors	1.2E-02	µg/m3	0.1%	2.8E-03	6.5E-03	5.2E-03	3.1E-03	2.4E-03	3.0E-03
Dermal Contact - Outdoors	6.8E+01	µg/g	0.0%	4.7E-05	4.5E-05	3.6E-05	3.2E-05	9.0E-06	1.7E-05
Dermal Contact - Indoors	3.4E+02	µg/g	0.0%	6.2E-05	5.8E-05	4.5E-05	3.9E-05	1.6E-05	2.5E-05
Soil Ingestion	6.8E+01	µg/g	0.4%	2.1E-02	4.1E-02	5.3E-03	2.7E-03	2.2E-03	5.2E-03
Indoor dust Ingestion	3.4E+02	µg/g	2.8%	1.3E-01	2.6E-01	3.4E-02	1.7E-02	1.4E-02	3.3E-02
Home Produced Fruits & Vegetables	3.1E-01	µg/g fw	4.0%	0.0E+00	3.5E-01	1.8E-01	7.7E-02	6.4E-02	9.5E-02
Local Fruits & Vegetables	1.1E+00	µg/g fw	9.0%	0.0E+00	7.0E-01	4.2E-01	2.1E-01	1.7E-01	2.4E-01
Local Wild Blue Berries	7.1E-01	µg/g fw	5.0%	0.0E+00	4.4E-01	2.3E-01	8.9E-02	7.5E-02	1.1E-01
Local Wild Game	6.2E-01	µg/g fw	1.6%	0.0E+00	8.9E-02	7.4E-02	5.6E-02	5.7E-02	6.0E-02
Local Fish	3.2E-02	µg/g fw	0.1%	0.0E+00	4.0E-03	4.4E-03	3.3E-03	3.4E-03	3.5E-03
Drinking Water	8.0E-01	µg/L	0.5%	2.3E-02	2.3E-02	1.7E-02	1.0E-02	1.3E-02	1.4E-02
Market Basket Contribution	NA	µg/g	76.4%	5.5E-01	4.7E+00	3.8E+00	2.2E+00	1.4E+00	2.0E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	7.3E-01	6.7E+00	4.8E+00	2.7E+00	1.8E+00	2.5E+00
<i>Inhalation Route Only</i>			0.1%	2.9E-03	6.8E-03	5.4E-03	3.2E-03	2.5E-03	3.2E-03
<i>Direct Soil Contact Only</i>			3.2%	1.5E-01	3.1E-01	3.9E-02	2.0E-02	1.6E-02	3.8E-02
<i>Market Basket Foods and Drinking Water</i>			76.9%	5.7E-01	4.8E+00	3.8E+00	2.3E+00	1.4E+00	2.0E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			19.7%	0.0E+00	1.6E+00	9.1E-01	4.3E-01	3.7E-01	5.1E-01

Nickel

Scenario	
Region	Hanmer
Metal	Nickel
EPC	95% UCL
Receptor	Male - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Nickel

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	5.5E-01	4.7E+00	3.8E+00	2.2E+00	1.4E+00	2.0E+00
Drinking Water	µg/kg/day	2.3E-02	2.3E-02	1.7E-02	1.0E-02	1.3E-02	1.4E-02
Inhalation Route	µg/kg/day	2.9E-03	6.8E-03	5.4E-03	3.2E-03	2.5E-03	3.2E-03
Direct Dermal Contact	µg/kg/day	1.1E-04	1.0E-04	8.1E-05	7.1E-05	2.5E-05	4.2E-05
Soil/Dust Ingestion	µg/kg/day	1.5E-01	3.1E-01	3.9E-02	2.0E-02	1.6E-02	3.8E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	3.5E-01	1.8E-01	7.7E-02	6.4E-02	9.5E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	7.0E-01	4.2E-01	2.1E-01	1.7E-01	2.4E-01
Wild Blue Berries	µg/kg/day	0.0E+00	4.4E-01	2.3E-01	8.9E-02	7.5E-02	1.1E-01
Wild Game & Fish	µg/kg/day	0.0E+00	9.3E-02	7.9E-02	5.9E-02	6.0E-02	6.4E-02
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	7.3E-01	6.7E+00	4.8E+00	2.7E+00	1.8E+00	2.5E+00
Hazard Quotient - inhal	unitless	5.1E-01	1.2E+00	9.5E-01	5.7E-01	4.4E-01	NA
Hazard Quotient - oral	unitless	3.6E-02	3.3E-01	2.4E-01	1.4E-01	9.2E-02	1.3E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Hanmer
COC	Nickel
EPC	95% UCL
Receptor	Male - CTE Estimate

Toxicity Information - Nickel		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.00571

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Nickel



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	1.2E-02	µg/m3	0.0%	2.0E-04	4.6E-04	3.7E-04	2.0E-04	1.7E-04	2.1E-04
Inhalation of Fine Particulate- Indoors	1.2E-02	µg/m3	0.1%	3.0E-03	6.8E-03	5.4E-03	3.3E-03	2.5E-03	3.2E-03
Dermal Contact - Outdoors	6.8E+01	µg/g	0.0%	5.0E-05	4.8E-05	3.8E-05	3.4E-05	9.6E-06	1.8E-05
Dermal Contact - Indoors	3.4E+02	µg/g	0.0%	6.5E-05	6.0E-05	4.7E-05	4.0E-05	1.7E-05	2.6E-05
Soil Ingestion	6.8E+01	µg/g	0.3%	2.2E-02	4.4E-02	5.6E-03	2.8E-03	2.3E-03	5.5E-03
Indoor dust Ingestion	3.4E+02	µg/g	1.8%	1.4E-01	2.7E-01	3.5E-02	1.8E-02	1.4E-02	3.4E-02
Home Produced Fruits & Vegetables	3.1E-01	µg/g fw	6.6%	0.0E+00	8.4E-01	5.4E-01	2.4E-01	1.9E-01	2.7E-01
Local Fruits & Vegetables	1.1E+00	µg/g fw	20.6%	0.0E+00	2.3E+00	1.7E+00	9.5E-01	7.2E-01	9.4E-01
Local Wild Blue Berries	7.1E-01	µg/g fw	6.3%	0.0E+00	8.5E-01	5.2E-01	2.1E-01	1.6E-01	2.4E-01
Local Wild Game	6.2E-01	µg/g fw	1.4%	0.0E+00	1.2E-01	9.3E-02	7.1E-02	9.3E-02	9.1E-02
Local Fish	3.2E-02	µg/g fw	0.3%	0.0E+00	2.1E-02	2.3E-02	1.4E-02	1.5E-02	1.6E-02
Drinking Water	8.0E-01	µg/L	0.4%	2.9E-02	2.9E-02	2.0E-02	7.6E-03	1.5E-02	1.6E-02
Market Basket Contribution	NA	µg/g	62.4%	5.9E-01	6.2E+00	5.1E+00	3.3E+00	1.9E+00	2.6E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	7.8E-01	1.1E+01	8.0E+00	4.8E+00	3.1E+00	4.3E+00
<i>Inhalation Route Only</i>			0.1%	3.2E-03	7.3E-03	5.8E-03	3.5E-03	2.7E-03	3.4E-03
<i>Direct Soil Contact Only</i>			2.0%	1.6E-01	3.2E-01	4.1E-02	2.1E-02	1.7E-02	4.0E-02
<i>Market Basket Foods and Drinking Water</i>			62.7%	6.2E-01	6.2E+00	5.1E+00	3.3E+00	1.9E+00	2.6E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			35.1%	0.0E+00	4.1E+00	2.9E+00	1.5E+00	1.2E+00	1.6E+00

Nickel

Scenario	
Region	Hanmer
Metal	Nickel
EPC	95% UCL
Receptor	Male - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Nickel

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	5.9E-01	6.2E+00	5.1E+00	3.3E+00	1.9E+00	2.6E+00
Drinking Water	µg/kg/day	2.9E-02	2.9E-02	2.0E-02	7.6E-03	1.5E-02	1.6E-02
Inhalation Route	µg/kg/day	3.2E-03	7.3E-03	5.8E-03	3.5E-03	2.7E-03	3.4E-03
Direct Dermal Contact	µg/kg/day	1.2E-04	1.1E-04	8.5E-05	7.4E-05	2.7E-05	4.4E-05
Soil/Dust Ingestion	µg/kg/day	1.6E-01	3.2E-01	4.1E-02	2.1E-02	1.7E-02	4.0E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	8.4E-01	5.4E-01	2.4E-01	1.9E-01	2.7E-01
Local Fruit & Vegetables	µg/kg/day	0.0E+00	2.3E+00	1.7E+00	9.5E-01	7.2E-01	9.4E-01
Wild Blue Berries	µg/kg/day	0.0E+00	8.5E-01	5.2E-01	2.1E-01	1.6E-01	2.4E-01
Wild Game & Fish	µg/kg/day	0.0E+00	1.4E-01	1.2E-01	8.6E-02	1.1E-01	1.1E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	7.8E-01	1.1E+01	8.0E+00	4.8E+00	3.1E+00	4.2E+00
Hazard Quotient - inhal	unitless	5.5E-01	1.3E+00	1.0E+00	6.1E-01	4.7E-01	NA
Hazard Quotient - oral	unitless	3.9E-02	5.3E-01	4.0E-01	2.4E-01	1.5E-01	2.1E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Hanmer
COC	Nickel
EPC	95% UCL
Receptor	Male - RME Estimate

Toxicity Information - Nickel		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.00571

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Selenium

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	4.0E-03	µg/m3	0.0%	4.4E-05	9.2E-05	7.3E-05	4.3E-05	4.1E-05	4.8E-05
Inhalation of Fine Particulate- Indoors	4.0E-03	µg/m3	0.0%	9.0E-04	1.9E-03	1.5E-03	8.9E-04	8.4E-04	9.8E-04
Dermal Contact - Outdoors	6.8E-01	µg/g	0.0%	4.7E-07	4.5E-07	3.5E-07	3.3E-07	9.7E-08	1.7E-07
Dermal Contact - Indoors	1.4E+00	µg/g	0.0%	2.5E-07	2.3E-07	1.8E-07	1.6E-07	7.2E-08	1.0E-07
Soil Ingestion	6.8E-01	µg/g	0.0%	1.3E-04	2.6E-04	3.1E-05	1.9E-05	1.7E-05	3.4E-05
Indoor dust Ingestion	1.4E+00	µg/g	0.0%	1.2E-03	2.4E-03	2.9E-04	1.8E-04	1.6E-04	3.2E-04
Home Produced Fruits & Vegetables	1.0E-01	µg/g fw	0.1%	0.0E+00	1.0E-02	5.3E-03	2.9E-03	2.3E-03	3.1E-03
Local Fruits & Vegetables	5.5E-02	µg/g fw	0.5%	0.0E+00	3.5E-02	1.9E-02	1.2E-02	1.0E-02	1.3E-02
Local Wild Blue Berries	1.6E-02	µg/g fw	0.1%	0.0E+00	1.0E-02	4.9E-03	2.3E-03	1.9E-03	2.8E-03
Local Wild Game	1.4E+00	µg/g fw	3.7%	0.0E+00	2.2E-01	1.4E-01	9.6E-02	7.4E-02	9.1E-02
Local Fish	2.0E+00	µg/g fw	6.4%	0.0E+00	2.3E-01	2.9E-01	1.7E-01	2.2E-01	2.2E-01
Drinking Water	1.3E+00	µg/L	1.0%	3.8E-02	3.7E-02	2.6E-02	1.9E-02	2.6E-02	2.6E-02
Market Basket Contribution	NA	µg/g	87.9%	1.3E+00	5.0E+00	3.3E+00	1.7E+00	1.0E+00	1.6E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	1.3E+00	5.5E+00	3.8E+00	2.0E+00	1.4E+00	2.0E+00
<i>Inhalation Route Only</i>			0.0%	9.4E-04	2.0E-03	1.6E-03	9.3E-04	8.8E-04	1.0E-03
<i>Direct Soil Contact Only</i>			0.0%	1.3E-03	2.7E-03	3.2E-04	1.9E-04	1.7E-04	3.6E-04
<i>Market Basket Foods and Drinking Water</i>			88.9%	1.3E+00	5.0E+00	3.4E+00	1.7E+00	1.1E+00	1.6E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			11.0%	0.0E+00	5.0E-01	4.5E-01	2.8E-01	3.1E-01	3.3E-01

Selenium

Scenario	
Region	Hanmer
Metal	Selenium
EPC	95% UCL
Receptor	Female - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Selenium

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	1.3E+00	5.0E+00	3.3E+00	1.7E+00	1.0E+00	1.6E+00
Drinking Water	µg/kg/day	3.8E-02	3.7E-02	2.6E-02	1.9E-02	2.6E-02	2.6E-02
Inhalation Route	µg/kg/day	9.4E-04	2.0E-03	1.6E-03	9.3E-04	8.8E-04	1.0E-03
Direct Dermal Contact	µg/kg/day	7.3E-07	6.9E-07	5.3E-07	5.0E-07	1.7E-07	2.8E-07
Soil/Dust Ingestion	µg/kg/day	1.3E-03	2.7E-03	3.2E-04	1.9E-04	1.7E-04	3.6E-04
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.0E-02	5.3E-03	2.9E-03	2.3E-03	3.1E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	3.5E-02	1.9E-02	1.2E-02	1.0E-02	1.3E-02
Wild Blue Berries	µg/kg/day	0.0E+00	1.0E-02	4.9E-03	2.3E-03	1.9E-03	2.8E-03
Wild Game & Fish	µg/kg/day	0.0E+00	4.5E-01	4.3E-01	2.6E-01	2.9E-01	3.1E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	1.3E+00	5.5E+00	3.8E+00	2.0E+00	1.4E+00	2.0E+00
Hazard Quotient - inhal	unitless	1.6E-04	3.5E-04	2.7E-04	1.6E-04	1.5E-04	NA
Hazard Quotient - oral	unitless	2.6E-01	1.1E+00	7.7E-01	4.1E-01	2.7E-01	3.9E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Hanmer
COC	Selenium
EPC	95% UCL
Receptor	Female - CTE Estimate

Toxicity Information - Selenium		
Oral RfD	µg/kg/day	5
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	5.71

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Selenium

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	4.0E-03	µg/m3	0.0%	6.4E-05	1.3E-04	1.0E-04	6.3E-05	5.9E-05	6.9E-05
Inhalation of Fine Particulate- Indoors	4.0E-03	µg/m3	0.0%	9.5E-04	2.0E-03	1.5E-03	9.3E-04	8.8E-04	1.0E-03
Dermal Contact - Outdoors	6.8E-01	µg/g	0.0%	5.0E-07	4.8E-07	3.7E-07	3.5E-07	1.0E-07	1.9E-07
Dermal Contact - Indoors	1.4E+00	µg/g	0.0%	2.6E-07	2.4E-07	1.9E-07	1.7E-07	7.4E-08	1.1E-07
Soil Ingestion	6.8E-01	µg/g	0.0%	1.4E-04	2.7E-04	3.3E-05	2.0E-05	1.8E-05	3.6E-05
Indoor dust Ingestion	1.4E+00	µg/g	0.0%	1.2E-03	2.5E-03	3.0E-04	1.8E-04	1.6E-04	3.4E-04
Home Produced Fruits & Vegetables	1.0E-01	µg/g fw	0.4%	0.0E+00	3.3E-02	2.1E-02	1.3E-02	9.7E-03	1.3E-02
Local Fruits & Vegetables	5.5E-02	µg/g fw	1.7%	0.0E+00	1.3E-01	1.0E-01	7.1E-02	5.5E-02	6.7E-02
Local Wild Blue Berries	1.6E-02	µg/g fw	0.2%	0.0E+00	2.0E-02	1.0E-02	4.9E-03	4.0E-03	5.7E-03
Local Wild Game	1.4E+00	µg/g fw	3.1%	0.0E+00	2.5E-01	1.8E-01	1.2E-01	9.3E-02	1.1E-01
Local Fish	2.0E+00	µg/g fw	19.1%	0.0E+00	8.9E-01	1.4E+00	7.5E-01	9.2E-01	9.4E-01
Drinking Water	1.3E+00	µg/L	0.9%	4.7E-02	4.7E-02	3.0E-02	2.3E-02	3.0E-02	3.1E-02
Market Basket Contribution	NA	µg/g	74.6%	1.6E+00	6.4E+00	4.0E+00	2.2E+00	1.3E+00	2.0E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	1.7E+00	7.8E+00	5.8E+00	3.1E+00	2.4E+00	3.2E+00
<i>Inhalation Route Only</i>			0.0%	1.0E-03	2.1E-03	1.7E-03	9.9E-04	9.4E-04	1.1E-03
<i>Direct Soil Contact Only</i>			0.0%	1.4E-03	2.8E-03	3.4E-04	2.0E-04	1.8E-04	3.7E-04
<i>Market Basket Foods and Drinking Water</i>			75.5%	1.7E+00	6.5E+00	4.1E+00	2.2E+00	1.3E+00	2.0E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			24.5%	0.0E+00	1.3E+00	1.7E+00	9.6E-01	1.1E+00	1.1E+00

Selenium

Scenario	
Region	Hanmer
Metal	Selenium
EPC	95% UCL
Receptor	Female - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Selenium

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	1.6E+00	6.4E+00	4.0E+00	2.2E+00	1.3E+00	2.0E+00
Drinking Water	µg/kg/day	4.7E-02	4.7E-02	3.0E-02	2.3E-02	3.0E-02	3.1E-02
Inhalation Route	µg/kg/day	1.0E-03	2.1E-03	1.7E-03	9.9E-04	9.4E-04	1.1E-03
Direct Dermal Contact	µg/kg/day	7.6E-07	7.3E-07	5.6E-07	5.2E-07	1.8E-07	2.9E-07
Soil/Dust Ingestion	µg/kg/day	1.4E-03	2.8E-03	3.4E-04	2.0E-04	1.8E-04	3.7E-04
HP Fruit & Vegetables	µg/kg/day	0.0E+00	3.3E-02	2.1E-02	1.3E-02	9.7E-03	1.3E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.3E-01	1.0E-01	7.1E-02	5.5E-02	6.7E-02
Wild Blue Berries	µg/kg/day	0.0E+00	2.0E-02	1.0E-02	4.9E-03	4.0E-03	5.7E-03
Wild Game & Fish	µg/kg/day	0.0E+00	1.1E+00	1.6E+00	8.7E-01	1.0E+00	1.1E+00
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	1.7E+00	7.8E+00	5.8E+00	3.1E+00	2.4E+00	3.2E+00
Hazard Quotient - inhal	unitless	1.8E-04	3.7E-04	2.9E-04	1.7E-04	1.6E-04	NA
Hazard Quotient - oral	unitless	3.4E-01	1.6E+00	1.2E+00	6.3E-01	4.8E-01	6.3E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Hanmer
COC	Selenium
EPC	95% UCL
Receptor	Female - RME Estimate

Toxicity Information - Selenium		
Oral RfD	µg/kg/day	5
Oral S.F.	(µg/kg/day)-1	NA
Inhalation S.F.	(µg/kg/day)-1	NA
Inhalation RfD	µg/kg/day	5.71

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Selenium



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	4.0E-03	µg/m3	0.0%	4.4E-05	1.0E-04	8.2E-05	4.9E-05	3.8E-05	4.8E-05
Inhalation of Fine Particulate- Indoors	4.0E-03	µg/m3	0.0%	9.0E-04	2.1E-03	1.7E-03	9.9E-04	7.7E-04	9.7E-04
Dermal Contact - Outdoors	6.8E-01	µg/g	0.0%	4.7E-07	4.5E-07	3.6E-07	3.2E-07	9.0E-08	1.7E-07
Dermal Contact - Indoors	1.4E+00	µg/g	0.0%	2.5E-07	2.3E-07	1.8E-07	1.6E-07	6.7E-08	1.0E-07
Soil Ingestion	6.8E-01	µg/g	0.0%	1.3E-04	2.5E-04	3.3E-05	1.7E-05	1.3E-05	3.2E-05
Indoor dust Ingestion	1.4E+00	µg/g	0.0%	1.2E-03	2.4E-03	3.1E-04	1.6E-04	1.2E-04	3.0E-04
Home Produced Fruits & Vegetables	1.0E-01	µg/g fw	0.1%	0.0E+00	9.3E-03	5.8E-03	3.1E-03	2.3E-03	3.2E-03
Local Fruits & Vegetables	5.5E-02	µg/g fw	0.4%	0.0E+00	2.6E-02	2.0E-02	1.3E-02	1.0E-02	1.3E-02
Local Wild Blue Berries	1.6E-02	µg/g fw	0.1%	0.0E+00	9.9E-03	5.1E-03	2.0E-03	1.7E-03	2.6E-03
Local Wild Game	1.4E+00	µg/g fw	3.8%	0.0E+00	1.9E-01	1.6E-01	1.2E-01	1.2E-01	1.3E-01
Local Fish	2.0E+00	µg/g fw	5.9%	0.0E+00	2.4E-01	2.7E-01	2.0E-01	2.0E-01	2.1E-01
Drinking Water	1.3E+00	µg/L	0.9%	3.8E-02	3.7E-02	2.7E-02	1.7E-02	2.1E-02	2.2E-02
Market Basket Contribution	NA	µg/g	88.6%	1.0E+00	5.4E+00	3.8E+00	2.2E+00	1.4E+00	2.0E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	1.0E+00	5.9E+00	4.3E+00	2.6E+00	1.8E+00	2.4E+00
<i>Inhalation Route Only</i>			0.0%	9.4E-04	2.2E-03	1.7E-03	1.0E-03	8.1E-04	1.0E-03
<i>Direct Soil Contact Only</i>			0.0%	1.3E-03	2.6E-03	3.4E-04	1.7E-04	1.4E-04	3.3E-04
<i>Market Basket Foods and Drinking Water</i>			89.5%	1.0E+00	5.4E+00	3.8E+00	2.3E+00	1.5E+00	2.0E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			10.4%	0.0E+00	4.8E-01	4.6E-01	3.4E-01	3.4E-01	3.6E-01

Selenium

Scenario	
Region	Hanmer
Metal	Selenium
EPC	95% UCL
Receptor	Male - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Selenium

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	1.0E+00	5.4E+00	3.8E+00	2.2E+00	1.4E+00	2.0E+00
Drinking Water	µg/kg/day	3.8E-02	3.7E-02	2.7E-02	1.7E-02	2.1E-02	2.2E-02
Inhalation Route	µg/kg/day	9.4E-04	2.2E-03	1.7E-03	1.0E-03	8.1E-04	1.0E-03
Direct Dermal Contact	µg/kg/day	7.3E-07	6.9E-07	5.4E-07	4.8E-07	1.6E-07	2.7E-07
Soil/Dust Ingestion	µg/kg/day	1.3E-03	2.6E-03	3.4E-04	1.7E-04	1.4E-04	3.3E-04
HP Fruit & Vegetables	µg/kg/day	0.0E+00	9.3E-03	5.8E-03	3.1E-03	2.3E-03	3.2E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	2.6E-02	2.0E-02	1.3E-02	1.0E-02	1.3E-02
Wild Blue Berries	µg/kg/day	0.0E+00	9.9E-03	5.1E-03	2.0E-03	1.7E-03	2.6E-03
Wild Game & Fish	µg/kg/day	0.0E+00	4.4E-01	4.3E-01	3.2E-01	3.3E-01	3.4E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	1.0E+00	5.9E+00	4.3E+00	2.6E+00	1.8E+00	2.4E+00
Hazard Quotient - inhal	unitless	1.6E-04	3.8E-04	3.1E-04	1.8E-04	1.4E-04	NA
Hazard Quotient - oral	unitless	2.1E-01	1.2E+00	8.6E-01	5.2E-01	3.6E-01	4.8E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Hanmer
COC	Selenium
EPC	95% UCL
Receptor	Male - CTE Estimate

Toxicity Information - Selenium		
Oral RfD	µg/kg/day	5
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	5.71

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Selenium



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	4.0E-03	µg/m3	0.0%	6.4E-05	1.5E-04	1.2E-04	6.4E-05	5.5E-05	6.8E-05
Inhalation of Fine Particulate- Indoors	4.0E-03	µg/m3	0.0%	9.5E-04	2.2E-03	1.7E-03	1.0E-03	8.1E-04	1.0E-03
Dermal Contact - Outdoors	6.8E-01	µg/g	0.0%	5.0E-07	4.8E-07	3.8E-07	3.4E-07	9.5E-08	1.8E-07
Dermal Contact - Indoors	1.4E+00	µg/g	0.0%	2.6E-07	2.4E-07	1.9E-07	1.6E-07	6.9E-08	1.0E-07
Soil Ingestion	6.8E-01	µg/g	0.0%	1.4E-04	2.7E-04	3.4E-05	1.8E-05	1.4E-05	3.4E-05
Indoor dust Ingestion	1.4E+00	µg/g	0.0%	1.2E-03	2.5E-03	3.2E-04	1.6E-04	1.3E-04	3.1E-04
Home Produced Fruits & Vegetables	1.0E-01	µg/g fw	0.4%	0.0E+00	3.3E-02	2.5E-02	1.4E-02	1.1E-02	1.4E-02
Local Fruits & Vegetables	5.5E-02	µg/g fw	1.7%	0.0E+00	1.4E-01	1.2E-01	7.8E-02	5.9E-02	7.2E-02
Local Wild Blue Berries	1.6E-02	µg/g fw	0.2%	0.0E+00	1.9E-02	1.2E-02	4.6E-03	3.6E-03	5.5E-03
Local Wild Game	1.4E+00	µg/g fw	3.5%	0.0E+00	2.5E-01	2.0E-01	1.6E-01	2.0E-01	2.0E-01
Local Fish	2.0E+00	µg/g fw	19.6%	0.0E+00	1.3E+00	1.4E+00	8.7E-01	9.2E-01	9.8E-01
Drinking Water	1.3E+00	µg/L	0.7%	4.7E-02	4.7E-02	3.2E-02	1.2E-02	2.4E-02	2.5E-02
Market Basket Contribution	NA	µg/g	73.8%	1.1E+00	6.5E+00	4.5E+00	2.8E+00	2.0E+00	2.7E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	1.1E+00	8.3E+00	6.3E+00	3.9E+00	3.3E+00	4.0E+00
<i>Inhalation Route Only</i>			0.0%	1.0E-03	2.3E-03	1.9E-03	1.1E-03	8.7E-04	1.1E-03
<i>Direct Soil Contact Only</i>			0.0%	1.4E-03	2.8E-03	3.5E-04	1.8E-04	1.4E-04	3.5E-04
<i>Market Basket Foods and Drinking Water</i>			74.5%	1.1E+00	6.6E+00	4.6E+00	2.8E+00	2.1E+00	2.7E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			25.4%	0.0E+00	1.7E+00	1.8E+00	1.1E+00	1.2E+00	1.3E+00

Selenium

Scenario	
Region	Hanmer
Metal	Selenium
EPC	95% UCL
Receptor	Male - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Selenium

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	1.1E+00	6.5E+00	4.5E+00	2.8E+00	2.0E+00	2.7E+00
Drinking Water	µg/kg/day	4.7E-02	4.7E-02	3.2E-02	1.2E-02	2.4E-02	2.5E-02
Inhalation Route	µg/kg/day	1.0E-03	2.3E-03	1.9E-03	1.1E-03	8.7E-04	1.1E-03
Direct Dermal Contact	µg/kg/day	7.6E-07	7.2E-07	5.7E-07	5.0E-07	1.6E-07	2.8E-07
Soil/Dust Ingestion	µg/kg/day	1.4E-03	2.8E-03	3.5E-04	1.8E-04	1.4E-04	3.5E-04
HP Fruit & Vegetables	µg/kg/day	0.0E+00	3.3E-02	2.5E-02	1.4E-02	1.1E-02	1.4E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.4E-01	1.2E-01	7.8E-02	5.9E-02	7.2E-02
Wild Blue Berries	µg/kg/day	0.0E+00	1.9E-02	1.2E-02	4.6E-03	3.6E-03	5.5E-03
Wild Game & Fish	µg/kg/day	0.0E+00	1.6E+00	1.6E+00	1.0E+00	1.1E+00	1.2E+00
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	1.1E+00	8.3E+00	6.3E+00	3.9E+00	3.3E+00	4.0E+00
Hazard Quotient - inhal	unitless	1.8E-04	4.1E-04	3.3E-04	2.0E-04	1.5E-04	NA
Hazard Quotient - oral	unitless	2.2E-01	1.7E+00	1.3E+00	7.8E-01	6.5E-01	7.9E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Hanmer
COC	Selenium
EPC	95% UCL
Receptor	Male - RME Estimate

Toxicity Information - Selenium		
Oral RfD	µg/kg/day	5
Oral S.F.	(µg/kg/day)-1	NA
Inhalation S.F.	(µg/kg/day)-1	NA
Inhalation RfD	µg/kg/day	5.71

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Arsenic

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	6.1E-03	µg/m3	0.1%	6.7E-05	1.4E-04	1.1E-04	6.7E-05	6.3E-05	1.3E-04
Inhalation of Fine Particulate- Indoors	6.1E-03	µg/m3	1.3%	1.4E-03	2.9E-03	2.3E-03	1.4E-03	1.3E-03	2.7E-03
Dermal Contact - Outdoors	7.2E+00	µg/g	0.1%	1.5E-04	1.4E-04	1.1E-04	1.1E-04	3.1E-05	1.3E-04
Dermal Contact - Indoors	1.5E+01	µg/g	0.0%	8.2E-05	7.5E-05	5.8E-05	5.2E-05	2.3E-05	7.2E-05
Soil Ingestion	7.2E+00	µg/g	1.0%	2.0E-03	4.1E-03	5.0E-04	3.0E-04	2.6E-04	1.4E-03
Indoor dust Ingestion	1.5E+01	µg/g	4.3%	8.7E-03	1.7E-02	2.1E-03	1.3E-03	1.1E-03	5.8E-03
Home Produced Fruits & Vegetables	7.5E-03	µg/g fw	0.4%	0.0E+00	1.3E-03	6.5E-04	3.7E-04	3.2E-04	7.9E-04
Local Fruits & Vegetables	6.8E-03	µg/g fw	1.2%	0.0E+00	4.0E-03	2.1E-03	1.2E-03	1.0E-03	2.5E-03
Local Wild Blue Berries	5.2E-03	µg/g fw	0.8%	0.0E+00	3.2E-03	1.5E-03	7.1E-04	6.0E-04	1.7E-03
Local Wild Game	1.3E-04	µg/g fw	0.0%	0.0E+00	1.9E-05	1.2E-05	8.4E-06	6.5E-06	1.5E-05
Local Fish	2.2E-04	µg/g fw	0.0%	0.0E+00	2.5E-05	3.1E-05	1.8E-05	2.3E-05	3.7E-05
Drinking Water	1.1E+00	µg/L	18.1%	3.3E-02	3.3E-02	2.3E-02	1.7E-02	2.3E-02	3.8E-02
Market Basket Contribution	NA	µg/g	72.7%	4.1E-04	2.5E-01	1.5E-01	7.6E-02	4.8E-02	1.5E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)	100.0%	4.6E-02	3.1E-01	1.8E-01	9.9E-02	7.5E-02	2.1E-01		
<i>Inhalation Route Only</i>	1.3%	1.4E-03	3.0E-03	2.4E-03	1.4E-03	1.4E-03	2.9E-03		
<i>Direct Soil Contact Only</i>	5.4%	1.1E-02	2.2E-02	2.8E-03	1.7E-03	1.4E-03	7.4E-03		
<i>Market Basket Foods and Drinking Water</i>	90.9%	3.4E-02	2.8E-01	1.7E-01	9.3E-02	7.1E-02	1.9E-01		
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)	2.4%	0.0E+00	8.5E-03	4.3E-03	2.3E-03	2.0E-03	5.1E-03		

Arsenic

Scenario	
Region	Sudbury Centre
Metal	Arsenic
EPC	95% UCL
Receptor	Female - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Arsenic

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	4.1E-04	2.5E-01	1.5E-01	7.6E-02	4.8E-02	1.5E-01
Drinking Water	µg/kg/day	3.3E-02	3.3E-02	2.3E-02	1.7E-02	2.3E-02	3.8E-02
Inhalation Route	µg/kg/day	1.4E-03	3.0E-03	2.4E-03	1.4E-03	1.4E-03	2.9E-03
Direct Dermal Contact	µg/kg/day	2.3E-04	2.2E-04	1.7E-04	1.6E-04	5.4E-05	2.0E-04
Soil/Dust Ingestion	µg/kg/day	1.1E-02	2.1E-02	2.6E-03	1.6E-03	1.4E-03	7.2E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.3E-03	6.5E-04	3.7E-04	3.2E-04	7.9E-04
Local Fruit & Vegetables	µg/kg/day	0.0E+00	4.0E-03	2.1E-03	1.2E-03	1.0E-03	2.5E-03
Wild Blue Berries	µg/kg/day	0.0E+00	3.2E-03	1.5E-03	7.1E-04	6.0E-04	1.7E-03
Wild Game & Fish	µg/kg/day	0.0E+00	4.4E-05	4.3E-05	2.6E-05	3.0E-05	5.2E-05
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	4.5E-02	3.1E-01	1.8E-01	9.7E-02	7.4E-02	2.0E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	1.5E-01	1.0E+00	5.9E-01	3.2E-01	2.5E-01	3.4E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		4.3E-05		7.6E-05		1.2E-04	

Scenario	
COI	Sudbury Centre
COC	Arsenic
EPC	95% UCL
Receptor	Female - CTE Estimate

Toxicity Information - Arsenic		
Oral RfD	µg/kg/day	0.3
Oral S.F.	(µg/kg/day) ⁻¹	1.50E-03
Inhalation S.F.	(µg/kg/day) ⁻¹	1.50E-02
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Arsenic



