

## Appendix 4-2-E Results at Sensitive Receptors

### E.1 Introduction

A number of sensitive receptors within the Air Quality modelling domain were selected such that maximum predicted ground-level concentrations of air species could be determined for these locations. The sensitive receptor locations are shown in Table 2–11 and Figure 2–2 of Section 2.3.2 of this EA. The following sections present maximum predicted ground-level concentrations of speciated VOCs and PAHs at the selected sensitive receptor locations, as obtained through dispersion modelling based on air emissions from the Project during the construction and operations phases.

### E.1 Construction

Table D–1 presents maximum predicted ground-level concentrations of speciated VOCs and PAHs at sensitive receptor locations associated with emissions from the Project during the construction phase. Table E–2 presents deposition of metals at sensitive receptors associated with emissions from the Project during the construction phase. Wet and dry deposition at sensitive receptors is provided in Table E–3.

**Table E–1 Predicted VOC and PAH Concentrations at Sensitive Receptors Associated with Project Construction**

Contaminant	Averaging Period	Camp Location	Nemiah Valley	Southern Area of Mine Site Footprint	NW of Mine Site	Maximum on/outside of Disturbance Boundary
	UTM mE	459352	441063	456476	455642	varies
	UTM mN	5700735	5703938	5692121	5708337	varies
1-nitropyrene	1-hour ( $\mu\text{g}/\text{m}^3$ )	2.10E-04	1.35E-06	3.18E-06	7.46E-06	1.00E-04
	24-hour ( $\mu\text{g}/\text{m}^3$ )	2.65E-05	1.22E-07	3.67E-07	9.78E-07	1.86E-05
	Annual ( $\mu\text{g}/\text{m}^3$ )	3.60E-06	6.51E-09	1.92E-08	6.59E-08	2.20E-06
1,3 Butadiene	1-hour ( $\mu\text{g}/\text{m}^3$ )	2.88E-01	1.84E-03	4.36E-03	1.02E-02	1.38E-01
	24-hour ( $\mu\text{g}/\text{m}^3$ )	3.64E-02	1.68E-04	5.03E-04	1.34E-03	2.55E-02
	Annual ( $\mu\text{g}/\text{m}^3$ )	4.94E-03	8.92E-06	2.63E-05	9.04E-05	3.02E-03
2-Methylnaphthalene	1-hour ( $\mu\text{g}/\text{m}^3$ )	5.67E-01	3.64E-03	8.60E-03	2.02E-02	2.71E-01
	24-hour ( $\mu\text{g}/\text{m}^3$ )	7.17E-02	3.31E-04	9.92E-04	2.64E-03	5.03E-02
	Annual ( $\mu\text{g}/\text{m}^3$ )	9.74E-03	1.76E-05	5.19E-05	1.78E-04	5.95E-03

**Table E-1 Predicted VOC and PAH Concentrations at Sensitive Receptors Associated with Project Construction (cont'd)**

Contaminant	Averagin g Period	Camp Location	Nemiah Valley	Southern Area of Mine Site Footprint	NW of Mine Site	Maximum on/outside of Disturbance Boundary
		UTM mE	459352	441063	456476	455642
	UTM mN	5700735	5703938	5692121	5708337	varies
Acenaphthene	1-hour ( $\mu\text{g}/\text{m}^3$ )	1.78E-02	1.14E-04	2.70E-04	6.34E-04	8.54E-03
	24-hour ( $\mu\text{g}/\text{m}^3$ )	2.26E-03	1.04E-05	3.12E-05	8.32E-05	1.58E-03
	Annual ( $\mu\text{g}/\text{m}^3$ )	3.06E-04	5.53E-07	1.63E-06	5.61E-06	1.87E-04
Acenaphthylene	1-hour ( $\mu\text{g}/\text{m}^3$ )	6.50E-02	4.17E-04	9.85E-04	2.31E-03	3.11E-02
	24-hour ( $\mu\text{g}/\text{m}^3$ )	8.22E-03	3.79E-05	1.14E-04	3.03E-04	5.76E-03
	Annual ( $\mu\text{g}/\text{m}^3$ )	1.12E-03	2.02E-06	5.95E-06	2.04E-05	6.82E-04
Acetaldehyde	1-hour ( $\mu\text{g}/\text{m}^3$ )	3.88E+01	2.49E-01	5.88E-01	1.38E+00	1.86E+01
	24-hour ( $\mu\text{g}/\text{m}^3$ )	4.90E+00	2.26E-02	6.78E-02	1.81E-01	3.44E+00
	Annual ( $\mu\text{g}/\text{m}^3$ )	6.66E-01	1.20E-03	3.55E-03	1.22E-02	4.07E-01
Aldehydes	1-hour ( $\mu\text{g}/\text{m}^3$ )	6.62E+01	4.25E-01	1.00E+00	2.35E+00	3.17E+01
	24-hour ( $\mu\text{g}/\text{m}^3$ )	8.38E+00	3.86E-02	1.16E-01	3.09E-01	5.87E+00
	Annual ( $\mu\text{g}/\text{m}^3$ )	1.14E+00	2.05E-03	6.06E-03	2.08E-02	6.95E-01
Anthracene	1-hour ( $\mu\text{g}/\text{m}^3$ )	1.17E-02	7.48E-05	1.77E-04	4.15E-04	5.58E-03
	24-hour ( $\mu\text{g}/\text{m}^3$ )	1.48E-03	6.80E-06	2.04E-05	5.44E-05	1.03E-03
	Annual ( $\mu\text{g}/\text{m}^3$ )	2.00E-04	3.62E-07	1.07E-06	3.67E-06	1.22E-04
Acrolein	1-hour ( $\mu\text{g}/\text{m}^3$ )	3.15E+00	2.02E-02	4.78E-02	1.12E-01	1.51E+00
	24-hour ( $\mu\text{g}/\text{m}^3$ )	3.99E-01	1.84E-03	5.52E-03	1.47E-02	2.80E-01
	Annual ( $\mu\text{g}/\text{m}^3$ )	5.42E-02	9.79E-05	2.89E-04	9.92E-04	3.31E-02

**Table E-1 Predicted VOC and PAH Concentrations at Sensitive Receptors Associated with Project Construction (cont'd)**

Contaminant	Averaging Period	Camp Location	Nemiah Valley	Southern Area of Mine Site Footprint	NW of Mine Site	Maximum on/outside of Disturbance Boundary
	UTM mE	459352	441063	456476	455642	varies
	UTM mN	5700735	5703938	5692121	5708337	varies
Benzo(a) anthracene	1-hour ( $\mu\text{g}/\text{m}^3$ )	2.74E-03	1.76E-05	4.16E-05	9.76E-05	1.31E-03
	24-hour ( $\mu\text{g}/\text{m}^3$ )	3.47E-04	1.60E-06	4.80E-06	1.28E-05	2.43E-04
	Annual ( $\mu\text{g}/\text{m}^3$ )	4.71E-05	8.51E-08	2.51E-07	8.62E-07	2.88E-05
Benzene	1-hour ( $\mu\text{g}/\text{m}^3$ )	2.54E+00	1.63E-02	3.85E-02	9.04E-02	1.22E+00
	24-hour ( $\mu\text{g}/\text{m}^3$ )	3.22E-01	1.48E-03	4.45E-03	1.19E-02	2.25E-01
	Annual ( $\mu\text{g}/\text{m}^3$ )	4.37E-02	7.89E-05	2.33E-04	7.99E-04	2.67E-02
Benzo(a) fluorene	1-hour ( $\mu\text{g}/\text{m}^3$ )	3.39E-04	2.17E-06	5.14E-06	1.21E-05	1.62E-04
	24-hour ( $\mu\text{g}/\text{m}^3$ )	4.29E-05	1.98E-07	5.93E-07	1.58E-06	3.00E-05
	Annual ( $\mu\text{g}/\text{m}^3$ )	5.82E-06	1.05E-08	3.10E-08	1.07E-07	3.56E-06
Benzo(a) pyrene	1-hour ( $\mu\text{g}/\text{m}^3$ )	1.48E-04	9.51E-07	2.25E-06	5.27E-06	7.10E-05
	24-hour ( $\mu\text{g}/\text{m}^3$ )	1.88E-05	8.65E-08	2.59E-07	6.92E-07	1.31E-05
	Annual ( $\mu\text{g}/\text{m}^3$ )	2.55E-06	4.60E-09	1.36E-08	4.66E-08	1.56E-06
Benzo(b) fluoranthene	1-hour ( $\mu\text{g}/\text{m}^3$ )	1.24E-03	7.98E-06	1.89E-05	4.42E-05	5.95E-04
	24-hour ( $\mu\text{g}/\text{m}^3$ )	1.57E-04	7.25E-07	2.18E-06	5.80E-06	1.10E-04
	Annual ( $\mu\text{g}/\text{m}^3$ )	2.14E-05	3.86E-08	1.14E-07	3.91E-07	1.31E-05
Benzo(g,h,i) perylene	1-hour ( $\mu\text{g}/\text{m}^3$ )	1.84E-05	1.18E-07	2.79E-07	6.54E-07	8.80E-06
	24-hour ( $\mu\text{g}/\text{m}^3$ )	2.33E-06	1.07E-08	3.22E-08	8.57E-08	1.63E-06
	Annual ( $\mu\text{g}/\text{m}^3$ )	3.16E-07	5.70E-10	1.68E-09	5.78E-09	1.93E-07

