



# **Taseko Prosperity Gold-Copper Project**

## **Appendix 5-4-R**

### Appendix 5-4-R Soil Metal Loading for the Operation Phase

Date	13-Aug-96	Metal	CCME Standard	Baseline	Camp Location			Nemiah Valley		Southern Area of Minesite Footprint		NW Corner of Mine Site		Maximum Point of Impingement		Maximum on/outside of Disturbance Boundary	
					Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit
Plot Number	96-06	Arsenic T-As	12	0.7	420	54.63	124.11	0.00	1981912.92	0.04	164108.40	0.24	28011.87	1967.74	3.45	51.15	132.55
Soil Horizon	A Horiz.	Barium T-Ba	750	67	40200	189.75	2159.69	0.01	41418902.57	0.14	2949627.33	0.83	491197.26	6835.73	59.95	177.55	2308.08
Parent Materials	Colluvial veneer over morainal blanket	Boron T-B	2	10	6000	15.31	-313.47	0.00	-6011704.06	0.01	-428120.63	0.07	-71294.32	551.64	-8.70	14.33	-335.00
		Cadmium T-Cd	1.4	2	1200	8.01	-44.94	0.00	-390619.31	0.01	-54036.11	0.04	-9974.31	289.10	-1.25	7.47	-48.17
		Chromium T-Cr	64	54	32400	370.06	16.21	0.02	307524.69	0.27	22103.62	1.63	3686.02	13331.38	0.45	346.28	17.33
		Copper T-Cu	63	9	5400	7720.71	4.20	0.40	80189.00	5.66	5728.01	33.95	954.31	278138.67	0.12	7224.43	4.48
		Lead T-Pb	70	3	1800	14.93	2692.13	0.00	10726429.32	0.02	2264650.09	0.08	534508.66	536.28	74.96	14.14	2843.09
		Mercury T-Hg	6.6	0.008	4.8	1.35	2932.56	0.00	5033467.66	0.00	1503684.03	0.01	480446.87	48.19	82.08	1.30	3037.13
Soil group and Subgroup	Orthic	Molybdenum T-Mo	5	4	2400	129.52	4.63	0.01	88842.92	0.09	6326.91	0.57	1053.61	4665.95	0.13	121.19	4.95
Tentative Identification	Dystric	Selenium T-Se	1	0.1	60	8.06	67.00	0.00	447287.89	0.01	70051.16	0.04	14221.31	289.93	1.86	7.59	71.18
	Brunisol	Zinc T-Zn	200	139	83400	90.18	405.88	0.01	2878472.38	0.08	433519.60	0.42	86674.76	3244.09	11.28	84.83	431.46

Date	14-Aug-96	Metal	CCME Standard	Baseline	Camp Location			Nemiah Valley		Southern Area of Minesite Footprint		NW Corner of Mine Site		Maximum Point of Impingement		Maximum on/outside of Disturbance Boundary	
					Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit
Plot Number	96-10	Arsenic T-As	12	2.23	1338	54.63	107.30	0.00	1713565.42	0.04	141888.41	0.24	24219.11	1967.74	2.98	51.15	114.60
Soil Horizon	Ah	Barium T-Ba	750	63	37800	189.75	2172.34	0.01	41661473.01	0.14	2966901.87	0.83	494073.96	6835.73	60.30	177.55	2321.60
Parent Materials	Morainal plain, rolling to hummocky	Boron T-B	2	10	6000	15.31	-313.47	0.00	-6011704.06	0.01	-428120.63	0.07	-71294.32	551.64	-8.70	14.33	-335.00
		Cadmium T-Cd	1.4	2	1200	8.01	-44.94	0.00	-390619.31	0.01	-54036.11	0.04	-9974.31	289.10	-1.25	7.47	-48.17
		Chromium T-Cr	64	23	13800	370.06	66.48	0.02	1260851.24	0.27	90624.86	1.63	15112.66	13331.38	1.85	346.28	71.04
		Copper T-Cu	63	32	19200	7720.71	2.41	0.40	46034.43	5.66	3288.30	33.95	547.85	278138.67	0.07	7224.43	2.57
		Lead T-Pb	70	5	3000	14.93	2611.77	0.00	10406237.40	0.02	2197048.59	0.08	518553.18	536.28	72.72	14.14	2758.22
		Mercury T-Hg	6.6	0.014	8.4	1.35	2929.89	0.00	5028886.22	0.00	1502315.39	0.01	480009.57	48.19	82.01	1.30	3034.36
Soil group and Subgroup	Orthic	Molybdenum T-Mo	5	4	2400	129.52	4.63	0.01	88842.92	0.09	6326.91	0.57	1053.61	4665.95	0.13	121.19	4.95
Tentative Identification	Eutric	Selenium T-Se	1	0.1	60	8.06	67.00	0.00	447287.89	0.01	70051.16	0.04	14221.31	289.93	1.86	7.59	71.18
	Brunisol	Zinc T-Zn	200	96	57600	90.18	691.99	0.01	4907559.47	0.08	739115.38	0.42	147773.35	3244.09	19.23	84.83	735.60

