

Table 3.5 Waste Rock SFE Leach Test Results
Tiriganiaq Deposit, Meliadine West Property, Nunavut
Comaplex Minerals Corporation

CCME (CEQG) (freshwater aquatic life) ¹ (mg/L)										0.073		0.025 - 0.15 ⁶	0.001 - 0.007 ⁶		0.001													0.03
Metal Mine Effluent Regulation (MMER) ² (mg/L)												0.50	0.20															0.50
Sample Number	Interval		Lithology		Location	K	Li	Mg	Mn	Mo	Na	Ni	Pb	Sb	Se	Sn	Sr	Ti	Tl	U	V	W	Y	Zn				
	from	to	code	Name		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L ⁶	mg/L ⁶	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L			
M04-527-01	270	280	Kwa-s'ak	greywacke/siltstone	UG	5.0	0.001	1.8	0.0024	0.0005	10	0.0003	0.00003	0.0033	< 0.001	0.00005	0.052	0.0003	< 0.00002	0.00016	0.0035	0.00056	0.000015	0.003				
M04-533-01	380	390	Ks-wa'ser	greywacke/siltstone	UG	14	0.002	2.0	0.0010	0.0004	7.2	0.0003	0.00008	0.0027	< 0.001	0.00007	0.128	0.0002	< 0.00002	0.00007	0.0023	0.00193	0.000015	0.006				
M04-533-02	297	307	Ks-wa'ca	greywacke/siltstone	UG	8.6	< 0.001	0.6	0.0008	0.0006	8.4	0.0002	0.00002	0.0054	< 0.001	0.00004	0.037	0.0006	< 0.00002	0.00013	0.0067	0.00078	0.000018	0.004				
M05-559A-02	180	190	Kwa-s	greywacke/siltstone	UG	7.9	0.001	1.0	0.0010	0.0004	8.0	0.0002	0.00004	0.0041	< 0.001	0.00008	0.047	0.0002	< 0.00002	0.00007	0.0039	0.00071	0.000012	0.005				
M05-571A-02	335	344	Kwa-s'ak	greywacke/siltstone	UG	7.4	0.001	1.9	0.0006	0.0009	8.9	0.0004	0.00002	0.0037	< 0.001	0.00004	0.050	0.0004	< 0.00002	0.00005	0.0014	0.00094	0.000024	0.006				
M06-604-01	336	344	Ks	greywacke/siltstone	UG	6.1	0.001	1.3	0.0005	0.0009	12	0.0003	0.00008	0.0044	< 0.001	0.00006	0.054	0.0007	< 0.00002	0.00007	0.0023	0.00091	0.000029	0.003				
M06-604-02	286	295	Kwa-s'c	greywacke/siltstone	UG	7.2	< 0.001	1.6	0.0008	0.0002	8.0	0.0001	0.00003	0.0035	< 0.001	0.00005	0.069	0.0001	< 0.00002	0.00002	0.0004	0.00070	0.000012	0.019				
M07-645-01	250	260	Kwa-s	greywacke/siltstone	UG	7.4	< 0.001	1.4	0.0006	0.0005	11	0.0004	0.00004	0.0055	< 0.001	0.00005	0.055	0.0004	< 0.00002	0.00008	0.0024	0.00066	0.000029	0.003				
M07-663-01	417	427	Ks'ak	greywacke/siltstone	UG	8.5	0.001	1.5	0.0008	0.0006	8.5	0.0009	0.00007	0.0043	< 0.001	0.00005	0.053	0.0003	< 0.00002	0.00006	0.0020	0.00115	0.000020	0.007				
M07-663-02	351	357	Kwa'ak'po	greywacke/siltstone	UG	10	0.001	2.2	0.0008	0.0006	12	0.0010	0.00005	0.0029	< 0.001	0.00007	0.059	0.0003	< 0.00002	0.00005	0.0014	0.00190	0.000014	0.008				
M07-663-03	280	289	Kwa-s	greywacke/siltstone	UG	7.7	0.001	2.1	0.0010	0.0004	6.9	0.0004	0.00006	0.0036	< 0.001	0.00004	0.043	0.0002	< 0.00002	0.00004	0.0016	0.00081	0.000011	0.007				