**Table E-1 Predicted VOC and PAH Concentrations at Sensitive Receptors Associated with Project Construction (cont'd)**

Contaminant	Averaging Period	Camp Location	Nemiah Valley	Southern Area of Mine Site Footprint	NW of Mine Site	Maximum on/outside of Disturbance Boundary
	UTM mE	459352	441063	456476	455642	varies
	UTM mN	5700735	5703938	5692121	5708337	varies
Benzo(k) fluoranthene	1-hour ( $\mu\text{g}/\text{m}^3$ )	1.41E-04	9.07E-07	2.14E-06	5.03E-06	6.77E-05
	24-hour ( $\mu\text{g}/\text{m}^3$ )	1.79E-05	8.25E-08	2.47E-07	6.60E-07	1.25E-05
	Annual ( $\mu\text{g}/\text{m}^3$ )	2.43E-06	4.39E-09	1.29E-08	4.45E-08	1.48E-06
Chrysene	1-hour ( $\mu\text{g}/\text{m}^3$ )	3.09E-03	1.98E-05	4.68E-05	1.10E-04	1.48E-03
	24-hour ( $\mu\text{g}/\text{m}^3$ )	3.91E-04	1.80E-06	5.40E-06	1.44E-05	2.74E-04
	Annual ( $\mu\text{g}/\text{m}^3$ )	5.30E-05	9.58E-08	2.83E-07	9.70E-07	3.24E-05
Cyclo penta pyrene	1-hour ( $\mu\text{g}/\text{m}^3$ )	2.10E-05	1.35E-07	3.18E-07	7.46E-07	1.00E-05
	24-hour ( $\mu\text{g}/\text{m}^3$ )	2.65E-06	1.22E-08	3.67E-08	9.78E-08	1.86E-06
	Annual ( $\mu\text{g}/\text{m}^3$ )	3.60E-07	6.51E-10	1.92E-09	6.59E-09	2.20E-07
Dibenzo(a,h) anthracene	1-hour ( $\mu\text{g}/\text{m}^3$ )	3.89E-04	2.49E-06	5.89E-06	1.38E-05	1.86E-04
	24-hour ( $\mu\text{g}/\text{m}^3$ )	4.92E-05	2.27E-07	6.80E-07	1.81E-06	3.45E-05
	Annual ( $\mu\text{g}/\text{m}^3$ )	6.68E-06	1.21E-08	3.56E-08	1.22E-07	4.08E-06
Ethyl benzene	1-hour ( $\mu\text{g}/\text{m}^3$ )	4.36E-01	2.80E-03	6.61E-03	1.55E-02	2.09E-01
	24-hour ( $\mu\text{g}/\text{m}^3$ )	5.52E-02	2.54E-04	7.63E-04	2.03E-03	3.87E-02
	Annual ( $\mu\text{g}/\text{m}^3$ )	7.49E-03	1.35E-05	3.99E-05	1.37E-04	4.58E-03
Fluoranthene	1-hour ( $\mu\text{g}/\text{m}^3$ )	4.92E-02	3.16E-04	7.46E-04	1.75E-03	2.36E-02
	24-hour ( $\mu\text{g}/\text{m}^3$ )	6.23E-03	2.87E-05	8.61E-05	2.30E-04	4.36E-03
	Annual ( $\mu\text{g}/\text{m}^3$ )	8.45E-04	1.53E-06	4.51E-06	1.55E-05	5.17E-04

**Table E-1 Predicted VOC and PAH Concentrations at Sensitive Receptors Associated with Project Construction (cont'd)**

Contaminant	Averaging Period	Camp Location	Nemiah Valley	Southern Area of Mine Site Footprint	NW of Mine Site	Maximum on/outside of Disturbance Boundary
	UTM mE	459352	441063	456476	455642	varies
	UTM mN	5700735	5703938	5692121	5708337	varies
Fluorene	1-hour ( $\mu\text{g}/\text{m}^3$ )	6.05E-02	3.88E-04	9.18E-04	2.15E-03	2.90E-02
	24-hour ( $\mu\text{g}/\text{m}^3$ )	7.66E-03	3.53E-05	1.06E-04	2.82E-04	5.37E-03
	Annual ( $\mu\text{g}/\text{m}^3$ )	1.04E-03	1.88E-06	5.54E-06	1.90E-05	6.35E-04
Formaldehyde	1-hour ( $\mu\text{g}/\text{m}^3$ )	2.07E+01	1.33E-01	3.14E-01	7.36E-01	9.91E+00
	24-hour ( $\mu\text{g}/\text{m}^3$ )	2.62E+00	1.21E-02	3.62E-02	9.66E-02	1.83E+00
	Annual ( $\mu\text{g}/\text{m}^3$ )	3.55E-01	6.42E-04	1.89E-03	6.51E-03	2.17E-01
Hexane	1-hour ( $\mu\text{g}/\text{m}^3$ )	2.18E-01	1.40E-03	3.30E-03	7.75E-03	1.04E-01
	24-hour ( $\mu\text{g}/\text{m}^3$ )	2.76E-02	1.27E-04	3.81E-04	1.02E-03	1.93E-02
	Annual ( $\mu\text{g}/\text{m}^3$ )	3.74E-03	6.76E-06	1.99E-05	6.85E-05	2.29E-03
Indeno(1,2,3-cd) pyrene	1-hour ( $\mu\text{g}/\text{m}^3$ )	2.36E-04	1.51E-06	3.57E-06	8.38E-06	1.13E-04
	24-hour ( $\mu\text{g}/\text{m}^3$ )	2.98E-05	1.37E-07	4.12E-07	1.10E-06	2.09E-05
	Annual ( $\mu\text{g}/\text{m}^3$ )	4.05E-06	7.31E-09	2.16E-08	7.41E-08	2.47E-06
Naphthalene	1-hour ( $\mu\text{g}/\text{m}^3$ )	5.72E-01	3.67E-03	8.68E-03	2.04E-02	2.74E-01
	24-hour ( $\mu\text{g}/\text{m}^3$ )	7.24E-02	3.34E-04	1.00E-03	2.67E-03	5.07E-02
	Annual ( $\mu\text{g}/\text{m}^3$ )	9.83E-03	1.78E-05	5.24E-05	1.80E-04	6.01E-03
Pentane	1-hour ( $\mu\text{g}/\text{m}^3$ )	2.54E+00	1.63E-02	3.85E-02	9.04E-02	1.22E+00
	24-hour ( $\mu\text{g}/\text{m}^3$ )	3.22E-01	1.48E-03	4.45E-03	1.19E-02	2.25E-01
	Annual ( $\mu\text{g}/\text{m}^3$ )	4.37E-02	7.89E-05	2.33E-04	7.99E-04	2.67E-02

**Table E-1 Predicted VOC and PAH Concentrations at Sensitive Receptors Associated with Project Construction (cont'd)**

Contaminant	Averaging Period	Camp Location	Nemiah Valley	Southern Area of Mine Site Footprint	NW of Mine Site	Maximum on/outside of Disturbance Boundary
	UTM mE	459352	441063	456476	455642	varies
	UTM mN	5700735	5703938	5692121	5708337	varies
Total PAHs	1-hour ( $\mu\text{g}/\text{m}^3$ )	3.01E-01	1.93E-03	4.56E-03	1.07E-02	1.44E-01
	24-hour ( $\mu\text{g}/\text{m}^3$ )	3.80E-02	1.75E-04	5.26E-04	1.40E-03	2.66E-02
	Annual ( $\mu\text{g}/\text{m}^3$ )	5.16E-03	9.33E-06	2.75E-05	9.45E-05	3.16E-03
Perylene	1-hour ( $\mu\text{g}/\text{m}^3$ )	2.62E-06	1.68E-08	3.98E-08	9.33E-08	1.26E-06
	24-hour ( $\mu\text{g}/\text{m}^3$ )	3.32E-07	1.53E-09	4.59E-09	1.22E-08	2.33E-07
	Annual ( $\mu\text{g}/\text{m}^3$ )	4.51E-08	8.14E-11	2.40E-10	8.25E-10	2.75E-08
Phenanthrene	1-hour ( $\mu\text{g}/\text{m}^3$ )	8.64E-02	5.54E-04	1.31E-03	3.07E-03	4.14E-02
	24-hour ( $\mu\text{g}/\text{m}^3$ )	1.09E-02	5.04E-05	1.51E-04	4.03E-04	7.66E-03
	Annual ( $\mu\text{g}/\text{m}^3$ )	1.48E-03	2.68E-06	7.91E-06	2.72E-05	9.07E-04
Pyrene	1-hour ( $\mu\text{g}/\text{m}^3$ )	2.95E-03	1.89E-05	4.47E-05	1.05E-04	1.41E-03
	24-hour ( $\mu\text{g}/\text{m}^3$ )	3.73E-04	1.72E-06	5.16E-06	1.38E-05	2.62E-04
	Annual ( $\mu\text{g}/\text{m}^3$ )	5.07E-05	9.16E-08	2.70E-07	9.28E-07	3.10E-05
Toluene	1-hour ( $\mu\text{g}/\text{m}^3$ )	3.69E+00	2.37E-02	5.60E-02	1.31E-01	1.77E+00
	24-hour ( $\mu\text{g}/\text{m}^3$ )	4.67E-01	2.15E-03	6.46E-03	1.72E-02	3.27E-01
	Annual ( $\mu\text{g}/\text{m}^3$ )	6.34E-02	1.15E-04	3.38E-04	1.16E-03	3.88E-02
Xylenes	1-hour ( $\mu\text{g}/\text{m}^3$ )	2.93E+00	1.88E-02	4.45E-02	1.04E-01	1.40E+00
	24-hour ( $\mu\text{g}/\text{m}^3$ )	3.71E-01	1.71E-03	5.13E-03	1.37E-02	2.60E-01
	Annual ( $\mu\text{g}/\text{m}^3$ )	5.04E-02	9.10E-05	2.68E-04	9.22E-04	3.08E-02

**Table E-2 Predicted Metal Concentrations at Sensitive Receptors Associated with Project Construction**

Contaminant	Averaging Period	Camp Location	Nemiah Valley	Southern Area of Mine Site Footprint	NW of Mine Site	Maximum on/outside of Disturbance Boundary
	UTM mE	459352	441063	456476	455642	varies
	UTM mN	5700735	5703938	5692121	5708337	varies
Molybdenum	24-hour ( $\mu\text{g}/\text{m}^3$ )	1.10E-03	3.70E-05	9.47E-05	2.06E-04	2.22E-02
	Annual ( $\mu\text{g}/\text{m}^3$ )	1.81E-04	1.45E-06	5.18E-06	1.63E-05	5.95E-03
Copper	24-hour ( $\mu\text{g}/\text{m}^3$ )	6.96E-02	2.23E-03	5.68E-03	1.23E-02	1.32E+00
	Annual ( $\mu\text{g}/\text{m}^3$ )	1.14E-02	8.70E-05	3.11E-04	9.72E-04	3.55E-01
Lead	24-hour ( $\mu\text{g}/\text{m}^3$ )	7.83E-03	4.91E-05	8.53E-05	6.85E-05	6.72E-03
	Annual ( $\mu\text{g}/\text{m}^3$ )	1.18E-03	1.65E-06	5.01E-06	3.35E-06	1.20E-03
Zinc	24-hour ( $\mu\text{g}/\text{m}^3$ )	2.16E-02	1.47E-04	2.67E-04	2.64E-04	2.67E-02
	Annual ( $\mu\text{g}/\text{m}^3$ )	3.27E-03	5.02E-06	1.55E-05	1.53E-05	5.52E-03
Silver	24-hour ( $\mu\text{g}/\text{m}^3$ )	1.25E-05	4.18E-07	1.07E-06	2.33E-06	2.50E-04
	Annual ( $\mu\text{g}/\text{m}^3$ )	2.05E-06	1.63E-08	5.84E-08	1.84E-07	6.72E-05
Nickel	24-hour ( $\mu\text{g}/\text{m}^3$ )	4.11E-03	3.74E-05	7.67E-05	1.12E-04	1.17E-02
	Annual ( $\mu\text{g}/\text{m}^3$ )	6.27E-04	1.34E-06	4.36E-06	7.87E-06	2.86E-03
Cobalt	24-hour ( $\mu\text{g}/\text{m}^3$ )	4.43E-04	1.49E-05	3.81E-05	8.28E-05	8.91E-03
	Annual ( $\mu\text{g}/\text{m}^3$ )	7.29E-05	5.81E-07	2.08E-06	6.55E-06	2.39E-03
Manganese	24-hour ( $\mu\text{g}/\text{m}^3$ )	8.93E-03	2.20E-04	5.47E-04	1.15E-03	1.23E-01
	Annual ( $\mu\text{g}/\text{m}^3$ )	1.43E-03	8.49E-06	3.01E-05	9.00E-05	3.28E-02
Iron	24-hour ( $\mu\text{g}/\text{m}^3$ )	7.80E-01	2.62E-02	6.70E-02	1.46E-01	1.57E+01
	Annual ( $\mu\text{g}/\text{m}^3$ )	1.28E-01	1.02E-03	3.66E-03	1.15E-02	4.21E+00
Arsenic	24-hour ( $\mu\text{g}/\text{m}^3$ )	1.95E-03	2.42E-05	5.43E-05	9.55E-05	1.02E-02