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	6.1E-03	µg/m3	0.1%	9.9E-05	2.1E-04	1.6E-04	9.6E-05	9.1E-05	1.9E-04
Inhalation of Fine Particulate- Indoors	6.1E-03	µg/m3	1.1%	1.5E-03	3.1E-03	2.4E-03	1.4E-03	1.3E-03	2.9E-03
Dermal Contact - Outdoors	7.2E+00	µg/g	0.1%	1.6E-04	1.5E-04	1.2E-04	1.1E-04	3.3E-05	1.4E-04
Dermal Contact - Indoors	1.5E+01	µg/g	0.0%	8.5E-05	7.8E-05	6.0E-05	5.4E-05	2.4E-05	7.5E-05
Soil Ingestion	7.2E+00	µg/g	0.8%	2.1E-03	4.3E-03	5.2E-04	3.1E-04	2.8E-04	1.4E-03
Indoor dust Ingestion	1.5E+01	µg/g	3.5%	9.0E-03	1.8E-02	2.2E-03	1.3E-03	1.2E-03	6.1E-03
Home Produced Fruits & Vegetables	7.5E-03	µg/g fw	1.1%	0.0E+00	4.0E-03	2.7E-03	1.7E-03	1.4E-03	3.1E-03
Local Fruits & Vegetables	6.8E-03	µg/g fw	3.6%	0.0E+00	1.3E-02	9.0E-03	5.8E-03	4.6E-03	1.0E-02
Local Wild Blue Berries	5.2E-03	µg/g fw	1.4%	0.0E+00	6.3E-03	3.2E-03	1.5E-03	1.2E-03	3.6E-03
Local Wild Game	1.3E-04	µg/g fw	0.0%	0.0E+00	2.2E-05	1.6E-05	1.0E-05	8.1E-06	1.8E-05
Local Fish	2.2E-04	µg/g fw	0.0%	0.0E+00	9.6E-05	1.5E-04	8.1E-05	9.9E-05	1.6E-04
Drinking Water	1.1E+00	µg/L	17.4%	4.2E-02	4.2E-02	2.7E-02	2.0E-02	2.7E-02	4.5E-02
Market Basket Contribution	NA	µg/g	70.9%	5.3E-04	2.9E-01	1.9E-01	1.0E-01	6.3E-02	1.9E-01

Arsenic

Scenario	
Region	Sudbury Centre
Metal	Arsenic
EPC	95% UCL
Receptor	Female - RME Estimate

SUMMARY									
Estimated Total Daily Intake(ug/kg/day)	100.0%	5.5E-02	3.8E-01	2.3E-01	1.3E-01	1.0E-01	2.7E-01		
<i>Inhalation Route Only</i>	1.1%	1.6E-03	3.3E-03	2.5E-03	1.5E-03	1.4E-03	3.1E-03		
<i>Direct Soil Contact Only</i>	4.4%	1.1E-02	2.3E-02	2.9E-03	1.8E-03	1.5E-03	7.7E-03		
<i>Market Basket Foods and Drinking Water</i>	88.4%	4.2E-02	3.3E-01	2.1E-01	1.2E-01	9.0E-02	2.4E-01		
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)	6.0%	0.0E+00	2.3E-02	1.5E-02	9.1E-03	7.3E-03	1.7E-02		



HUMAN HEALTH RISK ESTIMATES

Arsenic

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	5.3E-04	2.9E-01	1.9E-01	1.0E-01	6.3E-02	1.9E-01
Drinking Water	µg/kg/day	4.2E-02	4.2E-02	2.7E-02	2.0E-02	2.7E-02	4.5E-02
Inhalation Route	µg/kg/day	1.6E-03	3.3E-03	2.5E-03	1.5E-03	1.4E-03	3.1E-03
Direct Dermal Contact	µg/kg/day	2.4E-04	2.3E-04	1.8E-04	1.7E-04	5.7E-05	2.1E-04
Soil/Dust Ingestion	µg/kg/day	1.1E-02	2.2E-02	2.7E-03	1.6E-03	1.5E-03	7.5E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	4.0E-03	2.7E-03	1.7E-03	1.4E-03	3.1E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.3E-02	9.0E-03	5.8E-03	4.6E-03	1.0E-02
Wild Blue Berries	µg/kg/day	0.0E+00	6.3E-03	3.2E-03	1.5E-03	1.2E-03	3.6E-03
Wild Game & Fish	µg/kg/day	0.0E+00	1.2E-04	1.7E-04	9.1E-05	1.1E-04	1.8E-04
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	5.4E-02	3.8E-01	2.3E-01	1.3E-01	9.9E-02	2.6E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	1.8E-01	1.3E+00	7.7E-01	4.4E-01	3.3E-01	4.4E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		4.6E-05		1.1E-04		1.5E-04	

Scenario	
COI	Sudbury Centre
COC	Arsenic
EPC	95% UCL
Receptor	Female - RME Estimate

Toxicity Information - Arsenic		
Oral RfD	µg/kg/day	0.3
Oral S.F.	(µg/kg/day) ⁻¹	1.50E-03
Inhalation S.F.	(µg/kg/day) ⁻¹	1.50E-02
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Arsenic

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	6.1E-03	µg/m3	0.1%	6.7E-05	1.6E-04	1.3E-04	7.5E-05	5.8E-05	1.4E-04
Inhalation of Fine Particulate- Indoors	6.1E-03	µg/m3	1.3%	1.4E-03	3.2E-03	2.6E-03	1.5E-03	1.2E-03	2.9E-03
Dermal Contact - Outdoors	7.2E+00	µg/g	0.1%	1.5E-04	1.4E-04	1.1E-04	1.0E-04	2.9E-05	1.3E-04
Dermal Contact - Indoors	1.5E+01	µg/g	0.0%	8.2E-05	7.5E-05	5.9E-05	5.0E-05	2.1E-05	7.1E-05
Soil Ingestion	7.2E+00	µg/g	1.0%	2.0E-03	4.0E-03	5.2E-04	2.6E-04	2.1E-04	1.3E-03
Indoor dust Ingestion	1.5E+01	µg/g	4.1%	8.7E-03	1.7E-02	2.2E-03	1.1E-03	9.0E-04	5.6E-03
Home Produced Fruits & Vegetables	7.5E-03	µg/g fw	0.3%	0.0E+00	1.1E-03	6.8E-04	3.7E-04	3.0E-04	7.5E-04
Local Fruits & Vegetables	6.8E-03	µg/g fw	1.0%	0.0E+00	3.3E-03	2.2E-03	1.2E-03	9.9E-04	2.4E-03
Local Wild Blue Berries	5.2E-03	µg/g fw	0.8%	0.0E+00	3.1E-03	1.6E-03	6.3E-04	5.3E-04	1.7E-03
Local Wild Game	1.3E-04	µg/g fw	0.0%	0.0E+00	1.7E-05	1.4E-05	1.1E-05	1.1E-05	1.9E-05
Local Fish	2.2E-04	µg/g fw	0.0%	0.0E+00	2.6E-05	2.9E-05	2.1E-05	2.2E-05	3.7E-05
Drinking Water	1.1E+00	µg/L	16.8%	3.3E-02	3.3E-02	2.4E-02	1.5E-02	1.8E-02	3.4E-02
Market Basket Contribution	NA	µg/g	74.5%	3.2E-04	2.4E-01	1.7E-01	9.4E-02	5.4E-02	1.7E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	4.6E-02	3.0E-01	2.0E-01	1.1E-01	7.6E-02	2.2E-01
<i>Inhalation Route Only</i>			1.4%	1.4E-03	3.3E-03	2.7E-03	1.6E-03	1.2E-03	3.0E-03
<i>Direct Soil Contact Only</i>			5.1%	1.1E-02	2.1E-02	2.9E-03	1.5E-03	1.2E-03	7.2E-03
<i>Market Basket Foods and Drinking Water</i>			91.3%	3.4E-02	2.7E-01	1.9E-01	1.1E-01	7.2E-02	2.0E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			2.2%	0.0E+00	7.6E-03	4.5E-03	2.2E-03	1.9E-03	4.9E-03

Arsenic

Scenario	
Region	Sudbury Centre
Metal	Arsenic
EPC	95% UCL
Receptor	Male - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Arsenic

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	3.2E-04	2.4E-01	1.7E-01	9.4E-02	5.4E-02	1.7E-01
Drinking Water	µg/kg/day	3.3E-02	3.3E-02	2.4E-02	1.5E-02	1.8E-02	3.4E-02
Inhalation Route	µg/kg/day	1.4E-03	3.3E-03	2.7E-03	1.6E-03	1.2E-03	3.0E-03
Direct Dermal Contact	µg/kg/day	2.3E-04	2.2E-04	1.7E-04	1.5E-04	5.0E-05	2.0E-04
Soil/Dust Ingestion	µg/kg/day	1.1E-02	2.1E-02	2.7E-03	1.4E-03	1.1E-03	7.0E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.1E-03	6.8E-04	3.7E-04	3.0E-04	7.5E-04
Local Fruit & Vegetables	µg/kg/day	0.0E+00	3.3E-03	2.2E-03	1.2E-03	9.9E-04	2.4E-03
Wild Blue Berries	µg/kg/day	0.0E+00	3.1E-03	1.6E-03	6.3E-04	5.3E-04	1.7E-03
Wild Game & Fish	µg/kg/day	0.0E+00	4.3E-05	4.3E-05	3.2E-05	3.3E-05	5.6E-05
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	4.5E-02	3.0E-01	2.0E-01	1.1E-01	7.5E-02	2.1E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	1.5E-01	1.0E+00	6.6E-01	3.7E-01	2.5E-01	3.5E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	<i>Inhalation ILCR</i>		<i>Oral ILCR</i>		<i>Total ILCR</i>	
		4.5E-05		7.0E-05		1.1E-04	

Scenario	
<i>COI</i>	Sudbury Centre
<i>COC</i>	Arsenic
<i>EPC</i>	95% UCL
<i>Receptor</i>	Male - CTE Estimate

Toxicity Information - Arsenic		
<i>Oral RfD</i>	µg/kg/day	0.3
<i>Oral S.F.</i>	(µg/kg/day) ⁻¹	1.50E-03
<i>Inhalation S.F.</i>	(µg/kg/day) ⁻¹	1.50E-02
<i>Inhalation RfD</i>	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Arsenic



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	6.1E-03	µg/m3	0.1%	9.9E-05	2.3E-04	1.8E-04	9.9E-05	8.4E-05	2.0E-04
Inhalation of Fine Particulate- Indoors	6.1E-03	µg/m3	1.1%	1.5E-03	3.4E-03	2.7E-03	1.6E-03	1.2E-03	3.0E-03
Dermal Contact - Outdoors	7.2E+00	µg/g	0.1%	1.6E-04	1.5E-04	1.2E-04	1.1E-04	3.0E-05	1.4E-04
Dermal Contact - Indoors	1.5E+01	µg/g	0.0%	8.5E-05	7.8E-05	6.1E-05	5.2E-05	2.2E-05	7.3E-05
Soil Ingestion	7.2E+00	µg/g	0.8%	2.1E-03	4.3E-03	5.5E-04	2.8E-04	2.2E-04	1.4E-03
Indoor dust Ingestion	1.5E+01	µg/g	3.3%	9.0E-03	1.8E-02	2.3E-03	1.2E-03	9.4E-04	5.9E-03
Home Produced Fruits & Vegetables	7.5E-03	µg/g fw	1.1%	0.0E+00	4.0E-03	3.1E-03	1.8E-03	1.4E-03	3.3E-03
Local Fruits & Vegetables	6.8E-03	µg/g fw	3.6%	0.0E+00	1.3E-02	1.0E-02	6.3E-03	4.7E-03	1.1E-02
Local Wild Blue Berries	5.2E-03	µg/g fw	1.3%	0.0E+00	6.0E-03	3.6E-03	1.4E-03	1.1E-03	3.6E-03
Local Wild Game	1.3E-04	µg/g fw	0.0%	0.0E+00	2.2E-05	1.8E-05	1.4E-05	1.8E-05	2.7E-05
Local Fish	2.2E-04	µg/g fw	0.1%	0.0E+00	1.4E-04	1.5E-04	9.3E-05	9.9E-05	1.8E-04
Drinking Water	1.1E+00	µg/L	15.1%	4.2E-02	4.1E-02	2.8E-02	1.1E-02	2.2E-02	3.9E-02
Market Basket Contribution	NA	µg/g	73.5%	3.4E-04	3.0E-01	2.1E-01	1.2E-01	7.1E-02	2.1E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	5.5E-02	3.9E-01	2.6E-01	1.5E-01	1.0E-01	2.8E-01
<i>Inhalation Route Only</i>			1.2%	1.6E-03	3.6E-03	2.9E-03	1.7E-03	1.3E-03	3.2E-03
<i>Direct Soil Contact Only</i>			4.2%	1.1E-02	2.2E-02	3.0E-03	1.6E-03	1.2E-03	7.5E-03
<i>Market Basket Foods and Drinking Water</i>			88.7%	4.2E-02	3.4E-01	2.4E-01	1.4E-01	9.2E-02	2.5E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			6.0%	0.0E+00	2.3E-02	1.7E-02	9.7E-03	7.4E-03	1.8E-02

Arsenic

Scenario	
Region	Sudbury Centre
Metal	Arsenic
EPC	95% UCL
Receptor	Male - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Arsenic

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	3.4E-04	3.0E-01	2.1E-01	1.2E-01	7.1E-02	2.1E-01
Drinking Water	µg/kg/day	4.2E-02	4.1E-02	2.8E-02	1.1E-02	2.2E-02	3.9E-02
Inhalation Route	µg/kg/day	1.6E-03	3.6E-03	2.9E-03	1.7E-03	1.3E-03	3.2E-03
Direct Dermal Contact	µg/kg/day	2.4E-04	2.3E-04	1.8E-04	1.6E-04	5.3E-05	2.1E-04
Soil/Dust Ingestion	µg/kg/day	1.1E-02	2.2E-02	2.8E-03	1.5E-03	1.2E-03	7.3E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	4.0E-03	3.1E-03	1.8E-03	1.4E-03	3.3E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.3E-02	1.0E-02	6.3E-03	4.7E-03	1.1E-02
Wild Blue Berries	µg/kg/day	0.0E+00	6.0E-03	3.6E-03	1.4E-03	1.1E-03	3.6E-03
Wild Game & Fish	µg/kg/day	0.0E+00	1.6E-04	1.7E-04	1.1E-04	1.2E-04	2.0E-04
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	5.3E-02	3.8E-01	2.6E-01	1.5E-01	1.0E-01	2.8E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	1.8E-01	1.3E+00	8.6E-01	4.9E-01	3.4E-01	4.7E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		4.8E-05		9.7E-05		1.4E-04	

Scenario	
COI	Sudbury Centre
COC	Arsenic
EPC	95% UCL
Receptor	Male - RME Estimate

Toxicity Information - Arsenic		
Oral RfD	µg/kg/day	0.3
Oral S.F.	(µg/kg/day) ⁻¹	1.50E-03
Inhalation S.F.	(µg/kg/day) ⁻¹	1.50E-02
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Cobalt



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	9.7E-03	µg/m3	0.0%	1.1E-04	2.3E-04	1.8E-04	1.1E-04	1.0E-04	1.2E-04
Inhalation of Fine Particulate- Indoors	9.7E-03	µg/m3	0.5%	2.2E-03	4.6E-03	3.6E-03	2.2E-03	2.1E-03	2.4E-03
Dermal Contact - Outdoors	1.1E+01	µg/g	0.0%	7.9E-06	7.6E-06	5.9E-06	5.5E-06	1.6E-06	2.9E-06
Dermal Contact - Indoors	3.2E+01	µg/g	0.0%	5.8E-06	5.4E-06	4.2E-06	3.8E-06	1.7E-06	2.4E-06
Soil Ingestion	1.1E+01	µg/g	0.3%	2.3E-03	4.6E-03	5.6E-04	3.3E-04	3.0E-04	6.2E-04
Indoor dust Ingestion	3.2E+01	µg/g	1.4%	1.2E-02	2.5E-02	3.0E-03	1.8E-03	1.6E-03	3.4E-03
Home Produced Fruits & Vegetables	1.7E-02	µg/g fw	0.3%	0.0E+00	4.3E-03	2.2E-03	1.2E-03	1.1E-03	1.4E-03
Local Fruits & Vegetables	2.1E-02	µg/g fw	1.5%	0.0E+00	2.2E-02	1.1E-02	6.4E-03	5.5E-03	7.3E-03
Local Wild Blue Berries	1.6E-02	µg/g fw	0.6%	0.0E+00	1.0E-02	4.9E-03	2.3E-03	1.9E-03	2.8E-03
Local Wild Game	4.0E-02	µg/g fw	0.5%	0.0E+00	6.3E-03	4.1E-03	2.8E-03	2.2E-03	2.7E-03
Local Fish	1.9E-02	µg/g fw	0.3%	0.0E+00	2.2E-03	2.7E-03	1.6E-03	2.1E-03	2.1E-03
Drinking Water	2.0E-01	µg/L	0.7%	5.7E-03	5.7E-03	4.0E-03	2.9E-03	3.9E-03	3.9E-03
Market Basket Contribution	NA	µg/g	93.9%	2.9E-01	1.2E+00	7.3E-01	3.9E-01	2.5E-01	3.8E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	3.1E-01	1.3E+00	7.7E-01	4.1E-01	2.7E-01	4.0E-01
Inhalation Route Only			0.5%	2.3E-03	4.8E-03	3.8E-03	2.3E-03	2.2E-03	2.5E-03
Direct Soil Contact Only			1.7%	1.5E-02	2.9E-02	3.6E-03	2.2E-03	1.9E-03	4.0E-03
Market Basket Foods and Drinking Water			94.6%	2.9E-01	1.2E+00	7.4E-01	3.9E-01	2.5E-01	3.8E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			3.2%	0.0E+00	4.5E-02	2.5E-02	1.4E-02	1.3E-02	1.6E-02

Cobalt

Scenario	
Region	Sudbury Centre
Metal	Cobalt
EPC	95% UCL
Receptor	Female - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Cobalt

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	2.9E-01	1.2E+00	7.3E-01	3.9E-01	2.5E-01	3.8E-01
Drinking Water	µg/kg/day	5.7E-03	5.7E-03	4.0E-03	2.9E-03	3.9E-03	3.9E-03
Inhalation Route	µg/kg/day	2.3E-03	4.8E-03	3.8E-03	2.3E-03	2.2E-03	2.5E-03
Direct Dermal Contact	µg/kg/day	1.4E-05	1.3E-05	1.0E-05	9.3E-06	3.3E-06	5.3E-06
Soil/Dust Ingestion	µg/kg/day	1.5E-02	2.9E-02	3.6E-03	2.1E-03	1.9E-03	4.0E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	4.3E-03	2.2E-03	1.2E-03	1.1E-03	1.4E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	2.2E-02	1.1E-02	6.4E-03	5.5E-03	7.3E-03
Wild Blue Berries	µg/kg/day	0.0E+00	1.0E-02	4.9E-03	2.3E-03	1.9E-03	2.8E-03
Wild Game & Fish	µg/kg/day	0.0E+00	8.5E-03	6.8E-03	4.4E-03	4.2E-03	4.7E-03
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	3.1E-01	1.3E+00	7.7E-01	4.1E-01	2.7E-01	4.0E-01
Hazard Quotient - inhal	unitless	1.6E-02	3.4E-02	2.7E-02	1.6E-02	1.5E-02	NA
Hazard Quotient - oral	unitless	1.5E-02	6.5E-02	3.8E-02	2.0E-02	1.3E-02	2.0E-02
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Sudbury Centre
COC	Cobalt
EPC	95% UCL
Receptor	Female - CTE Estimate

Toxicity Information - Cobalt		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.143

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Cobalt



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	9.7E-03	µg/m3	0.0%	1.6E-04	3.3E-04	2.6E-04	1.5E-04	1.4E-04	1.7E-04
Inhalation of Fine Particulate- Indoors	9.7E-03	µg/m3	0.4%	2.3E-03	4.9E-03	3.8E-03	2.3E-03	2.1E-03	2.5E-03
Dermal Contact - Outdoors	1.1E+01	µg/g	0.0%	8.3E-06	8.0E-06	6.2E-06	5.9E-06	1.7E-06	3.1E-06
Dermal Contact - Indoors	3.2E+01	µg/g	0.0%	6.1E-06	5.6E-06	4.3E-06	3.9E-06	1.7E-06	2.5E-06
Soil Ingestion	1.1E+01	µg/g	0.2%	2.4E-03	4.8E-03	5.9E-04	3.5E-04	3.1E-04	6.5E-04
Indoor dust Ingestion	3.2E+01	µg/g	1.2%	1.3E-02	2.6E-02	3.2E-03	1.9E-03	1.7E-03	3.5E-03
Home Produced Fruits & Vegetables	1.7E-02	µg/g fw	0.8%	0.0E+00	1.3E-02	9.1E-03	5.7E-03	4.6E-03	5.7E-03
Local Fruits & Vegetables	2.1E-02	µg/g fw	4.3%	0.0E+00	6.8E-02	4.7E-02	2.9E-02	2.4E-02	2.9E-02
Local Wild Blue Berries	1.6E-02	µg/g fw	1.0%	0.0E+00	2.0E-02	1.0E-02	4.9E-03	4.0E-03	5.7E-03
Local Wild Game	4.0E-02	µg/g fw	0.5%	0.0E+00	7.3E-03	5.2E-03	3.5E-03	2.7E-03	3.3E-03
Local Fish	1.9E-02	µg/g fw	1.0%	0.0E+00	8.5E-03	1.3E-02	7.2E-03	8.7E-03	8.9E-03
Drinking Water	2.0E-01	µg/L	0.7%	7.1E-03	7.1E-03	4.6E-03	3.5E-03	4.6E-03	4.7E-03
Market Basket Contribution	NA	µg/g	90.0%	3.7E-01	1.5E+00	9.1E-01	5.0E-01	3.2E-01	4.7E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	4.0E-01	1.6E+00	1.0E+00	5.6E-01	3.7E-01	5.4E-01
<i>Inhalation Route Only</i>			0.4%	2.5E-03	5.2E-03	4.0E-03	2.4E-03	2.3E-03	2.7E-03
<i>Direct Soil Contact Only</i>			1.4%	1.5E-02	3.1E-02	3.8E-03	2.2E-03	2.0E-03	4.1E-03
<i>Market Basket Foods and Drinking Water</i>			90.7%	3.8E-01	1.5E+00	9.2E-01	5.0E-01	3.2E-01	4.8E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			7.5%	0.0E+00	1.2E-01	8.5E-02	5.1E-02	4.4E-02	5.3E-02

Cobalt

Scenario	
Region	Sudbury Centre
Metal	Cobalt
EPC	95% UCL
Receptor	Female - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Cobalt

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	3.7E-01	1.5E+00	9.1E-01	5.0E-01	3.2E-01	4.7E-01
Drinking Water	µg/kg/day	7.1E-03	7.1E-03	4.6E-03	3.5E-03	4.6E-03	4.7E-03
Inhalation Route	µg/kg/day	2.5E-03	5.2E-03	4.0E-03	2.4E-03	2.3E-03	2.7E-03
Direct Dermal Contact	µg/kg/day	1.4E-05	1.4E-05	1.1E-05	9.8E-06	3.4E-06	5.6E-06
Soil/Dust Ingestion	µg/kg/day	1.5E-02	3.1E-02	3.7E-03	2.2E-03	2.0E-03	4.1E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.3E-02	9.1E-03	5.7E-03	4.6E-03	5.7E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	6.8E-02	4.7E-02	2.9E-02	2.4E-02	2.9E-02
Wild Blue Berries	µg/kg/day	0.0E+00	2.0E-02	1.0E-02	4.9E-03	4.0E-03	5.7E-03
Wild Game & Fish	µg/kg/day	0.0E+00	1.6E-02	1.9E-02	1.1E-02	1.1E-02	1.2E-02
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	4.0E-01	1.6E+00	1.0E+00	5.5E-01	3.7E-01	5.3E-01
Hazard Quotient - inhal	unitless	1.7E-02	3.6E-02	2.8E-02	1.7E-02	1.6E-02	NA
Hazard Quotient - oral	unitless	2.0E-02	8.0E-02	5.0E-02	2.8E-02	1.8E-02	2.7E-02
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Sudbury Centre
COC	Cobalt
EPC	95% UCL
Receptor	Female - RME Estimate

Toxicity Information - Cobalt		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.143

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Cobalt



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	9.7E-03	µg/m3	0.0%	1.1E-04	2.5E-04	2.0E-04	1.2E-04	9.2E-05	1.2E-04
Inhalation of Fine Particulate- Indoors	9.7E-03	µg/m3	0.5%	2.2E-03	5.1E-03	4.1E-03	2.4E-03	1.9E-03	2.4E-03
Dermal Contact - Outdoors	1.1E+01	µg/g	0.0%	7.9E-06	7.5E-06	6.0E-06	5.3E-06	1.5E-06	2.8E-06
Dermal Contact - Indoors	3.2E+01	µg/g	0.0%	5.8E-06	5.4E-06	4.2E-06	3.6E-06	1.5E-06	2.3E-06
Soil Ingestion	1.1E+01	µg/g	0.2%	2.3E-03	4.5E-03	5.8E-04	3.0E-04	2.4E-04	5.7E-04
Indoor dust Ingestion	3.2E+01	µg/g	1.4%	1.2E-02	2.5E-02	3.2E-03	1.6E-03	1.3E-03	3.1E-03
Home Produced Fruits & Vegetables	1.7E-02	µg/g fw	0.3%	0.0E+00	3.5E-03	2.2E-03	1.2E-03	1.0E-03	1.3E-03
Local Fruits & Vegetables	2.1E-02	µg/g fw	1.3%	0.0E+00	1.9E-02	1.2E-02	6.3E-03	5.3E-03	6.9E-03
Local Wild Blue Berries	1.6E-02	µg/g fw	0.6%	0.0E+00	9.9E-03	5.1E-03	2.0E-03	1.7E-03	2.6E-03
Local Wild Game	4.0E-02	µg/g fw	0.6%	0.0E+00	5.7E-03	4.7E-03	3.6E-03	3.6E-03	3.8E-03
Local Fish	1.9E-02	µg/g fw	0.3%	0.0E+00	2.3E-03	2.6E-03	1.9E-03	1.9E-03	2.0E-03
Drinking Water	2.0E-01	µg/L	0.7%	5.7E-03	5.7E-03	4.2E-03	2.5E-03	3.2E-03	3.4E-03
Market Basket Contribution	NA	µg/g	94.2%	2.3E-01	1.2E+00	8.3E-01	4.8E-01	2.9E-01	4.2E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	2.5E-01	1.3E+00	8.7E-01	5.0E-01	3.1E-01	4.5E-01
<i>Inhalation Route Only</i>			0.5%	2.3E-03	5.3E-03	4.3E-03	2.5E-03	2.0E-03	2.5E-03
<i>Direct Soil Contact Only</i>			1.6%	1.5E-02	2.9E-02	3.8E-03	1.9E-03	1.5E-03	3.7E-03
<i>Market Basket Foods and Drinking Water</i>			94.9%	2.3E-01	1.2E+00	8.3E-01	4.8E-01	2.9E-01	4.3E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			3.0%	0.0E+00	4.0E-02	2.7E-02	1.5E-02	1.4E-02	1.7E-02

Cobalt

Scenario	
Region	Sudbury Centre
Metal	Cobalt
EPC	95% UCL
Receptor	Male - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Cobalt

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	2.3E-01	1.2E+00	8.3E-01	4.8E-01	2.9E-01	4.2E-01
Drinking Water	µg/kg/day	5.7E-03	5.7E-03	4.2E-03	2.5E-03	3.2E-03	3.4E-03
Inhalation Route	µg/kg/day	2.3E-03	5.3E-03	4.3E-03	2.5E-03	2.0E-03	2.5E-03
Direct Dermal Contact	µg/kg/day	1.4E-05	1.3E-05	1.0E-05	9.0E-06	3.0E-06	5.1E-06
Soil/Dust Ingestion	µg/kg/day	1.5E-02	2.9E-02	3.7E-03	1.9E-03	1.5E-03	3.7E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	3.5E-03	2.2E-03	1.2E-03	1.0E-03	1.3E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.9E-02	1.2E-02	6.3E-03	5.3E-03	6.9E-03
Wild Blue Berries	µg/kg/day	0.0E+00	9.9E-03	5.1E-03	2.0E-03	1.7E-03	2.6E-03
Wild Game & Fish	µg/kg/day	0.0E+00	8.0E-03	7.3E-03	5.5E-03	5.6E-03	5.9E-03
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	2.5E-01	1.3E+00	8.6E-01	4.9E-01	3.1E-01	4.5E-01
Hazard Quotient - inhal	unitless	1.6E-02	3.7E-02	3.0E-02	1.8E-02	1.4E-02	NA
Hazard Quotient - oral	unitless	1.2E-02	6.3E-02	4.3E-02	2.5E-02	1.5E-02	2.2E-02
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Sudbury Centre
COC	Cobalt
EPC	95% UCL
Receptor	Male - CTE Estimate

Toxicity Information - Cobalt		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.143

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Cobalt



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	9.7E-03	µg/m3	0.0%	1.6E-04	3.6E-04	2.9E-04	1.6E-04	1.3E-04	1.7E-04
Inhalation of Fine Particulate- Indoors	9.7E-03	µg/m3	0.4%	2.3E-03	5.3E-03	4.3E-03	2.6E-03	2.0E-03	2.5E-03
Dermal Contact - Outdoors	1.1E+01	µg/g	0.0%	8.3E-06	8.0E-06	6.3E-06	5.7E-06	1.6E-06	3.0E-06
Dermal Contact - Indoors	3.2E+01	µg/g	0.0%	6.1E-06	5.6E-06	4.4E-06	3.8E-06	1.6E-06	2.4E-06
Soil Ingestion	1.1E+01	µg/g	0.2%	2.4E-03	4.8E-03	6.2E-04	3.1E-04	2.5E-04	6.0E-04
Indoor dust Ingestion	3.2E+01	µg/g	1.1%	1.3E-02	2.6E-02	3.3E-03	1.7E-03	1.3E-03	3.2E-03
Home Produced Fruits & Vegetables	1.7E-02	µg/g fw	0.8%	0.0E+00	1.3E-02	1.0E-02	6.2E-03	4.7E-03	5.9E-03
Local Fruits & Vegetables	2.1E-02	µg/g fw	4.3%	0.0E+00	6.8E-02	5.4E-02	3.2E-02	2.4E-02	3.1E-02
Local Wild Blue Berries	1.6E-02	µg/g fw	0.9%	0.0E+00	1.9E-02	1.2E-02	4.6E-03	3.6E-03	5.5E-03
Local Wild Game	4.0E-02	µg/g fw	0.6%	0.0E+00	7.4E-03	5.9E-03	4.6E-03	6.0E-03	5.8E-03
Local Fish	1.9E-02	µg/g fw	1.0%	0.0E+00	1.2E-02	1.3E-02	8.3E-03	8.7E-03	9.3E-03
Drinking Water	2.0E-01	µg/L	0.6%	7.1E-03	7.1E-03	4.8E-03	1.9E-03	3.7E-03	3.9E-03
Market Basket Contribution	NA	µg/g	90.0%	2.4E-01	1.5E+00	1.0E+00	6.0E-01	3.8E-01	5.4E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	2.7E-01	1.6E+00	1.1E+00	6.6E-01	4.3E-01	6.1E-01
<i>Inhalation Route Only</i>			0.4%	2.5E-03	5.7E-03	4.5E-03	2.7E-03	2.1E-03	2.7E-03
<i>Direct Soil Contact Only</i>			1.3%	1.5E-02	3.1E-02	3.9E-03	2.0E-03	1.6E-03	3.8E-03
<i>Market Basket Foods and Drinking Water</i>			90.6%	2.5E-01	1.5E+00	1.0E+00	6.0E-01	3.8E-01	5.4E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			7.7%	0.0E+00	1.2E-01	9.5E-02	5.6E-02	4.7E-02	5.7E-02

Cobalt

Scenario	
Region	Sudbury Centre
Metal	Cobalt
EPC	95% UCL
Receptor	Male - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Cobalt

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	2.4E-01	1.5E+00	1.0E+00	6.0E-01	3.8E-01	5.4E-01
Drinking Water	µg/kg/day	7.1E-03	7.1E-03	4.8E-03	1.9E-03	3.7E-03	3.9E-03
Inhalation Route	µg/kg/day	2.5E-03	5.7E-03	4.5E-03	2.7E-03	2.1E-03	2.7E-03
Direct Dermal Contact	µg/kg/day	1.4E-05	1.4E-05	1.1E-05	9.4E-06	3.2E-06	5.4E-06
Soil/Dust Ingestion	µg/kg/day	1.5E-02	3.1E-02	3.9E-03	2.0E-03	1.6E-03	3.8E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.3E-02	1.0E-02	6.2E-03	4.7E-03	5.9E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	6.8E-02	5.4E-02	3.2E-02	2.4E-02	3.1E-02
Wild Blue Berries	µg/kg/day	0.0E+00	1.9E-02	1.2E-02	4.6E-03	3.6E-03	5.5E-03
Wild Game & Fish	µg/kg/day	0.0E+00	2.0E-02	1.9E-02	1.3E-02	1.5E-02	1.5E-02
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	2.7E-01	1.6E+00	1.1E+00	6.6E-01	4.3E-01	6.0E-01
Hazard Quotient - inhal	unitless	1.7E-02	4.0E-02	3.2E-02	1.9E-02	1.5E-02	NA
Hazard Quotient - oral	unitless	1.3E-02	8.1E-02	5.7E-02	3.3E-02	2.2E-02	3.0E-02
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Sudbury Centre
COC	Cobalt
EPC	95% UCL
Receptor	Male - RME Estimate

Toxicity Information - Cobalt		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.143

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Copper



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	1.7E-01	µg/m3	0.0%	1.9E-03	4.0E-03	3.1E-03	1.9E-03	1.8E-03	2.1E-03
Inhalation of Fine Particulate- Indoors	1.7E-01	µg/m3	0.1%	3.8E-02	8.1E-02	6.3E-02	3.8E-02	3.6E-02	4.2E-02
Dermal Contact - Outdoors	2.0E+02	µg/g	0.0%	4.3E-04	4.1E-04	3.2E-04	3.0E-04	8.7E-05	1.6E-04
Dermal Contact - Indoors	5.6E+02	µg/g	0.0%	3.1E-04	2.9E-04	2.2E-04	2.0E-04	8.7E-05	1.3E-04
Soil Ingestion	2.0E+02	µg/g	0.2%	1.1E-01	2.2E-01	2.7E-02	1.6E-02	1.4E-02	3.0E-02
Indoor dust Ingestion	5.6E+02	µg/g	0.6%	3.6E-01	7.1E-01	8.7E-02	5.2E-02	4.6E-02	9.6E-02
Home Produced Fruits & Vegetables	1.1E+00	µg/g fw	0.2%	0.0E+00	1.8E-01	9.4E-02	5.3E-02	4.4E-02	5.9E-02
Local Fruits & Vegetables	9.3E-01	µg/g fw	0.4%	0.0E+00	4.3E-01	2.3E-01	1.3E-01	1.1E-01	1.4E-01
Local Wild Blue Berries	6.8E-01	µg/g fw	0.4%	0.0E+00	4.3E-01	2.1E-01	9.7E-02	8.2E-02	1.2E-01
Local Wild Game	6.8E-01	µg/g fw	0.1%	0.0E+00	1.1E-01	7.0E-02	4.8E-02	3.7E-02	4.6E-02
Local Fish	5.2E-01	µg/g fw	0.1%	0.0E+00	6.2E-02	7.6E-02	4.5E-02	5.8E-02	5.8E-02
Drinking Water	4.5E+01	µg/L	2.4%	1.3E+00	1.3E+00	9.1E-01	6.5E-01	9.0E-01	9.0E-01
Market Basket Contribution	NA	µg/g	95.5%	5.7E+01	7.0E+01	4.2E+01	2.2E+01	1.5E+01	2.2E+01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	5.9E+01	7.4E+01	4.4E+01	2.3E+01	1.6E+01	2.4E+01
<i>Inhalation Route Only</i>			0.1%	4.0E-02	8.5E-02	6.7E-02	4.0E-02	3.8E-02	4.4E-02
<i>Direct Soil Contact Only</i>			0.8%	4.7E-01	9.3E-01	1.1E-01	6.9E-02	6.1E-02	1.3E-01
<i>Market Basket Foods and Drinking Water</i>			97.9%	5.8E+01	7.1E+01	4.3E+01	2.3E+01	1.6E+01	2.3E+01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			1.2%	0.0E+00	1.2E+00	6.7E-01	3.7E-01	3.3E-01	4.3E-01