Date	14-Aug-96	Metal	CCME Standard	Baseline	Camp Location			Nemiah Valley		Southern Area of Minesite Footprint		NW Corner of Mine Site		Maximum Point of Impingement		Maximum on/outside of Disturbance Boundary	
					Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit
Plot Number	96-13	Arsenic T-As	12	99.9	49950	54.63	-804.50	0.00	-12847355.88	0.04	-1063800.03	0.24	-181581.37	1967.74	-22.34	51.15	-859.23
Soil Horizon	Oh	Barium T-Ba	750	249	124500	189.75	1320.16	0.01	25318289.64	0.14	1803029.88	0.83	300256.01	6835.73	36.65	177.55	1410.87
Parent Materials	Organic blanket over fluvial terrace	Boron T-B	2	10	5000	15.31	-261.22	0.00	-5009753.38	0.01	-356767.19	0.07	-59411.93	551.64	-7.25	14.33	-279.17
		Cadmium T-Cd	1.4	2	1000	8.01	-37.45	0.00	-325516.09	0.01	-45030.09	0.04	-8311.93	289.10	-1.04	7.47	-40.14
		Chromium T-Cr	64	63	31500	370.06	1.35	0.02	25627.06	0.27	1841.97	1.63	307.17	13331.38	0.04	346.28	1.44
		Copper T-Cu	63	68	34000	7720.71	-0.32	0.40	-6187.42	5.66	-441.98	33.95	-73.64	278138.67	-0.01	7224.43	-0.35
		Lead T-Pb	70	4	2000	14.93	2209.96	0.00	8805277.80	0.02	1859041.12	0.08	438775.77	536.28	61.54	14.14	2333.88
		Mercury T-Hg	6.6	0.095	47.5	1.35	2411.55	0.00	4139197.40	0.00	1236532.24	0.01	395088.35	48.19	67.50	1.30	2497.54
Soil group and Subgroup	Terric	Molybdenum T-Mo	5	4	2000	129.52	3.86	0.01	74035.76	0.09	5272.42	0.57	878.01	4665.95	0.11	121.19	4.13
Tentative Identification	Mesisol	Selenium T-Se	1	1.2	600	8.06	-12.41	0.00	-82831.09	0.01	-12972.44	0.04	-2633.58	289.93	-0.34	7.59	-13.18
		Zinc T-Zn	200	63	31500	90.18	759.63	0.01	5387304.87	0.08	811368.65	0.42	162219.15	3244.09	21.12	84.83	807.51