**Table E-2 Predicted Metal Concentrations at Sensitive Receptors Associated with Project Construction (cont'd)**

Contaminant	Averaging Period	Camp Location	Nemiah Valley	Southern Area of Mine Site Footprint	NW of Mine Site	Maximum on/outside of Disturbance Boundary
	UTM mE	459352	441063	456476	455642	varies
	UTM mN	5700735	5703938	5692121	5708337	varies
Arsenic	Annual (µg/m <sup>3</sup> )	3.01E-04	8.97E-07	3.03E-06	7.16E-06	2.61E-03
Uranium	24-hour (µg/m <sup>3</sup> )	6.52E-06	2.19E-07	5.60E-07	1.22E-06	1.31E-04
	Annual (µg/m <sup>3</sup> )	1.07E-06	8.55E-09	3.06E-08	9.63E-08	3.52E-05
Gold	24-hour (µg/m <sup>3</sup> )	7.50E-06	2.52E-07	6.44E-07	1.40E-06	1.51E-04
	Annual (µg/m <sup>3</sup> )	1.23E-06	9.83E-09	3.52E-08	1.11E-07	4.04E-05
Thorium	24-hour (µg/m <sup>3</sup> )	3.26E-05	1.09E-06	2.80E-06	6.09E-06	6.55E-04
	Annual (µg/m <sup>3</sup> )	5.36E-06	4.28E-08	1.53E-07	4.82E-07	1.76E-04
Strontium	24-hour (µg/m <sup>3</sup> )	2.36E-03	7.91E-05	2.02E-04	4.40E-04	4.74E-02
	Annual (µg/m <sup>3</sup> )	3.88E-04	3.09E-06	1.11E-05	3.48E-05	1.27E-02
Cadmium	24-hour (µg/m <sup>3</sup> )	1.39E-03	8.18E-06	1.36E-05	8.53E-06	8.00E-04
	Annual (µg/m <sup>3</sup> )	2.11E-04	2.72E-07	8.09E-07	3.02E-07	1.05E-04
Antimony	24-hour (µg/m <sup>3</sup> )	5.89E-05	1.98E-06	5.06E-06	1.10E-05	1.18E-03
	Annual (µg/m <sup>3</sup> )	9.69E-06	7.72E-08	2.76E-07	8.70E-07	3.18E-04
Bismuth	24-hour (µg/m <sup>3</sup> )	9.57E-06	3.21E-07	8.21E-07	1.79E-06	1.92E-04
	Annual (µg/m <sup>3</sup> )	1.57E-06	1.25E-08	4.49E-08	1.41E-07	5.16E-05
Vanadium	24-hour (µg/m <sup>3</sup> )	1.20E-03	4.01E-05	1.03E-04	2.23E-04	2.40E-02
	Annual (µg/m <sup>3</sup> )	1.97E-04	1.57E-06	5.61E-06	1.77E-05	6.45E-03
Calcium	24-hour (µg/m <sup>3</sup> )	5.44E-01	1.82E-02	4.67E-02	1.02E-01	1.09E+01
	Annual (µg/m <sup>3</sup> )	8.94E-02	7.13E-04	2.55E-03	8.03E-03	2.93E+00



**Table E-2 Predicted Metal Concentrations at Sensitive Receptors  
Associated with Project Construction (cont'd)**

Contaminant	Averaging Period	Camp Location	Nemiah Valley	Southern Area of Mine Site Footprint	NW of Mine Site	Maximum on/outside of Disturbance Boundary
	UTM mE	459352	441063	456476	455642	varies
	UTM mN	5700735	5703938	5692121	5708337	varies
Phosphorus	24-hour ( $\mu\text{g}/\text{m}^3$ )	1.45E-02	4.85E-04	1.24E-03	2.70E-03	2.90E-01
	Annual ( $\mu\text{g}/\text{m}^3$ )	2.38E-03	1.90E-05	6.78E-05	2.13E-04	7.80E-02
Lanthanum	24-hour ( $\mu\text{g}/\text{m}^3$ )	1.03E-04	3.46E-06	8.86E-06	1.93E-05	2.07E-03
	Annual ( $\mu\text{g}/\text{m}^3$ )	1.70E-05	1.35E-07	4.85E-07	1.52E-06	5.57E-04
Chromium	24-hour ( $\mu\text{g}/\text{m}^3$ )	3.71E-03	1.09E-04	2.76E-04	5.92E-04	6.36E-02
	Annual ( $\mu\text{g}/\text{m}^3$ )	6.02E-04	4.24E-06	1.51E-05	4.67E-05	1.70E-02
Magnesium	24-hour ( $\mu\text{g}/\text{m}^3$ )	2.83E-01	9.48E-03	2.43E-02	5.28E-02	5.68E+00
	Annual ( $\mu\text{g}/\text{m}^3$ )	4.65E-02	3.71E-04	1.33E-03	4.17E-03	1.52E+00
Barium	24-hour ( $\mu\text{g}/\text{m}^3$ )	1.62E-03	5.42E-05	1.39E-04	3.02E-04	3.25E-02
	Annual ( $\mu\text{g}/\text{m}^3$ )	2.66E-04	2.12E-06	7.58E-06	2.39E-05	8.72E-03
Titanium	24-hour ( $\mu\text{g}/\text{m}^3$ )	1.52E-03	5.10E-05	1.31E-04	2.84E-04	3.06E-02
	Annual ( $\mu\text{g}/\text{m}^3$ )	2.50E-04	2.00E-06	7.14E-06	2.25E-05	8.21E-03
Boron	24-hour ( $\mu\text{g}/\text{m}^3$ )	1.30E-04	4.37E-06	1.12E-05	2.44E-05	2.62E-03
	Annual ( $\mu\text{g}/\text{m}^3$ )	2.14E-05	1.71E-07	6.12E-07	1.93E-06	7.03E-04
Aluminum	24-hour ( $\mu\text{g}/\text{m}^3$ )	2.54E-01	8.53E-03	2.18E-02	4.75E-02	5.11E+00
	Annual ( $\mu\text{g}/\text{m}^3$ )	4.18E-02	3.33E-04	1.19E-03	3.76E-03	1.37E+00
Sodium	24-hour ( $\mu\text{g}/\text{m}^3$ )	9.89E-03	3.32E-04	8.49E-04	1.85E-03	1.99E-01
	Annual ( $\mu\text{g}/\text{m}^3$ )	1.63E-03	1.30E-05	4.64E-05	1.46E-04	5.33E-02

**Table E-2 Predicted Metal Concentrations at Sensitive Receptors  
Associated with Project Construction (cont'd)**

Contaminant	Averaging Period	Camp Location	Nemiah Valley	Southern Area of Mine Site Footprint	NW of Mine Site	Maximum on/outside of Disturbance Boundary
	UTM mE	459352	441063	456476	455642	varies
	UTM mN	5700735	5703938	5692121	5708337	varies
Potassium	24-hour ( $\mu\text{g}/\text{m}^3$ )	5.44E-02	1.82E-03	4.67E-03	1.02E-02	1.09E+00
	Annual ( $\mu\text{g}/\text{m}^3$ )	8.94E-03	7.13E-05	2.55E-04	8.03E-04	2.93E-01
Tungsten	24-hour ( $\mu\text{g}/\text{m}^3$ )	1.09E-06	3.65E-08	9.33E-08	2.03E-07	2.18E-05
	Annual ( $\mu\text{g}/\text{m}^3$ )	1.79E-07	1.43E-09	5.10E-09	1.61E-08	5.86E-06
Scandium	24-hour ( $\mu\text{g}/\text{m}^3$ )	9.89E-05	3.32E-06	8.49E-06	1.85E-05	1.99E-03
	Annual ( $\mu\text{g}/\text{m}^3$ )	1.63E-05	1.30E-07	4.64E-07	1.46E-06	5.33E-04
Thallium	24-hour ( $\mu\text{g}/\text{m}^3$ )	2.50E-06	8.38E-08	2.15E-07	4.67E-07	5.02E-05
	Annual ( $\mu\text{g}/\text{m}^3$ )	4.11E-07	3.28E-09	1.17E-08	3.69E-08	1.35E-05
Sulphur	24-hour ( $\mu\text{g}/\text{m}^3$ )	3.87E-01	1.30E-02	3.32E-02	7.23E-02	7.77E+00
	Annual ( $\mu\text{g}/\text{m}^3$ )	6.36E-02	5.07E-04	1.82E-03	5.71E-03	2.09E+00
Mercury	24-hour ( $\mu\text{g}/\text{m}^3$ )	1.87E-03	1.12E-05	1.89E-05	1.29E-05	1.23E-03
	Annual ( $\mu\text{g}/\text{m}^3$ )	2.82E-04	3.74E-07	1.12E-06	5.25E-07	1.85E-04
Selenium	24-hour ( $\mu\text{g}/\text{m}^3$ )	2.11E-03	1.42E-05	2.56E-05	2.47E-05	2.48E-03
	Annual ( $\mu\text{g}/\text{m}^3$ )	3.20E-04	4.84E-07	1.49E-06	1.40E-06	5.06E-04
Tellurium	24-hour ( $\mu\text{g}/\text{m}^3$ )	2.39E-06	8.02E-08	2.05E-07	4.47E-07	4.80E-05
	Annual ( $\mu\text{g}/\text{m}^3$ )	3.93E-07	3.14E-09	1.12E-08	3.53E-08	1.29E-05
Gallium	24-hour ( $\mu\text{g}/\text{m}^3$ )	8.80E-05	2.95E-06	7.56E-06	1.64E-05	1.77E-03
	Annual ( $\mu\text{g}/\text{m}^3$ )	1.45E-05	1.15E-07	4.13E-07	1.30E-06	4.75E-04