Copper

Scenario	
Region	Sudbury Centre
Metal	Copper
EPC	95% UCL
Receptor	Female - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Copper

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	5.7E+01	7.0E+01	4.2E+01	2.2E+01	1.5E+01	2.2E+01
Drinking Water	µg/kg/day	1.3E+00	1.3E+00	9.1E-01	6.5E-01	9.0E-01	9.0E-01
Inhalation Route	µg/kg/day	4.0E-02	8.5E-02	6.7E-02	4.0E-02	3.8E-02	4.4E-02
Direct Dermal Contact	µg/kg/day	7.4E-04	7.0E-04	5.4E-04	5.0E-04	1.7E-04	2.9E-04
Soil/Dust Ingestion	µg/kg/day	4.7E-01	9.3E-01	1.1E-01	6.8E-02	6.1E-02	1.3E-01
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.8E-01	9.4E-02	5.3E-02	4.4E-02	5.9E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	4.3E-01	2.3E-01	1.3E-01	1.1E-01	1.4E-01
Wild Blue Berries	µg/kg/day	0.0E+00	4.3E-01	2.1E-01	9.7E-02	8.2E-02	1.2E-01
Wild Game & Fish	µg/kg/day	0.0E+00	1.7E-01	1.5E-01	9.3E-02	9.5E-02	1.0E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	5.9E+01	7.3E+01	4.4E+01	2.3E+01	1.6E+01	2.4E+01
Hazard Quotient - inhal	unitless	1.4E-01	3.0E-01	2.3E-01	1.4E-01	1.3E-01	NA
Hazard Quotient - oral	unitless	4.2E-01	5.2E-01	3.1E-01	1.7E-01	1.2E-01	1.7E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Sudbury Centre
COC	Copper
EPC	95% UCL
Receptor	Female - CTE Estimate

Toxicity Information - Copper		
Oral RfD	µg/kg/day	140
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.286

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Copper



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	1.7E-01	µg/m3	0.0%	2.8E-03	5.8E-03	4.5E-03	2.7E-03	2.5E-03	3.0E-03
Inhalation of Fine Particulate- Indoors	1.7E-01	µg/m3	0.1%	4.1E-02	8.5E-02	6.6E-02	4.0E-02	3.8E-02	4.4E-02
Dermal Contact - Outdoors	2.0E+02	µg/g	0.0%	4.5E-04	4.4E-04	3.4E-04	3.2E-04	9.3E-05	1.7E-04
Dermal Contact - Indoors	5.6E+02	µg/g	0.0%	3.2E-04	3.0E-04	2.3E-04	2.1E-04	9.1E-05	1.3E-04
Soil Ingestion	2.0E+02	µg/g	0.2%	1.2E-01	2.3E-01	2.8E-02	1.7E-02	1.5E-02	3.1E-02
Indoor dust Ingestion	5.6E+02	µg/g	0.5%	3.7E-01	7.4E-01	9.1E-02	5.4E-02	4.8E-02	1.0E-01
Home Produced Fruits & Vegetables	1.1E+00	µg/g fw	0.5%	0.0E+00	5.7E-01	3.8E-01	2.4E-01	1.9E-01	2.4E-01
Local Fruits & Vegetables	9.3E-01	µg/g fw	1.3%	0.0E+00	1.4E+00	9.7E-01	6.2E-01	4.9E-01	6.1E-01
Local Wild Blue Berries	6.8E-01	µg/g fw	0.6%	0.0E+00	8.7E-01	4.4E-01	2.1E-01	1.7E-01	2.5E-01
Local Wild Game	6.8E-01	µg/g fw	0.1%	0.0E+00	1.3E-01	8.9E-02	5.9E-02	4.7E-02	5.7E-02
Local Fish	5.2E-01	µg/g fw	0.4%	0.0E+00	2.4E-01	3.8E-01	2.0E-01	2.4E-01	2.5E-01
Drinking Water	4.5E+01	µg/L	2.3%	1.6E+00	1.6E+00	1.1E+00	7.9E-01	1.1E+00	1.1E+00
Market Basket Contribution	NA	µg/g	94.1%	7.4E+01	8.1E+01	5.3E+01	2.9E+01	1.9E+01	2.8E+01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	7.6E+01	8.7E+01	5.7E+01	3.1E+01	2.1E+01	3.0E+01
<i>Inhalation Route Only</i>			0.1%	4.4E-02	9.1E-02	7.1E-02	4.2E-02	4.0E-02	4.7E-02
<i>Direct Soil Contact Only</i>			0.6%	4.9E-01	9.8E-01	1.2E-01	7.2E-02	6.3E-02	1.3E-01
<i>Market Basket Foods and Drinking Water</i>			96.3%	7.5E+01	8.3E+01	5.4E+01	3.0E+01	2.0E+01	2.9E+01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			2.9%	0.0E+00	3.2E+00	2.3E+00	1.3E+00	1.1E+00	1.4E+00

Copper

Scenario	
Region	Sudbury Centre
Metal	Copper
EPC	95% UCL
Receptor	Female - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Copper

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	7.4E+01	8.1E+01	5.3E+01	2.9E+01	1.9E+01	2.8E+01
Drinking Water	µg/kg/day	1.6E+00	1.6E+00	1.1E+00	7.9E-01	1.1E+00	1.1E+00
Inhalation Route	µg/kg/day	4.4E-02	9.1E-02	7.1E-02	4.2E-02	4.0E-02	4.7E-02
Direct Dermal Contact	µg/kg/day	7.7E-04	7.3E-04	5.7E-04	5.2E-04	1.8E-04	3.0E-04
Soil/Dust Ingestion	µg/kg/day	4.9E-01	9.7E-01	1.2E-01	7.1E-02	6.3E-02	1.3E-01
HP Fruit & Vegetables	µg/kg/day	0.0E+00	5.7E-01	3.8E-01	2.4E-01	1.9E-01	2.4E-01
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.4E+00	9.7E-01	6.2E-01	4.9E-01	6.1E-01
Wild Blue Berries	µg/kg/day	0.0E+00	8.7E-01	4.4E-01	2.1E-01	1.7E-01	2.5E-01
Wild Game & Fish	µg/kg/day	0.0E+00	3.6E-01	4.7E-01	2.6E-01	2.9E-01	3.1E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	7.6E+01	8.7E+01	5.7E+01	3.1E+01	2.1E+01	3.0E+01
Hazard Quotient - inhal	unitless	1.5E-01	3.2E-01	2.5E-01	1.5E-01	1.4E-01	NA
Hazard Quotient - oral	unitless	5.4E-01	6.2E-01	4.0E-01	2.2E-01	1.5E-01	2.2E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Sudbury Centre
COC	Copper
EPC	95% UCL
Receptor	Female - RME Estimate

Toxicity Information - Copper		
Oral RfD	µg/kg/day	140
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.286

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Copper



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units							
Inhalation of Fine Particulate- Outdoors	1.7E-01	µg/m3	0.0%	1.9E-03	4.4E-03	3.5E-03	2.1E-03	1.6E-03	2.0E-03
Inhalation of Fine Particulate- Indoors	1.7E-01	µg/m3	0.1%	3.8E-02	8.9E-02	7.1E-02	4.3E-02	3.3E-02	4.2E-02
Dermal Contact - Outdoors	2.0E+02	µg/g	0.0%	4.3E-04	4.1E-04	3.2E-04	2.9E-04	8.1E-05	1.5E-04
Dermal Contact - Indoors	5.6E+02	µg/g	0.0%	3.1E-04	2.8E-04	2.2E-04	1.9E-04	8.1E-05	1.2E-04
Soil Ingestion	2.0E+02	µg/g	0.2%	1.1E-01	2.2E-01	2.8E-02	1.4E-02	1.1E-02	2.7E-02
Indoor dust Ingestion	5.6E+02	µg/g	0.6%	3.6E-01	7.1E-01	9.1E-02	4.6E-02	3.7E-02	8.9E-02
Home Produced Fruits & Vegetables	1.1E+00	µg/g fw	0.2%	0.0E+00	1.6E-01	9.9E-02	5.3E-02	4.3E-02	5.7E-02
Local Fruits & Vegetables	9.3E-01	µg/g fw	0.4%	0.0E+00	3.7E-01	2.4E-01	1.3E-01	1.1E-01	1.4E-01
Local Wild Blue Berries	6.8E-01	µg/g fw	0.4%	0.0E+00	4.2E-01	2.2E-01	8.6E-02	7.2E-02	1.1E-01
Local Wild Game	6.8E-01	µg/g fw	0.1%	0.0E+00	9.7E-02	8.1E-02	6.1E-02	6.2E-02	6.6E-02
Local Fish	5.2E-01	µg/g fw	0.1%	0.0E+00	6.5E-02	7.2E-02	5.3E-02	5.4E-02	5.6E-02
Drinking Water	4.5E+01	µg/L	2.3%	1.3E+00	1.3E+00	9.5E-01	5.8E-01	7.2E-01	7.7E-01
Market Basket Contribution	NA	µg/g	95.6%	4.5E+01	6.5E+01	4.7E+01	2.7E+01	1.7E+01	2.5E+01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	4.7E+01	6.8E+01	4.9E+01	2.8E+01	1.9E+01	2.6E+01
<i>Inhalation Route Only</i>			0.1%	4.0E-02	9.3E-02	7.5E-02	4.5E-02	3.5E-02	4.4E-02
<i>Direct Soil Contact Only</i>			0.8%	4.7E-01	9.3E-01	1.2E-01	6.1E-02	4.9E-02	1.2E-01
<i>Market Basket Foods and Drinking Water</i>			97.9%	4.6E+01	6.6E+01	4.8E+01	2.7E+01	1.8E+01	2.6E+01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			1.2%	0.0E+00	1.1E+00	7.1E-01	3.8E-01	3.4E-01	4.3E-01

Copper

Scenario	
Region	Sudbury Centre
Metal	Copper
EPC	95% UCL
Receptor	Male - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Copper

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	4.5E+01	6.5E+01	4.7E+01	2.7E+01	1.7E+01	2.5E+01
Drinking Water	µg/kg/day	1.3E+00	1.3E+00	9.5E-01	5.8E-01	7.2E-01	7.7E-01
Inhalation Route	µg/kg/day	4.0E-02	9.3E-02	7.5E-02	4.5E-02	3.5E-02	4.4E-02
Direct Dermal Contact	µg/kg/day	7.4E-04	6.9E-04	5.5E-04	4.8E-04	1.6E-04	2.8E-04
Soil/Dust Ingestion	µg/kg/day	4.7E-01	9.3E-01	1.2E-01	6.1E-02	4.9E-02	1.2E-01
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.6E-01	9.9E-02	5.3E-02	4.3E-02	5.7E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	3.7E-01	2.4E-01	1.3E-01	1.1E-01	1.4E-01
Wild Blue Berries	µg/kg/day	0.0E+00	4.2E-01	2.2E-01	8.6E-02	7.2E-02	1.1E-01
Wild Game & Fish	µg/kg/day	0.0E+00	1.6E-01	1.5E-01	1.1E-01	1.2E-01	1.2E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	4.7E+01	6.8E+01	4.9E+01	2.8E+01	1.9E+01	2.6E+01
Hazard Quotient - inhal	unitless	1.4E-01	3.3E-01	2.6E-01	1.6E-01	1.2E-01	NA
Hazard Quotient - oral	unitless	3.3E-01	4.9E-01	3.5E-01	2.0E-01	1.3E-01	1.9E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Sudbury Centre
COC	Copper
EPC	95% UCL
Receptor	Male - CTE Estimate

Toxicity Information - Copper		
Oral RfD	µg/kg/day	140
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.286

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Copper



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	1.7E-01	µg/m3	0.0%	2.8E-03	6.3E-03	5.0E-03	2.7E-03	2.3E-03	2.9E-03
Inhalation of Fine Particulate- Indoors	1.7E-01	µg/m3	0.1%	4.1E-02	9.4E-02	7.5E-02	4.5E-02	3.5E-02	4.4E-02
Dermal Contact - Outdoors	2.0E+02	µg/g	0.0%	4.5E-04	4.3E-04	3.4E-04	3.1E-04	8.6E-05	1.6E-04
Dermal Contact - Indoors	5.6E+02	µg/g	0.0%	3.2E-04	3.0E-04	2.3E-04	2.0E-04	8.5E-05	1.3E-04
Soil Ingestion	2.0E+02	µg/g	0.2%	1.2E-01	2.3E-01	2.9E-02	1.5E-02	1.2E-02	2.9E-02
Indoor dust Ingestion	5.6E+02	µg/g	0.5%	3.7E-01	7.4E-01	9.5E-02	4.8E-02	3.9E-02	9.3E-02
Home Produced Fruits & Vegetables	1.1E+00	µg/g fw	0.6%	0.0E+00	5.7E-01	4.4E-01	2.6E-01	2.0E-01	2.5E-01
Local Fruits & Vegetables	9.3E-01	µg/g fw	1.4%	0.0E+00	1.4E+00	1.1E+00	6.7E-01	5.1E-01	6.4E-01
Local Wild Blue Berries	6.8E-01	µg/g fw	0.6%	0.0E+00	8.2E-01	5.0E-01	2.0E-01	1.5E-01	2.4E-01
Local Wild Game	6.8E-01	µg/g fw	0.2%	0.0E+00	1.3E-01	1.0E-01	7.8E-02	1.0E-01	1.0E-01
Local Fish	5.2E-01	µg/g fw	0.5%	0.0E+00	3.5E-01	3.8E-01	2.3E-01	2.4E-01	2.6E-01
Drinking Water	4.5E+01	µg/L	2.1%	1.6E+00	1.6E+00	1.1E+00	4.2E-01	8.5E-01	8.8E-01
Market Basket Contribution	NA	µg/g	93.9%	4.8E+01	8.1E+01	6.0E+01	3.6E+01	2.3E+01	3.2E+01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	5.0E+01	8.7E+01	6.4E+01	3.8E+01	2.5E+01	3.5E+01
<i>Inhalation Route Only</i>			0.1%	4.4E-02	1.0E-01	8.0E-02	4.8E-02	3.7E-02	4.7E-02
<i>Direct Soil Contact Only</i>			0.6%	4.9E-01	9.7E-01	1.2E-01	6.4E-02	5.1E-02	1.2E-01
<i>Market Basket Foods and Drinking Water</i>			96.0%	5.0E+01	8.2E+01	6.1E+01	3.6E+01	2.4E+01	3.3E+01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			3.2%	0.0E+00	3.3E+00	2.5E+00	1.4E+00	1.2E+00	1.5E+00

Copper

Scenario	
Region	Sudbury Centre
Metal	Copper
EPC	95% UCL
Receptor	Male - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Copper

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	4.8E+01	8.1E+01	6.0E+01	3.6E+01	2.3E+01	3.2E+01
Drinking Water	µg/kg/day	1.6E+00	1.6E+00	1.1E+00	4.2E-01	8.5E-01	8.8E-01
Inhalation Route	µg/kg/day	4.4E-02	1.0E-01	8.0E-02	4.8E-02	3.7E-02	4.7E-02
Direct Dermal Contact	µg/kg/day	7.7E-04	7.3E-04	5.7E-04	5.1E-04	1.7E-04	2.9E-04
Soil/Dust Ingestion	µg/kg/day	4.9E-01	9.7E-01	1.2E-01	6.3E-02	5.1E-02	1.2E-01
HP Fruit & Vegetables	µg/kg/day	0.0E+00	5.7E-01	4.4E-01	2.6E-01	2.0E-01	2.5E-01
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.4E+00	1.1E+00	6.7E-01	5.1E-01	6.4E-01
Wild Blue Berries	µg/kg/day	0.0E+00	8.2E-01	5.0E-01	2.0E-01	1.5E-01	2.4E-01
Wild Game & Fish	µg/kg/day	0.0E+00	4.7E-01	4.8E-01	3.1E-01	3.5E-01	3.6E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	5.0E+01	8.6E+01	6.4E+01	3.8E+01	2.5E+01	3.5E+01
Hazard Quotient - inhal	unitless	1.5E-01	3.5E-01	2.8E-01	1.7E-01	1.3E-01	NA
Hazard Quotient - oral	unitless	3.6E-01	6.2E-01	4.6E-01	2.7E-01	1.8E-01	2.5E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Sudbury Centre
COC	Copper
EPC	95% UCL
Receptor	Male - RME Estimate

Toxicity Information - Copper		
Oral RfD	µg/kg/day	140
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.286

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Lead

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	2.5E-02	µg/m3	0.1%	2.8E-04	5.9E-04	4.6E-04	2.8E-04	2.6E-04	3.1E-04
Inhalation of Fine Particulate- Indoors	2.5E-02	µg/m3	1.6%	5.7E-03	1.2E-02	9.5E-03	5.7E-03	5.4E-03	6.3E-03
Dermal Contact - Outdoors	3.6E+01	µg/g	0.0%	2.5E-05	2.4E-05	1.9E-05	1.8E-05	5.1E-06	9.3E-06
Dermal Contact - Indoors	1.2E+02	µg/g	0.0%	2.1E-05	1.9E-05	1.5E-05	1.4E-05	6.0E-06	8.7E-06
Soil Ingestion	3.6E+01	µg/g	2.5%	1.7E-02	3.4E-02	4.2E-03	2.5E-03	2.2E-03	4.6E-03
Indoor dust Ingestion	1.2E+02	µg/g	17.8%	1.2E-01	2.5E-01	3.0E-02	1.8E-02	1.6E-02	3.3E-02
Home Produced Fruits & Vegetables	7.5E-02	µg/g fw	1.1%	0.0E+00	1.3E-02	6.7E-03	4.0E-03	3.5E-03	4.4E-03
Local Fruits & Vegetables	7.2E-02	µg/g fw	3.2%	0.0E+00	3.7E-02	1.9E-02	1.2E-02	9.9E-03	1.3E-02
Local Wild Blue Berries	7.4E-02	µg/g fw	3.7%	0.0E+00	4.7E-02	2.3E-02	1.1E-02	9.0E-03	1.3E-02
Local Wild Game	4.0E-03	µg/g fw	0.1%	0.0E+00	6.3E-04	4.1E-04	2.8E-04	2.1E-04	2.7E-04
Local Fish	3.0E-01	µg/g fw	5.7%	0.0E+00	3.6E-02	4.4E-02	2.6E-02	3.3E-02	3.4E-02
Drinking Water	3.1E-01	µg/L	1.5%	9.2E-03	9.2E-03	6.4E-03	4.6E-03	6.3E-03	6.3E-03
Market Basket Contribution	NA	µg/g	62.9%	1.4E-01	7.0E-01	3.8E-01	1.9E-01	1.2E-01	1.9E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	3.0E-01	1.1E+00	5.3E-01	2.8E-01	2.1E-01	3.1E-01
Inhalation Route Only			1.6%	6.0E-03	1.3E-02	1.0E-02	6.0E-03	5.7E-03	6.6E-03
Direct Soil Contact Only			20.3%	1.4E-01	2.8E-01	3.4E-02	2.1E-02	1.8E-02	3.8E-02
Market Basket Foods and Drinking Water			64.3%	1.5E-01	7.0E-01	3.9E-01	2.0E-01	1.3E-01	2.0E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			13.7%	0.0E+00	1.3E-01	9.3E-02	5.2E-02	5.6E-02	6.4E-02

Lead

Scenario	
Region	Sudbury Centre
Metal	Lead
EPC	95% UCL
Receptor	Female - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Lead

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	1.4E-01	7.0E-01	3.8E-01	1.9E-01	1.2E-01	1.9E-01
Drinking Water	µg/kg/day	9.2E-03	9.2E-03	6.4E-03	4.6E-03	6.3E-03	6.3E-03
Inhalation Route	µg/kg/day	6.0E-03	1.3E-02	1.0E-02	6.0E-03	5.7E-03	6.6E-03
Direct Dermal Contact	µg/kg/day	4.6E-05	4.4E-05	3.4E-05	3.1E-05	1.1E-05	1.8E-05
Soil/Dust Ingestion	µg/kg/day	1.4E-01	2.8E-01	3.4E-02	2.1E-02	1.8E-02	3.8E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.3E-02	6.7E-03	4.0E-03	3.5E-03	4.4E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	3.7E-02	1.9E-02	1.2E-02	9.9E-03	1.3E-02
Wild Blue Berries	µg/kg/day	0.0E+00	4.7E-02	2.3E-02	1.1E-02	9.0E-03	1.3E-02
Wild Game & Fish	µg/kg/day	0.0E+00	3.7E-02	4.4E-02	2.6E-02	3.4E-02	3.4E-02
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	3.0E-01	1.1E+00	5.3E-01	2.8E-01	2.1E-01	3.0E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	1.6E-01	6.1E-01	2.9E-01	1.5E-01	1.1E-01	1.7E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Sudbury Centre
COC	Lead
EPC	95% UCL
Receptor	Female - CTE Estimate

Toxicity Information - Lead		
Oral RfD	µg/kg/day	1.85
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Lead

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	2.5E-02	µg/m3	0.1%	4.1E-04	8.6E-04	6.7E-04	4.0E-04	3.8E-04	4.4E-04
Inhalation of Fine Particulate- Indoors	2.5E-02	µg/m3	1.1%	6.1E-03	1.3E-02	9.9E-03	5.9E-03	5.6E-03	6.5E-03
Dermal Contact - Outdoors	3.6E+01	µg/g	0.0%	2.7E-05	2.6E-05	2.0E-05	1.9E-05	5.4E-06	9.8E-06
Dermal Contact - Indoors	1.2E+02	µg/g	0.0%	2.2E-05	2.0E-05	1.6E-05	1.4E-05	6.2E-06	9.0E-06
Soil Ingestion	3.6E+01	µg/g	1.7%	1.8E-02	3.6E-02	4.4E-03	2.7E-03	2.4E-03	4.9E-03
Indoor dust Ingestion	1.2E+02	µg/g	12.1%	1.3E-01	2.6E-01	3.1E-02	1.9E-02	1.7E-02	3.5E-02
Home Produced Fruits & Vegetables	7.5E-02	µg/g fw	2.9%	0.0E+00	4.2E-02	3.1E-02	2.0E-02	1.6E-02	2.0E-02
Local Fruits & Vegetables	7.2E-02	µg/g fw	8.8%	0.0E+00	1.3E-01	9.3E-02	6.2E-02	4.8E-02	5.9E-02
Local Wild Blue Berries	7.4E-02	µg/g fw	4.9%	0.0E+00	9.4E-02	4.8E-02	2.3E-02	1.8E-02	2.7E-02
Local Wild Game	4.0E-03	µg/g fw	0.0%	0.0E+00	7.3E-04	5.2E-04	3.4E-04	2.7E-04	3.3E-04
Local Fish	3.0E-01	µg/g fw	16.3%	0.0E+00	1.4E-01	2.2E-01	1.2E-01	1.4E-01	1.5E-01
Drinking Water	3.1E-01	µg/L	1.2%	1.1E-02	1.1E-02	7.5E-03	5.6E-03	7.4E-03	7.5E-03
Market Basket Contribution	NA	µg/g	51.0%	1.9E-01	8.2E-01	4.9E-01	2.6E-01	1.6E-01	2.5E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	3.5E-01	1.5E+00	9.4E-01	5.1E-01	4.2E-01	5.5E-01
<i>Inhalation Route Only</i>			1.1%	6.5E-03	1.4E-02	1.1E-02	6.3E-03	6.0E-03	7.0E-03
<i>Direct Soil Contact Only</i>			13.8%	1.5E-01	2.9E-01	3.6E-02	2.1E-02	1.9E-02	4.0E-02
<i>Market Basket Foods and Drinking Water</i>			52.1%	2.0E-01	8.3E-01	5.0E-01	2.6E-01	1.7E-01	2.6E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			33.0%	0.0E+00	4.0E-01	3.9E-01	2.2E-01	2.2E-01	2.5E-01

Lead

Scenario	
Region	Sudbury Centre
Metal	Lead
EPC	95% UCL
Receptor	Female - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Lead

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	1.9E-01	8.2E-01	4.9E-01	2.6E-01	1.6E-01	2.5E-01
Drinking Water	µg/kg/day	1.1E-02	1.1E-02	7.5E-03	5.6E-03	7.4E-03	7.5E-03
Inhalation Route	µg/kg/day	6.5E-03	1.4E-02	1.1E-02	6.3E-03	6.0E-03	7.0E-03
Direct Dermal Contact	µg/kg/day	4.8E-05	4.6E-05	3.5E-05	3.3E-05	1.2E-05	1.9E-05
Soil/Dust Ingestion	µg/kg/day	1.5E-01	2.9E-01	3.6E-02	2.1E-02	1.9E-02	4.0E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	4.2E-02	3.1E-02	2.0E-02	1.6E-02	2.0E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.3E-01	9.3E-02	6.2E-02	4.8E-02	5.9E-02
Wild Blue Berries	µg/kg/day	0.0E+00	9.4E-02	4.8E-02	2.3E-02	1.8E-02	2.7E-02
Wild Game & Fish	µg/kg/day	0.0E+00	1.4E-01	2.2E-01	1.2E-01	1.4E-01	1.5E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	3.5E-01	1.5E+00	9.4E-01	5.1E-01	4.2E-01	5.5E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	1.9E-01	8.3E-01	5.1E-01	2.8E-01	2.3E-01	3.0E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Sudbury Centre
COC	Lead
EPC	95% UCL
Receptor	Female - RME Estimate

Toxicity Information - Lead		
Oral RfD	µg/kg/day	1.85
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Lead

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	2.5E-02	µg/m3	0.1%	2.8E-04	6.5E-04	5.2E-04	3.1E-04	2.4E-04	3.0E-04
Inhalation of Fine Particulate- Indoors	2.5E-02	µg/m3	1.7%	5.7E-03	1.3E-02	1.1E-02	6.4E-03	4.9E-03	6.2E-03
Dermal Contact - Outdoors	3.6E+01	µg/g	0.0%	2.5E-05	2.4E-05	1.9E-05	1.7E-05	4.8E-06	9.0E-06
Dermal Contact - Indoors	1.2E+02	µg/g	0.0%	2.1E-05	1.9E-05	1.5E-05	1.3E-05	5.6E-06	8.4E-06
Soil Ingestion	3.6E+01	µg/g	2.4%	1.7E-02	3.4E-02	4.4E-03	2.2E-03	1.8E-03	4.3E-03
Indoor dust Ingestion	1.2E+02	µg/g	17.6%	1.2E-01	2.5E-01	3.2E-02	1.6E-02	1.3E-02	3.1E-02
Home Produced Fruits & Vegetables	7.5E-02	µg/g fw	1.0%	0.0E+00	1.0E-02	6.9E-03	4.0E-03	3.3E-03	4.2E-03
Local Fruits & Vegetables	7.2E-02	µg/g fw	2.9%	0.0E+00	3.0E-02	2.0E-02	1.2E-02	9.8E-03	1.2E-02
Local Wild Blue Berries	7.4E-02	µg/g fw	3.6%	0.0E+00	4.6E-02	2.4E-02	9.3E-03	7.9E-03	1.2E-02
Local Wild Game	4.0E-03	µg/g fw	0.1%	0.0E+00	5.7E-04	4.7E-04	3.5E-04	3.6E-04	3.8E-04
Local Fish	3.0E-01	µg/g fw	5.8%	0.0E+00	3.7E-02	4.1E-02	3.1E-02	3.2E-02	3.3E-02
Drinking Water	3.1E-01	µg/L	1.4%	9.2E-03	9.1E-03	6.7E-03	4.1E-03	5.1E-03	5.4E-03
Market Basket Contribution	NA	µg/g	63.5%	1.1E-01	6.3E-01	4.3E-01	2.4E-01	1.4E-01	2.1E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	2.7E-01	1.1E+00	5.8E-01	3.2E-01	2.2E-01	3.2E-01
Inhalation Route Only			1.8%	6.0E-03	1.4E-02	1.1E-02	6.7E-03	5.2E-03	6.5E-03
Direct Soil Contact Only			20.0%	1.4E-01	2.8E-01	3.6E-02	1.8E-02	1.5E-02	3.5E-02
Market Basket Foods and Drinking Water			64.9%	1.2E-01	6.4E-01	4.4E-01	2.4E-01	1.5E-01	2.2E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			13.3%	0.0E+00	1.2E-01	9.3E-02	5.6E-02	5.3E-02	6.1E-02

Lead

Scenario	
Region	Sudbury Centre
Metal	Lead
EPC	95% UCL
Receptor	Male - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Lead

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	1.1E-01	6.3E-01	4.3E-01	2.4E-01	1.4E-01	2.1E-01
Drinking Water	µg/kg/day	9.2E-03	9.1E-03	6.7E-03	4.1E-03	5.1E-03	5.4E-03
Inhalation Route	µg/kg/day	6.0E-03	1.4E-02	1.1E-02	6.7E-03	5.2E-03	6.5E-03
Direct Dermal Contact	µg/kg/day	4.6E-05	4.3E-05	3.4E-05	3.0E-05	1.0E-05	1.7E-05
Soil/Dust Ingestion	µg/kg/day	1.4E-01	2.8E-01	3.6E-02	1.8E-02	1.5E-02	3.5E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.0E-02	6.9E-03	4.0E-03	3.3E-03	4.2E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	3.0E-02	2.0E-02	1.2E-02	9.8E-03	1.2E-02
Wild Blue Berries	µg/kg/day	0.0E+00	4.6E-02	2.4E-02	9.3E-03	7.9E-03	1.2E-02
Wild Game & Fish	µg/kg/day	0.0E+00	3.8E-02	4.2E-02	3.1E-02	3.2E-02	3.3E-02
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	2.7E-01	1.1E+00	5.8E-01	3.2E-01	2.2E-01	3.2E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	1.5E-01	5.7E-01	3.1E-01	1.7E-01	1.2E-01	1.7E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Sudbury Centre
COC	Lead
EPC	95% UCL
Receptor	Male - CTE Estimate

Toxicity Information - Lead		
Oral RfD	µg/kg/day	1.85
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Lead

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	2.5E-02	µg/m3	0.1%	4.1E-04	9.4E-04	7.5E-04	4.1E-04	3.5E-04	4.4E-04
Inhalation of Fine Particulate- Indoors	2.5E-02	µg/m3	1.1%	6.1E-03	1.4E-02	1.1E-02	6.7E-03	5.2E-03	6.5E-03
Dermal Contact - Outdoors	3.6E+01	µg/g	0.0%	2.7E-05	2.6E-05	2.0E-05	1.8E-05	5.1E-06	9.5E-06
Dermal Contact - Indoors	1.2E+02	µg/g	0.0%	2.2E-05	2.0E-05	1.6E-05	1.4E-05	5.8E-06	8.7E-06
Soil Ingestion	3.6E+01	µg/g	1.6%	1.8E-02	3.6E-02	4.6E-03	2.4E-03	1.9E-03	4.5E-03
Indoor dust Ingestion	1.2E+02	µg/g	11.3%	1.3E-01	2.6E-01	3.3E-02	1.7E-02	1.3E-02	3.2E-02
Home Produced Fruits & Vegetables	7.5E-02	µg/g fw	2.9%	0.0E+00	4.3E-02	3.5E-02	2.2E-02	1.7E-02	2.1E-02
Local Fruits & Vegetables	7.2E-02	µg/g fw	9.0%	0.0E+00	1.3E-01	1.1E-01	6.7E-02	5.1E-02	6.3E-02
Local Wild Blue Berries	7.4E-02	µg/g fw	4.6%	0.0E+00	8.9E-02	5.4E-02	2.2E-02	1.7E-02	2.6E-02
Local Wild Game	4.0E-03	µg/g fw	0.1%	0.0E+00	7.3E-04	5.9E-04	4.5E-04	5.9E-04	5.8E-04
Local Fish	3.0E-01	µg/g fw	17.6%	0.0E+00	2.0E-01	2.2E-01	1.3E-01	1.4E-01	1.5E-01
Drinking Water	3.1E-01	µg/L	1.0%	1.1E-02	1.1E-02	7.8E-03	3.0E-03	6.0E-03	6.2E-03
Market Basket Contribution	NA	µg/g	50.8%	1.2E-01	8.1E-01	5.6E-01	3.3E-01	2.0E-01	2.9E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)	100.0%	2.9E-01	1.6E+00	1.0E+00	6.1E-01	4.5E-01	6.0E-01	6.0E-01	6.0E-01
<i>Inhalation Route Only</i>	1.2%	6.5E-03	1.5E-02	1.2E-02	7.1E-03	5.5E-03	7.0E-03	7.0E-03	7.0E-03
<i>Direct Soil Contact Only</i>	12.9%	1.5E-01	2.9E-01	3.7E-02	1.9E-02	1.5E-02	3.7E-02	3.7E-02	3.7E-02
<i>Market Basket Foods and Drinking Water</i>	51.8%	1.3E-01	8.2E-01	5.7E-01	3.3E-01	2.0E-01	2.9E-01	2.9E-01	2.9E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)	34.1%	0.0E+00	4.6E-01	4.2E-01	2.5E-01	2.3E-01	2.6E-01	2.6E-01	2.6E-01

Lead

Scenario	
Region	Sudbury Centre
Metal	Lead
EPC	95% UCL
Receptor	Male - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Lead