Date	95-14	Metal	CME Standard	Baseline	Camp Location			Nemiah Valley		Southern Area of Minesite Footprint		NW Corner of Mine Site		Maximum Point of Impingement		Maximum on/outside of Disturbance Boundary	
					Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit
Plot Number	95-14	Arsenic T-As	12	5.96	2980	54.63	55.28	0.00	882798.97	0.04	73098.43	0.24	12477.26	1967.74	1.53	51.15	59.04
Soil Horizon	Oh1	Barium T-Ba	750	50	25000	189.75	1844.54	0.01	35374855.78	0.14	2519203.43	0.83	419519.37	6835.73	51.20	177.55	1971.27
Parent Materials	Organic, Sedge-Willow Fen	Boron T-B	2	28	14000	15.31	-848.97	0.00	-16281698.50	0.01	-1159493.37	0.07	-193088.79	551.64	-23.57	14.33	-907.30
		Cadmium T-Cd	1.4	2	1000	8.01	-37.45	0.00	-325516.09	0.01	-45030.09	0.04	-8311.93	289.10	-1.04	7.47	-40.14
		Chromium T-Cr	64	2	1000	370.06	83.77	0.02	1588877.58	0.27	114202.05	1.63	19044.41	13331.38	2.33	346.28	89.52
		Copper T-Cu	63	15	7500	7720.71	3.11	0.40	59399.26	5.66	4242.97	33.95	706.90	278138.67	0.09	7224.43	3.32
		Lead T-Pb	70	2	1000	14.93	2276.93	0.00	9072104.40	0.02	1915375.70	0.08	452072.00	536.28	63.40	14.14	2404.61
		Mercury T-Hg	6.6	0.086	43	1.35	2414.89	0.00	4144924.19	0.00	1238243.04	0.01	395634.98	48.19	67.59	1.30	2500.99
Soil group and Subgroup	Typic	Molybdenum T-Mo	5	4	2000	129.52	3.86	0.01	74035.76	0.09	5272.42	0.57	878.01	4665.95	0.11	121.19	4.13
Tentative Identification	Humisol	Selenium T-Se	1	0.3	150	8.06	43.42	0.00	289908.82	0.01	45403.53	0.04	9217.51	289.93	1.21	7.59	46.14
		Zinc T-Zn	200	45	22500	90.18	859.44	0.01	6095125.95	0.08	917971.83	0.42	183532.61	3244.09	23.89	84.83	913.60

Date	05-Apr-03	Metal	CME Standard	Baseline	Camp Location			Nemiah Valley		Southern Area of Minesite Footprint		NW Corner of Mine Site		Maximum Point of Impingement		Maximum on/outside of Disturbance Boundary	
					Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit
Plot Number	95-22	Arsenic T-As	12	2.78	1668	54.63033252	101.2624259	0.003420937	1617100.631	0.041314155	133900.8371	0.242040246	22855.70309	1967.743701	2.81134174	51.15038038	108.1516884
Soil Horizon	Aef	Barium T-Ba	750	57	34200	189.75	2191.31	0.01	42025328.66	0.14	2992813.67	0.83	498389.02	6835.73	60.83	177.55	2341.87
Parent Materials	Thick Till blanket, 2-layered	Boron T-B	2	10	6000	15.31	-313.47	0.00	-6011704.06	0.01	-428120.63	0.07	-71294.32	551.64	-8.70	14.33	-335.00
		Cadmium T-Cd	1.4	2	1200	8.01	-44.94	0.00	-390619.31	0.01	-54036.11	0.04	-9974.31	289.10	-1.25	7.47	-48.17
		Chromium T-Cr	64	33	19800	370.06	50.26	0.02	953326.55	0.27	68521.23	1.63	11426.65	13331.38	1.40	346.28	53.71
		Copper T-Cu	63	21	12600	7720.71	3.26	0.40	62369.23	5.66	4455.12	33.95	742.24	278138.67	0.09	7224.43	3.49
		Lead T-Pb	70	3	1800	14.93	2692.13	0.00	10726429.32	0.02	2264650.09	0.08	534508.66	536.28	74.96	14.14	2843.09
		Mercury T-Hg	6.6	0.008	4.8	1.35	2932.56	0.00	5033467.66	0.00	1503684.03	0.01	480446.87	48.19	82.08	1.30	3037.13
Soil group and Subgroup	Podzolic	Molybdenum T-Mo	5	4	2400	12											