**Table E-3 Wet and Dry Deposition at Sensitive Receptors Associated with Project Construction**

Contaminant	Averaging Period	Camp Location	Nemiah Valley	Southern Area of Mine Site Footprint	NW of Mine Site	Maximum on/outside of Disturbance Boundary
	UTM mE	459352	441063	456476	455642	varies
	UTM mN	5700735	5703938	5692121	5708337	varies
Molybdenum	wet deposition (g/ha/yr)	1.10E-01	2.62E-04	3.80E-03	7.57E-03	1.41E+00
	dry deposition (g/ha/yr)	3.88E+00	2.43E-03	4.11E-02	1.90E-01	3.82E+02
Copper	wet deposition (g/ha/yr)	6.60E+00	1.64E-02	2.28E-01	4.53E-01	8.41E+01
	dry deposition (g/ha/yr)	2.31E+02	1.45E-01	2.45E+00	1.13E+01	2.28E+04
Lead	wet deposition (g/ha/yr)	1.63E-01	1.56E-03	3.57E-03	4.22E-03	2.01E-01
	dry deposition (g/ha/yr)	5.37E-01	3.36E-04	4.91E-03	2.28E-02	4.39E+01
Zinc	wet deposition (g/ha/yr)	4.82E-01	4.31E-03	1.11E-02	1.43E-02	1.09E+00
	dry deposition (g/ha/yr)	2.94E+00	1.84E-03	2.91E-02	1.35E-01	2.65E+02
Silver	wet deposition (g/ha/yr)	1.24E-03	2.96E-06	4.29E-05	8.55E-05	1.59E-02
	dry deposition (g/ha/yr)	4.38E-02	2.74E-05	4.64E-04	2.15E-03	4.31E+00
Nickel	wet deposition (g/ha/yr)	1.19E-01	8.34E-04	3.15E-03	4.91E-03	6.40E-01
	dry deposition (g/ha/yr)	1.75E+00	1.10E-03	1.82E-02	8.42E-02	1.68E+02

**Table E-3 Wet and Dry Deposition at Sensitive Receptors Associated with Project Construction (cont'd)**

Contaminant	Averaging Period	Camp Location	Nemiah Valley	Southern Area of Mine Site Footprint	NW of Mine Site	Maximum on/outside of Disturbance Boundary
	UTM mE	459352	441063	456476	455642	varies
	UTM mN	5700735	5703938	5692121	5708337	varies
Cobalt	wet deposition (g/ha/yr)	4.40E-02	1.05E-04	1.53E-03	3.04E-03	5.67E-01
	dry deposition (g/ha/yr)	1.56E+00	9.76E-04	1.65E-02	7.64E-02	1.53E+02
Manganese	wet deposition (g/ha/yr)	6.57E-01	2.01E-03	2.20E-02	4.28E-02	7.75E+00
	dry deposition (g/ha/yr)	2.13E+01	1.33E-02	2.26E-01	1.04E+00	2.09E+03
Iron	wet deposition (g/ha/yr)	7.75E+01	1.85E-01	2.69E+00	5.36E+00	9.97E+02
	dry deposition (g/ha/yr)	2.75E+03	1.72E+00	2.91E+01	1.34E+02	2.70E+05
Arsenic	wet deposition (g/ha/yr)	7.52E-02	4.05E-04	2.21E-03	3.84E-03	6.02E-01
	dry deposition (g/ha/yr)	1.65E+00	1.03E-03	1.74E-02	8.04E-02	1.61E+02
Uranium	wet deposition (g/ha/yr)	6.47E-04	1.55E-06	2.25E-05	4.48E-05	8.33E-03
	dry deposition (g/ha/yr)	2.29E-02	1.43E-05	2.43E-04	1.12E-03	2.26E+00
Gold	wet deposition (g/ha/yr)	7.45E-04	1.78E-06	2.58E-05	5.15E-05	9.59E-03
	dry deposition (g/ha/yr)	2.64E-02	1.65E-05	2.80E-04	1.29E-03	2.59E+00

**Table E-3 Wet and Dry Deposition at Sensitive Receptors Associated with Project Construction (cont'd)**

Contaminant	Averaging Period	Camp Location	Nemiah Valley	Southern Area of Mine Site Footprint	NW of Mine Site	Maximum on/outside of Disturbance Boundary
	UTM mE	459352	441063	456476	455642	varies
	UTM mN	5700735	5703938	5692121	5708337	varies
Thorium	wet deposition (g/ha/yr)	3.24E-03	7.74E-06	1.12E-04	2.24E-04	4.17E-02
	dry deposition (g/ha/yr)	1.15E-01	7.17E-05	1.22E-03	5.62E-03	1.13E+01
Strontium	wet deposition (g/ha/yr)	2.34E-01	5.60E-04	8.12E-03	1.62E-02	3.01E+00
	dry deposition (g/ha/yr)	8.29E+00	5.19E-03	8.79E-02	4.06E-01	8.16E+02
Cadmium	wet deposition (g/ha/yr)	2.74E-02	2.77E-04	5.74E-04	6.22E-04	1.01E-02
	dry deposition (g/ha/yr)	2.46E-02	1.54E-05	1.20E-04	5.76E-04	8.06E-01
Antimony	wet deposition (g/ha/yr)	5.85E-03	1.40E-05	2.03E-04	4.04E-04	7.53E-02
	dry deposition (g/ha/yr)	2.07E-01	1.30E-04	2.20E-03	1.02E-02	2.04E+01
Bismuth	wet deposition (g/ha/yr)	9.50E-04	2.27E-06	3.29E-05	6.57E-05	1.22E-02
	dry deposition (g/ha/yr)	3.36E-02	2.10E-05	3.57E-04	1.65E-03	3.31E+00
Vanadium	wet deposition (g/ha/yr)	1.19E-01	2.84E-04	4.12E-03	8.21E-03	1.53E+00
	dry deposition (g/ha/yr)	4.21E+00	2.63E-03	4.46E-02	2.06E-01	4.14E+02

**Table E-3 Wet and Dry Deposition at Sensitive Receptors Associated with Project Construction (cont'd)**

Contaminant	Averaging Period	Camp Location	Nemiah Valley	Southern Area of Mine Site Footprint	NW of Mine Site	Maximum on/outside of Disturbance Boundary
	UTM mE	459352	441063	456476	455642	varies
	UTM mN	5700735	5703938	5692121	5708337	varies
Calcium	wet deposition (g/ha/yr)	5.40E+01	1.29E-01	1.87E+00	3.73E+00	6.95E+02
	dry deposition (g/ha/yr)	1.91E+03	1.20E+00	2.03E+01	9.36E+01	1.88E+05
Phosphorus	wet deposition (g/ha/yr)	1.44E+00	3.43E-03	4.98E-02	9.92E-02	1.85E+01
	dry deposition (g/ha/yr)	5.09E+01	3.18E-02	5.39E-01	2.49E+00	5.00E+03
Lanthanum	wet deposition (g/ha/yr)	1.03E-02	2.45E-05	3.56E-04	7.09E-04	1.32E-01
	dry deposition (g/ha/yr)	3.63E-01	2.27E-04	3.85E-03	1.78E-02	3.57E+01
Chromium	wet deposition (g/ha/yr)	3.24E-01	8.59E-04	1.11E-02	2.19E-02	4.03E+00
	dry deposition (g/ha/yr)	1.11E+01	6.94E-03	1.18E-01	5.43E-01	1.09E+03
Magnesium	wet deposition (g/ha/yr)	2.81E+01	6.71E-02	9.74E-01	1.94E+00	3.61E+02
	dry deposition (g/ha/yr)	9.94E+02	6.22E-01	1.05E+01	4.87E+01	9.78E+04
Barium	wet deposition (g/ha/yr)	1.60E-01	3.84E-04	5.57E-03	1.11E-02	2.07E+00
	dry deposition (g/ha/yr)	5.69E+00	3.56E-03	6.02E-02	2.78E-01	5.59E+02

**Table E-3 Wet and Dry Deposition at Sensitive Receptors Associated with Project Construction (cont'd)**

Contaminant	Averaging Period	Camp Location	Nemiah Valley	Southern Area of Mine Site Footprint	NW of Mine Site	Maximum on/outside of Disturbance Boundary
	UTM mE	459352	441063	456476	455642	varies
	UTM mN	5700735	5703938	5692121	5708337	varies
Titanium	wet deposition (g/ha/yr)	1.51E-01	3.61E-04	5.24E-03	1.04E-02	1.94E+00
	dry deposition (g/ha/yr)	5.35E+00	3.35E-03	5.67E-02	2.62E-01	5.27E+02
Boron	wet deposition (g/ha/yr)	1.29E-02	3.10E-05	4.49E-04	8.95E-04	1.67E-01
	dry deposition (g/ha/yr)	4.59E-01	2.87E-04	4.86E-03	2.25E-02	4.51E+01
Aluminium	wet deposition (g/ha/yr)	2.53E+01	6.04E-02	8.76E-01	1.75E+00	3.25E+02
	dry deposition (g/ha/yr)	8.95E+02	5.60E-01	9.48E+00	4.38E+01	8.80E+04
Sodium	wet deposition (g/ha/yr)	9.82E-01	2.35E-03	3.41E-02	6.79E-02	1.26E+01
	dry deposition (g/ha/yr)	3.48E+01	2.18E-02	3.69E-01	1.70E+00	3.42E+03
Potassium	wet deposition (g/ha/yr)	5.40E+00	1.29E-02	1.87E-01	3.73E-01	6.95E+01
	dry deposition (g/ha/yr)	1.91E+02	1.20E-01	2.03E+00	9.36E+00	1.88E+04
Tungsten	wet deposition (g/ha/yr)	1.08E-04	2.58E-07	3.74E-06	7.46E-06	1.39E-03
	dry deposition (g/ha/yr)	3.82E-03	2.39E-06	4.05E-05	1.87E-04	3.76E-01

**Table E-3 Wet and Dry Deposition at Sensitive Receptors Associated with Project Construction (cont'd)**

Contaminant	Averaging Period	Camp Location	Nemiah Valley	Southern Area of Mine Site Footprint	NW of Mine Site	Maximum on/outside of Disturbance Boundary
	UTM mE	459352	441063	456476	455642	varies
	UTM mN	5700735	5703938	5692121	5708337	varies
Scandium	wet deposition (g/ha/yr)	9.82E-03	2.35E-05	3.41E-04	6.79E-04	1.26E-01
	dry deposition (g/ha/yr)	3.48E-01	2.18E-04	3.69E-03	1.70E-02	3.42E+01
Thallium	wet deposition (g/ha/yr)	2.48E-04	5.93E-07	8.61E-06	1.72E-05	3.20E-03
	dry deposition (g/ha/yr)	8.79E-03	5.50E-06	9.32E-05	4.31E-04	8.65E-01
Sulphur	wet deposition (g/ha/yr)	3.84E+01	9.18E-02	1.33E+00	2.66E+00	4.95E+02
	dry deposition (g/ha/yr)	1.36E+03	8.51E-01	1.44E+01	6.67E+01	1.34E+05
Mercury	wet deposition (g/ha/yr)	3.74E-02	3.71E-04	7.94E-04	8.86E-04	2.40E-02
	dry deposition (g/ha/yr)	6.19E-02	3.87E-05	4.68E-04	2.20E-03	3.94E+00
Selenium	wet deposition (g/ha/yr)	4.67E-02	4.22E-04	1.07E-03	1.36E-03	9.80E-02
	dry deposition (g/ha/yr)	2.65E-01	1.66E-04	2.60E-03	1.21E-02	2.37E+01
Tellurium	wet deposition (g/ha/yr)	2.37E-04	5.68E-07	8.24E-06	1.64E-05	3.06E-03
	dry deposition (g/ha/yr)	8.41E-03	5.26E-06	8.91E-05	4.12E-04	8.27E-01
Gallium	wet deposition (g/ha/yr)	8.74E-03	2.09E-05	3.03E-04	6.04E-04	1.13E-01
	dry deposition (g/ha/yr)	3.10E-01	1.94E-04	3.28E-03	1.52E-02	3.05E+01



## E.2 Operations

Table E-4 presents maximum predicted ground-level concentrations of speciated VOCs and PAHs at sensitive receptor locations associated with emissions from the Project during the operations phase. Table E-5 presents deposition of metals at sensitive receptors associated with emissions from the Project during the operations phase. Wet and dry deposition at sensitive receptors is provided in Table E-6.