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	1.2E-01	8.1E-01	5.6E-01	3.3E-01	2.0E-01	2.9E-01
Drinking Water	µg/kg/day	1.1E-02	1.1E-02	7.8E-03	3.0E-03	6.0E-03	6.2E-03
Inhalation Route	µg/kg/day	6.5E-03	1.5E-02	1.2E-02	7.1E-03	5.5E-03	7.0E-03
Direct Dermal Contact	µg/kg/day	4.8E-05	4.6E-05	3.6E-05	3.2E-05	1.1E-05	1.8E-05
Soil/Dust Ingestion	µg/kg/day	1.5E-01	2.9E-01	3.7E-02	1.9E-02	1.5E-02	3.7E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	4.3E-02	3.5E-02	2.2E-02	1.7E-02	2.1E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.3E-01	1.1E-01	6.7E-02	5.1E-02	6.3E-02
Wild Blue Berries	µg/kg/day	0.0E+00	8.9E-02	5.4E-02	2.2E-02	1.7E-02	2.6E-02
Wild Game & Fish	µg/kg/day	0.0E+00	2.0E-01	2.2E-01	1.3E-01	1.4E-01	1.5E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	2.9E-01	1.6E+00	1.0E+00	6.1E-01	4.5E-01	5.9E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	1.6E-01	8.6E-01	5.6E-01	3.3E-01	2.4E-01	3.2E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Sudbury Centre
COC	Lead
EPC	95% UCL
Receptor	Male - RME Estimate

Toxicity Information - Lead		
Oral RfD	µg/kg/day	1.85
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Nickel



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	9.5E-02	µg/m3	0.0%	1.0E-03	2.2E-03	1.7E-03	1.0E-03	9.9E-04	1.1E-03
Inhalation of Fine Particulate- Indoors	9.5E-02	µg/m3	0.6%	2.1E-02	4.5E-02	3.5E-02	2.1E-02	2.0E-02	2.3E-02
Dermal Contact - Outdoors	2.1E+02	µg/g	0.0%	1.5E-04	1.4E-04	1.1E-04	1.0E-04	3.0E-05	5.4E-05
Dermal Contact - Indoors	5.2E+02	µg/g	0.0%	9.4E-05	8.7E-05	6.7E-05	6.0E-05	2.7E-05	3.9E-05
Soil Ingestion	2.1E+02	µg/g	0.9%	6.4E-02	1.3E-01	1.6E-02	9.3E-03	8.3E-03	1.7E-02
Indoor dust Ingestion	5.2E+02	µg/g	2.9%	2.0E-01	4.0E-01	4.9E-02	2.9E-02	2.6E-02	5.4E-02
Home Produced Fruits & Vegetables	7.9E-01	µg/g fw	3.3%	0.0E+00	4.0E-01	2.0E-01	9.9E-02	8.5E-02	1.2E-01
Local Fruits & Vegetables	1.4E+00	µg/g fw	6.8%	0.0E+00	8.0E-01	4.0E-01	2.2E-01	1.9E-01	2.5E-01
Local Wild Blue Berries	7.1E-01	µg/g fw	3.6%	0.0E+00	4.5E-01	2.2E-01	1.0E-01	8.6E-02	1.2E-01
Local Wild Game	6.2E-01	µg/g fw	1.0%	0.0E+00	9.9E-02	6.4E-02	4.4E-02	3.4E-02	4.2E-02
Local Fish	3.2E-02	µg/g fw	0.1%	0.0E+00	3.8E-03	4.7E-03	2.8E-03	3.6E-03	3.6E-03
Drinking Water	5.3E+01	µg/L	25.2%	1.5E+00	1.5E+00	1.1E+00	7.7E-01	1.1E+00	1.1E+00
Market Basket Contribution	NA	µg/g	55.6%	6.9E-01	5.9E+00	3.5E+00	1.9E+00	1.3E+00	1.9E+00

Nickel

Scenario	
Region	Sudbury Centre
Metal	Nickel
EPC	95% UCL
Receptor	Female - CTE Estimate

SUMMARY									
Estimated Total Daily Intake(ug/kg/day)	100.0%	2.5E+00	9.8E+00	5.5E+00	3.2E+00	2.8E+00	3.6E+00		
<i>Inhalation Route Only</i>	0.6%	2.2E-02	4.7E-02	3.7E-02	2.2E-02	2.1E-02	2.5E-02		
<i>Direct Soil Contact Only</i>	3.9%	2.6E-01	5.3E-01	6.4E-02	3.9E-02	3.4E-02	7.1E-02		
<i>Market Basket Foods and Drinking Water</i>	80.8%	2.2E+00	7.5E+00	4.5E+00	2.6E+00	2.3E+00	2.9E+00		
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)	14.7%	0.0E+00	1.8E+00	8.9E-01	4.6E-01	4.0E-01	5.4E-01		



HUMAN HEALTH RISK ESTIMATES

Nickel

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	6.9E-01	5.9E+00	3.5E+00	1.9E+00	1.3E+00	1.9E+00
Drinking Water	µg/kg/day	1.5E+00	1.5E+00	1.1E+00	7.7E-01	1.1E+00	1.1E+00
Inhalation Route	µg/kg/day	2.2E-02	4.7E-02	3.7E-02	2.2E-02	2.1E-02	2.5E-02
Direct Dermal Contact	µg/kg/day	2.4E-04	2.3E-04	1.8E-04	1.6E-04	5.6E-05	9.3E-05
Soil/Dust Ingestion	µg/kg/day	2.6E-01	5.3E-01	6.4E-02	3.8E-02	3.4E-02	7.1E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	4.0E-01	2.0E-01	9.9E-02	8.5E-02	1.2E-01
Local Fruit & Vegetables	µg/kg/day	0.0E+00	8.0E-01	4.0E-01	2.2E-01	1.9E-01	2.5E-01
Wild Blue Berries	µg/kg/day	0.0E+00	4.5E-01	2.2E-01	1.0E-01	8.6E-02	1.2E-01
Wild Game & Fish	µg/kg/day	0.0E+00	1.0E-01	6.9E-02	4.7E-02	3.7E-02	4.5E-02
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	2.5E+00	9.8E+00	5.5E+00	3.1E+00	2.8E+00	3.5E+00
Hazard Quotient - inhal	unitless	3.9E+00	8.3E+00	6.5E+00	3.9E+00	3.7E+00	NA
Hazard Quotient - oral	unitless	1.3E-01	4.9E-01	2.7E-01	1.6E-01	1.4E-01	1.8E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Sudbury Centre
COC	Nickel
EPC	95% UCL
Receptor	Female - CTE Estimate

Toxicity Information - Nickel		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.00571

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Nickel



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	9.5E-02	µg/m3	0.0%	1.5E-03	3.2E-03	2.5E-03	1.5E-03	1.4E-03	1.6E-03
Inhalation of Fine Particulate- Indoors	9.5E-02	µg/m3	0.4%	2.3E-02	4.8E-02	3.7E-02	2.2E-02	2.1E-02	2.4E-02
Dermal Contact - Outdoors	2.1E+02	µg/g	0.0%	1.6E-04	1.5E-04	1.2E-04	1.1E-04	3.2E-05	5.8E-05
Dermal Contact - Indoors	5.2E+02	µg/g	0.0%	9.8E-05	9.0E-05	6.9E-05	6.3E-05	2.8E-05	4.0E-05
Soil Ingestion	2.1E+02	µg/g	0.7%	6.8E-02	1.4E-01	1.7E-02	9.9E-03	8.8E-03	1.8E-02
Indoor dust Ingestion	5.2E+02	µg/g	2.1%	2.1E-01	4.1E-01	5.1E-02	3.0E-02	2.7E-02	5.6E-02
Home Produced Fruits & Vegetables	7.9E-01	µg/g fw	6.6%	0.0E+00	1.0E+00	6.1E-01	3.4E-01	2.7E-01	3.6E-01
Local Fruits & Vegetables	1.4E+00	µg/g fw	15.8%	0.0E+00	2.3E+00	1.5E+00	9.0E-01	7.2E-01	9.1E-01
Local Wild Blue Berries	7.1E-01	µg/g fw	5.1%	0.0E+00	9.0E-01	4.6E-01	2.2E-01	1.8E-01	2.5E-01
Local Wild Game	6.2E-01	µg/g fw	0.9%	0.0E+00	1.1E-01	8.2E-02	5.4E-02	4.2E-02	5.2E-02
Local Fish	3.2E-02	µg/g fw	0.2%	0.0E+00	1.5E-02	2.3E-02	1.2E-02	1.5E-02	1.5E-02
Drinking Water	5.3E+01	µg/L	21.5%	1.9E+00	1.9E+00	1.3E+00	9.4E-01	1.3E+00	1.3E+00
Market Basket Contribution	NA	µg/g	46.6%	9.0E-01	6.3E+00	4.5E+00	2.5E+00	1.7E+00	2.3E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	3.1E+00	1.3E+01	8.5E+00	5.0E+00	4.2E+00	5.3E+00
<i>Inhalation Route Only</i>			0.5%	2.4E-02	5.1E-02	3.9E-02	2.4E-02	2.2E-02	2.6E-02
<i>Direct Soil Contact Only</i>			2.8%	2.8E-01	5.5E-01	6.7E-02	4.0E-02	3.6E-02	7.4E-02
<i>Market Basket Foods and Drinking Water</i>			68.1%	2.8E+00	8.2E+00	5.8E+00	3.5E+00	2.9E+00	3.6E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			28.6%	0.0E+00	4.3E+00	2.7E+00	1.5E+00	1.2E+00	1.6E+00

Nickel

Scenario	
Region	Sudbury Centre
Metal	Nickel
EPC	95% UCL
Receptor	Female - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Nickel

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	9.0E-01	6.3E+00	4.5E+00	2.5E+00	1.7E+00	2.3E+00
Drinking Water	µg/kg/day	1.9E+00	1.9E+00	1.3E+00	9.4E-01	1.3E+00	1.3E+00
Inhalation Route	µg/kg/day	2.4E-02	5.1E-02	3.9E-02	2.4E-02	2.2E-02	2.6E-02
Direct Dermal Contact	µg/kg/day	2.5E-04	2.4E-04	1.9E-04	1.7E-04	5.9E-05	9.8E-05
Soil/Dust Ingestion	µg/kg/day	2.8E-01	5.5E-01	6.7E-02	4.0E-02	3.6E-02	7.4E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.0E+00	6.1E-01	3.4E-01	2.7E-01	3.6E-01
Local Fruit & Vegetables	µg/kg/day	0.0E+00	2.3E+00	1.5E+00	9.0E-01	7.2E-01	9.1E-01
Wild Blue Berries	µg/kg/day	0.0E+00	9.0E-01	4.6E-01	2.2E-01	1.8E-01	2.5E-01
Wild Game & Fish	µg/kg/day	0.0E+00	1.3E-01	1.0E-01	6.7E-02	5.8E-02	6.8E-02
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	3.1E+00	1.3E+01	8.5E+00	5.0E+00	4.2E+00	5.3E+00
Hazard Quotient - inhal	unitless	4.2E+00	8.9E+00	6.9E+00	4.1E+00	3.9E+00	NA
Hazard Quotient - oral	unitless	1.6E-01	6.6E-01	4.3E-01	2.5E-01	2.1E-01	2.6E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Sudbury Centre
COC	Nickel
EPC	95% UCL
Receptor	Female - RME Estimate

Toxicity Information - Nickel		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.00571

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Nickel



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	9.5E-02	µg/m3	0.0%	1.0E-03	2.4E-03	1.9E-03	1.2E-03	9.0E-04	1.1E-03
Inhalation of Fine Particulate- Indoors	9.5E-02	µg/m3	0.7%	2.1E-02	5.0E-02	4.0E-02	2.4E-02	1.8E-02	2.3E-02
Dermal Contact - Outdoors	2.1E+02	µg/g	0.0%	1.5E-04	1.4E-04	1.1E-04	9.9E-05	2.8E-05	5.2E-05
Dermal Contact - Indoors	5.2E+02	µg/g	0.0%	9.4E-05	8.7E-05	6.8E-05	5.8E-05	2.5E-05	3.7E-05
Soil Ingestion	2.1E+02	µg/g	1.0%	6.4E-02	1.3E-01	1.6E-02	8.3E-03	6.7E-03	1.6E-02
Indoor dust Ingestion	5.2E+02	µg/g	3.0%	2.0E-01	4.0E-01	5.1E-02	2.6E-02	2.1E-02	5.0E-02
Home Produced Fruits & Vegetables	7.9E-01	µg/g fw	3.3%	0.0E+00	3.7E-01	2.1E-01	9.3E-02	7.7E-02	1.1E-01
Local Fruits & Vegetables	1.4E+00	µg/g fw	6.5%	0.0E+00	7.0E-01	4.2E-01	2.1E-01	1.7E-01	2.4E-01
Local Wild Blue Berries	7.1E-01	µg/g fw	3.6%	0.0E+00	4.4E-01	2.3E-01	8.9E-02	7.5E-02	1.1E-01
Local Wild Game	6.2E-01	µg/g fw	1.2%	0.0E+00	8.9E-02	7.4E-02	5.6E-02	5.7E-02	6.0E-02
Local Fish	3.2E-02	µg/g fw	0.1%	0.0E+00	4.0E-03	4.4E-03	3.3E-03	3.4E-03	3.5E-03
Drinking Water	5.3E+01	µg/L	25.0%	1.5E+00	1.5E+00	1.1E+00	6.9E-01	8.5E-01	9.1E-01
Market Basket Contribution	NA	µg/g	55.6%	5.5E-01	4.7E+00	3.8E+00	2.2E+00	1.4E+00	2.0E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	2.4E+00	8.5E+00	6.0E+00	3.4E+00	2.7E+00	3.5E+00
<i>Inhalation Route Only</i>			0.7%	2.2E-02	5.2E-02	4.2E-02	2.5E-02	1.9E-02	2.4E-02
<i>Direct Soil Contact Only</i>			4.0%	2.6E-01	5.2E-01	6.7E-02	3.4E-02	2.7E-02	6.6E-02
<i>Market Basket Foods and Drinking Water</i>			80.6%	2.1E+00	6.3E+00	5.0E+00	2.9E+00	2.3E+00	2.9E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			14.7%	0.0E+00	1.6E+00	9.3E-01	4.5E-01	3.9E-01	5.2E-01

Nickel

Scenario	
Region	Sudbury Centre
Metal	Nickel
EPC	95% UCL
Receptor	Male - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Nickel

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	5.5E-01	4.7E+00	3.8E+00	2.2E+00	1.4E+00	2.0E+00
Drinking Water	µg/kg/day	1.5E+00	1.5E+00	1.1E+00	6.9E-01	8.5E-01	9.1E-01
Inhalation Route	µg/kg/day	2.2E-02	5.2E-02	4.2E-02	2.5E-02	1.9E-02	2.4E-02
Direct Dermal Contact	µg/kg/day	2.4E-04	2.3E-04	1.8E-04	1.6E-04	5.3E-05	9.0E-05
Soil/Dust Ingestion	µg/kg/day	2.6E-01	5.2E-01	6.7E-02	3.4E-02	2.7E-02	6.6E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	3.7E-01	2.1E-01	9.3E-02	7.7E-02	1.1E-01
Local Fruit & Vegetables	µg/kg/day	0.0E+00	7.0E-01	4.2E-01	2.1E-01	1.7E-01	2.4E-01
Wild Blue Berries	µg/kg/day	0.0E+00	4.4E-01	2.3E-01	8.9E-02	7.5E-02	1.1E-01
Wild Game & Fish	µg/kg/day	0.0E+00	9.3E-02	7.9E-02	5.9E-02	6.0E-02	6.4E-02
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	2.4E+00	8.4E+00	6.0E+00	3.4E+00	2.7E+00	3.5E+00
Hazard Quotient - inhal	unitless	3.9E+00	9.1E+00	7.3E+00	4.4E+00	3.4E+00	NA
Hazard Quotient - oral	unitless	1.2E-01	4.2E-01	3.0E-01	1.7E-01	1.4E-01	1.7E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Sudbury Centre
COC	Nickel
EPC	95% UCL
Receptor	Male - CTE Estimate

Toxicity Information - Nickel		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.00571

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Nickel



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	9.5E-02	µg/m3	0.0%	1.5E-03	3.5E-03	2.8E-03	1.5E-03	1.3E-03	1.6E-03
Inhalation of Fine Particulate- Indoors	9.5E-02	µg/m3	0.5%	2.3E-02	5.2E-02	4.2E-02	2.5E-02	1.9E-02	2.4E-02
Dermal Contact - Outdoors	2.1E+02	µg/g	0.0%	1.6E-04	1.5E-04	1.2E-04	1.1E-04	3.0E-05	5.6E-05
Dermal Contact - Indoors	5.2E+02	µg/g	0.0%	9.8E-05	9.0E-05	7.0E-05	6.0E-05	2.6E-05	3.9E-05
Soil Ingestion	2.1E+02	µg/g	0.7%	6.8E-02	1.3E-01	1.7E-02	8.8E-03	7.0E-03	1.7E-02
Indoor dust Ingestion	5.2E+02	µg/g	2.1%	2.1E-01	4.1E-01	5.3E-02	2.7E-02	2.2E-02	5.2E-02
Home Produced Fruits & Vegetables	7.9E-01	µg/g fw	6.6%	0.0E+00	1.0E+00	6.9E-01	3.5E-01	2.6E-01	3.6E-01
Local Fruits & Vegetables	1.4E+00	µg/g fw	16.1%	0.0E+00	2.3E+00	1.7E+00	9.5E-01	7.2E-01	9.4E-01
Local Wild Blue Berries	7.1E-01	µg/g fw	5.0%	0.0E+00	8.5E-01	5.2E-01	2.1E-01	1.6E-01	2.4E-01
Local Wild Game	6.2E-01	µg/g fw	1.1%	0.0E+00	1.2E-01	9.3E-02	7.1E-02	9.3E-02	9.1E-02
Local Fish	3.2E-02	µg/g fw	0.2%	0.0E+00	2.1E-02	2.3E-02	1.4E-02	1.5E-02	1.6E-02
Drinking Water	5.3E+01	µg/L	19.1%	1.9E+00	1.9E+00	1.3E+00	5.0E-01	1.0E+00	1.0E+00
Market Basket Contribution	NA	µg/g	48.8%	5.9E-01	6.2E+00	5.1E+00	3.3E+00	1.9E+00	2.6E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	2.8E+00	1.3E+01	9.5E+00	5.4E+00	4.2E+00	5.4E+00
<i>Inhalation Route Only</i>			0.5%	2.4E-02	5.6E-02	4.4E-02	2.7E-02	2.1E-02	2.6E-02
<i>Direct Soil Contact Only</i>			2.7%	2.8E-01	5.5E-01	7.0E-02	3.6E-02	2.9E-02	6.9E-02
<i>Market Basket Foods and Drinking Water</i>			67.8%	2.5E+00	8.1E+00	6.4E+00	3.8E+00	2.9E+00	3.7E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			28.9%	0.0E+00	4.3E+00	3.0E+00	1.6E+00	1.3E+00	1.7E+00

Nickel

Scenario	
Region	Sudbury Centre
Metal	Nickel
EPC	95% UCL
Receptor	Male - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Nickel

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	5.9E-01	6.2E+00	5.1E+00	3.3E+00	1.9E+00	2.6E+00
Drinking Water	µg/kg/day	1.9E+00	1.9E+00	1.3E+00	5.0E-01	1.0E+00	1.0E+00
Inhalation Route	µg/kg/day	2.4E-02	5.6E-02	4.4E-02	2.7E-02	2.1E-02	2.6E-02
Direct Dermal Contact	µg/kg/day	2.5E-04	2.4E-04	1.9E-04	1.7E-04	5.5E-05	9.4E-05
Soil/Dust Ingestion	µg/kg/day	2.8E-01	5.5E-01	7.0E-02	3.6E-02	2.9E-02	6.9E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.0E+00	6.9E-01	3.5E-01	2.6E-01	3.6E-01
Local Fruit & Vegetables	µg/kg/day	0.0E+00	2.3E+00	1.7E+00	9.5E-01	7.2E-01	9.4E-01
Wild Blue Berries	µg/kg/day	0.0E+00	8.5E-01	5.2E-01	2.1E-01	1.6E-01	2.4E-01
Wild Game & Fish	µg/kg/day	0.0E+00	1.4E-01	1.2E-01	8.6E-02	1.1E-01	1.1E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	2.8E+00	1.3E+01	9.5E+00	5.4E+00	4.2E+00	5.4E+00
Hazard Quotient - inhal	unitless	4.2E+00	9.7E+00	7.8E+00	4.7E+00	3.6E+00	NA
Hazard Quotient - oral	unitless	1.4E-01	6.5E-01	4.7E-01	2.7E-01	2.1E-01	2.7E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Sudbury Centre
COC	Nickel
EPC	95% UCL
Receptor	Male - RME Estimate

Toxicity Information - Nickel		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.00571

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Selenium



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	9.2E-03	µg/m3	0.0%	1.0E-04	2.1E-04	1.7E-04	1.0E-04	9.6E-05	1.1E-04
Inhalation of Fine Particulate- Indoors	9.2E-03	µg/m3	0.1%	2.1E-03	4.4E-03	3.5E-03	2.1E-03	2.0E-03	2.3E-03
Dermal Contact - Outdoors	1.3E+00	µg/g	0.0%	9.0E-07	8.7E-07	6.8E-07	6.4E-07	1.8E-07	3.3E-07
Dermal Contact - Indoors	2.7E+00	µg/g	0.0%	4.8E-07	4.5E-07	3.4E-07	3.1E-07	1.4E-07	2.0E-07
Soil Ingestion	1.3E+00	µg/g	0.0%	2.4E-04	4.9E-04	6.0E-05	3.6E-05	3.2E-05	6.6E-05
Indoor dust Ingestion	2.7E+00	µg/g	0.1%	2.3E-03	4.6E-03	5.6E-04	3.4E-04	3.0E-04	6.2E-04
Home Produced Fruits & Vegetables	4.0E-02	µg/g fw	0.2%	0.0E+00	1.2E-02	5.8E-03	3.2E-03	2.8E-03	3.7E-03
Local Fruits & Vegetables	5.2E-02	µg/g fw	0.5%	0.0E+00	3.5E-02	1.9E-02	1.2E-02	1.0E-02	1.3E-02
Local Wild Blue Berries	1.6E-02	µg/g fw	0.1%	0.0E+00	1.0E-02	4.9E-03	2.3E-03	1.9E-03	2.8E-03
Local Wild Game	1.4E+00	µg/g fw	3.7%	0.0E+00	2.2E-01	1.4E-01	9.6E-02	7.4E-02	9.1E-02
Local Fish	2.0E+00	µg/g fw	6.4%	0.0E+00	2.3E-01	2.9E-01	1.7E-01	2.2E-01	2.2E-01
Drinking Water	1.3E+00	µg/L	1.0%	3.8E-02	3.7E-02	2.6E-02	1.9E-02	2.6E-02	2.6E-02
Market Basket Contribution	NA	µg/g	87.8%	1.3E+00	5.0E+00	3.3E+00	1.7E+00	1.0E+00	1.6E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	1.3E+00	5.6E+00	3.8E+00	2.0E+00	1.4E+00	2.0E+00
<i>Inhalation Route Only</i>			0.1%	2.2E-03	4.6E-03	3.6E-03	2.2E-03	2.1E-03	2.4E-03
<i>Direct Soil Contact Only</i>			0.1%	2.5E-03	5.1E-03	6.2E-04	3.7E-04	3.3E-04	6.9E-04
<i>Market Basket Foods and Drinking Water</i>			88.8%	1.3E+00	5.0E+00	3.4E+00	1.7E+00	1.1E+00	1.6E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			11.0%	0.0E+00	5.1E-01	4.5E-01	2.8E-01	3.1E-01	3.3E-01

Selenium

Scenario	
Region	Sudbury Centre
Metal	Selenium
EPC	95% UCL
Receptor	Female - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Selenium

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	1.3E+00	5.0E+00	3.3E+00	1.7E+00	1.0E+00	1.6E+00
Drinking Water	µg/kg/day	3.8E-02	3.7E-02	2.6E-02	1.9E-02	2.6E-02	2.6E-02
Inhalation Route	µg/kg/day	2.2E-03	4.6E-03	3.6E-03	2.2E-03	2.1E-03	2.4E-03
Direct Dermal Contact	µg/kg/day	1.4E-06	1.3E-06	1.0E-06	9.5E-07	3.2E-07	5.3E-07
Soil/Dust Ingestion	µg/kg/day	2.5E-03	5.1E-03	6.2E-04	3.7E-04	3.3E-04	6.9E-04
HP Fruit & Vegetables	µg/kg/day	0.0E+00	1.2E-02	5.8E-03	3.2E-03	2.8E-03	3.7E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	3.5E-02	1.9E-02	1.2E-02	1.0E-02	1.3E-02
Wild Blue Berries	µg/kg/day	0.0E+00	1.0E-02	4.9E-03	2.3E-03	1.9E-03	2.8E-03
Wild Game & Fish	µg/kg/day	0.0E+00	4.5E-01	4.3E-01	2.6E-01	2.9E-01	3.1E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	1.3E+00	5.5E+00	3.8E+00	2.0E+00	1.4E+00	2.0E+00
Hazard Quotient - inhal	unitless	3.8E-04	8.1E-04	6.3E-04	3.8E-04	3.6E-04	NA
Hazard Quotient - oral	unitless	2.6E-01	1.1E+00	7.7E-01	4.1E-01	2.7E-01	3.9E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Sudbury Centre
COC	Selenium
EPC	95% UCL
Receptor	Female - CTE Estimate

Toxicity Information - Selenium		
Oral RfD	µg/kg/day	5
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	5.71

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Selenium



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	9.2E-03	µg/m3	0.0%	1.5E-04	3.1E-04	2.4E-04	1.5E-04	1.4E-04	1.6E-04
Inhalation of Fine Particulate- Indoors	9.2E-03	µg/m3	0.1%	2.2E-03	4.6E-03	3.6E-03	2.2E-03	2.0E-03	2.4E-03
Dermal Contact - Outdoors	1.3E+00	µg/g	0.0%	9.6E-07	9.2E-07	7.2E-07	6.8E-07	2.0E-07	3.6E-07
Dermal Contact - Indoors	2.7E+00	µg/g	0.0%	5.0E-07	4.7E-07	3.6E-07	3.2E-07	1.4E-07	2.1E-07
Soil Ingestion	1.3E+00	µg/g	0.0%	2.6E-04	5.2E-04	6.3E-05	3.8E-05	3.4E-05	7.0E-05
Indoor dust Ingestion	2.7E+00	µg/g	0.0%	2.4E-03	4.8E-03	5.8E-04	3.5E-04	3.1E-04	6.4E-04
Home Produced Fruits & Vegetables	4.0E-02	µg/g fw	0.4%	0.0E+00	3.4E-02	2.3E-02	1.4E-02	1.1E-02	1.4E-02
Local Fruits & Vegetables	5.2E-02	µg/g fw	1.7%	0.0E+00	1.3E-01	1.0E-01	7.1E-02	5.5E-02	6.7E-02
Local Wild Blue Berries	1.6E-02	µg/g fw	0.2%	0.0E+00	2.0E-02	1.0E-02	4.9E-03	4.0E-03	5.7E-03
Local Wild Game	1.4E+00	µg/g fw	3.1%	0.0E+00	2.5E-01	1.8E-01	1.2E-01	9.3E-02	1.1E-01
Local Fish	2.0E+00	µg/g fw	19.1%	0.0E+00	8.9E-01	1.4E+00	7.5E-01	9.2E-01	9.4E-01
Drinking Water	1.3E+00	µg/L	0.9%	4.7E-02	4.7E-02	3.0E-02	2.3E-02	3.0E-02	3.1E-02
Market Basket Contribution	NA	µg/g	74.5%	1.6E+00	6.4E+00	4.0E+00	2.2E+00	1.3E+00	2.0E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	1.7E+00	7.8E+00	5.8E+00	3.1E+00	2.4E+00	3.2E+00
<i>Inhalation Route Only</i>			0.1%	2.4E-03	5.0E-03	3.9E-03	2.3E-03	2.2E-03	2.5E-03
<i>Direct Soil Contact Only</i>			0.0%	2.6E-03	5.3E-03	6.5E-04	3.9E-04	3.4E-04	7.1E-04
<i>Market Basket Foods and Drinking Water</i>			75.4%	1.7E+00	6.5E+00	4.1E+00	2.2E+00	1.3E+00	2.0E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			24.5%	0.0E+00	1.3E+00	1.7E+00	9.6E-01	1.1E+00	1.1E+00

Selenium

Scenario	
Region	Sudbury Centre
Metal	Selenium
EPC	95% UCL
Receptor	Female - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Selenium

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	1.6E+00	6.4E+00	4.0E+00	2.2E+00	1.3E+00	2.0E+00
Drinking Water	µg/kg/day	4.7E-02	4.7E-02	3.0E-02	2.3E-02	3.0E-02	3.1E-02
Inhalation Route	µg/kg/day	2.4E-03	5.0E-03	3.9E-03	2.3E-03	2.2E-03	2.5E-03
Direct Dermal Contact	µg/kg/day	1.5E-06	1.4E-06	1.1E-06	1.0E-06	3.4E-07	5.6E-07
Soil/Dust Ingestion	µg/kg/day	2.6E-03	5.3E-03	6.5E-04	3.9E-04	3.4E-04	7.1E-04
HP Fruit & Vegetables	µg/kg/day	0.0E+00	3.4E-02	2.3E-02	1.4E-02	1.1E-02	1.4E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.3E-01	1.0E-01	7.1E-02	5.5E-02	6.7E-02
Wild Blue Berries	µg/kg/day	0.0E+00	2.0E-02	1.0E-02	4.9E-03	4.0E-03	5.7E-03
Wild Game & Fish	µg/kg/day	0.0E+00	1.1E+00	1.6E+00	8.7E-01	1.0E+00	1.1E+00
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	1.7E+00	7.8E+00	5.8E+00	3.1E+00	2.4E+00	3.2E+00
Hazard Quotient - inhal	unitless	4.1E-04	8.7E-04	6.7E-04	4.0E-04	3.8E-04	NA
Hazard Quotient - oral	unitless	3.4E-01	1.6E+00	1.2E+00	6.3E-01	4.8E-01	6.3E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Sudbury Centre
COC	Selenium
EPC	95% UCL
Receptor	Female - RME Estimate

Toxicity Information - Selenium		
Oral RfD	µg/kg/day	5
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	5.71

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Selenium



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units							
Inhalation of Fine Particulate- Outdoors	9.2E-03	µg/m3	0.0%	1.0E-04	2.4E-04	1.9E-04	1.1E-04	8.8E-05	1.1E-04
Inhalation of Fine Particulate- Indoors	9.2E-03	µg/m3	0.1%	2.1E-03	4.8E-03	3.9E-03	2.3E-03	1.8E-03	2.3E-03
Dermal Contact - Outdoors	1.3E+00	µg/g	0.0%	9.0E-07	8.7E-07	6.9E-07	6.1E-07	1.7E-07	3.2E-07
Dermal Contact - Indoors	2.7E+00	µg/g	0.0%	4.8E-07	4.5E-07	3.5E-07	3.0E-07	1.3E-07	1.9E-07
Soil Ingestion	1.3E+00	µg/g	0.0%	2.4E-04	4.9E-04	6.2E-05	3.2E-05	2.5E-05	6.1E-05
Indoor dust Ingestion	2.7E+00	µg/g	0.1%	2.3E-03	4.6E-03	5.9E-04	3.0E-04	2.4E-04	5.7E-04
Home Produced Fruits & Vegetables	4.0E-02	µg/g fw	0.1%	0.0E+00	9.8E-03	6.0E-03	3.1E-03	2.6E-03	3.5E-03
Local Fruits & Vegetables	5.2E-02	µg/g fw	0.4%	0.0E+00	2.6E-02	2.0E-02	1.3E-02	1.0E-02	1.3E-02
Local Wild Blue Berries	1.6E-02	µg/g fw	0.1%	0.0E+00	9.9E-03	5.1E-03	2.0E-03	1.7E-03	2.6E-03
Local Wild Game	1.4E+00	µg/g fw	3.8%	0.0E+00	1.9E-01	1.6E-01	1.2E-01	1.2E-01	1.3E-01
Local Fish	2.0E+00	µg/g fw	5.8%	0.0E+00	2.4E-01	2.7E-01	2.0E-01	2.0E-01	2.1E-01
Drinking Water	1.3E+00	µg/L	0.9%	3.8E-02	3.7E-02	2.7E-02	1.7E-02	2.1E-02	2.2E-02
Market Basket Contribution	NA	µg/g	88.6%	1.0E+00	5.4E+00	3.8E+00	2.2E+00	1.4E+00	2.0E+00

Selenium

Scenario	
Region	Sudbury Centre
Metal	Selenium
EPC	95% UCL
Receptor	Male - CTE Estimate

SUMMARY									
Estimated Total Daily Intake(ug/kg/day)	100.0%	1.0E+00	5.9E+00	4.3E+00	2.6E+00	1.8E+00	2.4E+00		
<i>Inhalation Route Only</i>	0.1%	2.2E-03	5.1E-03	4.1E-03	2.4E-03	1.9E-03	2.4E-03		
<i>Direct Soil Contact Only</i>	0.1%	2.5E-03	5.1E-03	6.5E-04	3.3E-04	2.6E-04	6.3E-04		
<i>Market Basket Foods and Drinking Water</i>	89.5%	1.0E+00	5.4E+00	3.8E+00	2.3E+00	1.5E+00	2.0E+00		
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)	10.4%	0.0E+00	4.8E-01	4.6E-01	3.4E-01	3.4E-01	3.6E-01		



HUMAN HEALTH RISK ESTIMATES

Selenium

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	1.0E+00	5.4E+00	3.8E+00	2.2E+00	1.4E+00	2.0E+00
Drinking Water	µg/kg/day	3.8E-02	3.7E-02	2.7E-02	1.7E-02	2.1E-02	2.2E-02
Inhalation Route	µg/kg/day	2.2E-03	5.1E-03	4.1E-03	2.4E-03	1.9E-03	2.4E-03
Direct Dermal Contact	µg/kg/day	1.4E-06	1.3E-06	1.0E-06	9.1E-07	3.0E-07	5.2E-07
Soil/Dust Ingestion	µg/kg/day	2.5E-03	5.1E-03	6.5E-04	3.3E-04	2.6E-04	6.3E-04
HP Fruit & Vegetables	µg/kg/day	0.0E+00	9.8E-03	6.0E-03	3.1E-03	2.6E-03	3.5E-03
Local Fruit & Vegetables	µg/kg/day	0.0E+00	2.6E-02	2.0E-02	1.3E-02	1.0E-02	1.3E-02
Wild Blue Berries	µg/kg/day	0.0E+00	9.9E-03	5.1E-03	2.0E-03	1.7E-03	2.6E-03
Wild Game & Fish	µg/kg/day	0.0E+00	4.4E-01	4.3E-01	3.2E-01	3.3E-01	3.4E-01
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	1.0E+00	5.9E+00	4.3E+00	2.6E+00	1.8E+00	2.4E+00
Hazard Quotient - inhal	unitless	3.8E-04	8.9E-04	7.1E-04	4.3E-04	3.3E-04	NA
Hazard Quotient - oral	unitless	2.1E-01	1.2E+00	8.6E-01	5.2E-01	3.6E-01	4.8E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Sudbury Centre
COC	Selenium
EPC	95% UCL
Receptor	Male - CTE Estimate