M98-313-01	305	315	Ks-wa	greywacke/siltstone	UG	7.3	< 0.001	1.6	0.0006	0.0003	7.6	0.0003	0.00007	0.0030	< 0.001	0.00007	0.049	0.0002	< 0.00002	0.00010	0.0026	0.00079	0.000016	0.006				
minimum						5.0	< 0.001	0.6	0.0005	0.0002	6.9	0.0001	0.00002	0.0027	< 0.001	0.00004	0.037	0.0001	< 0.00002	0.00002	0.0004	0.00056	0.000011	0.003				
maximum						14	0.002	2.2	0.0024	0.0009	12	0.0010	0.00008	0.0055	< 0.001	0.00008	0.128	0.0007	< 0.00002	0.00016	0.0067	0.00193	0.000029	0.019				
median						7.5	0.001	1.6	0.0008	0.0005	8.4	0.0003	0.00005	0.0037	nc	0.00005	0.053	0.0003	nc	0.00007	0.0023	0.00080	0.000016	0.006				
average						8.1	0.001	1.6	0.0009	0.0005	9.0	0.0004	0.00005	0.0039	nc	0.00006	0.058	0.0003	nc	0.00007	0.0025	0.00099	0.000018	0.006				
standard deviation						2.3	0.000	0.5	0.0005	0.0002	1.7	0.0003	0.00002	0.0009	nc	0.00001	0.023	0.0002	nc	0.00004	0.0016	0.00046	0.000006	0.004				
75 th percentile						8.6	0.001	1.9	0.0010	0.0006	11	0.0004	0.00007	0.0044	nc	0.00007	0.056	0.0004	nc	0.00008	0.0028	0.00099	0.000021	0.007				
M03-496-02	281	290	Nl-m-wa	iron formation	UG	7.7	0.001	2.7	0.0020	0.0005	1.7	0.0002	< 0.00002	0.0006	< 0.001	0.00002	0.093	< 0.0001	< 0.00002	0.00001	0.0001	0.00039	0.000006	< 0.001				
M04-526-01	216	225	Nm-l-j	iron formation	UG	1.0	< 0.001	1.5	0.0020	0.0002	2.0	0.0002	0.00014	0.0008	< 0.001	0.00006	0.268	< 0.0001	0.00013	0.00018	0.0002	0.00031	0.000142	0.017				
M07-649-01	280	290	Nm-l	iron formation	UG	1.5	< 0.001	5.2	0.0077	0.0001	3.0	0.0002	0.00003	0.0005	< 0.001	0.00006	0.204	< 0.0001	< 0.00002	0.00002	0.0001	0.00004	0.000014	0.023				
M99-280-01	189	197	Nj-m	iron formation	UG	6.4	0.001	1.4	0.0007	0.0002	2.3	0.0001	< 0.00002	0.0012	< 0.001	0.00005	0.118	< 0.0001	< 0.00002	0.00003	0.0001	0.00055	0.000007	0.017				
minimum						1.0	< 0.001	1.4	0.0007	0.0001	1.7	0.0001	< 0.00002	0.0005	< 0.001	0.00002	0.093	< 0.0001	< 0.00002	0.00001	0.0001	0.00004	0.000006	< 0.001				
maximum						7.7	0.001	5.2	0.0077	0.0005	3.0	0.0002	0.00014	0.0012	< 0.001	0.00006	0.268	< 0.0001	0.00013	0.00018	0.0002	0.00055	0.000142	0.023				
median						3.9	nc	2.1	0.0020	0.0002	2.1	0.0002	nc	0.0007	nc	0.00006	0.161	nc	nc	0.00002	0.0001	0.00035	0.000011	0.017				
average						4.2	nc	2.7	0.0031	0.0002	2.2	0.0002	nc	0.0008	nc	0.00005	0.171	nc	nc	0.00006	0.0001	0.00032	0.000042	0.019				
standard deviation						3.4	nc	1.8	0.0031	0.0002	0.5	0.0001	nc	0.0003	nc	0.00002	0.080	nc	nc	0.00008	0.0000	0.00021	0.000067	0.003				
75 th percentile						6.7	nc	3.3	0.0034	0.0003	2.4	0.0002	nc	0.0009	nc	0.00006	0.220	nc	nc	0.00006	0.0001	0.00043	0.000046	0.020				