**Table E-4 Predicted VOC and PAH Concentrations at Sensitive Receptors Associated with Project Operations**

Contaminant	Averaging Period	Camp Location	Nemiah Valley	Southern Area of Mine Site Footprint	NW of Mine Site	Maximum on/outside of Disturbance Boundary
	UTM mE	459352	441063	456476	455642	varies
	UTM mN	5700735	5703938	5692121	5708337	varies
1-nitropyrene	1-hour ( $\mu\text{g}/\text{m}^3$ )	1.14E-04	3.67E-06	1.17E-05	2.16E-05	3.95E-04
	24-hour ( $\mu\text{g}/\text{m}^3$ )	2.50E-05	7.34E-07	1.47E-06	3.30E-06	6.67E-05
	Annual ( $\mu\text{g}/\text{m}^3$ )	1.97E-06	1.71E-08	5.01E-08	1.71E-08	7.09E-06
1,3 Butadiene	1-hour ( $\mu\text{g}/\text{m}^3$ )	1.56E-01	5.03E-03	1.61E-02	2.97E-02	5.42E-01
	24-hour ( $\mu\text{g}/\text{m}^3$ )	3.42E-02	1.01E-03	2.01E-03	4.53E-03	9.14E-02
	Annual ( $\mu\text{g}/\text{m}^3$ )	2.70E-03	2.35E-05	6.88E-05	2.35E-05	9.73E-03
2-Methylnaphthalene	1-hour ( $\mu\text{g}/\text{m}^3$ )	3.07E-01	9.92E-03	3.17E-02	5.85E-02	1.07E+00
	24-hour ( $\mu\text{g}/\text{m}^3$ )	6.74E-02	1.98E-03	3.97E-03	8.93E-03	1.80E-01
	Annual ( $\mu\text{g}/\text{m}^3$ )	5.32E-03	4.63E-05	1.36E-04	4.63E-05	1.92E-02
Acenaphthene	1-hour ( $\mu\text{g}/\text{m}^3$ )	9.67E-03	3.12E-04	9.98E-04	1.84E-03	3.36E-02
	24-hour ( $\mu\text{g}/\text{m}^3$ )	2.12E-03	6.24E-05	1.25E-04	2.81E-04	5.67E-03
	Annual ( $\mu\text{g}/\text{m}^3$ )	1.67E-04	1.46E-06	4.26E-06	1.46E-06	6.03E-04
Acenaphthylene	1-hour ( $\mu\text{g}/\text{m}^3$ )	3.52E-02	1.14E-03	3.64E-03	6.71E-03	1.22E-01
	24-hour ( $\mu\text{g}/\text{m}^3$ )	7.73E-03	2.27E-04	4.55E-04	1.02E-03	2.07E-02
	Annual ( $\mu\text{g}/\text{m}^3$ )	6.10E-04	5.31E-06	1.55E-05	5.31E-06	2.20E-03

**Table E-4 Predicted VOC and PAH Concentrations at Sensitive Receptors Associated with Project Operations (cont'd)**

Contaminant	Averaging Period	Camp Location	Nemiah Valley	Southern Area of Mine Site Footprint	NW of Mine Site	Maximum on/outside of Disturbance Boundary
	UTM mE	459352	441063	456476	455642	varies
	UTM mN	5700735	5703938	5692121	5708337	varies
Acetaldehyde	1-hour ( $\mu\text{g}/\text{m}^3$ )	2.10E+01	6.78E-01	2.17E+00	4.00E+00	7.30E+01
	24-hour ( $\mu\text{g}/\text{m}^3$ )	4.61E+00	1.36E-01	2.71E-01	6.10E-01	1.23E+01
	Annual ( $\mu\text{g}/\text{m}^3$ )	3.64E-01	3.16E-03	9.27E-03	3.16E-03	1.31E+00
Aldehydes	1-hour ( $\mu\text{g}/\text{m}^3$ )	3.59E+01	1.16E+00	3.71E+00	6.83E+00	1.25E+02
	24-hour ( $\mu\text{g}/\text{m}^3$ )	7.87E+00	2.32E-01	4.63E-01	1.04E+00	2.10E+01
	Annual ( $\mu\text{g}/\text{m}^3$ )	6.21E-01	5.40E-03	1.58E-02	5.40E-03	2.24E+00
Anthracene	1-hour ( $\mu\text{g}/\text{m}^3$ )	6.32E-03	2.04E-04	6.53E-04	1.20E-03	2.20E-02
	24-hour ( $\mu\text{g}/\text{m}^3$ )	1.39E-03	4.08E-05	8.16E-05	1.84E-04	3.71E-03
	Annual ( $\mu\text{g}/\text{m}^3$ )	1.09E-04	9.52E-07	2.79E-06	9.52E-07	3.94E-04
Acrolein	1-hour ( $\mu\text{g}/\text{m}^3$ )	1.71E+00	5.52E-02	1.77E-01	3.26E-01	5.94E+00
	24-hour ( $\mu\text{g}/\text{m}^3$ )	3.75E-01	1.10E-02	2.21E-02	4.97E-02	1.00E+00
	Annual ( $\mu\text{g}/\text{m}^3$ )	2.96E-02	2.58E-04	7.54E-04	2.58E-04	1.07E-01
Benzo(a)anthracene	1-hour ( $\mu\text{g}/\text{m}^3$ )	1.49E-03	4.80E-05	1.54E-04	2.83E-04	5.17E-03
	24-hour ( $\mu\text{g}/\text{m}^3$ )	3.26E-04	9.60E-06	1.92E-05	4.32E-05	8.72E-04
	Annual ( $\mu\text{g}/\text{m}^3$ )	2.58E-05	2.24E-07	6.56E-07	2.24E-07	9.28E-05
Benzene	1-hour ( $\mu\text{g}/\text{m}^3$ )	1.38E+00	4.45E-02	1.42E-01	2.62E-01	4.79E+00
	24-hour ( $\mu\text{g}/\text{m}^3$ )	3.02E-01	8.90E-03	1.78E-02	4.00E-02	8.08E-01
	Annual ( $\mu\text{g}/\text{m}^3$ )	2.39E-02	2.08E-04	6.08E-04	2.08E-04	8.60E-02

**Table E-4 Predicted VOC and PAH Concentrations at Sensitive Receptors Associated with Project Operations (cont'd)**

Contaminant	Averaging Period	Camp Location	Nemiah Valley	Southern Area of Mine Site Footprint	NW of Mine Site	Maximum on/outside of Disturbance Boundary
	UTM mE	459352	441063	456476	455642	varies
	UTM mN	5700735	5703938	5692121	5708337	varies
Benzo(a) fluorene	1-hour ( $\mu\text{g}/\text{m}^3$ )	1.84E-04	5.93E-06	1.90E-05	3.50E-05	6.38E-04
	24-hour ( $\mu\text{g}/\text{m}^3$ )	4.03E-05	1.19E-06	2.37E-06	5.34E-06	1.08E-04
	Annual ( $\mu\text{g}/\text{m}^3$ )	3.18E-06	2.77E-08	8.10E-08	2.77E-08	1.15E-05
Benzo(a) pyrene	1-hour ( $\mu\text{g}/\text{m}^3$ )	8.04E-05	2.59E-06	8.30E-06	1.53E-05	2.79E-04
	24-hour ( $\mu\text{g}/\text{m}^3$ )	1.76E-05	5.19E-07	1.04E-06	2.33E-06	4.71E-05
	Annual ( $\mu\text{g}/\text{m}^3$ )	1.39E-06	1.21E-08	3.54E-08	1.21E-08	5.01E-06
Benzo(b) fluoranthene	1-hour ( $\mu\text{g}/\text{m}^3$ )	6.74E-04	2.18E-05	6.96E-05	1.28E-04	2.34E-03
	24-hour ( $\mu\text{g}/\text{m}^3$ )	1.48E-04	4.35E-06	8.70E-06	1.96E-05	3.95E-04
	Annual ( $\mu\text{g}/\text{m}^3$ )	1.17E-05	1.02E-07	2.97E-07	1.02E-07	4.21E-05
Benzo(g,h,i) perylene	1-hour ( $\mu\text{g}/\text{m}^3$ )	9.97E-06	3.22E-07	1.03E-06	1.90E-06	3.46E-05
	24-hour ( $\mu\text{g}/\text{m}^3$ )	2.19E-06	6.43E-08	1.29E-07	2.89E-07	5.84E-06
	Annual ( $\mu\text{g}/\text{m}^3$ )	1.73E-07	1.50E-09	4.39E-09	1.50E-09	6.22E-07
Benzo(k) fluoranthene	1-hour ( $\mu\text{g}/\text{m}^3$ )	7.67E-05	2.47E-06	7.92E-06	1.46E-05	2.66E-04
	24-hour ( $\mu\text{g}/\text{m}^3$ )	1.68E-05	4.95E-07	9.90E-07	2.23E-06	4.49E-05
	Annual ( $\mu\text{g}/\text{m}^3$ )	1.33E-06	1.15E-08	3.38E-08	1.15E-08	4.78E-06
Chrysene	1-hour ( $\mu\text{g}/\text{m}^3$ )	1.67E-03	5.40E-05	1.73E-04	3.19E-04	5.81E-03
	24-hour ( $\mu\text{g}/\text{m}^3$ )	3.67E-04	1.08E-05	2.16E-05	4.86E-05	9.81E-04
	Annual ( $\mu\text{g}/\text{m}^3$ )	2.90E-05	2.52E-07	7.38E-07	2.52E-07	1.04E-04