Toxicity Information - Selenium		
Oral RfD	µg/kg/day	5
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	5.71

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Selenium



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	9.2E-03	µg/m3	0.0%	1.5E-04	3.4E-04	2.7E-04	1.5E-04	1.3E-04	1.6E-04
Inhalation of Fine Particulate- Indoors	9.2E-03	µg/m3	0.1%	2.2E-03	5.1E-03	4.1E-03	2.4E-03	1.9E-03	2.4E-03
Dermal Contact - Outdoors	1.3E+00	µg/g	0.0%	9.6E-07	9.2E-07	7.3E-07	6.5E-07	1.8E-07	3.4E-07
Dermal Contact - Indoors	2.7E+00	µg/g	0.0%	5.0E-07	4.6E-07	3.6E-07	3.1E-07	1.3E-07	2.0E-07
Soil Ingestion	1.3E+00	µg/g	0.0%	2.6E-04	5.1E-04	6.6E-05	3.4E-05	2.7E-05	6.5E-05
Indoor dust Ingestion	2.7E+00	µg/g	0.0%	2.4E-03	4.7E-03	6.1E-04	3.1E-04	2.5E-04	6.0E-04
Home Produced Fruits & Vegetables	4.0E-02	µg/g fw	0.4%	0.0E+00	3.3E-02	2.6E-02	1.5E-02	1.1E-02	1.5E-02
Local Fruits & Vegetables	5.2E-02	µg/g fw	1.7%	0.0E+00	1.4E-01	1.2E-01	7.8E-02	5.9E-02	7.2E-02
Local Wild Blue Berries	1.6E-02	µg/g fw	0.2%	0.0E+00	1.9E-02	1.2E-02	4.6E-03	3.6E-03	5.5E-03
Local Wild Game	1.4E+00	µg/g fw	3.5%	0.0E+00	2.5E-01	2.0E-01	1.6E-01	2.0E-01	2.0E-01
Local Fish	2.0E+00	µg/g fw	19.6%	0.0E+00	1.3E+00	1.4E+00	8.7E-01	9.2E-01	9.8E-01
Drinking Water	1.3E+00	µg/L	0.7%	4.7E-02	4.7E-02	3.2E-02	1.2E-02	2.4E-02	2.5E-02
Market Basket Contribution	NA	µg/g	73.8%	1.1E+00	6.5E+00	4.5E+00	2.8E+00	2.0E+00	2.7E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	1.1E+00	8.4E+00	6.4E+00	3.9E+00	3.3E+00	4.0E+00
<i>Inhalation Route Only</i>			0.1%	2.4E-03	5.4E-03	4.3E-03	2.6E-03	2.0E-03	2.5E-03
<i>Direct Soil Contact Only</i>			0.0%	2.6E-03	5.3E-03	6.8E-04	3.5E-04	2.8E-04	6.6E-04
<i>Market Basket Foods and Drinking Water</i>			74.5%	1.1E+00	6.6E+00	4.6E+00	2.8E+00	2.1E+00	2.7E+00
<i>Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)</i>			25.4%	0.0E+00	1.7E+00	1.8E+00	1.1E+00	1.2E+00	1.3E+00

Selenium

Scenario	
Region	Sudbury Centre
Metal	Selenium
EPC	95% UCL
Receptor	Male - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Selenium

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	1.1E+00	6.5E+00	4.5E+00	2.8E+00	2.0E+00	2.7E+00
Drinking Water	µg/kg/day	4.7E-02	4.7E-02	3.2E-02	1.2E-02	2.4E-02	2.5E-02
Inhalation Route	µg/kg/day	2.4E-03	5.4E-03	4.3E-03	2.6E-03	2.0E-03	2.5E-03
Direct Dermal Contact	µg/kg/day	1.5E-06	1.4E-06	1.1E-06	9.6E-07	3.2E-07	5.4E-07
Soil/Dust Ingestion	µg/kg/day	2.6E-03	5.3E-03	6.7E-04	3.4E-04	2.8E-04	6.6E-04
HP Fruit & Vegetables	µg/kg/day	0.0E+00	3.3E-02	2.6E-02	1.5E-02	1.1E-02	1.5E-02
Local Fruit & Vegetables	µg/kg/day	0.0E+00	1.4E-01	1.2E-01	7.8E-02	5.9E-02	7.2E-02
Wild Blue Berries	µg/kg/day	0.0E+00	1.9E-02	1.2E-02	4.6E-03	3.6E-03	5.5E-03
Wild Game & Fish	µg/kg/day	0.0E+00	1.6E+00	1.6E+00	1.0E+00	1.1E+00	1.2E+00
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	1.1E+00	8.3E+00	6.3E+00	3.9E+00	3.3E+00	4.0E+00
Hazard Quotient - inhal	unitless	4.1E-04	9.5E-04	7.6E-04	4.5E-04	3.5E-04	NA
Hazard Quotient - oral	unitless	2.2E-01	1.7E+00	1.3E+00	7.8E-01	6.5E-01	7.9E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Sudbury Centre
COC	Selenium
EPC	95% UCL
Receptor	Male - RME Estimate

Toxicity Information - Selenium		
Oral RfD	µg/kg/day	5
Oral S.F.	(µg/kg/day)-1	NA
Inhalation S.F.	(µg/kg/day)-1	NA
Inhalation RfD	µg/kg/day	5.71

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Arsenic



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units							
Inhalation of Fine Particulate- Outdoors	1.0E-03	µg/m3	0.0%	1.1E-05	2.3E-05	1.8E-05	1.1E-05	1.0E-05	2.2E-05
Inhalation of Fine Particulate- Indoors	1.0E-03	µg/m3	0.2%	2.3E-04	4.7E-04	3.7E-04	2.2E-04	2.1E-04	4.5E-04
Dermal Contact - Outdoors	1.7E+01	µg/g	0.2%	3.6E-04	3.4E-04	2.7E-04	2.5E-04	7.3E-05	3.1E-04
Dermal Contact - Indoors	1.8E+01	µg/g	0.1%	9.9E-05	9.1E-05	7.0E-05	6.3E-05	2.8E-05	8.7E-05
Soil Ingestion	1.7E+01	µg/g	2.6%	4.8E-03	9.6E-03	1.2E-03	7.0E-04	6.2E-04	3.2E-03
Indoor dust Ingestion	1.8E+01	µg/g	5.6%	1.0E-02	2.1E-02	2.6E-03	1.5E-03	1.4E-03	7.1E-03
Home Produced Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Blue Berries	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Game	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fish	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Drinking Water	6.4E-01	µg/L	11.1%	1.9E-02	1.9E-02	1.3E-02	9.4E-03	1.3E-02	2.1E-02
Market Basket Contribution	NA	µg/g	80.3%	4.1E-04	2.5E-01	1.5E-01	7.8E-02	4.9E-02	1.6E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	3.5E-02	3.0E-01	1.7E-01	9.0E-02	6.4E-02	1.9E-01
Inhalation Route Only			0.2%	2.4E-04	5.0E-04	3.9E-04	2.3E-04	2.2E-04	4.7E-04
Direct Soil Contact Only			8.4%	1.6E-02	3.1E-02	4.1E-03	2.5E-03	2.1E-03	1.1E-02
Market Basket Foods and Drinking Water			91.4%	1.9E-02	2.7E-01	1.6E-01	8.7E-02	6.2E-02	1.8E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

Arsenic

Scenario	
Region	Typical Ontario
Metal	Arsenic
EPC	95% UCL
Receptor	Female - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Arsenic

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	4.1E-04	2.5E-01	1.5E-01	7.8E-02	4.9E-02	1.6E-01
Drinking Water	µg/kg/day	1.9E-02	1.9E-02	1.3E-02	9.4E-03	1.3E-02	2.1E-02
Inhalation Route	µg/kg/day	2.4E-04	5.0E-04	3.9E-04	2.3E-04	2.2E-04	4.7E-04
Direct Dermal Contact	µg/kg/day	4.5E-04	4.3E-04	3.4E-04	3.1E-04	1.0E-04	4.0E-04
Soil/Dust Ingestion	µg/kg/day	1.5E-02	3.1E-02	3.7E-03	2.2E-03	2.0E-03	1.0E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Blue Berries	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Game & Fish	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	3.5E-02	3.0E-01	1.7E-01	9.0E-02	6.4E-02	1.9E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	1.2E-01	1.0E+00	5.6E-01	3.0E-01	2.1E-01	3.1E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		7.1E-06		4.8E-05		5.5E-05	

Scenario	
COI	Typical Ontario
COC	Arsenic
EPC	95% UCL
Receptor	Female - CTE Estimate

Toxicity Information - Arsenic		
Oral RfD	µg/kg/day	0.3
Oral S.F.	(µg/kg/day) ⁻¹	1.50E-03
Inhalation S.F.	(µg/kg/day) ⁻¹	1.50E-02
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Arsenic

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	1.0E-03	µg/m3	0.0%	1.6E-05	3.4E-05	2.6E-05	1.6E-05	1.5E-05	3.2E-05
Inhalation of Fine Particulate- Indoors	1.0E-03	µg/m3	0.2%	2.4E-04	5.0E-04	3.9E-04	2.3E-04	2.2E-04	4.7E-04
Dermal Contact - Outdoors	1.7E+01	µg/g	0.2%	3.8E-04	3.6E-04	2.8E-04	2.7E-04	7.7E-05	3.3E-04
Dermal Contact - Indoors	1.8E+01	µg/g	0.0%	1.0E-04	9.5E-05	7.3E-05	6.6E-05	2.9E-05	9.1E-05
Soil Ingestion	1.7E+01	µg/g	2.2%	5.1E-03	1.0E-02	1.2E-03	7.4E-04	6.6E-04	3.4E-03
Indoor dust Ingestion	1.8E+01	µg/g	4.7%	1.1E-02	2.2E-02	2.7E-03	1.6E-03	1.4E-03	7.3E-03
Home Produced Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Blue Berries	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Game	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fish	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Drinking Water	6.4E-01	µg/L	10.8%	2.3E-02	2.3E-02	1.5E-02	1.1E-02	1.5E-02	2.6E-02
Market Basket Contribution	NA	µg/g	82.0%	5.3E-04	3.0E-01	2.0E-01	1.1E-01	6.8E-02	2.0E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	4.1E-02	3.6E-01	2.2E-01	1.2E-01	8.6E-02	2.4E-01
<i>Inhalation Route Only</i>			0.2%	2.6E-04	5.4E-04	4.2E-04	2.5E-04	2.4E-04	5.0E-04
<i>Direct Soil Contact Only</i>			7.0%	1.6E-02	3.2E-02	4.3E-03	2.7E-03	2.2E-03	1.1E-02
<i>Market Basket Foods and Drinking Water</i>			92.8%	2.4E-02	3.3E-01	2.1E-01	1.2E-01	8.4E-02	2.3E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

Arsenic

Scenario	
Region	Typical Ontario
Metal	Arsenic
EPC	95% UCL
Receptor	Female - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Arsenic

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	5.3E-04	3.0E-01	2.0E-01	1.1E-01	6.8E-02	2.0E-01
Drinking Water	µg/kg/day	2.3E-02	2.3E-02	1.5E-02	1.1E-02	1.5E-02	2.6E-02
Inhalation Route	µg/kg/day	2.6E-04	5.4E-04	4.2E-04	2.5E-04	2.4E-04	5.0E-04
Direct Dermal Contact	µg/kg/day	4.8E-04	4.6E-04	3.6E-04	3.3E-04	1.1E-04	4.2E-04
Soil/Dust Ingestion	µg/kg/day	1.6E-02	3.2E-02	3.9E-03	2.3E-03	2.1E-03	1.1E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Blue Berries	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Game & Fish	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	4.0E-02	3.6E-01	2.1E-01	1.2E-01	8.6E-02	2.4E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	1.3E-01	1.2E+00	7.2E-01	4.0E-01	2.9E-01	4.0E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		7.5E-06		5.5E-05		6.3E-05	

Scenario	
COI	Typical Ontario
COC	Arsenic
EPC	95% UCL
Receptor	Female - RME Estimate

Toxicity Information - Arsenic		
Oral RfD	µg/kg/day	0.3
Oral S.F.	(µg/kg/day) ⁻¹	1.50E-03
Inhalation S.F.	(µg/kg/day) ⁻¹	1.50E-02
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Arsenic



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units							
Inhalation of Fine Particulate- Outdoors	1.0E-03	µg/m3	0.0%	1.1E-05	2.6E-05	2.1E-05	1.2E-05	9.5E-06	2.3E-05
Inhalation of Fine Particulate- Indoors	1.0E-03	µg/m3	0.2%	2.3E-04	5.2E-04	4.2E-04	2.5E-04	1.9E-04	4.7E-04
Dermal Contact - Outdoors	1.7E+01	µg/g	0.2%	3.6E-04	3.4E-04	2.7E-04	2.4E-04	6.8E-05	3.0E-04
Dermal Contact - Indoors	1.8E+01	µg/g	0.1%	9.9E-05	9.1E-05	7.1E-05	6.1E-05	2.6E-05	8.5E-05
Soil Ingestion	1.7E+01	µg/g	2.4%	4.8E-03	9.6E-03	1.2E-03	6.2E-04	5.0E-04	3.1E-03
Indoor dust Ingestion	1.8E+01	µg/g	5.3%	1.0E-02	2.1E-02	2.7E-03	1.4E-03	1.1E-03	6.8E-03
Home Produced Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Blue Berries	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Game	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fish	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Drinking Water	6.4E-01	µg/L	10.2%	1.9E-02	1.9E-02	1.4E-02	8.4E-03	1.0E-02	1.9E-02
Market Basket Contribution	NA	µg/g	81.6%	3.2E-04	2.4E-01	1.7E-01	9.5E-02	5.5E-02	1.7E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	3.5E-02	2.9E-01	1.9E-01	1.1E-01	6.7E-02	2.0E-01
<i>Inhalation Route Only</i>			0.2%	2.4E-04	5.5E-04	4.4E-04	2.6E-04	2.0E-04	4.9E-04
<i>Direct Soil Contact Only</i>			8.0%	1.6E-02	3.1E-02	4.2E-03	2.3E-03	1.7E-03	1.0E-02
<i>Market Basket Foods and Drinking Water</i>			91.8%	1.9E-02	2.6E-01	1.8E-01	1.0E-01	6.5E-02	1.9E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

Arsenic

Scenario	
Region	Typical Ontario
Metal	Arsenic
EPC	95% UCL
Receptor	Male - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Arsenic

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	3.2E-04	2.4E-01	1.7E-01	9.5E-02	5.5E-02	1.7E-01
Drinking Water	µg/kg/day	1.9E-02	1.9E-02	1.4E-02	8.4E-03	1.0E-02	1.9E-02
Inhalation Route	µg/kg/day	2.4E-04	5.5E-04	4.4E-04	2.6E-04	2.0E-04	4.9E-04
Direct Dermal Contact	µg/kg/day	4.5E-04	4.3E-04	3.4E-04	3.0E-04	9.4E-05	3.9E-04
Soil/Dust Ingestion	µg/kg/day	1.5E-02	3.0E-02	3.9E-03	2.0E-03	1.6E-03	9.9E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Blue Berries	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Game & Fish	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	3.5E-02	2.9E-01	1.9E-01	1.1E-01	6.7E-02	2.0E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	1.2E-01	9.7E-01	6.2E-01	3.5E-01	2.2E-01	3.2E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		7.4E-06		4.5E-05		5.2E-05	

Scenario	
COI	Typical Ontario
COC	Arsenic
EPC	95% UCL
Receptor	Male - CTE Estimate

Toxicity Information - Arsenic		
Oral RfD	µg/kg/day	0.3
Oral S.F.	(µg/kg/day) ⁻¹	1.50E-03
Inhalation S.F.	(µg/kg/day) ⁻¹	1.50E-02
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Arsenic

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units							
Inhalation of Fine Particulate- Outdoors	1.0E-03	µg/m3	0.0%	1.6E-05	3.7E-05	3.0E-05	1.6E-05	1.4E-05	3.3E-05
Inhalation of Fine Particulate- Indoors	1.0E-03	µg/m3	0.2%	2.4E-04	5.5E-04	4.4E-04	2.6E-04	2.0E-04	4.9E-04
Dermal Contact - Outdoors	1.7E+01	µg/g	0.2%	3.8E-04	3.6E-04	2.9E-04	2.6E-04	7.2E-05	3.2E-04
Dermal Contact - Indoors	1.8E+01	µg/g	0.0%	1.0E-04	9.5E-05	7.4E-05	6.3E-05	2.7E-05	8.9E-05
Soil Ingestion	1.7E+01	µg/g	2.0%	5.1E-03	1.0E-02	1.3E-03	6.6E-04	5.3E-04	3.3E-03
Indoor dust Ingestion	1.8E+01	µg/g	4.3%	1.1E-02	2.2E-02	2.8E-03	1.4E-03	1.1E-03	7.1E-03
Home Produced Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Blue Berries	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Game	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fish	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Drinking Water	6.4E-01	µg/L	9.3%	2.3E-02	2.3E-02	1.6E-02	6.1E-03	1.2E-02	2.2E-02
Market Basket Contribution	NA	µg/g	84.0%	3.4E-04	3.1E-01	2.2E-01	1.3E-01	7.6E-02	2.3E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	4.1E-02	3.6E-01	2.4E-01	1.4E-01	9.0E-02	2.6E-01
Inhalation Route Only			0.2%	2.6E-04	5.9E-04	4.7E-04	2.8E-04	2.2E-04	5.2E-04
Direct Soil Contact Only			6.5%	1.6E-02	3.2E-02	4.4E-03	2.4E-03	1.8E-03	1.1E-02
Market Basket Foods and Drinking Water			93.3%	2.4E-02	3.3E-01	2.4E-01	1.4E-01	8.9E-02	2.5E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

Arsenic

Scenario	
Region	Typical Ontario
Metal	Arsenic
EPC	95% UCL
Receptor	Male - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Arsenic

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	3.4E-04	3.1E-01	2.2E-01	1.3E-01	7.6E-02	2.3E-01
Drinking Water	µg/kg/day	2.3E-02	2.3E-02	1.6E-02	6.1E-03	1.2E-02	2.2E-02
Inhalation Route	µg/kg/day	2.6E-04	5.9E-04	4.7E-04	2.8E-04	2.2E-04	5.2E-04
Direct Dermal Contact	µg/kg/day	4.8E-04	4.6E-04	3.6E-04	3.2E-04	9.9E-05	4.1E-04
Soil/Dust Ingestion	µg/kg/day	1.6E-02	3.2E-02	4.1E-03	2.1E-03	1.7E-03	1.0E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Blue Berries	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Game & Fish	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	4.0E-02	3.6E-01	2.4E-01	1.4E-01	9.0E-02	2.6E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	1.3E-01	1.2E+00	8.0E-01	4.7E-01	3.0E-01	4.3E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		7.9E-06		4.9E-05		5.7E-05	

Scenario	
COI	Typical Ontario
COC	Arsenic
EPC	95% UCL
Receptor	Male - RME Estimate

Toxicity Information - Arsenic		
Oral RfD	µg/kg/day	0.3
Oral S.F.	(µg/kg/day) ⁻¹	1.50E-03
Inhalation S.F.	(µg/kg/day) ⁻¹	1.50E-02
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Cobalt



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	1.9E-03	µg/m3	0.0%	2.1E-05	4.4E-05	3.5E-05	2.1E-05	2.0E-05	2.3E-05
Inhalation of Fine Particulate- Indoors	1.9E-03	µg/m3	0.1%	4.3E-04	9.0E-04	7.1E-04	4.2E-04	4.0E-04	4.7E-04
Dermal Contact - Outdoors	2.1E+01	µg/g	0.0%	1.5E-05	1.4E-05	1.1E-05	1.0E-05	3.0E-06	5.4E-06
Dermal Contact - Indoors	4.6E+01	µg/g	0.0%	8.3E-06	7.7E-06	5.9E-06	5.4E-06	2.4E-06	3.4E-06
Soil Ingestion	2.1E+01	µg/g	0.5%	4.3E-03	8.5E-03	1.0E-03	6.2E-04	5.5E-04	1.1E-03
Indoor dust Ingestion	4.6E+01	µg/g	2.1%	1.8E-02	3.5E-02	4.3E-03	2.6E-03	2.3E-03	4.8E-03
Home Produced Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Blue Berries	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Game	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fish	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Drinking Water	8.8E-02	µg/L	0.3%	2.6E-03	2.6E-03	1.8E-03	1.3E-03	1.8E-03	1.8E-03
Market Basket Contribution	NA	µg/g	97.0%	2.9E-01	1.2E+00	7.5E-01	3.9E-01	2.5E-01	3.8E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	3.1E-01	1.3E+00	7.5E-01	4.0E-01	2.6E-01	3.9E-01
<i>Inhalation Route Only</i>			0.1%	4.5E-04	9.5E-04	7.4E-04	4.5E-04	4.2E-04	4.9E-04
<i>Direct Soil Contact Only</i>			2.6%	2.2E-02	4.4E-02	5.4E-03	3.2E-03	2.9E-03	5.9E-03
<i>Market Basket Foods and Drinking Water</i>			97.3%	2.9E-01	1.3E+00	7.5E-01	4.0E-01	2.6E-01	3.8E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

Cobalt

Scenario	
Region	Typical Ontario
Metal	Cobalt
EPC	95% UCL
Receptor	Female - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Cobalt

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	2.9E-01	1.2E+00	7.5E-01	3.9E-01	2.5E-01	3.8E-01
Drinking Water	µg/kg/day	2.6E-03	2.6E-03	1.8E-03	1.3E-03	1.8E-03	1.8E-03
Inhalation Route	µg/kg/day	4.5E-04	9.5E-04	7.4E-04	4.5E-04	4.2E-04	4.9E-04
Direct Dermal Contact	µg/kg/day	2.3E-05	2.2E-05	1.7E-05	1.6E-05	5.4E-06	8.9E-06
Soil/Dust Ingestion	µg/kg/day	2.2E-02	4.4E-02	5.4E-03	3.2E-03	2.9E-03	5.9E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Blue Berries	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Game & Fish	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	3.1E-01	1.3E+00	7.5E-01	4.0E-01	2.6E-01	3.9E-01
Hazard Quotient - inhal	unitless	3.1E-03	6.6E-03	5.2E-03	3.1E-03	3.0E-03	NA
Hazard Quotient - oral	unitless	1.6E-02	6.5E-02	3.8E-02	2.0E-02	1.3E-02	2.0E-02
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Typical Ontario
COC	Cobalt
EPC	95% UCL
Receptor	Female - CTE Estimate

Toxicity Information - Cobalt		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.143

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Cobalt



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	1.9E-03	µg/m3	0.0%	3.1E-05	6.4E-05	5.0E-05	3.0E-05	2.8E-05	3.3E-05
Inhalation of Fine Particulate- Indoors	1.9E-03	µg/m3	0.1%	4.6E-04	9.6E-04	7.4E-04	4.4E-04	4.2E-04	4.9E-04
Dermal Contact - Outdoors	2.1E+01	µg/g	0.0%	1.6E-05	1.5E-05	1.2E-05	1.1E-05	3.2E-06	5.8E-06
Dermal Contact - Indoors	4.6E+01	µg/g	0.0%	8.7E-06	8.0E-06	6.2E-06	5.6E-06	2.5E-06	3.6E-06
Soil Ingestion	2.1E+01	µg/g	0.4%	4.5E-03	9.0E-03	1.1E-03	6.6E-04	5.9E-04	1.2E-03
Indoor dust Ingestion	4.6E+01	µg/g	1.7%	1.8E-02	3.7E-02	4.5E-03	2.7E-03	2.4E-03	5.0E-03
Home Produced Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Blue Berries	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Game	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fish	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Drinking Water	8.8E-02	µg/L	0.3%	3.2E-03	3.2E-03	2.1E-03	1.6E-03	2.1E-03	2.1E-03
Market Basket Contribution	NA	µg/g	97.5%	3.7E-01	1.5E+00	9.6E-01	5.3E-01	3.4E-01	5.0E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	4.0E-01	1.6E+00	9.6E-01	5.3E-01	3.4E-01	5.1E-01
<i>Inhalation Route Only</i>			0.1%	4.9E-04	1.0E-03	7.9E-04	4.7E-04	4.5E-04	5.2E-04
<i>Direct Soil Contact Only</i>			2.1%	2.3E-02	4.6E-02	5.6E-03	3.4E-03	3.0E-03	6.2E-03
<i>Market Basket Foods and Drinking Water</i>			97.8%	3.8E-01	1.5E+00	9.6E-01	5.3E-01	3.4E-01	5.0E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

Cobalt

Scenario	
Region	Typical Ontario
Metal	Cobalt
EPC	95% UCL
Receptor	Female - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Cobalt

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	3.7E-01	1.5E+00	9.6E-01	5.3E-01	3.4E-01	5.0E-01
Drinking Water	µg/kg/day	3.2E-03	3.2E-03	2.1E-03	1.6E-03	2.1E-03	2.1E-03
Inhalation Route	µg/kg/day	4.9E-04	1.0E-03	7.9E-04	4.7E-04	4.5E-04	5.2E-04
Direct Dermal Contact	µg/kg/day	2.4E-05	2.3E-05	1.8E-05	1.7E-05	5.6E-06	9.3E-06
Soil/Dust Ingestion	µg/kg/day	2.3E-02	4.6E-02	5.6E-03	3.4E-03	3.0E-03	6.2E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Blue Berries	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Game & Fish	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	4.0E-01	1.6E+00	9.6E-01	5.3E-01	3.4E-01	5.1E-01
Hazard Quotient - inhal	unitless	3.4E-03	7.1E-03	5.5E-03	3.3E-03	3.1E-03	NA
Hazard Quotient - oral	unitless	2.0E-02	7.8E-02	4.8E-02	2.7E-02	1.7E-02	2.5E-02
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Typical Ontario
COC	Cobalt
EPC	95% UCL
Receptor	Female - RME Estimate

Toxicity Information - Cobalt		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.143

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Cobalt



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	1.9E-03	µg/m3	0.0%	2.1E-05	4.9E-05	3.9E-05	2.3E-05	1.8E-05	2.3E-05
Inhalation of Fine Particulate- Indoors	1.9E-03	µg/m3	0.1%	4.3E-04	9.9E-04	8.0E-04	4.8E-04	3.7E-04	4.7E-04
Dermal Contact - Outdoors	2.1E+01	µg/g	0.0%	1.5E-05	1.4E-05	1.1E-05	9.9E-06	2.8E-06	5.2E-06
Dermal Contact - Indoors	4.6E+01	µg/g	0.0%	8.3E-06	7.7E-06	6.0E-06	5.2E-06	2.2E-06	3.3E-06
Soil Ingestion	2.1E+01	µg/g	0.5%	4.3E-03	8.5E-03	1.1E-03	5.5E-04	4.4E-04	1.1E-03
Indoor dust Ingestion	4.6E+01	µg/g	2.0%	1.8E-02	3.5E-02	4.5E-03	2.3E-03	1.8E-03	4.4E-03
Home Produced Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Blue Berries	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Game	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fish	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Drinking Water	8.8E-02	µg/L	0.3%	2.6E-03	2.6E-03	1.9E-03	1.1E-03	1.4E-03	1.5E-03
Market Basket Contribution	NA	µg/g	97.2%	2.3E-01	1.2E+00	8.4E-01	4.8E-01	3.0E-01	4.3E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	2.5E-01	1.3E+00	8.5E-01	4.9E-01	3.0E-01	4.4E-01
<i>Inhalation Route Only</i>			0.1%	4.5E-04	1.0E-03	8.4E-04	5.0E-04	3.9E-04	4.9E-04
<i>Direct Soil Contact Only</i>			2.4%	2.2E-02	4.4E-02	5.6E-03	2.9E-03	2.3E-03	5.5E-03
<i>Market Basket Foods and Drinking Water</i>			97.5%	2.3E-01	1.2E+00	8.4E-01	4.8E-01	3.0E-01	4.3E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

Cobalt

Scenario	
Region	Typical Ontario
Metal	Cobalt
EPC	95% UCL
Receptor	Male - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Cobalt

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	2.3E-01	1.2E+00	8.4E-01	4.8E-01	3.0E-01	4.3E-01
Drinking Water	µg/kg/day	2.6E-03	2.6E-03	1.9E-03	1.1E-03	1.4E-03	1.5E-03
Inhalation Route	µg/kg/day	4.5E-04	1.0E-03	8.4E-04	5.0E-04	3.9E-04	4.9E-04
Direct Dermal Contact	µg/kg/day	2.3E-05	2.2E-05	1.7E-05	1.5E-05	5.0E-06	8.6E-06
Soil/Dust Ingestion	µg/kg/day	2.2E-02	4.4E-02	5.6E-03	2.9E-03	2.3E-03	5.5E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Blue Berries	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Game & Fish	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	2.5E-01	1.3E+00	8.5E-01	4.9E-01	3.0E-01	4.4E-01
Hazard Quotient - inhal	unitless	3.1E-03	7.3E-03	5.8E-03	3.5E-03	2.7E-03	NA
Hazard Quotient - oral	unitless	1.3E-02	6.3E-02	4.3E-02	2.4E-02	1.5E-02	2.2E-02
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Typical Ontario
COC	Cobalt
EPC	95% UCL
Receptor	Male - CTE Estimate

Toxicity Information - Cobalt		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.143

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Cobalt



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	1.9E-03	µg/m3	0.0%	3.1E-05	7.1E-05	5.6E-05	3.1E-05	2.6E-05	3.3E-05
Inhalation of Fine Particulate- Indoors	1.9E-03	µg/m3	0.1%	4.6E-04	1.0E-03	8.3E-04	5.0E-04	3.9E-04	4.9E-04
Dermal Contact - Outdoors	2.1E+01	µg/g	0.0%	1.6E-05	1.5E-05	1.2E-05	1.1E-05	3.0E-06	5.6E-06
Dermal Contact - Indoors	4.6E+01	µg/g	0.0%	8.7E-06	8.0E-06	6.3E-06	5.4E-06	2.3E-06	3.5E-06
Soil Ingestion	2.1E+01	µg/g	0.4%	4.5E-03	9.0E-03	1.1E-03	5.9E-04	4.7E-04	1.1E-03
Indoor dust Ingestion	4.6E+01	µg/g	1.6%	1.8E-02	3.7E-02	4.7E-03	2.4E-03	1.9E-03	4.6E-03
Home Produced Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Blue Berries	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Game	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fish	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Drinking Water	8.8E-02	µg/L	0.3%	3.2E-03	3.2E-03	2.2E-03	8.4E-04	1.7E-03	1.7E-03
Market Basket Contribution	NA	µg/g	97.6%	2.4E-01	1.5E+00	1.1E+00	6.3E-01	4.0E-01	5.7E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	2.7E-01	1.6E+00	1.1E+00	6.3E-01	4.1E-01	5.8E-01
<i>Inhalation Route Only</i>			0.1%	4.9E-04	1.1E-03	8.9E-04	5.3E-04	4.1E-04	5.2E-04
<i>Direct Soil Contact Only</i>			2.0%	2.3E-02	4.6E-02	5.9E-03	3.0E-03	2.4E-03	5.7E-03
<i>Market Basket Foods and Drinking Water</i>			97.9%	2.5E-01	1.5E+00	1.1E+00	6.3E-01	4.0E-01	5.7E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

Cobalt

Scenario	
Region	Typical Ontario
Metal	Cobalt
EPC	95% UCL
Receptor	Male - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Cobalt

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	2.4E-01	1.5E+00	1.1E+00	6.3E-01	4.0E-01	5.7E-01
Drinking Water	µg/kg/day	3.2E-03	3.2E-03	2.2E-03	8.4E-04	1.7E-03	1.7E-03
Inhalation Route	µg/kg/day	4.9E-04	1.1E-03	8.9E-04	5.3E-04	4.1E-04	5.2E-04
Direct Dermal Contact	µg/kg/day	2.4E-05	2.3E-05	1.8E-05	1.6E-05	5.2E-06	9.0E-06
Soil/Dust Ingestion	µg/kg/day	2.3E-02	4.6E-02	5.8E-03	3.0E-03	2.4E-03	5.7E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Blue Berries	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Game & Fish	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	2.7E-01	1.6E+00	1.1E+00	6.3E-01	4.1E-01	5.8E-01
Hazard Quotient - inhal	unitless	3.4E-03	7.8E-03	6.2E-03	3.7E-03	2.9E-03	NA
Hazard Quotient - oral	unitless	1.3E-02	7.9E-02	5.5E-02	3.2E-02	2.0E-02	2.9E-02
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Typical Ontario
COC	Cobalt
EPC	95% UCL
Receptor	Male - RME Estimate

Toxicity Information - Cobalt		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.143

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Copper



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	9.1E-03	µg/m3	0.0%	1.0E-04	2.1E-04	1.7E-04	1.0E-04	9.5E-05	1.1E-04
Inhalation of Fine Particulate- Indoors	9.1E-03	µg/m3	0.0%	2.1E-03	4.3E-03	3.4E-03	2.0E-03	1.9E-03	2.2E-03
Dermal Contact - Outdoors	8.5E+01	µg/g	0.0%	1.8E-04	1.7E-04	1.3E-04	1.3E-04	3.6E-05	6.6E-05
Dermal Contact - Indoors	4.7E+02	µg/g	0.0%	2.6E-04	2.4E-04	1.8E-04	1.6E-04	7.3E-05	1.1E-04
Soil Ingestion	8.5E+01	µg/g	0.1%	4.6E-02	9.1E-02	1.1E-02	6.7E-03	5.9E-03	1.2E-02
Indoor dust Ingestion	4.7E+02	µg/g	0.5%	3.0E-01	5.9E-01	7.3E-02	4.3E-02	3.9E-02	8.0E-02
Home Produced Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Blue Berries	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Game	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fish	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Drinking Water	4.1E+01	µg/L	2.2%	1.2E+00	1.2E+00	8.4E-01	6.0E-01	8.2E-01	8.2E-01
Market Basket Contribution	NA	µg/g	97.3%	5.7E+01	7.2E+01	4.3E+01	2.3E+01	1.5E+01	2.3E+01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	5.8E+01	7.3E+01	4.4E+01	2.3E+01	1.6E+01	2.4E+01
<i>Inhalation Route Only</i>			0.0%	2.2E-03	4.5E-03	3.6E-03	2.1E-03	2.0E-03	2.4E-03
<i>Direct Soil Contact Only</i>			0.6%	3.4E-01	6.9E-01	8.4E-02	5.0E-02	4.5E-02	9.3E-02
<i>Market Basket Foods and Drinking Water</i>			99.4%	5.8E+01	7.3E+01	4.4E+01	2.3E+01	1.6E+01	2.4E+01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

