



Appendix IR1-05-A Plant and Fish BCFs

Red Mountain Underground Gold Project
IDM Mining Ltd. Responses to
Canadian Environmental Assessment Information Request #1

APPENDIX IR1-05-A

Table 1: Plant BCFs. Blank cells indicate no data available in collected samples.

Parameter	Dry Soil (mg/kg)			Dry Weight Plant (mg/kg)		Wet Weight Plant (mg/kg)		Site Specific BCF Dry Weight (mg/kg)	RAIS Plant BCF (unitless)	ECO-SSL Plant BCF (unitless)	Predicted Plant Concentrations (RAIS) (mg/kg)	Predicted Plant Concentrations (ECO-SSL) (mg/kg)	Predicted Dry Weight Plant Average (mg/kg)	Predicted Dry Weight Plant P90 (mg/kg)
	Baseline Average	Predicted Average	Predicted P90	Average	Maximum	Average	Maximum	Dry Plant/Dry Soil						
Aluminum	18714.29	18826.25	29412.83	61.84	149.00	21.36	54.53	0.003	0.004	-	117	-	62.21	97.20
Antimony	3.02	3.04	7.44	0.03	0.08	0.011	0.029	0.01	0.2	0.035	1.48	0.26	0.03	0.076
Arsenic	95.43	96.00	73.36	0.44	1.03	0.15	0.38	0.0046	0.04	0.038	2.92	2.7	0.44	0.33
Barium	190.56	191.82	471.66	40.21	99.30	12.72	29.49	0.21		-	-	-	40.48	99.53
Bismuth	0.13	0.13	0.32	0.01	0.01	0.003	0.0037	0.077	-	-	-	-	0.01	0.025
Boron	20.00	20.12	10.06	32.89	58.30	10.29	17.32	1.64	-	-	-	-	33.09	16.55
Cadmium	1.08	1.08	1.36	3.88	7.25	1.28	2.65	3.61	0.5	0.54	0.67	0.73	3.91	4.90
Chromium	47.51	47.82	109.41	0.32	0.68	0.11	0.25	0.0068	0.0075	0.041	0.82	4.5	0.32	0.74
Cobalt	14.32	14.41	23.18	0.74	1.32	0.25	0.48	0.052	0.02	0.0075	0.46	0.17	0.74	1.19
Iron	36085.71	36304.85	57403.07	192.29	381.00	65.44	139.45	0.0053	0.004	-	228.2	-	193.45	305.88
Lead	20.85	20.97	42.94	0.15	0.38	0.053	0.14	0.0074	0.045	0.051	1.92	2.2	0.16	0.32
Manganese	604.43	608.29	925.19	276.11	692.00	93.06	235.97	0.46	0.25	0.079	229.8	72.6	277.88	422.64
Mercury	0.043	0.046	0.098	0.011	0.019	0.0036	0.0054	0.26	0.9	-	0.083	-	0.01	0.025
Nickel	33.83	34.04	55.64	4.93	13.30	1.71	4.87	0.15	-	-	-	-	4.96	8.12
Selenium	2.35	2.37	4.73	1.57	4.52	0.50	1.28	0.67	0.025	0.60	0.12	2.8	1.58	3.16
Strontium	44.74	45.02	96.13	78.33	113.00	25.72	38.53	1.75	-	-	-	-	78.80	168.29
Tellurium	0.20	0.21	0.71	-	-	-	-	-	-	-	-	-	-	-
Thallium	0.13	0.13	0.32	0.0014	0.0020	0.0005	0.0007	0.011	0.004	-	0.0013	-	0.00	0.0036
Titanium	1082.86	1089.28	2260.34	2.35	4.64	0.81	1.70	0.0022	0.0055	-	12.4	-	2.37	4.91
Uranium	0.53	0.54	1.18	0.0027	0.0050	0.0009	0.0015	0.0051	0.0085	-	-	-	0.00	0.006
Vanadium	73.60	74.05	112.05	0.20	0.46	0.070	0.17	0.0027	0.0055	-	0.61	-	0.20	0.31
Zinc	117.01	117.74	238.61	171.14	355.00	57.26	129.93	1.46	0.99	0.42	234.83	100.0	172.21	349.00