**Table E-4 Predicted VOC and PAH Concentrations at Sensitive Receptors Associated with Project Operations (cont'd)**

Contaminant	Averaging Period	Camp Location	Nemiah Valley	Southern Area of Mine Site Footprint	NW of Mine Site	Maximum on/outside of Disturbance Boundary
	UTM mE	459352	441063	456476	455642	varies
	UTM mN	5700735	5703938	5692121	5708337	varies
Cyclo penta pyrene	1-hour ( $\mu\text{g}/\text{m}^3$ )	1.14E-05	3.67E-07	1.17E-06	2.16E-06	3.95E-05
	24-hour ( $\mu\text{g}/\text{m}^3$ )	2.50E-06	7.34E-08	1.47E-07	3.30E-07	6.67E-06
	Annual ( $\mu\text{g}/\text{m}^3$ )	1.97E-07	1.71E-09	5.01E-09	1.71E-09	7.09E-07
Dibenzo(a,h) anthracene	1-hour ( $\mu\text{g}/\text{m}^3$ )	2.11E-04	6.80E-06	2.18E-05	4.01E-05	7.32E-04
	24-hour ( $\mu\text{g}/\text{m}^3$ )	4.62E-05	1.36E-06	2.72E-06	6.12E-06	1.24E-04
	Annual ( $\mu\text{g}/\text{m}^3$ )	3.65E-06	3.17E-08	9.29E-08	3.17E-08	1.31E-05
Ethyl benzene	1-hour ( $\mu\text{g}/\text{m}^3$ )	2.36E-01	7.63E-03	2.44E-02	4.50E-02	8.21E-01
	24-hour ( $\mu\text{g}/\text{m}^3$ )	5.19E-02	1.53E-03	3.05E-03	6.87E-03	1.39E-01
	Annual ( $\mu\text{g}/\text{m}^3$ )	4.09E-03	3.56E-05	1.04E-04	3.56E-05	1.47E-02
Fluoranthene	1-hour ( $\mu\text{g}/\text{m}^3$ )	2.67E-02	8.61E-04	2.76E-03	5.08E-03	9.27E-02
	24-hour ( $\mu\text{g}/\text{m}^3$ )	5.85E-03	1.72E-04	3.44E-04	7.75E-04	1.56E-02
	Annual ( $\mu\text{g}/\text{m}^3$ )	4.62E-04	4.02E-06	1.18E-05	4.02E-06	1.66E-03
Fluorene	1-hour ( $\mu\text{g}/\text{m}^3$ )	3.28E-02	1.06E-03	3.39E-03	6.25E-03	1.14E-01
	24-hour ( $\mu\text{g}/\text{m}^3$ )	7.20E-03	2.12E-04	4.24E-04	9.53E-04	1.92E-02
	Annual ( $\mu\text{g}/\text{m}^3$ )	5.68E-04	4.94E-06	1.45E-05	4.94E-06	2.05E-03
Formaldehyde	1-hour ( $\mu\text{g}/\text{m}^3$ )	1.12E+01	3.62E-01	1.16E+00	2.14E+00	3.90E+01
	24-hour ( $\mu\text{g}/\text{m}^3$ )	2.46E+00	7.24E-02	1.45E-01	3.26E-01	6.58E+00
	Annual ( $\mu\text{g}/\text{m}^3$ )	1.94E-01	1.69E-03	4.95E-03	1.69E-03	7.00E-01

**Table E-4 Predicted VOC and PAH Concentrations at Sensitive Receptors Associated with Project Operations (cont'd)**

Contaminant	Averaging Period	Camp Location	Nemiah Valley	Southern Area of Mine Site Footprint	NW of Mine Site	Maximum on/outside of Disturbance Boundary
	UTM mE	459352	441063	456476	455642	varies
	UTM mN	5700735	5703938	5692121	5708337	varies
Hexane	1-hour ( $\mu\text{g}/\text{m}^3$ )	1.18E-01	3.81E-03	1.22E-02	2.25E-02	4.10E-01
	24-hour ( $\mu\text{g}/\text{m}^3$ )	2.59E-02	7.62E-04	1.52E-03	3.43E-03	6.92E-02
	Annual ( $\mu\text{g}/\text{m}^3$ )	2.04E-03	1.78E-05	5.21E-05	1.78E-05	7.37E-03
Indeno(1,2,3-cd) pyrene	1-hour ( $\mu\text{g}/\text{m}^3$ )	1.28E-04	4.12E-06	1.32E-05	2.43E-05	4.44E-04
	24-hour ( $\mu\text{g}/\text{m}^3$ )	2.80E-05	8.25E-07	1.65E-06	3.71E-06	7.49E-05
	Annual ( $\mu\text{g}/\text{m}^3$ )	2.21E-06	1.92E-08	5.64E-08	1.92E-08	7.97E-06
Naphthalene	1-hour ( $\mu\text{g}/\text{m}^3$ )	3.10E-01	1.00E-02	3.20E-02	5.91E-02	1.08E+00
	24-hour ( $\mu\text{g}/\text{m}^3$ )	6.81E-02	2.00E-03	4.01E-03	9.01E-03	1.82E-01
	Annual ( $\mu\text{g}/\text{m}^3$ )	5.37E-03	4.67E-05	1.37E-04	4.67E-05	1.94E-02
Pentane	1-hour ( $\mu\text{g}/\text{m}^3$ )	1.38E+00	4.45E-02	1.42E-01	2.62E-01	4.79E+00
	24-hour ( $\mu\text{g}/\text{m}^3$ )	3.02E-01	8.90E-03	1.78E-02	4.00E-02	8.08E-01
	Annual ( $\mu\text{g}/\text{m}^3$ )	2.39E-02	2.08E-04	6.08E-04	2.08E-04	8.60E-02
Total PAHs	1-hour ( $\mu\text{g}/\text{m}^3$ )	1.63E-01	5.26E-03	1.68E-02	3.10E-02	5.66E-01
	24-hour ( $\mu\text{g}/\text{m}^3$ )	3.58E-02	1.05E-03	2.10E-03	4.73E-03	9.55E-02
	Annual ( $\mu\text{g}/\text{m}^3$ )	2.82E-03	2.45E-05	7.19E-05	2.45E-05	1.02E-02
Perylene	1-hour ( $\mu\text{g}/\text{m}^3$ )	1.42E-06	4.59E-08	1.47E-07	2.71E-07	4.94E-06
	24-hour ( $\mu\text{g}/\text{m}^3$ )	3.12E-07	9.18E-09	1.84E-08	4.13E-08	8.34E-07
	Annual ( $\mu\text{g}/\text{m}^3$ )	2.46E-08	2.14E-10	6.27E-10	2.14E-10	8.87E-08

**Table E-4 Predicted VOC and PAH Concentrations at Sensitive Receptors Associated with Project Operations (cont'd)**

Contaminant	Averaging Period	Camp Location	Nemiah Valley	Southern Area of Mine Site Footprint	NW of Mine Site	Maximum on/outside of Disturbance Boundary
	UTM mE	459352	441063	456476	455642	varies
	UTM mN	5700735	5703938	5692121	5708337	varies
Phenanthrene	1-hour ( $\mu\text{g}/\text{m}^3$ )	4.69E-02	1.51E-03	4.84E-03	8.92E-03	1.63E-01
	24-hour ( $\mu\text{g}/\text{m}^3$ )	1.03E-02	3.02E-04	6.05E-04	1.36E-03	2.75E-02
	Annual ( $\mu\text{g}/\text{m}^3$ )	8.11E-04	7.06E-06	2.07E-05	7.06E-06	2.92E-03
Pyrene	1-hour ( $\mu\text{g}/\text{m}^3$ )	1.60E-03	5.16E-05	1.65E-04	3.05E-04	5.56E-03
	24-hour ( $\mu\text{g}/\text{m}^3$ )	3.51E-04	1.03E-05	2.07E-05	4.65E-05	9.38E-04
	Annual ( $\mu\text{g}/\text{m}^3$ )	2.77E-05	2.41E-07	7.06E-07	2.41E-07	9.98E-05
Toluene	1-hour ( $\mu\text{g}/\text{m}^3$ )	2.00E+00	6.46E-02	2.07E-01	3.81E-01	6.96E+00
	24-hour ( $\mu\text{g}/\text{m}^3$ )	4.39E-01	1.29E-02	2.58E-02	5.81E-02	1.17E+00
	Annual ( $\mu\text{g}/\text{m}^3$ )	3.47E-02	3.01E-04	8.83E-04	3.01E-04	1.25E-01
Xylenes	1-hour ( $\mu\text{g}/\text{m}^3$ )	1.59E+00	5.13E-02	1.64E-01	3.03E-01	5.52E+00
	24-hour ( $\mu\text{g}/\text{m}^3$ )	3.49E-01	1.03E-02	2.05E-02	4.62E-02	9.32E-01
	Annual ( $\mu\text{g}/\text{m}^3$ )	2.75E-02	2.39E-04	7.01E-04	2.39E-04	9.92E-02

**Table E-5 Predicted Metal Concentrations at Sensitive Receptors  
Associated with Project Operations**

Contaminant	Averaging Period	Camp Location	Nemiah Valley	Southern Area of Mine Site Footprint	NW of Mine Site	Maximum on/outside of Disturbance Boundary
	UTM mE	459352	441063	456476	455642	varies
	UTM mN	5700735	5703938	5692121	5708337	varies
Molybdenum	24-hour ( $\mu\text{g}/\text{m}^3$ )	9.06E-03	1.21E-04	2.82E-04	6.46E-04	1.19E-02
	Annual ( $\mu\text{g}/\text{m}^3$ )	2.27E-03	4.21E-06	1.45E-05	5.58E-05	2.33E-03
Copper	24-hour ( $\mu\text{g}/\text{m}^3$ )	5.43E-01	7.27E-03	1.70E-02	3.88E-02	7.14E-01
	Annual ( $\mu\text{g}/\text{m}^3$ )	1.35E-01	2.53E-04	8.67E-04	3.34E-03	1.40E-01
Lead	24-hour ( $\mu\text{g}/\text{m}^3$ )	6.51E-03	1.58E-04	3.02E-04	7.37E-04	1.46E-02
	Annual ( $\mu\text{g}/\text{m}^3$ )	6.89E-04	3.55E-06	1.12E-05	4.11E-05	1.69E-03
Zinc	24-hour ( $\mu\text{g}/\text{m}^3$ )	2.11E-02	4.73E-04	9.23E-04	2.24E-03	4.41E-02
	Annual ( $\mu\text{g}/\text{m}^3$ )	2.73E-03	1.12E-05	3.57E-05	1.32E-04	5.46E-03
Silver	24-hour ( $\mu\text{g}/\text{m}^3$ )	1.02E-04	1.36E-06	3.19E-06	7.29E-06	1.34E-04
	Annual ( $\mu\text{g}/\text{m}^3$ )	2.56E-05	4.76E-08	1.63E-07	6.30E-07	2.63E-05
Nickel	24-hour ( $\mu\text{g}/\text{m}^3$ )	6.56E-03	1.21E-04	2.51E-04	5.96E-04	1.15E-02
	Annual ( $\mu\text{g}/\text{m}^3$ )	1.20E-03	3.29E-06	1.08E-05	4.09E-05	1.70E-03
Cobalt	24-hour ( $\mu\text{g}/\text{m}^3$ )	3.64E-03	4.85E-05	1.14E-04	2.60E-04	4.77E-03
	Annual ( $\mu\text{g}/\text{m}^3$ )	9.12E-04	1.69E-06	5.81E-06	2.24E-05	9.38E-04
Manganese	24-hour ( $\mu\text{g}/\text{m}^3$ )	5.18E-02	7.16E-04	1.65E-03	3.79E-03	7.01E-02
	Annual ( $\mu\text{g}/\text{m}^3$ )	1.26E-02	2.43E-05	8.29E-05	3.19E-04	1.33E-02
Iron	24-hour ( $\mu\text{g}/\text{m}^3$ )	6.41E+00	8.54E-02	2.00E-01	4.57E-01	8.40E+00
	Annual ( $\mu\text{g}/\text{m}^3$ )	1.60E+00	2.98E-03	1.02E-02	3.95E-02	1.65E+00
Arsenic	24-hour ( $\mu\text{g}/\text{m}^3$ )	4.88E-03	7.87E-05	1.71E-04	4.00E-04	7.56E-03