Copper

Scenario	
Region	Typical Ontario
Metal	Copper
EPC	95% UCL
Receptor	Female - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Copper

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	5.7E+01	7.2E+01	4.3E+01	2.3E+01	1.5E+01	2.3E+01
Drinking Water	µg/kg/day	1.2E+00	1.2E+00	8.4E-01	6.0E-01	8.2E-01	8.2E-01
Inhalation Route	µg/kg/day	2.2E-03	4.5E-03	3.6E-03	2.1E-03	2.0E-03	2.4E-03
Direct Dermal Contact	µg/kg/day	4.3E-04	4.1E-04	3.2E-04	2.9E-04	1.1E-04	1.7E-04
Soil/Dust Ingestion	µg/kg/day	3.4E-01	6.9E-01	8.4E-02	5.0E-02	4.5E-02	9.2E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Blue Berries	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Game & Fish	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	5.8E+01	7.3E+01	4.4E+01	2.3E+01	1.6E+01	2.4E+01
Hazard Quotient - inhal	unitless	7.5E-03	1.6E-02	1.2E-02	7.5E-03	7.1E-03	NA
Hazard Quotient - oral	unitless	4.2E-01	5.2E-01	3.2E-01	1.7E-01	1.2E-01	1.7E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Typical Ontario
COC	Copper
EPC	95% UCL
Receptor	Female - CTE Estimate

Toxicity Information - Copper		
Oral RfD	µg/kg/day	140
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.286

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Copper



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	9.1E-03	µg/m3	0.0%	1.5E-04	3.1E-04	2.4E-04	1.4E-04	1.4E-04	1.6E-04
Inhalation of Fine Particulate- Indoors	9.1E-03	µg/m3	0.0%	2.2E-03	4.6E-03	3.6E-03	2.1E-03	2.0E-03	2.3E-03
Dermal Contact - Outdoors	8.5E+01	µg/g	0.0%	1.9E-04	1.8E-04	1.4E-04	1.3E-04	3.9E-05	7.0E-05
Dermal Contact - Indoors	4.7E+02	µg/g	0.0%	2.7E-04	2.5E-04	1.9E-04	1.7E-04	7.6E-05	1.1E-04
Soil Ingestion	8.5E+01	µg/g	0.1%	4.8E-02	9.7E-02	1.2E-02	7.0E-03	6.3E-03	1.3E-02
Indoor dust Ingestion	4.7E+02	µg/g	0.4%	3.1E-01	6.2E-01	7.5E-02	4.5E-02	4.0E-02	8.3E-02
Home Produced Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Blue Berries	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Game	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fish	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Drinking Water	4.1E+01	µg/L	2.1%	1.5E+00	1.5E+00	9.7E-01	7.3E-01	9.7E-01	9.8E-01
Market Basket Contribution	NA	µg/g	97.5%	7.4E+01	8.5E+01	5.6E+01	3.0E+01	2.0E+01	3.0E+01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	7.6E+01	8.7E+01	5.7E+01	3.1E+01	2.1E+01	3.1E+01
<i>Inhalation Route Only</i>			0.0%	2.3E-03	4.9E-03	3.8E-03	2.3E-03	2.1E-03	2.5E-03
<i>Direct Soil Contact Only</i>			0.5%	3.6E-01	7.1E-01	8.8E-02	5.2E-02	4.7E-02	9.7E-02
<i>Market Basket Foods and Drinking Water</i>			99.5%	7.5E+01	8.7E+01	5.7E+01	3.1E+01	2.1E+01	3.1E+01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

Copper

Scenario	
Region	Typical Ontario
Metal	Copper
EPC	95% UCL
Receptor	Female - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Copper

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	7.4E+01	8.5E+01	5.6E+01	3.0E+01	2.0E+01	3.0E+01
Drinking Water	µg/kg/day	1.5E+00	1.5E+00	9.7E-01	7.3E-01	9.7E-01	9.8E-01
Inhalation Route	µg/kg/day	2.3E-03	4.9E-03	3.8E-03	2.3E-03	2.1E-03	2.5E-03
Direct Dermal Contact	µg/kg/day	4.6E-04	4.3E-04	3.3E-04	3.0E-04	1.1E-04	1.8E-04
Soil/Dust Ingestion	µg/kg/day	3.6E-01	7.1E-01	8.7E-02	5.2E-02	4.6E-02	9.6E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Blue Berries	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Game & Fish	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	7.6E+01	8.7E+01	5.7E+01	3.1E+01	2.1E+01	3.1E+01
Hazard Quotient - inhal	unitless	8.1E-03	1.7E-02	1.3E-02	7.9E-03	7.5E-03	NA
Hazard Quotient - oral	unitless	5.4E-01	6.2E-01	4.1E-01	2.2E-01	1.5E-01	2.2E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Typical Ontario
COC	Copper
EPC	95% UCL
Receptor	Female - RME Estimate

Toxicity Information - Copper		
Oral RfD	µg/kg/day	140
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.286

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Copper



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units							
Inhalation of Fine Particulate- Outdoors	9.1E-03	µg/m3	0.0%	1.0E-04	2.3E-04	1.9E-04	1.1E-04	8.7E-05	1.1E-04
Inhalation of Fine Particulate- Indoors	9.1E-03	µg/m3	0.0%	2.1E-03	4.8E-03	3.8E-03	2.3E-03	1.8E-03	2.2E-03
Dermal Contact - Outdoors	8.5E+01	µg/g	0.0%	1.8E-04	1.7E-04	1.3E-04	1.2E-04	3.4E-05	6.4E-05
Dermal Contact - Indoors	4.7E+02	µg/g	0.0%	2.6E-04	2.4E-04	1.9E-04	1.6E-04	6.8E-05	1.0E-04
Soil Ingestion	8.5E+01	µg/g	0.1%	4.6E-02	9.1E-02	1.2E-02	5.9E-03	4.7E-03	1.1E-02
Indoor dust Ingestion	4.7E+02	µg/g	0.5%	3.0E-01	5.9E-01	7.6E-02	3.9E-02	3.1E-02	7.4E-02
Home Produced Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Blue Berries	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Game	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fish	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Drinking Water	4.1E+01	µg/L	2.1%	1.2E+00	1.2E+00	8.7E-01	5.3E-01	6.6E-01	7.0E-01
Market Basket Contribution	NA	µg/g	97.3%	4.5E+01	6.6E+01	4.8E+01	2.7E+01	1.8E+01	2.5E+01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)	100.0%	4.7E+01	6.8E+01	4.9E+01	2.8E+01	1.9E+01	2.6E+01		
<i>Inhalation Route Only</i>	0.0%	2.2E-03	5.0E-03	4.0E-03	2.4E-03	1.9E-03	2.3E-03		
<i>Direct Soil Contact Only</i>	0.6%	3.4E-01	6.8E-01	8.8E-02	4.5E-02	3.6E-02	8.6E-02		
<i>Market Basket Foods and Drinking Water</i>	99.4%	4.6E+01	6.7E+01	4.9E+01	2.8E+01	1.9E+01	2.6E+01		
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00		

Copper

Scenario	
Region	Typical Ontario
Metal	Copper
EPC	95% UCL
Receptor	Male - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Copper

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	4.5E+01	6.6E+01	4.8E+01	2.7E+01	1.8E+01	2.5E+01
Drinking Water	µg/kg/day	1.2E+00	1.2E+00	8.7E-01	5.3E-01	6.6E-01	7.0E-01
Inhalation Route	µg/kg/day	2.2E-03	5.0E-03	4.0E-03	2.4E-03	1.9E-03	2.3E-03
Direct Dermal Contact	µg/kg/day	4.3E-04	4.1E-04	3.2E-04	2.8E-04	1.0E-04	1.7E-04
Soil/Dust Ingestion	µg/kg/day	3.4E-01	6.8E-01	8.7E-02	4.5E-02	3.6E-02	8.6E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Blue Berries	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Game & Fish	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	4.7E+01	6.8E+01	4.9E+01	2.8E+01	1.9E+01	2.6E+01
Hazard Quotient - inhal	unitless	7.5E-03	1.7E-02	1.4E-02	8.4E-03	6.5E-03	NA
Hazard Quotient - oral	unitless	3.3E-01	4.9E-01	3.5E-01	2.0E-01	1.3E-01	1.9E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Typical Ontario
COC	Copper
EPC	95% UCL
Receptor	Male - CTE Estimate

Toxicity Information - Copper		
Oral RfD	µg/kg/day	140
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.286

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Copper



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units							
Inhalation of Fine Particulate- Outdoors	9.1E-03	µg/m3	0.0%	1.5E-04	3.4E-04	2.7E-04	1.5E-04	1.3E-04	1.6E-04
Inhalation of Fine Particulate- Indoors	9.1E-03	µg/m3	0.0%	2.2E-03	5.0E-03	4.0E-03	2.4E-03	1.9E-03	2.3E-03
Dermal Contact - Outdoors	8.5E+01	µg/g	0.0%	1.9E-04	1.8E-04	1.4E-04	1.3E-04	3.6E-05	6.8E-05
Dermal Contact - Indoors	4.7E+02	µg/g	0.0%	2.7E-04	2.5E-04	1.9E-04	1.7E-04	7.0E-05	1.1E-04
Soil Ingestion	8.5E+01	µg/g	0.1%	4.8E-02	9.6E-02	1.2E-02	6.3E-03	5.0E-03	1.2E-02
Indoor dust Ingestion	4.7E+02	µg/g	0.4%	3.1E-01	6.1E-01	7.9E-02	4.0E-02	3.2E-02	7.7E-02
Home Produced Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Blue Berries	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Game	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fish	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Drinking Water	4.1E+01	µg/L	1.9%	1.5E+00	1.5E+00	1.0E+00	3.9E-01	7.8E-01	8.1E-01
Market Basket Contribution	NA	µg/g	97.6%	4.8E+01	8.5E+01	6.3E+01	3.8E+01	2.5E+01	3.4E+01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)	100.0%	5.0E+01	8.7E+01	6.5E+01	3.8E+01	2.6E+01	3.5E+01		
<i>Inhalation Route Only</i>	0.0%	2.3E-03	5.3E-03	4.3E-03	2.6E-03	2.0E-03	2.5E-03		
<i>Direct Soil Contact Only</i>	0.5%	3.6E-01	7.1E-01	9.1E-02	4.7E-02	3.7E-02	8.9E-02		
<i>Market Basket Foods and Drinking Water</i>	99.5%	4.9E+01	8.6E+01	6.4E+01	3.8E+01	2.6E+01	3.5E+01		
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00		

Copper

Scenario	
Region	Typical Ontario
Metal	Copper
EPC	95% UCL
Receptor	Male - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Copper

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	4.8E+01	8.5E+01	6.3E+01	3.8E+01	2.5E+01	3.4E+01
Drinking Water	µg/kg/day	1.5E+00	1.5E+00	1.0E+00	3.9E-01	7.8E-01	8.1E-01
Inhalation Route	µg/kg/day	2.3E-03	5.3E-03	4.3E-03	2.6E-03	2.0E-03	2.5E-03
Direct Dermal Contact	µg/kg/day	4.6E-04	4.3E-04	3.4E-04	2.9E-04	1.1E-04	1.7E-04
Soil/Dust Ingestion	µg/kg/day	3.6E-01	7.1E-01	9.1E-02	4.6E-02	3.7E-02	8.9E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Blue Berries	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Game & Fish	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	5.0E+01	8.7E+01	6.5E+01	3.8E+01	2.6E+01	3.5E+01
Hazard Quotient - inhal	unitless	8.1E-03	1.9E-02	1.5E-02	8.9E-03	6.9E-03	NA
Hazard Quotient - oral	unitless	3.6E-01	6.2E-01	4.6E-01	2.7E-01	1.8E-01	2.5E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Typical Ontario
COC	Copper
EPC	95% UCL
Receptor	Male - RME Estimate

Toxicity Information - Copper		
Oral RfD	µg/kg/day	140
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.286

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Lead

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	8.0E-03	µg/m3	0.0%	8.8E-05	1.9E-04	1.5E-04	8.8E-05	8.3E-05	9.7E-05
Inhalation of Fine Particulate- Indoors	8.0E-03	µg/m3	0.5%	1.8E-03	3.8E-03	3.0E-03	1.8E-03	1.7E-03	2.0E-03
Dermal Contact - Outdoors	1.2E+02	µg/g	0.0%	8.4E-05	8.0E-05	6.3E-05	5.9E-05	1.7E-05	3.1E-05
Dermal Contact - Indoors	1.6E+02	µg/g	0.0%	2.9E-05	2.7E-05	2.0E-05	1.9E-05	8.2E-06	1.2E-05
Soil Ingestion	1.2E+02	µg/g	7.8%	5.7E-02	1.1E-01	1.4E-02	8.4E-03	7.5E-03	1.5E-02
Indoor dust Ingestion	1.6E+02	µg/g	23.1%	1.7E-01	3.4E-01	4.1E-02	2.5E-02	2.2E-02	4.6E-02
Home Produced Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Blue Berries	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Game	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fish	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Drinking Water	1.9E+00	µg/L	8.3%	5.5E-02	5.5E-02	3.9E-02	2.8E-02	3.8E-02	3.8E-02
Market Basket Contribution	NA	µg/g	60.3%	1.4E-01	7.1E-01	3.9E-01	2.0E-01	1.2E-01	2.0E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)	100.0%	4.3E-01	1.2E+00	4.9E-01	2.6E-01	1.9E-01	3.0E-01		
<i>Inhalation Route Only</i>	0.5%	1.9E-03	4.0E-03	3.1E-03	1.9E-03	1.8E-03	2.1E-03		
<i>Direct Soil Contact Only</i>	30.9%	2.3E-01	4.5E-01	5.5E-02	3.3E-02	3.0E-02	6.1E-02		
<i>Market Basket Foods and Drinking Water</i>	68.6%	2.0E-01	7.6E-01	4.3E-01	2.2E-01	1.6E-01	2.4E-01		
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00		

Lead

Scenario	
Region	Typical Ontario
Metal	Lead
EPC	95% UCL
Receptor	Female - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Lead

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	1.4E-01	7.1E-01	3.9E-01	2.0E-01	1.2E-01	2.0E-01
Drinking Water	µg/kg/day	5.5E-02	5.5E-02	3.9E-02	2.8E-02	3.8E-02	3.8E-02
Inhalation Route	µg/kg/day	1.9E-03	4.0E-03	3.1E-03	1.9E-03	1.8E-03	2.1E-03
Direct Dermal Contact	µg/kg/day	1.1E-04	1.1E-04	8.3E-05	7.7E-05	2.5E-05	4.3E-05
Soil/Dust Ingestion	µg/kg/day	2.3E-01	4.5E-01	5.5E-02	3.3E-02	2.9E-02	6.1E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Blue Berries	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Game & Fish	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	4.3E-01	1.2E+00	4.9E-01	2.6E-01	1.9E-01	3.0E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	2.3E-01	6.6E-01	2.6E-01	1.4E-01	1.0E-01	1.6E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Typical Ontario
COC	Lead
EPC	95% UCL
Receptor	Female - CTE Estimate

Toxicity Information - Lead		
Oral RfD	µg/kg/day	1.85
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Lead

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	8.0E-03	µg/m3	0.0%	1.3E-04	2.7E-04	2.1E-04	1.3E-04	1.2E-04	1.4E-04
Inhalation of Fine Particulate- Indoors	8.0E-03	µg/m3	0.4%	1.9E-03	4.0E-03	3.1E-03	1.9E-03	1.8E-03	2.1E-03
Dermal Contact - Outdoors	1.2E+02	µg/g	0.0%	8.9E-05	8.5E-05	6.6E-05	6.3E-05	1.8E-05	3.3E-05
Dermal Contact - Indoors	1.6E+02	µg/g	0.0%	3.0E-05	2.8E-05	2.1E-05	1.9E-05	8.5E-06	1.2E-05
Soil Ingestion	1.2E+02	µg/g	6.9%	6.1E-02	1.2E-01	1.5E-02	8.9E-03	7.9E-03	1.6E-02
Indoor dust Ingestion	1.6E+02	µg/g	20.1%	1.8E-01	3.5E-01	4.3E-02	2.6E-02	2.3E-02	4.8E-02
Home Produced Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Blue Berries	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Game	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fish	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Drinking Water	1.9E+00	µg/L	8.5%	6.9E-02	6.9E-02	4.5E-02	3.4E-02	4.5E-02	4.5E-02
Market Basket Contribution	NA	µg/g	64.1%	1.9E-01	8.4E-01	5.1E-01	2.7E-01	1.7E-01	2.6E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	5.0E-01	1.4E+00	6.2E-01	3.4E-01	2.5E-01	3.7E-01
<i>Inhalation Route Only</i>			0.4%	2.0E-03	4.3E-03	3.3E-03	2.0E-03	1.9E-03	2.2E-03
<i>Direct Soil Contact Only</i>			27.0%	2.4E-01	4.7E-01	5.8E-02	3.5E-02	3.1E-02	6.4E-02
<i>Market Basket Foods and Drinking Water</i>			72.6%	2.6E-01	9.1E-01	5.6E-01	3.0E-01	2.2E-01	3.1E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

Lead

Scenario	
Region	Typical Ontario
Metal	Lead
EPC	95% UCL
Receptor	Female - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Lead

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	1.9E-01	8.4E-01	5.1E-01	2.7E-01	1.7E-01	2.6E-01
Drinking Water	µg/kg/day	6.9E-02	6.9E-02	4.5E-02	3.4E-02	4.5E-02	4.5E-02
Inhalation Route	µg/kg/day	2.0E-03	4.3E-03	3.3E-03	2.0E-03	1.9E-03	2.2E-03
Direct Dermal Contact	µg/kg/day	1.2E-04	1.1E-04	8.8E-05	8.2E-05	2.7E-05	4.5E-05
Soil/Dust Ingestion	µg/kg/day	2.4E-01	4.7E-01	5.8E-02	3.5E-02	3.1E-02	6.4E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Blue Berries	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Game & Fish	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	5.0E-01	1.4E+00	6.2E-01	3.4E-01	2.5E-01	3.7E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	2.7E-01	7.5E-01	3.3E-01	1.8E-01	1.3E-01	2.0E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Typical Ontario
COC	Lead
EPC	95% UCL
Receptor	Female - RME Estimate

Toxicity Information - Lead		
Oral RfD	µg/kg/day	1.85
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Lead

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	8.0E-03	µg/m3	0.0%	8.8E-05	2.0E-04	1.6E-04	9.8E-05	7.6E-05	9.6E-05
Inhalation of Fine Particulate- Indoors	8.0E-03	µg/m3	0.5%	1.8E-03	4.2E-03	3.4E-03	2.0E-03	1.6E-03	2.0E-03
Dermal Contact - Outdoors	1.2E+02	µg/g	0.0%	8.4E-05	8.0E-05	6.3E-05	5.7E-05	1.6E-05	3.0E-05
Dermal Contact - Indoors	1.6E+02	µg/g	0.0%	2.9E-05	2.7E-05	2.1E-05	1.8E-05	7.6E-06	1.1E-05
Soil Ingestion	1.2E+02	µg/g	7.7%	5.7E-02	1.1E-01	1.5E-02	7.5E-03	6.0E-03	1.4E-02
Indoor dust Ingestion	1.6E+02	µg/g	22.8%	1.7E-01	3.4E-01	4.3E-02	2.2E-02	1.8E-02	4.2E-02
Home Produced Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Blue Berries	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Game	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fish	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Drinking Water	1.9E+00	µg/L	8.0%	5.5E-02	5.5E-02	4.0E-02	2.5E-02	3.1E-02	3.3E-02
Market Basket Contribution	NA	µg/g	61.0%	1.1E-01	6.4E-01	4.4E-01	2.4E-01	1.5E-01	2.2E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)	100.0%	4.0E-01	1.1E+00	5.4E-01	3.0E-01	2.0E-01	3.1E-01		
<i>Inhalation Route Only</i>	0.5%	1.9E-03	4.4E-03	3.5E-03	2.1E-03	1.6E-03	2.1E-03		
<i>Direct Soil Contact Only</i>	30.5%	2.3E-01	4.5E-01	5.8E-02	3.0E-02	2.4E-02	5.7E-02		
<i>Market Basket Foods and Drinking Water</i>	69.0%	1.7E-01	6.9E-01	4.8E-01	2.7E-01	1.8E-01	2.5E-01		
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00		

Lead

Scenario	
Region	Typical Ontario
Metal	Lead
EPC	95% UCL
Receptor	Male - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Lead

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	1.1E-01	6.4E-01	4.4E-01	2.4E-01	1.5E-01	2.2E-01
Drinking Water	µg/kg/day	5.5E-02	5.5E-02	4.0E-02	2.5E-02	3.1E-02	3.3E-02
Inhalation Route	µg/kg/day	1.9E-03	4.4E-03	3.5E-03	2.1E-03	1.6E-03	2.1E-03
Direct Dermal Contact	µg/kg/day	1.1E-04	1.1E-04	8.4E-05	7.5E-05	2.4E-05	4.1E-05
Soil/Dust Ingestion	µg/kg/day	2.3E-01	4.5E-01	5.8E-02	2.9E-02	2.4E-02	5.7E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Blue Berries	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Game & Fish	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	4.0E-01	1.1E+00	5.4E-01	3.0E-01	2.0E-01	3.1E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	2.2E-01	6.2E-01	2.9E-01	1.6E-01	1.1E-01	1.7E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Typical Ontario
COC	Lead
EPC	95% UCL
Receptor	Male - CTE Estimate

Toxicity Information - Lead		
Oral RfD	µg/kg/day	1.85
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE



Lead

Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	8.0E-03	µg/m3	0.0%	1.3E-04	3.0E-04	2.4E-04	1.3E-04	1.1E-04	1.4E-04
Inhalation of Fine Particulate- Indoors	8.0E-03	µg/m3	0.4%	1.9E-03	4.4E-03	3.5E-03	2.1E-03	1.6E-03	2.1E-03
Dermal Contact - Outdoors	1.2E+02	µg/g	0.0%	8.9E-05	8.5E-05	6.7E-05	6.0E-05	1.7E-05	3.2E-05
Dermal Contact - Indoors	1.6E+02	µg/g	0.0%	3.0E-05	2.8E-05	2.2E-05	1.9E-05	7.9E-06	1.2E-05
Soil Ingestion	1.2E+02	µg/g	6.7%	6.1E-02	1.2E-01	1.5E-02	7.9E-03	6.3E-03	1.5E-02
Indoor dust Ingestion	1.6E+02	µg/g	19.4%	1.8E-01	3.5E-01	4.5E-02	2.3E-02	1.8E-02	4.4E-02
Home Produced Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Blue Berries	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Game	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fish	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Drinking Water	1.9E+00	µg/L	7.6%	6.9E-02	6.9E-02	4.7E-02	1.8E-02	3.6E-02	3.7E-02
Market Basket Contribution	NA	µg/g	65.9%	1.2E-01	8.4E-01	5.8E-01	3.4E-01	2.1E-01	3.0E-01
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	4.3E-01	1.4E+00	6.9E-01	3.9E-01	2.7E-01	4.0E-01
<i>Inhalation Route Only</i>			0.5%	2.0E-03	4.7E-03	3.8E-03	2.2E-03	1.7E-03	2.2E-03
<i>Direct Soil Contact Only</i>			26.1%	2.4E-01	4.7E-01	6.0E-02	3.1E-02	2.5E-02	5.9E-02
<i>Market Basket Foods and Drinking Water</i>			73.5%	1.9E-01	9.0E-01	6.2E-01	3.6E-01	2.4E-01	3.4E-01
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

Lead

Scenario	
Region	Typical Ontario
Metal	Lead
EPC	95% UCL
Receptor	Male - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Lead

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	1.2E-01	8.4E-01	5.8E-01	3.4E-01	2.1E-01	3.0E-01
Drinking Water	µg/kg/day	6.9E-02	6.9E-02	4.7E-02	1.8E-02	3.6E-02	3.7E-02
Inhalation Route	µg/kg/day	2.0E-03	4.7E-03	3.8E-03	2.2E-03	1.7E-03	2.2E-03
Direct Dermal Contact	µg/kg/day	1.2E-04	1.1E-04	8.9E-05	7.9E-05	2.5E-05	4.4E-05
Soil/Dust Ingestion	µg/kg/day	2.4E-01	4.7E-01	6.0E-02	3.1E-02	2.5E-02	5.9E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Blue Berries	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Game & Fish	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	4.3E-01	1.4E+00	6.9E-01	3.9E-01	2.7E-01	3.9E-01
Hazard Quotient - inhal	unitless	NA	NA	NA	NA	NA	NA
Hazard Quotient - oral	unitless	2.3E-01	7.5E-01	3.7E-01	2.1E-01	1.4E-01	2.1E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Typical Ontario
COC	Lead
EPC	95% UCL
Receptor	Male - RME Estimate

Toxicity Information - Lead		
Oral RfD	µg/kg/day	1.85
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	NA

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Nickel



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	1.4E-03	µg/m3	0.0%	1.5E-05	3.3E-05	2.6E-05	1.5E-05	1.5E-05	1.7E-05
Inhalation of Fine Particulate- Indoors	1.4E-03	µg/m3	0.0%	3.2E-04	6.6E-04	5.2E-04	3.1E-04	3.0E-04	3.5E-04
Dermal Contact - Outdoors	4.3E+01	µg/g	0.0%	3.0E-05	2.9E-05	2.2E-05	2.1E-05	6.1E-06	1.1E-05
Dermal Contact - Indoors	2.9E+02	µg/g	0.0%	5.3E-05	4.9E-05	3.8E-05	3.4E-05	1.5E-05	2.2E-05
Soil Ingestion	4.3E+01	µg/g	0.3%	1.3E-02	2.6E-02	3.2E-03	1.9E-03	1.7E-03	3.5E-03
Indoor dust Ingestion	2.9E+02	µg/g	2.8%	1.1E-01	2.3E-01	2.8E-02	1.6E-02	1.5E-02	3.0E-02
Home Produced Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Blue Berries	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Game	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fish	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Drinking Water	2.2E+00	µg/L	1.8%	6.4E-02	6.4E-02	4.5E-02	3.2E-02	4.4E-02	4.4E-02
Market Basket Contribution	NA	µg/g	95.1%	6.9E-01	6.1E+00	3.5E+00	1.9E+00	1.3E+00	1.9E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	8.8E-01	6.4E+00	3.6E+00	1.9E+00	1.4E+00	2.0E+00
<i>Inhalation Route Only</i>			0.0%	3.3E-04	7.0E-04	5.5E-04	3.3E-04	3.1E-04	3.6E-04
<i>Direct Soil Contact Only</i>			3.1%	1.3E-01	2.5E-01	3.1E-02	1.8E-02	1.6E-02	3.4E-02
<i>Market Basket Foods and Drinking Water</i>			96.9%	7.6E-01	6.1E+00	3.6E+00	1.9E+00	1.4E+00	1.9E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

Nickel

Scenario	
Region	Typical Ontario
Metal	Nickel
EPC	95% UCL
Receptor	Female - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Nickel

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	6.9E-01	6.1E+00	3.5E+00	1.9E+00	1.3E+00	1.9E+00
Drinking Water	µg/kg/day	6.4E-02	6.4E-02	4.5E-02	3.2E-02	4.4E-02	4.4E-02
Inhalation Route	µg/kg/day	3.3E-04	7.0E-04	5.5E-04	3.3E-04	3.1E-04	3.6E-04
Direct Dermal Contact	µg/kg/day	8.3E-05	7.8E-05	6.0E-05	5.5E-05	2.1E-05	3.3E-05
Soil/Dust Ingestion	µg/kg/day	1.3E-01	2.5E-01	3.1E-02	1.8E-02	1.6E-02	3.4E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Blue Berries	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Game & Fish	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	8.8E-01	6.4E+00	3.6E+00	1.9E+00	1.4E+00	2.0E+00
Hazard Quotient - inhal	unitless	5.8E-02	1.2E-01	9.6E-02	5.8E-02	5.5E-02	NA
Hazard Quotient - oral	unitless	4.4E-02	3.2E-01	1.8E-01	9.7E-02	6.9E-02	9.9E-02
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Typical Ontario
COC	Nickel
EPC	95% UCL
Receptor	Female - CTE Estimate

Toxicity Information - Nickel		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.00571

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Nickel



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	1.4E-03	µg/m3	0.0%	2.3E-05	4.7E-05	3.7E-05	2.2E-05	2.1E-05	2.4E-05
Inhalation of Fine Particulate- Indoors	1.4E-03	µg/m3	0.0%	3.4E-04	7.0E-04	5.5E-04	3.3E-04	3.1E-04	3.6E-04
Dermal Contact - Outdoors	4.3E+01	µg/g	0.0%	3.2E-05	3.1E-05	2.4E-05	2.2E-05	6.5E-06	1.2E-05
Dermal Contact - Indoors	2.9E+02	µg/g	0.0%	5.5E-05	5.1E-05	3.9E-05	3.5E-05	1.6E-05	2.3E-05
Soil Ingestion	4.3E+01	µg/g	0.3%	1.4E-02	2.8E-02	3.4E-03	2.0E-03	1.8E-03	3.7E-03
Indoor dust Ingestion	2.9E+02	µg/g	2.3%	1.2E-01	2.3E-01	2.9E-02	1.7E-02	1.5E-02	3.2E-02
Home Produced Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Blue Berries	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Game	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fish	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Drinking Water	2.2E+00	µg/L	1.7%	8.0E-02	8.0E-02	5.2E-02	3.9E-02	5.2E-02	5.2E-02
Market Basket Contribution	NA	µg/g	95.7%	9.0E-01	6.6E+00	4.8E+00	2.7E+00	1.8E+00	2.5E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	1.1E+00	7.0E+00	4.9E+00	2.8E+00	1.9E+00	2.6E+00
<i>Inhalation Route Only</i>			0.0%	3.6E-04	7.5E-04	5.8E-04	3.5E-04	3.3E-04	3.9E-04
<i>Direct Soil Contact Only</i>			2.6%	1.3E-01	2.6E-01	3.2E-02	1.9E-02	1.7E-02	3.5E-02
<i>Market Basket Foods and Drinking Water</i>			97.4%	9.8E-01	6.7E+00	4.9E+00	2.7E+00	1.9E+00	2.6E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

Nickel

Scenario	
Region	Typical Ontario
Metal	Nickel
EPC	95% UCL
Receptor	Female - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Nickel

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	9.0E-01	6.6E+00	4.8E+00	2.7E+00	1.8E+00	2.5E+00
Drinking Water	µg/kg/day	8.0E-02	8.0E-02	5.2E-02	3.9E-02	5.2E-02	5.2E-02
Inhalation Route	µg/kg/day	3.6E-04	7.5E-04	5.8E-04	3.5E-04	3.3E-04	3.9E-04
Direct Dermal Contact	µg/kg/day	8.7E-05	8.2E-05	6.3E-05	5.8E-05	2.2E-05	3.5E-05
Soil/Dust Ingestion	µg/kg/day	1.3E-01	2.6E-01	3.2E-02	1.9E-02	1.7E-02	3.5E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Blue Berries	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Game & Fish	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	1.1E+00	7.0E+00	4.9E+00	2.8E+00	1.9E+00	2.6E+00
Hazard Quotient - inhal	unitless	6.3E-02	1.3E-01	1.0E-01	6.1E-02	5.8E-02	NA
Hazard Quotient - oral	unitless	5.6E-02	3.5E-01	2.4E-01	1.4E-01	9.4E-02	1.3E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Typical Ontario
COC	Nickel
EPC	95% UCL
Receptor	Female - RME Estimate

Toxicity Information - Nickel		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.00571

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Nickel



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units							
Inhalation of Fine Particulate- Outdoors	1.4E-03	µg/m3	0.0%	1.5E-05	3.6E-05	2.9E-05	1.7E-05	1.3E-05	1.7E-05
Inhalation of Fine Particulate- Indoors	1.4E-03	µg/m3	0.0%	3.2E-04	7.3E-04	5.9E-04	3.5E-04	2.7E-04	3.4E-04
Dermal Contact - Outdoors	4.3E+01	µg/g	0.0%	3.0E-05	2.9E-05	2.3E-05	2.0E-05	5.7E-06	1.1E-05
Dermal Contact - Indoors	2.9E+02	µg/g	0.0%	5.3E-05	4.9E-05	3.8E-05	3.3E-05	1.4E-05	2.1E-05
Soil Ingestion	4.3E+01	µg/g	0.3%	1.3E-02	2.6E-02	3.3E-03	1.7E-03	1.4E-03	3.3E-03
Indoor dust Ingestion	2.9E+02	µg/g	2.9%	1.1E-01	2.2E-01	2.9E-02	1.5E-02	1.2E-02	2.8E-02
Home Produced Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Blue Berries	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Game	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fish	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Drinking Water	2.2E+00	µg/L	1.7%	6.4E-02	6.3E-02	4.7E-02	2.8E-02	3.5E-02	3.8E-02
Market Basket Contribution	NA	µg/g	95.1%	5.5E-01	4.8E+00	3.9E+00	2.3E+00	1.5E+00	2.0E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	7.4E-01	5.1E+00	4.0E+00	2.3E+00	1.5E+00	2.1E+00
Inhalation Route Only			0.0%	3.3E-04	7.7E-04	6.2E-04	3.7E-04	2.9E-04	3.6E-04
Direct Soil Contact Only			3.2%	1.3E-01	2.5E-01	3.2E-02	1.6E-02	1.3E-02	3.1E-02
Market Basket Foods and Drinking Water			96.8%	6.1E-01	4.9E+00	3.9E+00	2.3E+00	1.5E+00	2.1E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

Nickel

Scenario	
Region	Typical Ontario
Metal	Nickel
EPC	95% UCL
Receptor	Male - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Nickel

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	5.5E-01	4.8E+00	3.9E+00	2.3E+00	1.5E+00	2.0E+00
Drinking Water	µg/kg/day	6.4E-02	6.3E-02	4.7E-02	2.8E-02	3.5E-02	3.8E-02
Inhalation Route	µg/kg/day	3.3E-04	7.7E-04	6.2E-04	3.7E-04	2.9E-04	3.6E-04
Direct Dermal Contact	µg/kg/day	8.3E-05	7.8E-05	6.1E-05	5.3E-05	2.0E-05	3.2E-05
Soil/Dust Ingestion	µg/kg/day	1.3E-01	2.5E-01	3.2E-02	1.6E-02	1.3E-02	3.1E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Blue Berries	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Game & Fish	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	7.4E-01	5.1E+00	4.0E+00	2.3E+00	1.5E+00	2.1E+00
Hazard Quotient - inhal	unitless	5.8E-02	1.3E-01	1.1E-01	6.4E-02	5.0E-02	NA
Hazard Quotient - oral	unitless	3.7E-02	2.6E-01	2.0E-01	1.2E-01	7.6E-02	1.0E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Typical Ontario
COC	Nickel
EPC	95% UCL
Receptor	Male - CTE Estimate