Notes:

- nc: not calculated
- CEQG (2002) freshwater guidelines and MMER criteria are based on total metal concentrations.
 - MMER 2006 update. Maximum authorized monthly mean concentration.
 - Exceedances to freshwater CEQG's shown in bold type.
 - Freshwater aquatic life criterion for aluminum depends on pH, [Ca2+] and DOC. In this table, only the pH criterion has been applied to highlight exceedances.
 - Freshwater aquatic life criteria for chromium depends on the valence of chromium ion. In the above table, the Cr(VI) criterion of 0.001 mg/L is shown.
 - Freshwater aquatic life criterion or guideline is hardness dependant.

Table 3.7. Correlation Analysis
 Tiriganiaq Deposit, Meliadine West Property, Nunavut
 Comaplex Minerals Corporation

	Depth	Leachable (mg/L)		Solid Phase Chemical Composition (mg/kg)																												
	(m)	As	Al	S2-	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo	Na	Ni	Pb	Sr	Ti	Tl	U	V	Y	Zn	
Depth	1.0																															
Leachable As	-0.2	1.0																														
Leachable Al	-0.5	0.2	1.0																													
S2-	0.0	0.2	-0.3	1.0																												
Ag	0.3	0.3	-0.3	0.1	1.0																											
Al	0.1	0.3	0.3	-0.4	0.4	1.0																										
As	-0.1	0.3	-0.3	0.9	0.1	-0.2	1.0																									
Ba	0.2	0.3	0.1	-0.2	0.2	0.5	-0.1	1.0																								
Be	0.3	0.2	0.0	-0.2	0.3	0.5	-0.1	0.9	1.0																							
Bi	0.2	0.2	-0.1	0.1	0.6	0.3	0.2	0.4	0.5	1.0																						
Ca	-0.1	-0.1	0.0	0.4	-0.3	-0.5	0.4	-0.4	-0.5	-0.2	1.0																					
Cd	-0.2	0.4	-0.2	0.8	0.1	-0.1	0.8	0.0	-0.1	0.2	0.2	1.0																				
Co	0.0	0.1	0.1	0.4	0.1	0.1	0.4	-0.1	-0.2	0.1	0.7	0.4	1.0																			
Cr	0.1	0.2	0.2	0.0	0.4	0.4	0.0	0.1	0.0	0.2	0.3	0.1	0.8	1.0																		
Cu	0.1	0.3	0.0	0.3	0.1	0.1	0.3	0.0	-0.1	0.0	0.2	0.5	0.4	0.3	1.0																	
Fe	0.2	-0.3	-0.4	0.3	-0.3	-0.8	0.2	-0.3	-0.3	-0.2	0.3	0.1	-0.1	-0.3	0.0	1.0																
K	0.2	0.3	0.2	-0.3	0.5	0.8	-0.2	0.7	0.7	0.4	-0.6	0.0	-0.1	0.3	0.1	-0.7	1.0															
Li	0.1	0.1	0.3	-0.1	0.2	0.5	-0.1	0.2	0.1	0.1	0.2	-0.1	0.7	0.7	0.2	-0.3	0.3	1.0														
Mg	0.1	0.0	0.1	0.1	0.1	0.2	0.1	0.0	-0.2	0.0	0.6	0.1	0.9	0.8	0.3	0.0	0.0	0.8	1.0													
Mn	-0.1	0.0	-0.1	0.7	-0.1	-0.3	0.7	-0.3	-0.4	-0.1	0.9	0.6	0.8	0.4	0.3	0.2	-0.4	0.3	0.6	1.0												
Mo	0.2	0.3	-0.3	0.4	0.5	0.2	0.5	0.2	0.2	0.3	-0.2	0.4	0.2	0.2	0.2	-0.1	0.3	0.1	0.0	0.1	1.0											
Na	-0.2	0.3	0.3	-0.4	0.2	0.7	-0.2	0.2	0.3	0.2	-0.5	-0.1	-0.2	0.0	0.0	-0.8	0.5	0.0	-0.3	-0.4	0.0	1.0										
Ni	0.2	0.2	0.1	0.1	0.3	0.4	0.1	0.1	0.0	0.2	0.4	0.2	0.9	0.9	0.4	-0.3	0.2	0.8	0.8	0.5	0.2	0.0	1.0									
Pb	0.2	0.0	-0.1	0.1	0.3	0.1	0.1	0.6	0.7	0.6	0.0	0.2	0.1	0.1	0.0	0.0	0.3	0.1	0.1	0.1	0.1	0.0	1.0									
Sr	0.0	0.2	0.1	-0.2	0.3	0.3	-0.3	0.7	0.7	0.4	-0.5	-0.1	-0.4	-0.2	-0.2	-0.3	0.5	-0.1	-0.3	-0.5	0.1	0.4	-0.2	0.4	1.0							
Ti	0.4	0.1	0.1	-0.1	0.2	0.5	0.0	0.4	0.4	0.2	0.1	0.0	0.4	0.5	0.2	-0.4	0.5	0.3	0.3	0.1	0.1	0.2	0.5	0.3	0.0	1.0						
Tl	0.2	0.3	0.0	0.1	0.4	0.5	0.2	0.6	0.7	0.5	-0.1	0.2	0.4	0.6	0.1	-0.4	0.7	0.4	0.4	0.1	0.3	0.1	0.5	0.6	0.3	0.5	1.0					
U	0.2	0.4	0.1	-0.2	0.6	0.7	-0.2	0.5	0.6	0.5	-0.8	0.0	-0.2	0.2	0.0	-0.5	0.8	0.1	-0.2	-0.6	0.5	0.5	0.1	0.1	0.5	0.3	0.4	1.0				
V	0.1	0.1	0.1	0.1	0.1	0.2	0.2	-0.1	-0.2	0.0	0.7	0.1	0.9	0.8	0.3	-0.1	0.0	0.7	0.9	0.7	0.0	-0.2	0.9	0.1	-0.4	0.5	0.4	-0.3	1.0			
Y	0.4	0.4	0.1	-0.1	0.5	0.6	-0.1	0.5	0.4	0.4	-0.1	0.0	0.4	0.7	0.3	-0.3	0.6	0.5	0.4	0.0	0.4	0.2	0.7	0.3	0.2	0.6	0.6	0.6	0.4	1.0		
Zn	0.0	0.3	-0.2	0.8	0.2	0.0	0.8	0.0	0.0	0.2	0.4	0.8	0.7	0.4	0.4	0.1	0.0	0.3	0.5	0.8	0.5	-0.3	0.5	0.3	-0.2	0.2	0.4	-0.1	0.5	0.2	1.0	