**Table E-5 Predicted Metal Concentrations at Sensitive Receptors  
Associated with Project Operations (cont'd)**

Contaminant	Averaging Period	Camp Location	Nemiah Valley	Southern Area of Mine Site Footprint	NW of Mine Site	Maximum on/outside of Disturbance Boundary
	UTM mE	459352	441063	456476	455642	varies
	UTM mN	5700735	5703938	5692121	5708337	varies
Arsenic	Annual (µg/m <sup>3</sup> )	1.04E-03	2.37E-06	7.93E-06	3.02E-05	1.26E-03
Uranium	24-hour (µg/m <sup>3</sup> )	5.36E-05	7.14E-07	1.67E-06	3.82E-06	7.02E-05
	Annual (µg/m <sup>3</sup> )	1.34E-05	2.49E-08	8.55E-08	3.30E-07	1.38E-05
Gold	24-hour (µg/m <sup>3</sup> )	6.16E-05	8.21E-07	1.92E-06	4.39E-06	8.07E-05
	Annual (µg/m <sup>3</sup> )	1.54E-05	2.86E-08	9.83E-08	3.79E-07	1.59E-05
Thorium	24-hour (µg/m <sup>3</sup> )	2.68E-04	3.57E-06	8.35E-06	1.91E-05	3.51E-04
	Annual (µg/m <sup>3</sup> )	6.71E-05	1.25E-07	4.28E-07	1.65E-06	6.90E-05
Strontium	24-hour (µg/m <sup>3</sup> )	1.94E-02	2.58E-04	6.04E-04	1.38E-03	2.54E-02
	Annual (µg/m <sup>3</sup> )	4.85E-03	9.00E-06	3.09E-05	1.19E-04	4.99E-03
Cadmium	24-hour (µg/m <sup>3</sup> )	1.01E-03	2.63E-05	4.93E-05	1.21E-04	2.42E-03
	Annual (µg/m <sup>3</sup> )	8.22E-05	5.63E-07	1.75E-06	6.39E-06	2.62E-04
Antimony	24-hour (µg/m <sup>3</sup> )	4.84E-04	6.45E-06	1.51E-05	3.45E-05	6.34E-04
	Annual (µg/m <sup>3</sup> )	1.21E-04	2.25E-07	7.72E-07	2.98E-06	1.25E-04
Bismuth	24-hour (µg/m <sup>3</sup> )	7.86E-05	1.05E-06	2.45E-06	5.60E-06	1.03E-04
	Annual (µg/m <sup>3</sup> )	1.97E-05	3.65E-08	1.25E-07	4.84E-07	2.02E-05
Vanadium	24-hour (µg/m <sup>3</sup> )	9.82E-03	1.31E-04	3.06E-04	7.00E-04	1.29E-02
	Annual (µg/m <sup>3</sup> )	2.46E-03	4.57E-06	1.57E-05	6.04E-05	2.53E-03
Calcium	24-hour (µg/m <sup>3</sup> )	4.47E+00	5.95E-02	1.39E-01	3.18E-01	5.85E+00
	Annual (µg/m <sup>3</sup> )	1.12E+00	2.08E-03	7.13E-03	2.75E-02	1.15E+00



**Table E-5 Predicted Metal Concentrations at Sensitive Receptors Associated with Project Operations (cont'd)**

Contaminant	Averaging Period	Camp Location	Nemiah Valley	Southern Area of Mine Site Footprint	NW of Mine Site	Maximum on/outside of Disturbance Boundary
	UTM mE	459352	441063	456476	455642	varies
	UTM mN	5700735	5703938	5692121	5708337	varies
Phosphorus	24-hour ( $\mu\text{g}/\text{m}^3$ )	1.19E-01	1.58E-03	3.70E-03	8.47E-03	1.56E-01
	Annual ( $\mu\text{g}/\text{m}^3$ )	2.97E-02	5.52E-05	1.90E-04	7.31E-04	3.06E-02
Lanthanum	24-hour ( $\mu\text{g}/\text{m}^3$ )	8.48E-04	1.13E-05	2.64E-05	6.05E-05	1.11E-03
	Annual ( $\mu\text{g}/\text{m}^3$ )	2.12E-04	3.94E-07	1.35E-06	5.22E-06	2.18E-04
Chromium	24-hour ( $\mu\text{g}/\text{m}^3$ )	2.63E-02	3.55E-04	8.26E-04	1.89E-03	3.49E-02
	Annual ( $\mu\text{g}/\text{m}^3$ )	6.51E-03	1.23E-05	4.20E-05	1.62E-04	6.77E-03
Magnesium	24-hour ( $\mu\text{g}/\text{m}^3$ )	2.32E+00	3.09E-02	7.23E-02	1.65E-01	3.04E+00
	Annual ( $\mu\text{g}/\text{m}^3$ )	5.81E-01	1.08E-03	3.71E-03	1.43E-02	5.98E-01
Barium	24-hour ( $\mu\text{g}/\text{m}^3$ )	1.33E-02	1.77E-04	4.14E-04	9.46E-04	1.74E-02
	Annual ( $\mu\text{g}/\text{m}^3$ )	3.32E-03	6.17E-06	2.12E-05	8.17E-05	3.42E-03
Titanium	24-hour ( $\mu\text{g}/\text{m}^3$ )	1.25E-02	1.67E-04	3.90E-04	8.91E-04	1.64E-02
	Annual ( $\mu\text{g}/\text{m}^3$ )	3.13E-03	5.81E-06	2.00E-05	7.69E-05	3.22E-03
Boron	24-hour ( $\mu\text{g}/\text{m}^3$ )	1.07E-03	1.43E-05	3.34E-05	7.64E-05	1.40E-03
	Annual ( $\mu\text{g}/\text{m}^3$ )	2.68E-04	4.98E-07	1.71E-06	6.59E-06	2.76E-04
Aluminum	24-hour ( $\mu\text{g}/\text{m}^3$ )	2.09E+00	2.78E-02	6.51E-02	1.49E-01	2.74E+00
	Annual ( $\mu\text{g}/\text{m}^3$ )	5.23E-01	9.71E-04	3.33E-03	1.29E-02	5.38E-01
Sodium	24-hour ( $\mu\text{g}/\text{m}^3$ )	8.13E-02	1.08E-03	2.53E-03	5.79E-03	1.06E-01
	Annual ( $\mu\text{g}/\text{m}^3$ )	2.03E-02	3.78E-05	1.30E-04	5.00E-04	2.09E-02
Potassium	24-hour ( $\mu\text{g}/\text{m}^3$ )	4.47E-01	5.95E-03	1.39E-02	3.18E-02	5.85E-01

**Table E-5 Predicted Metal Concentrations at Sensitive Receptors Associated with Project Operations (cont'd)**

Contaminant	Averaging Period	Camp Location	Nemiah Valley	Southern Area of Mine Site Footprint	NW of Mine Site	Maximum on/outside of Disturbance Boundary
	UTM mE	459352	441063	456476	455642	varies
	UTM mN	5700735	5703938	5692121	5708337	varies
Potassium	Annual (µg/m <sup>3</sup> )	1.12E-01	2.08E-04	7.13E-04	2.75E-03	1.15E-01
Tungsten	24-hour (µg/m <sup>3</sup> )	8.93E-06	1.19E-07	2.78E-07	6.37E-07	1.17E-05
	Annual (µg/m <sup>3</sup> )	2.24E-06	4.15E-09	1.43E-08	5.50E-08	2.30E-06
Scandium	24-hour (µg/m <sup>3</sup> )	8.13E-04	1.08E-05	2.53E-05	5.79E-05	1.06E-03
	Annual (µg/m <sup>3</sup> )	2.03E-04	3.78E-07	1.30E-06	5.00E-06	2.09E-04
Thallium	24-hour (µg/m <sup>3</sup> )	2.05E-05	2.74E-07	6.40E-07	1.46E-06	2.69E-05
	Annual (µg/m <sup>3</sup> )	5.14E-06	9.55E-09	3.28E-08	1.26E-07	5.29E-06
Sulphur	24-hour (µg/m <sup>3</sup> )	3.18E+00	4.23E-02	9.91E-02	2.27E-01	4.16E+00
	Annual (µg/m <sup>3</sup> )	7.96E-01	1.48E-03	5.07E-03	1.96E-02	8.18E-01
Mercury	24-hour (µg/m <sup>3</sup> )	1.41E-03	3.60E-05	6.78E-05	1.66E-04	3.32E-03
	Annual (µg/m <sup>3</sup> )	1.27E-04	7.82E-07	2.44E-06	8.94E-06	3.67E-04
Selenium	24-hour (µg/m <sup>3</sup> )	2.01E-03	4.57E-05	8.89E-05	2.16E-04	4.25E-03
	Annual (µg/m <sup>3</sup> )	2.55E-04	1.07E-06	3.42E-06	1.27E-05	5.22E-04
Tellurium	24-hour (µg/m <sup>3</sup> )	1.96E-05	2.62E-07	6.12E-07	1.40E-06	2.57E-05
	Annual (µg/m <sup>3</sup> )	4.92E-06	9.13E-09	3.14E-08	1.21E-07	5.06E-06
Gallium	24-hour (µg/m <sup>3</sup> )	7.23E-04	9.63E-06	2.25E-05	5.16E-05	9.47E-04
	Annual (µg/m <sup>3</sup> )	1.81E-04	3.36E-07	1.15E-06	4.45E-06	1.86E-04

**Table E-6 Wet and Dry Deposition at Sensitive Receptors Associated with Project Operations**

Contaminant	Averaging Period	Camp Location	Nemiah Valley	Southern Area of Mine Site Footprint	NW of Mine Site	Maximum on/outside of Disturbance Boundary
	UTM mE	459352	441063	456476	455642	varies
	UTM mN	5700735	5703938	5692121	5708337	varies
Molybdenum	wet deposition (g/ha/yr)	7.61E-01	7.45E-04	8.36E-03	2.06E-02	1.71E+00
	dry deposition (g/ha/yr)	1.29E+02	6.01E-03	8.65E-02	5.49E-01	1.19E+02
Copper	wet deposition (g/ha/yr)	4.54E+01	4.58E-02	5.01E-01	1.23E+00	1.02E+02
	dry deposition (g/ha/yr)	7.68E+03	3.58E-01	5.15E+00	3.27E+01	7.12E+03
Lead	wet deposition (g/ha/yr)	1.38E-01	2.94E-03	7.42E-03	9.97E-03	3.12E-01
	dry deposition (g/ha/yr)	1.48E+01	8.05E-04	1.03E-02	6.52E-02	1.38E+01
Zinc	wet deposition (g/ha/yr)	6.65E-01	8.23E-03	2.32E-02	3.48E-02	1.50E+00
	dry deposition (g/ha/yr)	8.95E+01	4.49E-03	6.12E-02	3.87E-01	8.33E+01
Silver	wet deposition (g/ha/yr)	8.59E-03	8.41E-06	9.44E-05	2.33E-04	1.93E-02
	dry deposition (g/ha/yr)	1.45E+00	6.78E-05	9.76E-04	6.20E-03	1.35E+00
Nickel	wet deposition (g/ha/yr)	3.59E-01	1.67E-03	6.72E-03	1.27E-02	8.07E-01
	dry deposition (g/ha/yr)	5.67E+01	2.70E-03	3.83E-02	2.43E-01	5.27E+01