Toxicity Information - Nickel		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.00571

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Nickel



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units							
Inhalation of Fine Particulate- Outdoors	1.4E-03	µg/m3	0.0%	2.3E-05	5.2E-05	4.1E-05	2.3E-05	1.9E-05	2.4E-05
Inhalation of Fine Particulate- Indoors	1.4E-03	µg/m3	0.0%	3.4E-04	7.7E-04	6.2E-04	3.7E-04	2.9E-04	3.6E-04
Dermal Contact - Outdoors	4.3E+01	µg/g	0.0%	3.2E-05	3.1E-05	2.4E-05	2.2E-05	6.1E-06	1.1E-05
Dermal Contact - Indoors	2.9E+02	µg/g	0.0%	5.5E-05	5.1E-05	4.0E-05	3.4E-05	1.5E-05	2.2E-05
Soil Ingestion	4.3E+01	µg/g	0.3%	1.4E-02	2.8E-02	3.5E-03	1.8E-03	1.4E-03	3.5E-03
Indoor dust Ingestion	2.9E+02	µg/g	2.2%	1.2E-01	2.3E-01	3.0E-02	1.5E-02	1.2E-02	2.9E-02
Home Produced Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Blue Berries	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Game	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fish	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Drinking Water	2.2E+00	µg/L	1.5%	8.0E-02	7.9E-02	5.4E-02	2.1E-02	4.2E-02	4.3E-02
Market Basket Contribution	NA	µg/g	96.1%	5.9E-01	6.6E+00	5.4E+00	3.5E+00	2.0E+00	2.8E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	8.0E-01	6.9E+00	5.5E+00	3.5E+00	2.1E+00	2.9E+00
<i>Inhalation Route Only</i>			0.0%	3.6E-04	8.2E-04	6.6E-04	3.9E-04	3.1E-04	3.8E-04
<i>Direct Soil Contact Only</i>			2.4%	1.3E-01	2.6E-01	3.3E-02	1.7E-02	1.4E-02	3.3E-02
<i>Market Basket Foods and Drinking Water</i>			97.6%	6.7E-01	6.7E+00	5.5E+00	3.5E+00	2.1E+00	2.9E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

Nickel

Scenario	
Region	Typical Ontario
Metal	Nickel
EPC	95% UCL
Receptor	Male - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Nickel

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	5.9E-01	6.6E+00	5.4E+00	3.5E+00	2.0E+00	2.8E+00
Drinking Water	µg/kg/day	8.0E-02	7.9E-02	5.4E-02	2.1E-02	4.2E-02	4.3E-02
Inhalation Route	µg/kg/day	3.6E-04	8.2E-04	6.6E-04	3.9E-04	3.1E-04	3.8E-04
Direct Dermal Contact	µg/kg/day	8.7E-05	8.1E-05	6.4E-05	5.6E-05	2.1E-05	3.3E-05
Soil/Dust Ingestion	µg/kg/day	1.3E-01	2.6E-01	3.3E-02	1.7E-02	1.4E-02	3.3E-02
HP Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Blue Berries	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Game & Fish	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	8.0E-01	6.9E+00	5.5E+00	3.5E+00	2.1E+00	2.9E+00
Hazard Quotient - inhal	unitless	6.3E-02	1.4E-01	1.1E-01	6.9E-02	5.4E-02	NA
Hazard Quotient - oral	unitless	4.0E-02	3.5E-01	2.7E-01	1.8E-01	1.0E-01	1.4E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Typical Ontario
COC	Nickel
EPC	95% UCL
Receptor	Male - RME Estimate

Toxicity Information - Nickel		
Oral RfD	µg/kg/day	20
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	0.00571

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Selenium



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	1.9E-03	µg/m3	0.0%	2.1E-05	4.4E-05	3.5E-05	2.1E-05	2.0E-05	2.3E-05
Inhalation of Fine Particulate- Indoors	1.9E-03	µg/m3	0.0%	4.3E-04	9.0E-04	7.1E-04	4.2E-04	4.0E-04	4.7E-04
Dermal Contact - Outdoors	1.9E+00	µg/g	0.0%	1.3E-06	1.3E-06	9.9E-07	9.3E-07	2.7E-07	4.9E-07
Dermal Contact - Indoors	3.9E+00	µg/g	0.0%	7.1E-07	6.6E-07	5.0E-07	4.6E-07	2.0E-07	2.9E-07
Soil Ingestion	1.9E+00	µg/g	0.0%	3.6E-04	7.2E-04	8.7E-05	5.2E-05	4.7E-05	9.7E-05
Indoor dust Ingestion	3.9E+00	µg/g	0.1%	3.4E-03	6.7E-03	8.2E-04	4.9E-04	4.4E-04	9.1E-04
Home Produced Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Blue Berries	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Game	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fish	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Drinking Water	1.6E+00	µg/L	1.4%	4.6E-02	4.6E-02	3.2E-02	2.3E-02	3.2E-02	3.2E-02
Market Basket Contribution	NA	µg/g	98.5%	1.3E+00	5.1E+00	3.4E+00	1.8E+00	1.1E+00	1.7E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	1.3E+00	5.2E+00	3.5E+00	1.8E+00	1.1E+00	1.7E+00
<i>Inhalation Route Only</i>			0.0%	4.5E-04	9.5E-04	7.4E-04	4.5E-04	4.2E-04	4.9E-04
<i>Direct Soil Contact Only</i>			0.1%	3.7E-03	7.5E-03	9.1E-04	5.4E-04	4.8E-04	1.0E-03
<i>Market Basket Foods and Drinking Water</i>			99.9%	1.3E+00	5.1E+00	3.5E+00	1.8E+00	1.1E+00	1.7E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

Selenium

Scenario	
Region	Typical Ontario
Metal	Selenium
EPC	95% UCL
Receptor	Female - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Selenium

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	1.3E+00	5.1E+00	3.4E+00	1.8E+00	1.1E+00	1.7E+00
Drinking Water	µg/kg/day	4.6E-02	4.6E-02	3.2E-02	2.3E-02	3.2E-02	3.2E-02
Inhalation Route	µg/kg/day	4.5E-04	9.5E-04	7.4E-04	4.5E-04	4.2E-04	4.9E-04
Direct Dermal Contact	µg/kg/day	2.0E-06	1.9E-06	1.5E-06	1.4E-06	4.7E-07	7.8E-07
Soil/Dust Ingestion	µg/kg/day	3.7E-03	7.4E-03	9.1E-04	5.4E-04	4.8E-04	1.0E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Blue Berries	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Game & Fish	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	1.3E+00	5.2E+00	3.5E+00	1.8E+00	1.1E+00	1.7E+00
Hazard Quotient - inhal	unitless	7.9E-05	1.7E-04	1.3E-04	7.8E-05	7.4E-05	NA
Hazard Quotient - oral	unitless	2.6E-01	1.0E+00	6.9E-01	3.6E-01	2.3E-01	3.4E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Typical Ontario
COC	Selenium
EPC	95% UCL
Receptor	Female - CTE Estimate

Toxicity Information - Selenium		
Oral RfD	µg/kg/day	5
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	5.71

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Selenium



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	1.9E-03	µg/m3	0.0%	3.1E-05	6.4E-05	5.0E-05	3.0E-05	2.8E-05	3.3E-05
Inhalation of Fine Particulate- Indoors	1.9E-03	µg/m3	0.0%	4.6E-04	9.6E-04	7.4E-04	4.4E-04	4.2E-04	4.9E-04
Dermal Contact - Outdoors	1.9E+00	µg/g	0.0%	1.4E-06	1.4E-06	1.1E-06	9.9E-07	2.9E-07	5.2E-07
Dermal Contact - Indoors	3.9E+00	µg/g	0.0%	7.4E-07	6.8E-07	5.2E-07	4.7E-07	2.1E-07	3.0E-07
Soil Ingestion	1.9E+00	µg/g	0.0%	3.8E-04	7.6E-04	9.3E-05	5.5E-05	4.9E-05	1.0E-04
Indoor dust Ingestion	3.9E+00	µg/g	0.1%	3.5E-03	7.0E-03	8.5E-04	5.1E-04	4.5E-04	9.4E-04
Home Produced Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Blue Berries	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Game	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fish	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Drinking Water	1.6E+00	µg/L	1.3%	5.8E-02	5.8E-02	3.8E-02	2.8E-02	3.8E-02	3.8E-02
Market Basket Contribution	NA	µg/g	98.6%	1.6E+00	6.6E+00	4.2E+00	2.3E+00	1.4E+00	2.1E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	1.7E+00	6.7E+00	4.3E+00	2.3E+00	1.5E+00	2.2E+00
<i>Inhalation Route Only</i>			0.0%	4.9E-04	1.0E-03	7.9E-04	4.7E-04	4.5E-04	5.2E-04
<i>Direct Soil Contact Only</i>			0.1%	3.9E-03	7.8E-03	9.5E-04	5.7E-04	5.0E-04	1.0E-03
<i>Market Basket Foods and Drinking Water</i>			99.9%	1.7E+00	6.7E+00	4.3E+00	2.3E+00	1.5E+00	2.2E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

Selenium

Scenario	
Region	Typical Ontario
Metal	Selenium
EPC	95% UCL
Receptor	Female - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Selenium

Exposure Pathway		Female Infant	Female Toddler	Female Child	Female Teen	Female Adult	Female Lifetime
Market Basket	µg/kg/day	1.6E+00	6.6E+00	4.2E+00	2.3E+00	1.4E+00	2.1E+00
Drinking Water	µg/kg/day	5.8E-02	5.8E-02	3.8E-02	2.8E-02	3.8E-02	3.8E-02
Inhalation Route	µg/kg/day	4.9E-04	1.0E-03	7.9E-04	4.7E-04	4.5E-04	5.2E-04
Direct Dermal Contact	µg/kg/day	2.1E-06	2.0E-06	1.6E-06	1.5E-06	5.0E-07	8.3E-07
Soil/Dust Ingestion	µg/kg/day	3.9E-03	7.8E-03	9.5E-04	5.7E-04	5.0E-04	1.0E-03
HP Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Blue Berries	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Game & Fish	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	1.7E+00	6.7E+00	4.3E+00	2.3E+00	1.5E+00	2.2E+00
Hazard Quotient - inhal	unitless	8.5E-05	1.8E-04	1.4E-04	8.3E-05	7.9E-05	NA
Hazard Quotient - oral	unitless	3.4E-01	1.3E+00	8.6E-01	4.6E-01	2.9E-01	4.4E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Typical Ontario
COC	Selenium
EPC	95% UCL
Receptor	Female - RME Estimate

Toxicity Information - Selenium		
Oral RfD	µg/kg/day	5
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	5.71

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Selenium



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units							
Inhalation of Fine Particulate- Outdoors	1.9E-03	µg/m3	0.0%	2.1E-05	4.9E-05	3.9E-05	2.3E-05	1.8E-05	2.3E-05
Inhalation of Fine Particulate- Indoors	1.9E-03	µg/m3	0.0%	4.3E-04	9.9E-04	8.0E-04	4.8E-04	3.7E-04	4.7E-04
Dermal Contact - Outdoors	1.9E+00	µg/g	0.0%	1.3E-06	1.3E-06	1.0E-06	9.0E-07	2.5E-07	4.7E-07
Dermal Contact - Indoors	3.9E+00	µg/g	0.0%	7.1E-07	6.5E-07	5.1E-07	4.4E-07	1.9E-07	2.8E-07
Soil Ingestion	1.9E+00	µg/g	0.0%	3.6E-04	7.1E-04	9.1E-05	4.7E-05	3.7E-05	8.9E-05
Indoor dust Ingestion	3.9E+00	µg/g	0.1%	3.4E-03	6.7E-03	8.6E-04	4.4E-04	3.5E-04	8.4E-04
Home Produced Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Blue Berries	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Game	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fish	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Drinking Water	1.6E+00	µg/L	1.2%	4.6E-02	4.6E-02	3.4E-02	2.1E-02	2.6E-02	2.7E-02
Market Basket Contribution	NA	µg/g	98.7%	1.0E+00	5.5E+00	3.9E+00	2.3E+00	1.5E+00	2.1E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	1.1E+00	5.5E+00	4.0E+00	2.3E+00	1.5E+00	2.1E+00
<i>Inhalation Route Only</i>			0.0%	4.5E-04	1.0E-03	8.4E-04	5.0E-04	3.9E-04	4.9E-04
<i>Direct Soil Contact Only</i>			0.1%	3.7E-03	7.4E-03	9.5E-04	4.9E-04	3.9E-04	9.3E-04
<i>Market Basket Foods and Drinking Water</i>			99.9%	1.0E+00	5.5E+00	3.9E+00	2.3E+00	1.5E+00	2.1E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

Selenium

Scenario	
Region	Typical Ontario
Metal	Selenium
EPC	95% UCL
Receptor	Male - CTE Estimate



HUMAN HEALTH RISK ESTIMATES

Selenium

Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	1.0E+00	5.5E+00	3.9E+00	2.3E+00	1.5E+00	2.1E+00
Drinking Water	µg/kg/day	4.6E-02	4.6E-02	3.4E-02	2.1E-02	2.6E-02	2.7E-02
Inhalation Route	µg/kg/day	4.5E-04	1.0E-03	8.4E-04	5.0E-04	3.9E-04	4.9E-04
Direct Dermal Contact	µg/kg/day	2.0E-06	1.9E-06	1.5E-06	1.3E-06	4.4E-07	7.6E-07
Soil/Dust Ingestion	µg/kg/day	3.7E-03	7.4E-03	9.5E-04	4.8E-04	3.9E-04	9.3E-04
HP Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Blue Berries	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Game & Fish	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	1.1E+00	5.5E+00	3.9E+00	2.3E+00	1.5E+00	2.1E+00
Hazard Quotient - inhal	unitless	7.9E-05	1.8E-04	1.5E-04	8.7E-05	6.8E-05	NA
Hazard Quotient - oral	unitless	2.1E-01	1.1E+00	7.9E-01	4.7E-01	3.1E-01	4.2E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Typical Ontario
COC	Selenium
EPC	95% UCL
Receptor	Male - CTE Estimate

Toxicity Information - Selenium		
Oral RfD	µg/kg/day	5
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	5.71

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

ESTIMATED TOTAL DAILY INTAKE

Selenium



Exposure Pathway	Environmental Media Concentrations		Percent of total EDI	Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
	Value	Units	Percent	ug/kg/day					
Inhalation of Fine Particulate- Outdoors	1.9E-03	µg/m3	0.0%	3.1E-05	7.1E-05	5.6E-05	3.1E-05	2.6E-05	3.3E-05
Inhalation of Fine Particulate- Indoors	1.9E-03	µg/m3	0.0%	4.6E-04	1.0E-03	8.3E-04	5.0E-04	3.9E-04	4.9E-04
Dermal Contact - Outdoors	1.9E+00	µg/g	0.0%	1.4E-06	1.3E-06	1.1E-06	9.5E-07	2.7E-07	5.0E-07
Dermal Contact - Indoors	3.9E+00	µg/g	0.0%	7.4E-07	6.8E-07	5.3E-07	4.6E-07	1.9E-07	2.9E-07
Soil Ingestion	1.9E+00	µg/g	0.0%	3.8E-04	7.5E-04	9.7E-05	4.9E-05	3.9E-05	9.5E-05
Indoor dust Ingestion	3.9E+00	µg/g	0.1%	3.5E-03	7.0E-03	8.9E-04	4.5E-04	3.6E-04	8.7E-04
Home Produced Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruits & Vegetables	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Blue Berries	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Wild Game	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fish	NA	µg/g fw	0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Drinking Water	1.6E+00	µg/L	1.1%	5.8E-02	5.7E-02	3.9E-02	1.5E-02	3.0E-02	3.1E-02
Market Basket Contribution	NA	µg/g	98.8%	1.1E+00	6.8E+00	4.8E+00	2.9E+00	2.2E+00	2.8E+00
SUMMARY									
Estimated Total Daily Intake(ug/kg/day)			100.0%	1.1E+00	6.8E+00	4.8E+00	2.9E+00	2.2E+00	2.9E+00
<i>Inhalation Route Only</i>			0.0%	4.9E-04	1.1E-03	8.9E-04	5.3E-04	4.1E-04	5.2E-04
<i>Direct Soil Contact Only</i>			0.1%	3.9E-03	7.7E-03	9.9E-04	5.1E-04	4.0E-04	9.7E-04
<i>Market Basket Foods and Drinking Water</i>			99.9%	1.1E+00	6.8E+00	4.8E+00	2.9E+00	2.2E+00	2.9E+00
Local Foods (HGP;Berries;Beef;Dairy;Game;Fish)			0.0%	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

Selenium

Scenario	
Region	Typical Ontario
Metal	Selenium
EPC	95% UCL
Receptor	Male - RME Estimate



HUMAN HEALTH RISK ESTIMATES

Selenium

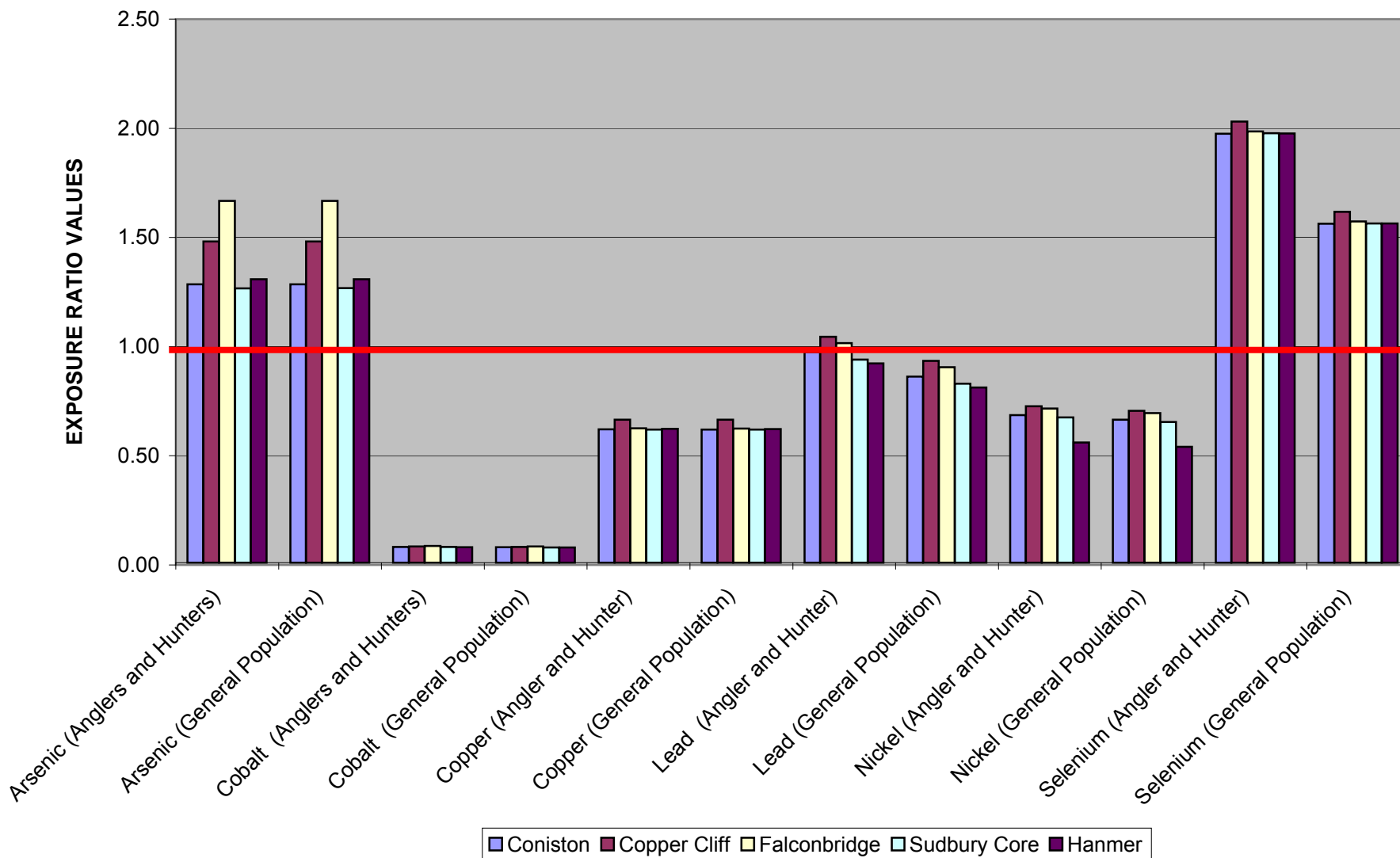
Exposure Pathway		Male Infant	Male Toddler	Male Child	Male Teen	Male Adult	Male Lifetime
Market Basket	µg/kg/day	1.1E+00	6.8E+00	4.8E+00	2.9E+00	2.2E+00	2.8E+00
Drinking Water	µg/kg/day	5.8E-02	5.7E-02	3.9E-02	1.5E-02	3.0E-02	3.1E-02
Inhalation Route	µg/kg/day	4.9E-04	1.1E-03	8.9E-04	5.3E-04	4.1E-04	5.2E-04
Direct Dermal Contact	µg/kg/day	2.1E-06	2.0E-06	1.6E-06	1.4E-06	4.6E-07	8.0E-07
Soil/Dust Ingestion	µg/kg/day	3.9E-03	7.7E-03	9.9E-04	5.0E-04	4.0E-04	9.7E-04
HP Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Local Fruit & Vegetables	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Blue Berries	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Wild Game & Fish	µg/kg/day	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
HAZARD & RISK ESTIMATION							
EDI (Oral/Dermal)	µg/kg/day	1.1E+00	6.8E+00	4.8E+00	2.9E+00	2.2E+00	2.9E+00
Hazard Quotient - inhal	unitless	8.5E-05	2.0E-04	1.6E-04	9.3E-05	7.3E-05	NA
Hazard Quotient - oral	unitless	2.3E-01	1.4E+00	9.6E-01	5.9E-01	4.5E-01	5.7E-01
Incremental Lifetime Cancer Risk (ILCR)	unitless	Inhalation ILCR		Oral ILCR		Total ILCR	
		NA		NA		NA	

Scenario	
COI	Typical Ontario
COC	Selenium
EPC	95% UCL
Receptor	Male - RME Estimate

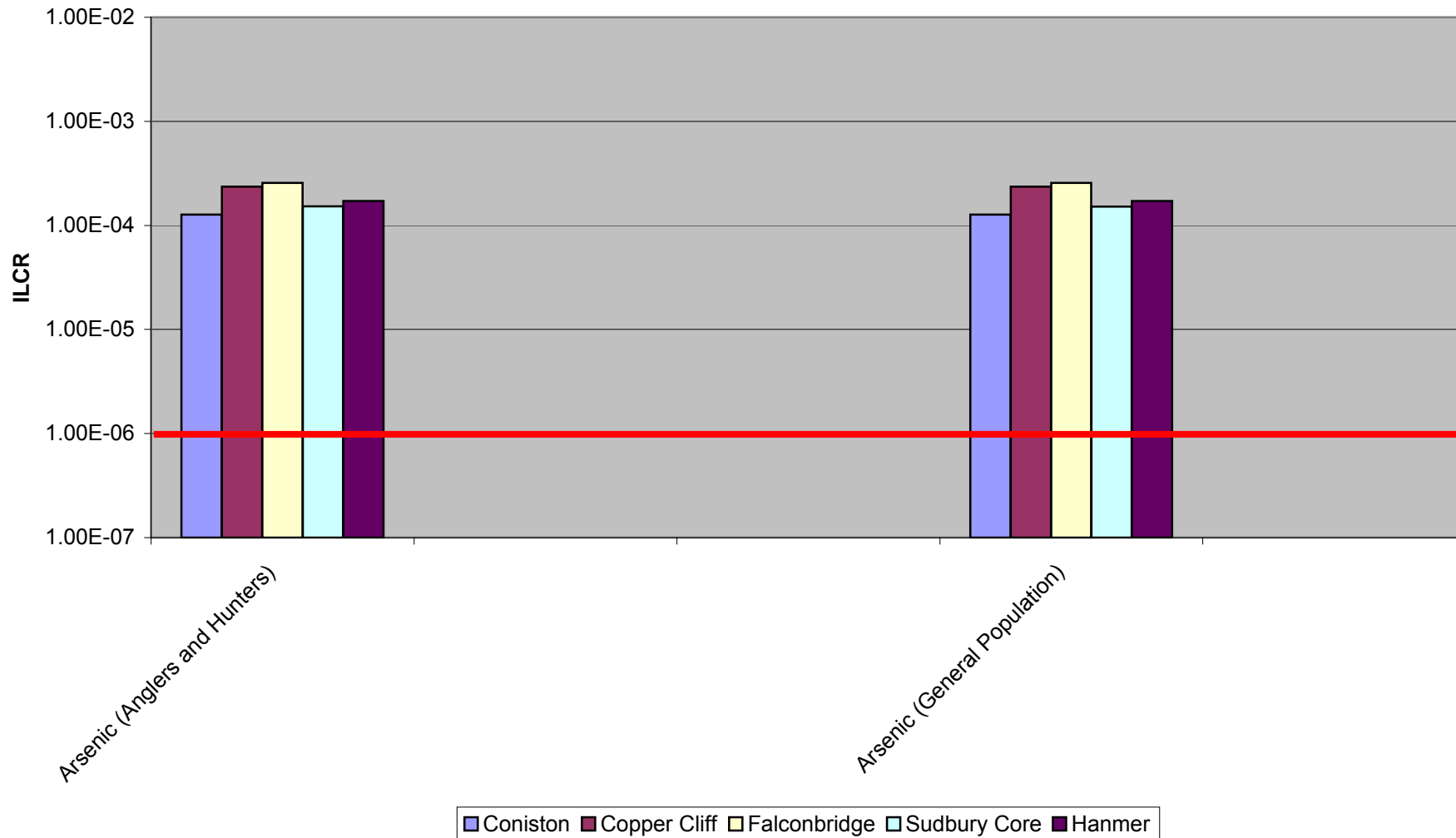
Toxicity Information - Selenium		
Oral RfD	µg/kg/day	5
Oral S.F.	(µg/kg/day) ⁻¹	NA
Inhalation S.F.	(µg/kg/day) ⁻¹	NA
Inhalation RfD	µg/kg/day	5.71

Site-Specific Exposure Pathways	
<input checked="" type="checkbox"/> Local Fruit & Vegetables	<input checked="" type="checkbox"/> Wild Blue Berries
<input checked="" type="checkbox"/> Drinking Water	<input checked="" type="checkbox"/> Direct Dermal Contact
<input checked="" type="checkbox"/> HP Fruit & Vegetables	<input checked="" type="checkbox"/> Inhalation
<input checked="" type="checkbox"/> Soil/Dust Ingestion	<input checked="" type="checkbox"/> Wild Game & Fish

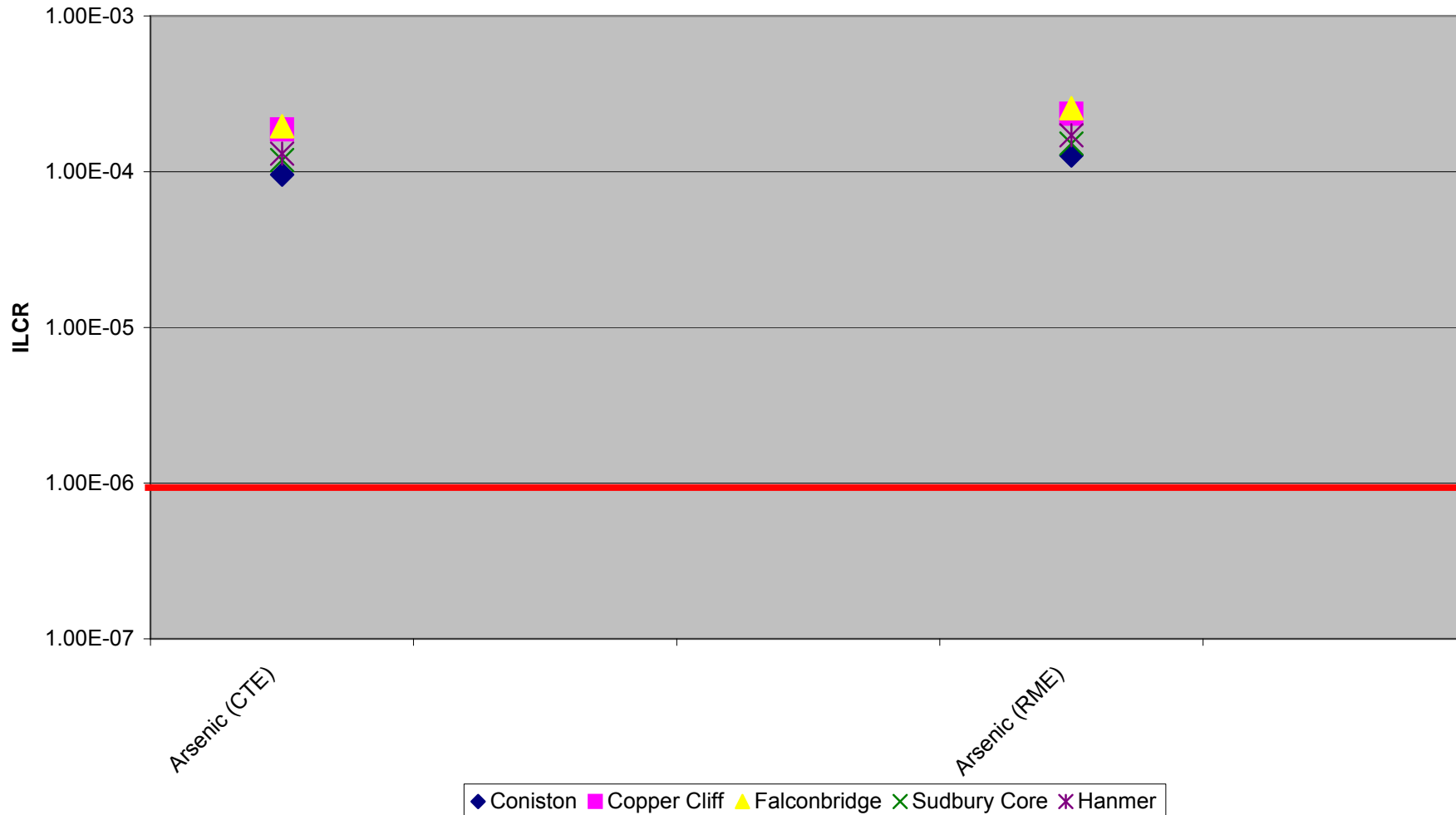
FEMALE TODDLER RME ER ESTIMATES (ORAL ONLY)
General Sudbury Population vs Anglers and Hunters



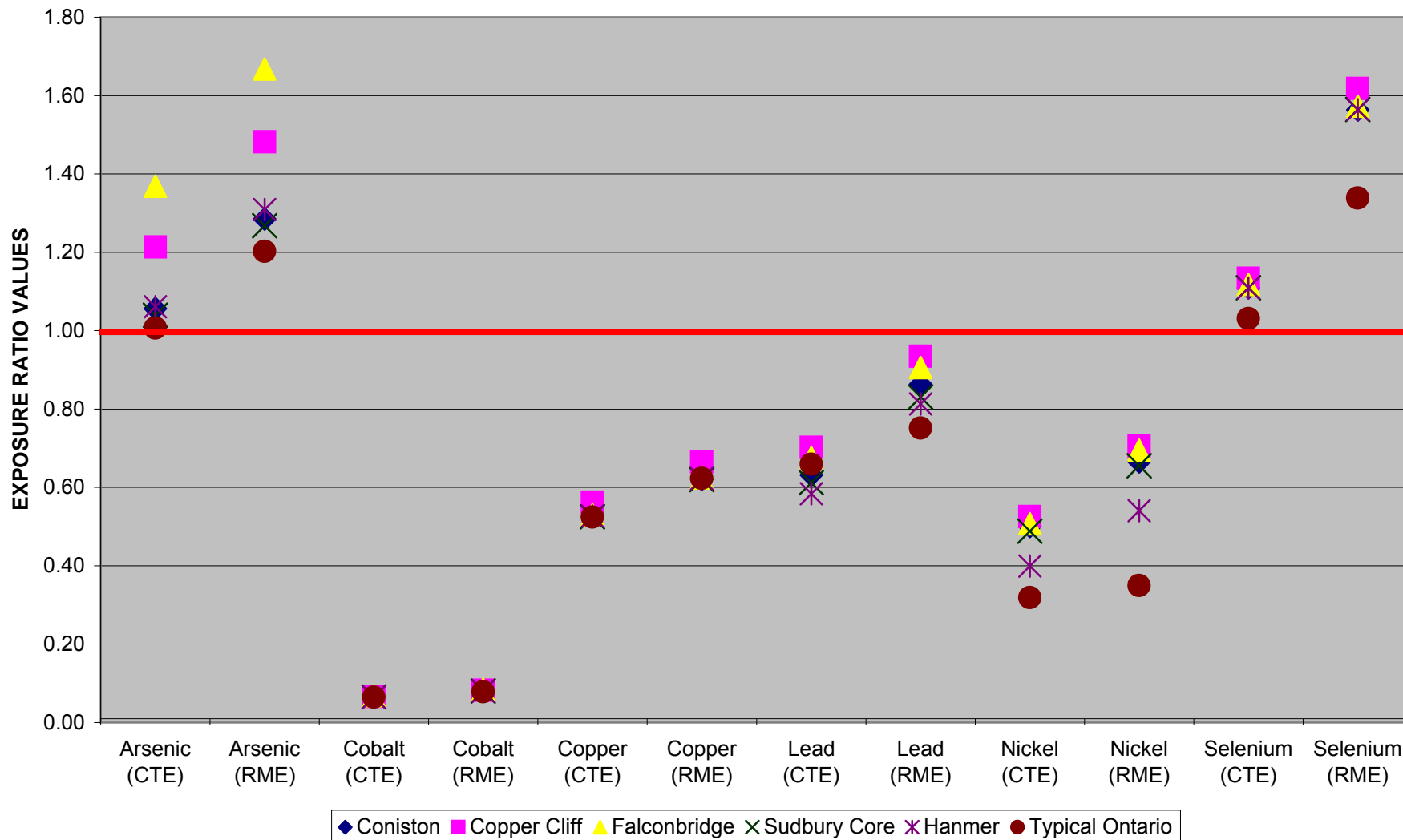
FEMALE INCREMENTAL LIFETIME CANCER RISK (ILCR) ESTIMATES General Sudbury Population vs Anglers and Hunters