Date	14-Aug-96	Metal	CME Standard	Camp Location			Nemiah Valley		Southern Area of Minesite Footprint		NW Corner of Mine Site		Maximum Point of Impingement		Maximum on/outside of Disturbance Boundary		
				Baseline	Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	
Plot Number	950824	Arsenic T-As	12	0.12	72	54.63	130.48	0.00	2083639.42	0.04	172531.66	0.24	29449.65	1967.74	3.62	51.15	139.35
Soil Horizon		Barium T-Ba	750		23400	189.75	2248.23	0.01	43116895.64	0.14	3070549.09	0.83	511334.19	6835.73	62.41	177.55	2402.70
Parent Materials	95-26	Boron T-B	2	39	6000	15.31	-313.47	0.00	-6011704.06	0.01	-428120.63	0.07	-71294.32	551.64	-8.70	14.33	-335.00
	AC	Cadmium T-Cd	1.4	10	1200	8.01	-44.94	0.00	-390619.31	0.01	-54036.11	0.04	-9974.31	289.10	-1.25	7.47	-48.17
	Residual, lava plain	Chromium T-Cr	64	2	1200	8.01	-44.94	0.00	-390619.31	0.01	-54036.11	0.04	-9974.31	289.10	-1.25	7.47	-48.17
		Copper T-Cu	63	72	43200	370.06	-12.97	0.02	-246019.75	0.27	-17682.90	1.63	-2948.81	13331.38	-0.36	346.28	-13.86
		Lead T-Pb	70	45	27000	7720.71	1.40	0.40	26729.67	5.66	1909.34	33.95	318.10	278138.67	0.04	7224.43	1.49
	very shallow	Mercury T-Hg	6.6	2	1200	14.93	2732.31	0.00	10886525.28	0.02	2298450.84	0.08	542486.41	536.28	76.08	14.14	2885.53
Soil group and Subgroup	soil	Molybdenum T-Mo	5	0.006	3.6	1.35	2933.45	0.00	5034994.80	0.00	1504140.25	0.01	480592.64	48.19	82.11	1.30	3038.05
Tentative Identification	Lithic	Selenium T-Se	1	4	2400	129.52	4.63	0.01	88842.92	0.09	6326.91	0.57	1053.61	4665.95	0.13	121.19	4.95
	Regosol	Zinc T-Zn	200	0.1	60	8.06	67.00	0.00	447287.89	0.01	70051.16	0.04	14221.31	289.93	1.86	7.59	71.18
				90	54000	90.1753373	731.907437	0.012715078	5190687.905	0.084425249	781756.6511	0.422268281	156298.7392	3244.088439	20.34469813	84.82904916	778.0353623