**Table E-6 Wet and Dry Deposition at Sensitive Receptors Associated with Project Operations (cont'd)**

Contaminant	Averaging Period	Camp Location	Nemiah Valley	Southern Area of Mine Site Footprint	NW of Mine Site	Maximum on/outside of Disturbance Boundary
	UTM mE	459352	441063	456476	455642	varies
	UTM mN	5700735	5703938	5692121	5708337	varies
Cobalt	wet deposition (g/ha/yr)	3.06E-01	2.99E-04	3.36E-03	8.29E-03	6.86E-01
	dry deposition (g/ha/yr)	5.18E+01	2.42E-03	3.48E-02	2.21E-01	4.80E+01
Manganese	wet deposition (g/ha/yr)	4.19E+00	5.15E-03	4.83E-02	1.16E-01	9.41E+00
	dry deposition (g/ha/yr)	7.07E+02	3.30E-02	4.75E-01	3.01E+00	6.56E+02
Iron	wet deposition (g/ha/yr)	5.38E+02	5.27E-01	5.91E+00	1.46E+01	1.21E+03
	dry deposition (g/ha/yr)	9.11E+04	4.25E+00	6.12E+01	3.88E+02	8.45E+04
Arsenic	wet deposition (g/ha/yr)	3.31E-01	8.65E-04	4.77E-03	1.02E-02	7.42E-01
	dry deposition (g/ha/yr)	5.43E+01	2.56E-03	3.65E-02	2.32E-01	5.04E+01
Uranium	wet deposition (g/ha/yr)	4.50E-03	4.40E-06	4.94E-05	1.22E-04	1.01E-02
	dry deposition (g/ha/yr)	7.61E-01	3.55E-05	5.11E-04	3.24E-03	7.06E-01
Gold	wet deposition (g/ha/yr)	5.17E-03	5.06E-06	5.68E-05	1.40E-04	1.16E-02
	dry deposition (g/ha/yr)	8.75E-01	4.08E-05	5.88E-04	3.73E-03	8.12E-01

**Table E-6 Wet and Dry Deposition at Sensitive Receptors Associated with Project Operations (cont'd)**

Contaminant	Averaging Period	Camp Location	Nemiah Valley	Southern Area of Mine Site Footprint	NW of Mine Site	Maximum on/outside of Disturbance Boundary
	UTM mE	459352	441063	456476	455642	varies
	UTM mN	5700735	5703938	5692121	5708337	varies
Thorium	wet deposition (g/ha/yr)	2.25E-02	2.20E-05	2.47E-04	6.10E-04	5.05E-02
	dry deposition (g/ha/yr)	3.81E+00	1.78E-04	2.56E-03	1.62E-02	3.53E+00
Strontium	wet deposition (g/ha/yr)	1.63E+00	1.59E-03	1.79E-02	4.41E-02	3.65E+00
	dry deposition (g/ha/yr)	2.75E+02	1.28E-02	1.85E-01	1.17E+00	2.55E+02
Cadmium	wet deposition (g/ha/yr)	1.07E-02	5.18E-04	1.19E-03	1.42E-03	2.45E-02
	dry deposition (g/ha/yr)	2.72E-01	3.34E-05	2.54E-04	1.55E-03	2.70E-01
Antimony	wet deposition (g/ha/yr)	4.06E-02	3.98E-05	4.46E-04	1.10E-03	9.12E-02
	dry deposition (g/ha/yr)	6.88E+00	3.21E-04	4.62E-03	2.93E-02	6.38E+00
Bismuth	wet deposition (g/ha/yr)	6.60E-03	6.46E-06	7.25E-05	1.79E-04	1.48E-02
	dry deposition (g/ha/yr)	1.12E+00	5.21E-05	7.50E-04	4.76E-03	1.04E+00
Vanadium	wet deposition (g/ha/yr)	8.25E-01	8.07E-04	9.06E-03	2.24E-02	1.85E+00
	dry deposition (g/ha/yr)	1.40E+02	6.51E-03	9.37E-02	5.95E-01	1.29E+02

**Table E-6 Wet and Dry Deposition at Sensitive Receptors Associated with Project Operations (cont'd)**

Contaminant	Averaging Period	Camp Location	Nemiah Valley	Southern Area of Mine Site Footprint	NW of Mine Site	Maximum on/outside of Disturbance Boundary
	UTM mE	459352	441063	456476	455642	varies
	UTM mN	5700735	5703938	5692121	5708337	varies
Calcium	wet deposition (g/ha/yr)	3.75E+02	3.67E-01	4.12E+00	1.02E+01	8.41E+02
	dry deposition (g/ha/yr)	6.34E+04	2.96E+00	4.26E+01	2.70E+02	5.89E+04
Phosphorus	wet deposition (g/ha/yr)	9.97E+00	9.76E-03	1.10E-01	2.70E-01	2.24E+01
	dry deposition (g/ha/yr)	1.69E+03	7.87E-02	1.13E+00	7.19E+00	1.57E+03
Lanthanum	wet deposition (g/ha/yr)	7.12E-02	6.97E-05	7.82E-04	1.93E-03	1.60E-01
	dry deposition (g/ha/yr)	1.21E+01	5.62E-04	8.09E-03	5.14E-02	1.12E+01
Chromium	wet deposition (g/ha/yr)	2.18E+00	2.33E-03	2.43E-02	5.95E-02	4.89E+00
	dry deposition (g/ha/yr)	3.68E+02	1.72E-02	2.47E-01	1.57E+00	3.41E+02
Magnesium	wet deposition (g/ha/yr)	1.95E+02	1.91E-01	2.14E+00	5.28E+00	4.37E+02
	dry deposition (g/ha/yr)	3.30E+04	1.54E+00	2.22E+01	1.41E+02	3.06E+04
Barium	wet deposition (g/ha/yr)	1.11E+00	1.09E-03	1.22E-02	3.02E-02	2.50E+00
	dry deposition (g/ha/yr)	1.89E+02	8.80E-03	1.27E-01	8.04E-01	1.75E+02

**Table E-6 Wet and Dry Deposition at Sensitive Receptors Associated with Project Operations (cont'd)**

Contaminant	Averaging Period	Camp Location	Nemiah Valley	Southern Area of Mine Site Footprint	NW of Mine Site	Maximum on/outside of Disturbance Boundary
	UTM mE	459352	441063	456476	455642	varies
	UTM mN	5700735	5703938	5692121	5708337	varies
Titanium	wet deposition (g/ha/yr)	1.05E+00	1.03E-03	1.15E-02	2.84E-02	2.36E+00
	dry deposition (g/ha/yr)	1.78E+02	8.29E-03	1.19E-01	7.57E-01	1.65E+02
Boron	wet deposition (g/ha/yr)	8.99E-02	8.81E-05	9.88E-04	2.44E-03	2.02E-01
	dry deposition (g/ha/yr)	1.52E+01	7.10E-04	1.02E-02	6.49E-02	1.41E+01
Aluminium	wet deposition (g/ha/yr)	1.75E+02	1.72E-01	1.93E+00	4.75E+00	3.94E+02
	dry deposition (g/ha/yr)	2.97E+04	1.39E+00	1.99E+01	1.27E+02	2.75E+04
Sodium	wet deposition (g/ha/yr)	6.82E+00	6.68E-03	7.49E-02	1.85E-01	1.53E+01
	dry deposition (g/ha/yr)	1.15E+03	5.39E-02	7.75E-01	4.92E+00	1.07E+03
Potassium	wet deposition (g/ha/yr)	3.75E+01	3.67E-02	4.12E-01	1.02E+00	8.41E+01
	dry deposition (g/ha/yr)	6.34E+03	2.96E-01	4.26E+00	2.70E+01	5.89E+03
Tungsten	wet deposition (g/ha/yr)	7.50E-04	7.34E-07	8.23E-06	2.03E-05	1.68E-03
	dry deposition (g/ha/yr)	1.27E-01	5.92E-06	8.52E-05	5.41E-04	1.18E-01

**Table E-6 Wet and Dry Deposition at Sensitive Receptors Associated with Project Operations (cont'd)**

Contaminant	Averaging Period	Camp Location	Nemiah Valley	Southern Area of Mine Site Footprint	NW of Mine Site	Maximum on/outside of Disturbance Boundary
	UTM mE	459352	441063	456476	455642	varies
	UTM mN	5700735	5703938	5692121	5708337	varies
Scandium	wet deposition (g/ha/yr)	6.82E-02	6.68E-05	7.49E-04	1.85E-03	1.53E-01
	dry deposition (g/ha/yr)	1.15E+01	5.39E-04	7.75E-03	4.92E-02	1.07E+01
Thallium	wet deposition (g/ha/yr)	1.72E-03	1.69E-06	1.89E-05	4.67E-05	3.87E-03
	dry deposition (g/ha/yr)	2.92E-01	1.36E-05	1.96E-04	1.24E-03	2.71E-01
Sulphur	wet deposition (g/ha/yr)	2.67E+02	2.61E-01	2.93E+00	7.23E+00	5.99E+02
	dry deposition (g/ha/yr)	4.52E+04	2.11E+00	3.03E+01	1.93E+02	4.19E+04
Mercury	wet deposition (g/ha/yr)	2.00E-02	6.96E-04	1.64E-03	2.04E-03	4.55E-02
	dry deposition (g/ha/yr)	1.33E+00	8.96E-05	9.88E-04	6.19E-03	1.26E+00
Selenium	wet deposition (g/ha/yr)	6.06E-02	8.04E-04	2.23E-03	3.29E-03	1.37E-01
	dry deposition (g/ha/yr)	8.00E+00	4.04E-04	5.48E-03	3.47E-02	7.45E+00
Tellurium	wet deposition (g/ha/yr)	1.65E-03	1.61E-06	1.81E-05	4.47E-05	3.70E-03
	dry deposition (g/ha/yr)	2.79E-01	1.30E-05	1.87E-04	1.19E-03	2.59E-01
Gallium	wet deposition (g/ha/yr)	6.07E-02	5.94E-05	6.67E-04	1.65E-03	1.36E-01
	dry deposition (g/ha/yr)	1.03E+01	4.80E-04	6.90E-03	4.38E-02	9.54E+00