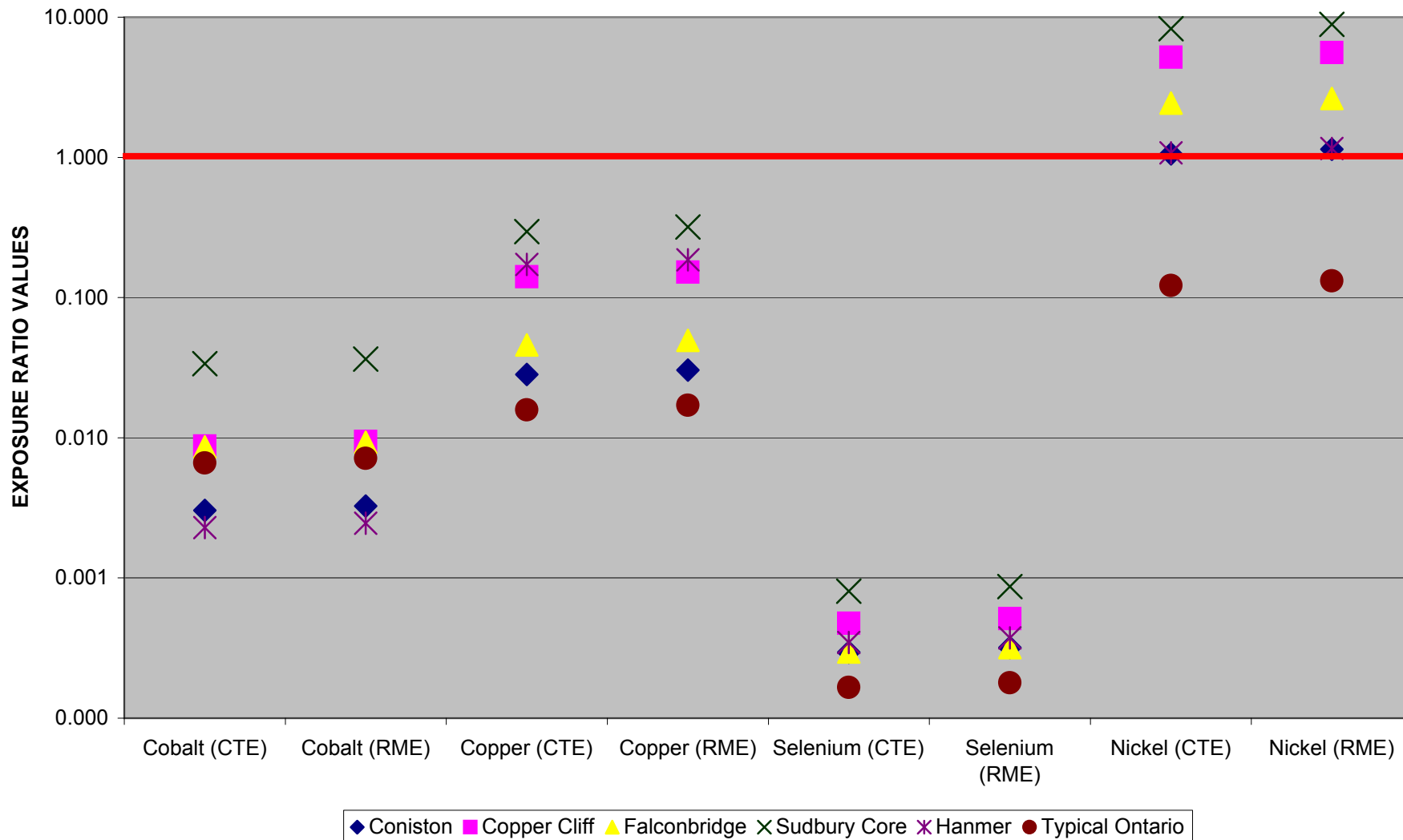
FEMALE INCREMENTAL LIFETIME CANCER RISK (ILCR) ESTIMATES General Sudbury Population



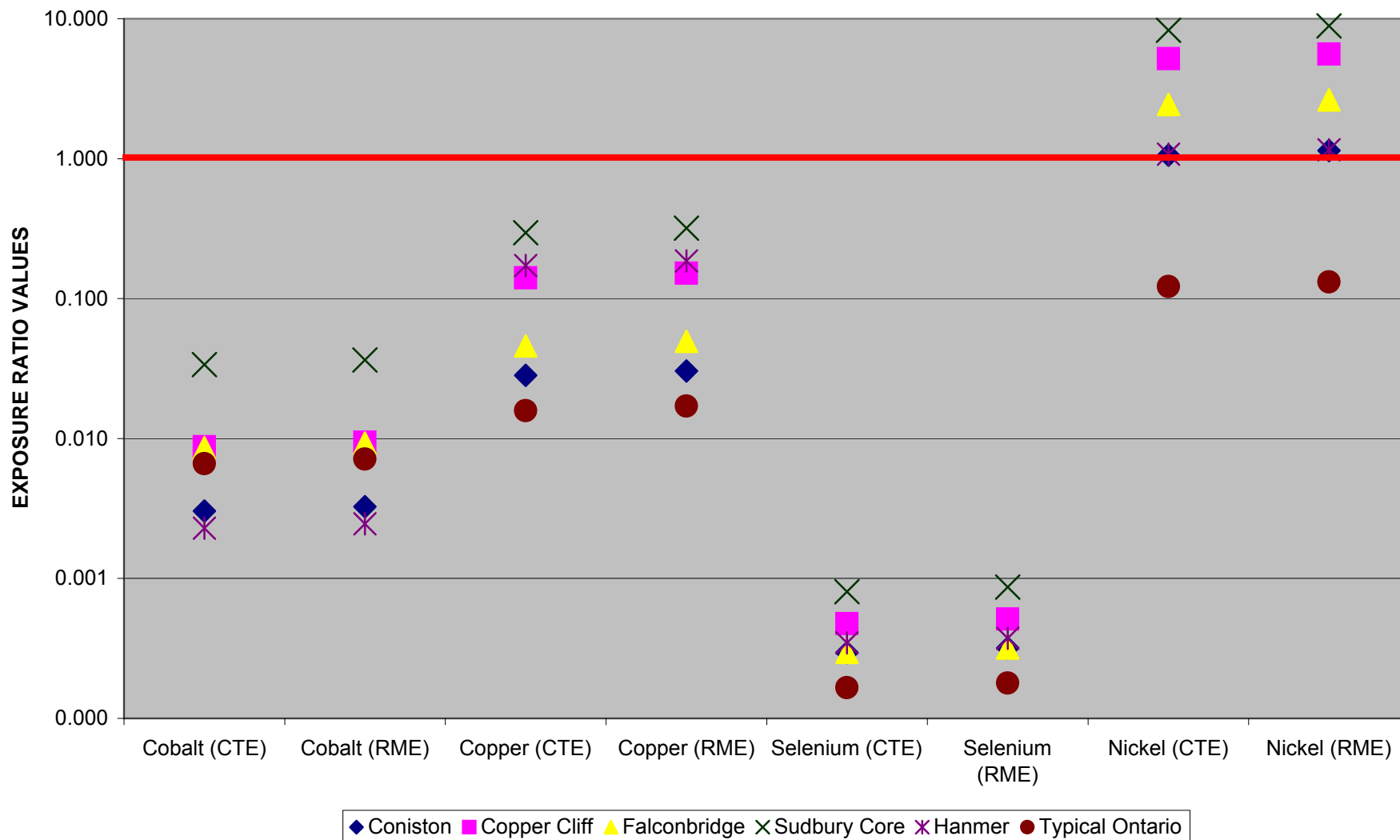
FEMALE TODDLER ER ESTIMATES (ORAL ONLY)
General Sudbury Population



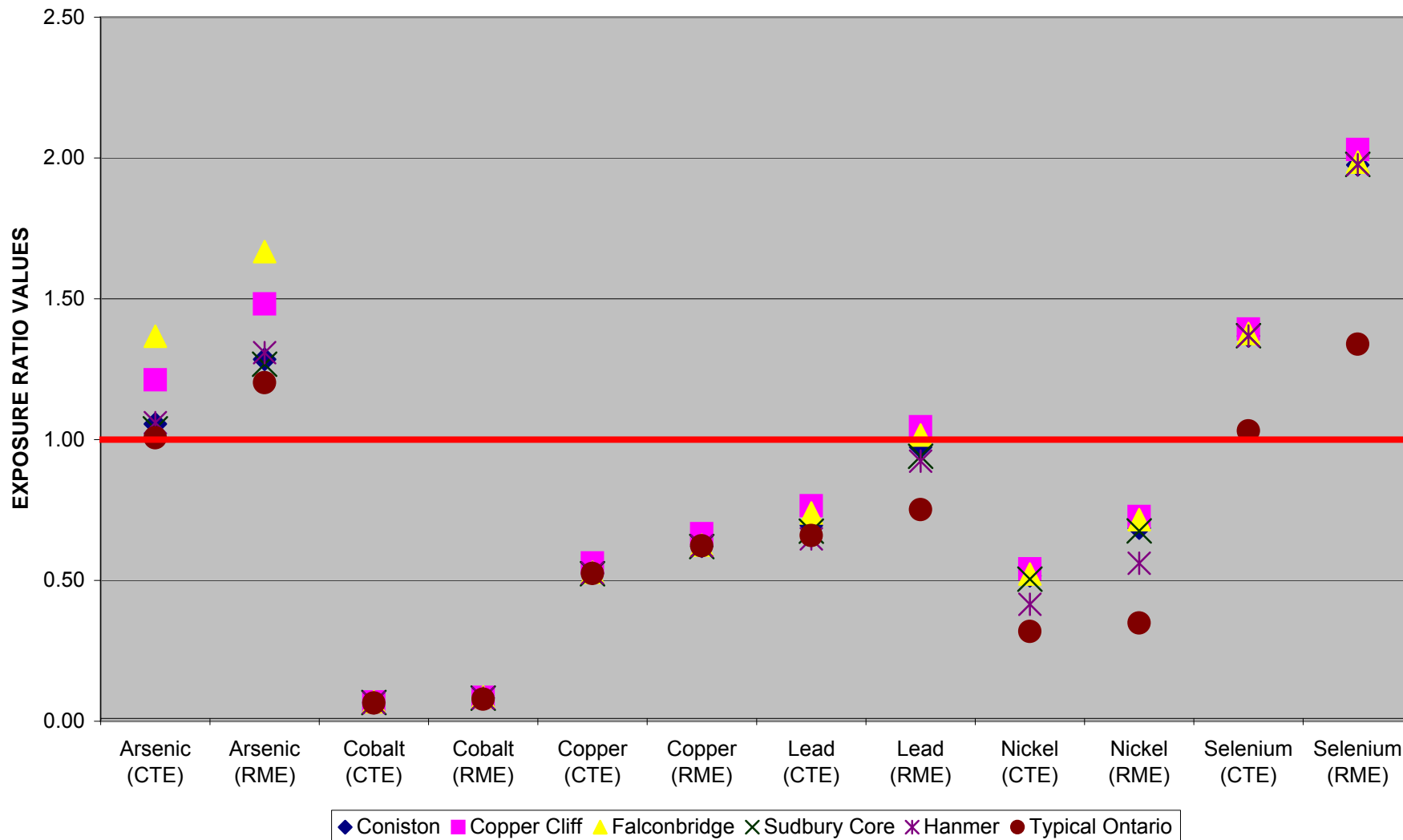
FEMALE TODDLER ER ESTIMATES (INHALATION ONLY) General Sudbury Population



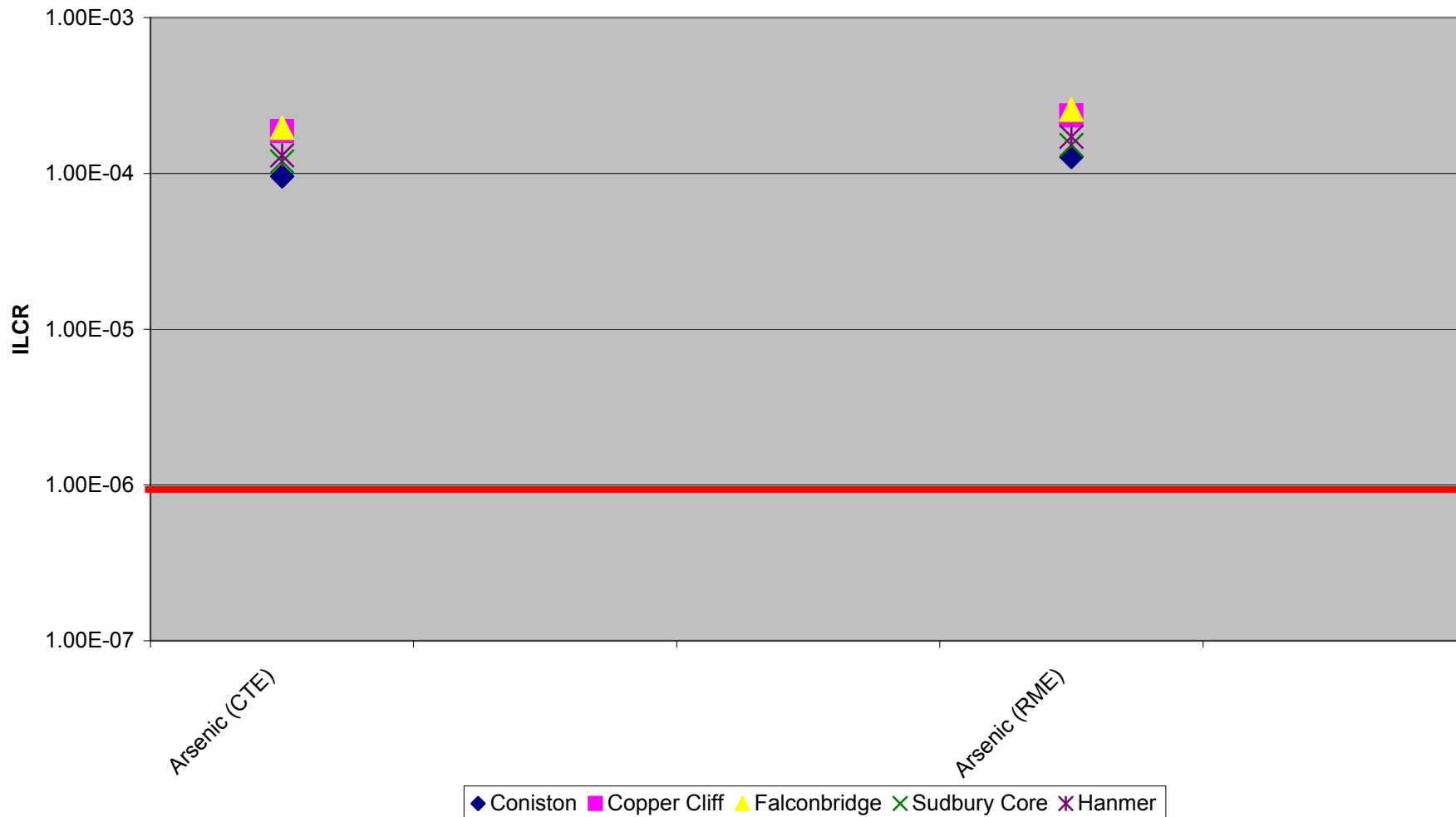
FEMALE TODDLER ER ESTIMATES (INHALATION ONLY) Hunters and Anglers



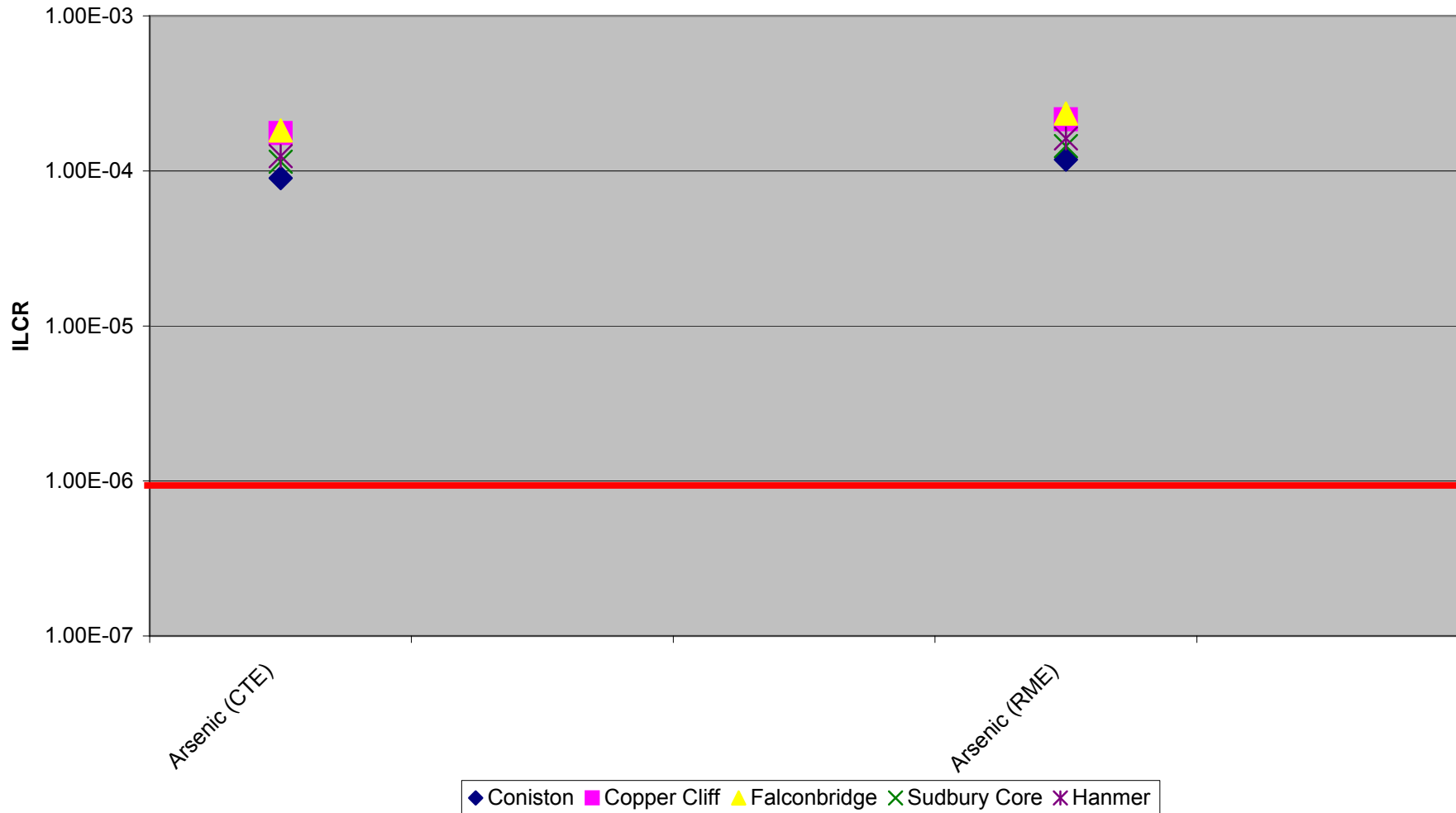
FEMALE TODDLER ER ESTIMATES (ORAL ONLY) Hunters and Anglers



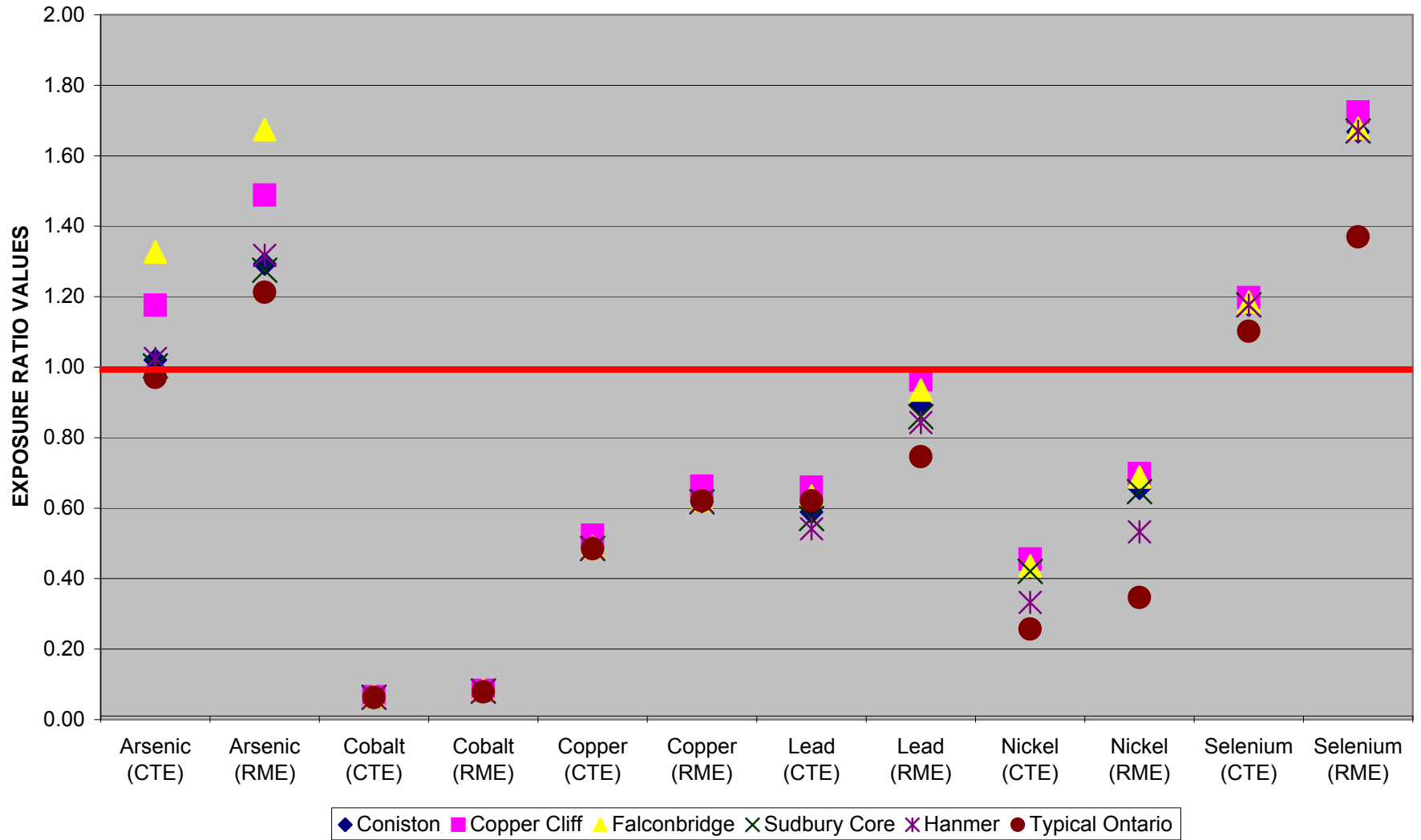
FEMALE INCREMENTAL LIFETIME CANCER RISK (ILCR) ESTIMATES Hunters and Anglers



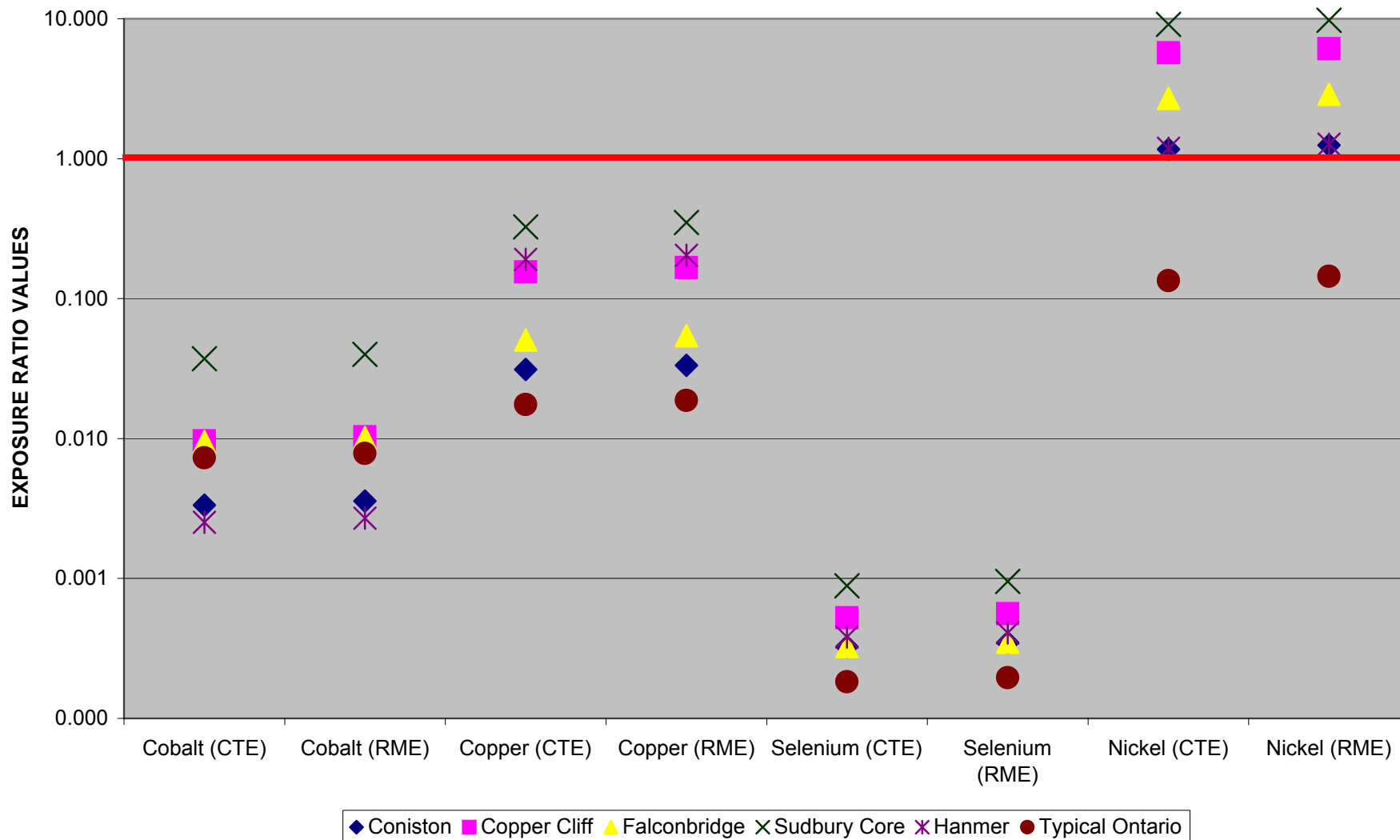
MALE INCREMENTAL LIFETIME CANCER RISK (ILCR) ESTIMATES General Sudbury Population



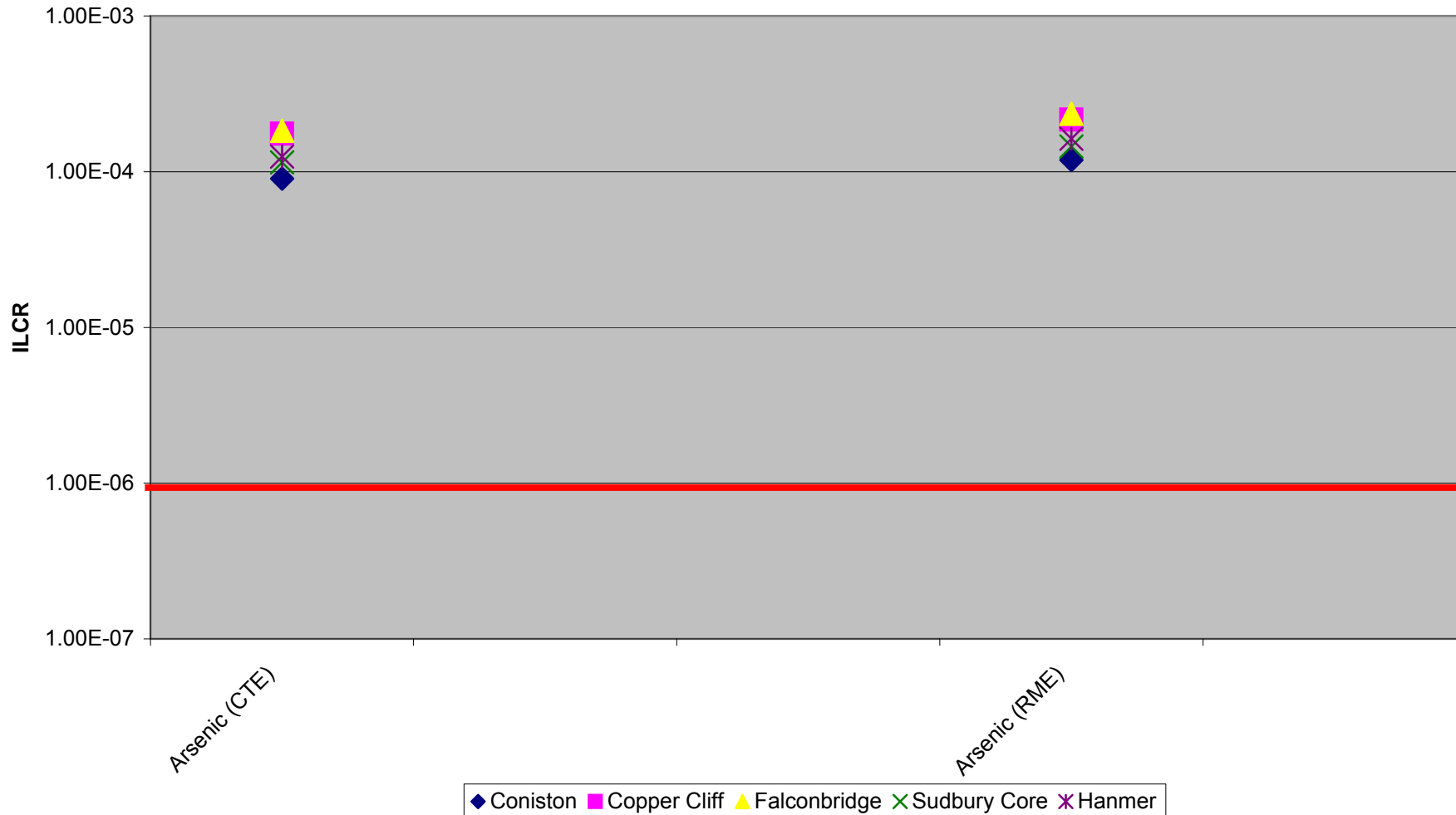
MALE TODDLER ER ESTIMATES (ORAL ONLY)
General Sudbury Population



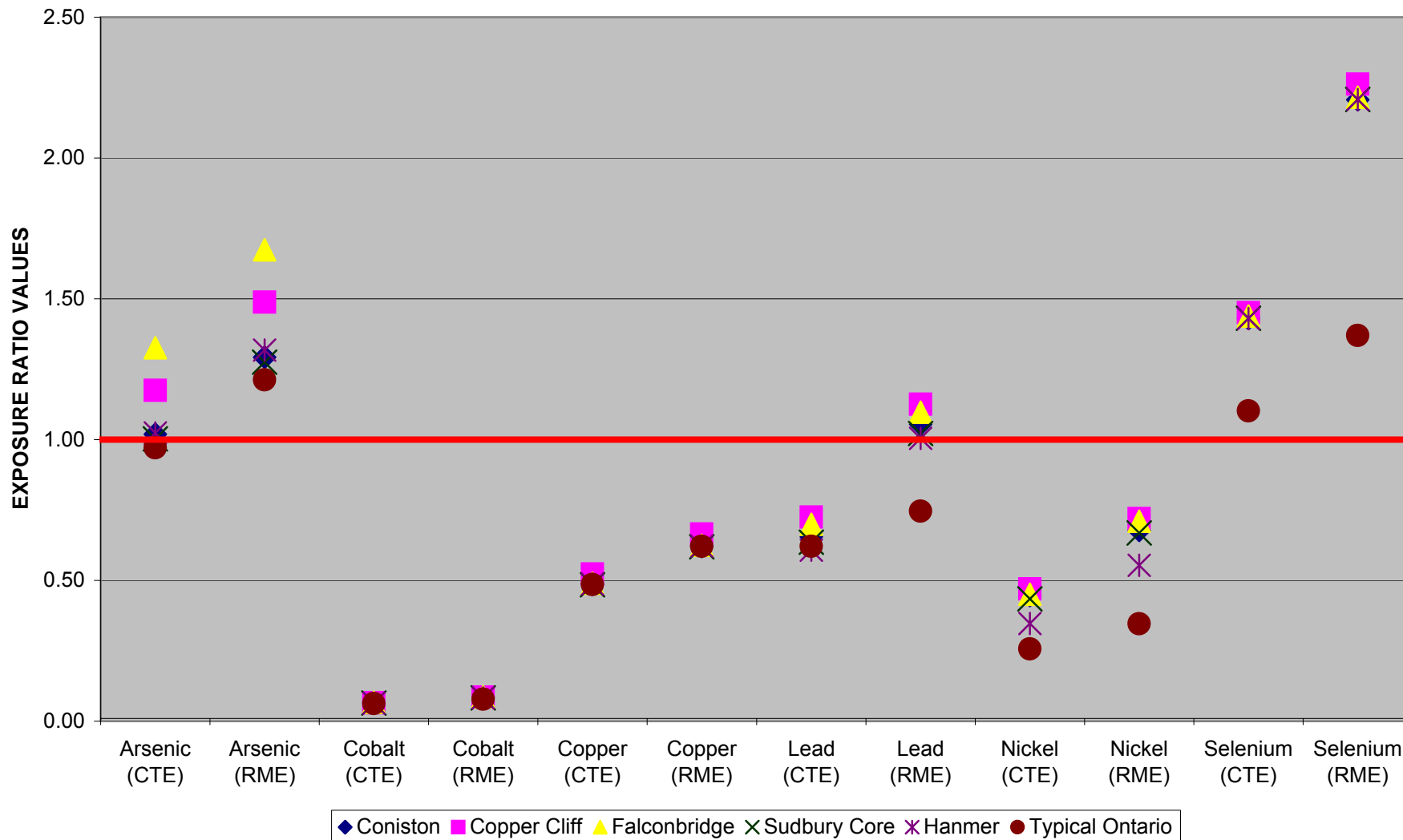
MALE TODDLER ER ESTIMATES (INHALATION ONLY)
General Sudbury Population



MALE INCREMENTAL LIFETIME CANCER RISK (ILCR) ESTIMATES Hunters and Anglers



MALE TODDLER ER ESTIMATES (ORAL ONLY)
Hunters and Anglers



MALE TODDLER ER ESTIMATES (INHALATION ONLY)
Hunters and Anglers