Table 2: Fish BCFs

Parameters	Fish Sample Stations (mg/kg)			Baseline Water Sample (mg/L)				Bioconcentration Factors (kg/L)				Predicted Water Sample Stations (mg/L)		Predicted Tissue Residue (mg/kg)		
	BR1, BR8, BC1, BC2, BC3, ROC1	BC1, BC2, BC3, ROC1	Average BC1, BC2, BC3	BC2, BC4, BC6, BR8, BR6, OC1	BC2, BC4, BC6, BR8, BR6	BC2, BC4, BC6	BC2	BCF1	BCF2	BCF3	BCF4	BC02, BC06, BR06	BC02	TP1	TP2	TP3
	F1	F2	F3	WB1	WB2	WB3	WB4	F1/WB1	F1/WB2	F2/WB3	F3/WB4	WP1	WP2	BCF3/WP1	BCF3/WP2	BCF4/WP2
Aluminum	36.57	16.55	14.92	0.086	0.097	0.13	0.078	425.42	375.48	169.99	191.89	0.087	0.10	14.74	16.91	19.09
Antimony	0.020	0.018	0.021	0.0006	0.0006	0.0007	0.0014	34.68	32.49	28.59	14.39	0.0025	0.0024	0.07	0.067	0.034
Arsenic	0.55	0.55	0.70	0.0006	0.0006	0.0007	0.0008	938.27	879.37	873.90	856.43	0.0011	0.0012	1.00	1.073	1.05
Barium	2.40	1.31	1.07	0.049	0.046	0.035	0.054	49.47	52.22	28.39	19.73	0.058	0.043	1.66	1.23	0.86
Bismuth	0.01	0.01	0.01	0.0069	0.0083	0.012	0.0041	1.45	1.21	1.21	2.45	0.011	0.015	0.0133	0.018	0.036
Boron	0.15	0.10	0.1	0.073	0.073	0.078	0.098	2.11	2.11	1.37	1.02	0.099	0.095	0.13	0.13	0.097
Cadmium	0.31	0.24	0.28	0.0001	0.0001	0.0001	0.0003	4255.75	4147.88	3258.33	857.56	0.0005	0.0003	1.52	1.031	0.27
Chromium	0.079	0.06	0.048	0.0008	0.0008	0.0008	0.0013	104.47	103.45	78.91	36.59	0.0013	0.0012	0.10	0.095	0.044
Cobalt	0.18	0.17	0.19	0.0003	0.0003	0.0003	0.0011	637.15	696.86	643.86	174.68	0.001	0.0008	0.65	0.51	0.14
Iron	136.56	71.94	71.54	0.033	0.033	0.032	0.059	4115.39	4196.76	2210.74	1222.59	0.080	0.090	175.83	197.97	109.48
Lead	0.20	0.090	0.097	0.0004	0.0004	0.0004	0.0008	569.10	571.58	256.36	116.61	0.0008	0.0006	0.20	0.16	0.073
Manganese	6.06	3.77	3.41	0.0097	0.0079	0.0071	0.029	622.96	766.09	477.13	119.01	0.11	0.074	51.48	35.06	8.75
Mercury	0.0099	0.0074	0.0069	0.0000	0.00	0.00	0.00	1659.20	1650.23	1232.45	404.29	0.00	0.00	0.021	0.0146	0.0048
Nickel	0.12	0.11	0.13	0.0017	0.0012	0.0014	0.0026	66.62	94.40	92.9416	50.21	0.0047	0.0041	0.44	0.38	0.21
Selenium	1.60	1.81	2.04	0.0014	0.0012	0.0016	0.0030	1112.40	1356.59	1539.69	680.39	0.0023	0.0019	3.59	2.93	1.30
Strontium	4.92	4.47	4.80	0.17	0.15	0.17	0.27	29.21	32.00	29.04	18.04	0.27	0.30	7.80	8.67	5.38
Thallium	0.016	0.013	0.014	0.0001	0.0001	0.0002	0.0002	114.77	114.37	92.44	70.52	0.0002	0.0002	0.018	0.018	0.013
Titanium	1.21	0.58	0.61	0.0099	0.010	0.011	0.011	122.17	120.60	57.88	56.45	0.011	0.0107	0.62	0.62	0.60
Uranium	0.0048	0.0035	0.0041	0.0003	0.0002	0.0003	0.0004	18.71	21.30	15.34	10.77	0.0004	0.0006	0.0066	0.0093	0.0066
Vanadium	0.18	0.087	0.085	0.0007	0.0007	0.0008	0.0007	252.17	243.75	120.27	115.24	0.0007	0.0007	0.088	0.086	0.083
Zinc	29.84	28.28	30.07	0.0048	0.0043	0.0045	0.016	6258.74	6989.17	6621.78	1850.51	0.027	0.020	181.52	129.52	36.20