Date	08-Apr-03	Metal	CME Standard	Camp Location			Nemiah Valley		Southern Area of Minesite Footprint		NW Corner of Mine Site		Maximum Point of Impingement		Maximum on/outside of Disturbance Boundary		
				Baseline	Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	
Plot Number	95-30	Arsenic T-As	12	1.21	726	54.63033252	118.5055939	0.003420937	1892463.754	0.041314155	156701.7389	0.242040246	26747.61783	1967.743701	3.290062622	51.15038038	126.5679737
Soil Horizon	Ah	Barium T-Ba	750	56	33600	189.75	2194.48	0.01	42085971.27	0.14	2997132.31	0.83	499108.19	6835.73	60.92	177.55	2345.25
Parent Materials	Organic veneer	Boron T-B	2	12	7200	15.31	-391.83	0.00	-7514630.08	0.01	-535150.79	0.07	-89117.90	551.64	-10.88	14.33	-418.75
		Cadmium T-Cd	1.4	2	1200	8.01	-44.94	0.00	-390619.31	0.01	-54036.11	0.04	-9974.31	289.10	-1.25	7.47	-48.17
		Chromium T-Cr	64	38	22800	370.06	42.16	0.02	799564.20	0.27	57469.42	1.63	9583.64	13331.38	1.17	346.28	45.05
	over fluvial terrace	Copper T-Cu	63	30	18000	7720.71	2.56	0.40	49004.39	5.66	3500.45	33.95	583.19	278138.67	0.07	7224.43	2.74
		Lead T-Pb	70	3	1800	14.93	2692.13	0.00	10726429.32	0.02	2264650.09	0.08	534508.66	536.28	74.96	14.14	2843.09
		Mercury T-Hg	6.6	0.07	42	1.35	2904.98	0.00	4986126.18	0.00	1489541.37	0.01	475928.11	48.19	81.31	1.30	3008.56
Soil group and Subgroup	Orthic	Molybdenum T-Mo	5	4	2400	129.52	4.63	0.01	88842.92	0.09	6326.91	0.57	1053.61	4665.95	0.13	121.19	4.95
Tentative Identification	Humic	Selenium T-Se	1	0.3	180	8.06	52.11	0.00	347890.58	0.01	54484.23	0.04	11061.02	289.93	1.45	7.59	55.36
	Gleysol	Zinc T-Zn	200	68	40800	90.18	878.29	0.01	6228825.49	0.08	938107.98	0.42	187558.49	3244.09	24.41	84.83	933.64

Date	11-Apr-03	Metal	CME Standard	Camp Location			Nemiah Valley		Southern Area of Minesite Footprint		NW Corner of Mine Site		Maximum Point of Impingement		Maximum on/outside of Disturbance Boundary		
				Baseline	Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	Annual Deposit	# Yrs to Exceedance	
Plot Number	95-52	Arsenic T-As	12	0.8	480	54.63	123.01	0.00	1964373.87	0.04	162656.11	0.24	12134.04	1967.74	3.42	51.15	131.38
Soil Horizon	Ae	Barium T-Ba	750	113	67800	189.75	2014.24	0.01	38629342.51	0.14	2750970.14	0.83	98227445.13	6835.73	55.91	177.55	2152.63
Parent Materials	Eolian over till blanket	Boron T-B	2	10	6000	15.31	-313.47	0.00	-6011704.06	0.01	-428120.63	0.07	-109170.41	551.64	-8.70	14.33	-335.00
	"benchy" moraine	Cadmium T-Cd	1.4	2	1200	8.01	-44.94	0.00	-390619.31	0.01	-54036.11	0.04	-1597.92	289.10	-1.25	7.47	-48.17
		Chromium T-Cr	64	33	19800	370.06	50.26	0.02	953326.55	0.27	68521.23	1.63	1395424.32	13331.38	1.40	346.28	53.71
		Copper T-Cu	63	10	6000	7720.71	4.12	0.40	78704.02	5.66	5621.94	33.95	723153.45	278138.67	0.11	7224.43	4.40
		Lead T-Pb	70	4	2400	14.93	2651.95	0.00	10566333.36	0.02	2230849.34	0.08	314494.84	536.28	73.84	14.14	2800.66
		Mercury T-Hg	6.6	0.053	31.8	1.35	2912.54	0.00	4999106.91	0.00	1493419.20	0.01	341.09	48.19	81.52	1.30	3016.40
Soil group and Subgroup	Orthic	Molybdenum T-Mo	5	4	2400	129.52	4.63	0.01	88842.92	0.09	6326.91	0.57	5458.52	4665.95	0.13	121.19	4.95
Tentative Identification	Gray	Selenium T-Se	1	0.1	60	8.06	67.00	0.00	447287.89	0.01	70051.16	0.04	114.63	289.93	1.86	7.59	71.18
	Luvisol	Zinc T-Zn	200	105	63000	90.18	632.10	0.01	4482866.83	0.08	675153.47	0.42	12780959.82	3244.09	17.57	84.83	671.94