

Table 2.9-44 MEA Vegetation Seasonal Radiological Laboratory Analysis

Location ID: Date Collected: UNITS	Marsland West Side						Marsland Middle Site						Marsland East Site						NRC LLD ^a μCi/kg (wet)	
	6/26/2013		7/19/2013		9/13/2013		6/26/2013		7/19/2013		9/13/2013		6/26/2013		7/19/2013		9/13/2013			
	RESULTS	RL	RESULTS	RL	RESULTS	RL	RESULTS	RL	RESULTS	RL	RESULTS	RL	RESULTS	RL	RESULTS	RL	RESULTS	RL		
RADIONUCLIDES																				
Lead 210	μCi/kg	4.6E-05	4.6E-06	1.0E-04	8.2E-06	1.5E-04	3.3E-06	1.2E-04	5.0E-06	1.1E-05	4.5E-06	9.8E-05	2.8E-06	2.5E-05	2.6E-06	2.7E-05	2.4E-06	7.5E-05	2.5E-06	1E-06
Lead 210 precision (±)	μCi/kg	4.0E-06		8.0E-06		4.6E-06		6.2E-06		3.1E-06		3.5E-06		2.3E-06		2.2E-06		3.0E-06		
Lead 210 MDC	μCi/kg	4.6E-06		8.2E-06		3.3E-06		5.0E-06		4.5E-06		2.8E-06		2.6E-06		2.4E-06		2.5E-06		
Polonium 210	μCi/kg	4.6E-06	4.4E-06	2.9E-05	2.5E-06	5.9E-05	2.8E-06	2.4E-05	3.1E-06	2.1E-06	1.2E-06	3.5E-05	2.4E-06	2.7E-06	1.3E-06	3.4E-06	1.3E-06	1.4E-05	2.1E-06	1E-06
Polonium 210 precision (±)	μCi/kg	4.2E-06		7.0E-06		1.0E-05		8.6E-06		1.4E-06		6.7E-06		1.4E-06		1.7E-06		1.6E-06		
Polonium MDC	μCi/kg	4.4E-06		2.5E-06		2.8E-06		3.1E-06		1.2E-06		2.4E-06		1.3E-06		1.3E-06		2.9E-06		
Radium 226	μCi/kg	1.1E-06	1.0E-06	2.7E-06	1.7E-07	4.7E-06	3.1E-07	9.1E-06	9.6E-07	4.0E-07	8.0E-08	2.8E-06	2.5E-07	1.8E-06	4.7E-07	<2.4E-08	2.4E-08	2.6E-06	1.8E-07	5E-08
Radium 226 precision (±)	μCi/kg	6.7E-07		3.0E-07		5.0E-07		1.0E-06		8.9E-08		3.6E-07		3.8E-07		1.2E-08		2.9E-07		
Radium MDC	μCi/kg	1.0E-06		1.7E-07		3.1E-07		9.6E-07		8.0E-08		2.5E-07		4.7E-07		2.4E-08		1.8E-07		
Thorium 230	μCi/kg	4.6E-06	2.2E-06	3.6E-06	1.8E-06	9.3E-06	1.6E-06	7.4E-06	4.9E-06	9.3E-07	7.2E-07	6.2E-06	1.8E-06	1.6E-06	1.5E-06	2.3E-06	1.5E-06	3.1E-06	1.1E-06	2E-07
Thorium 230 precision (±)	μCi/kg	2.1E-06		1.6E-06		2.4E-06		4.2E-06		5.7E-07		1.9E-06		1.1E-06		1.2E-06		1.2E-06		
Thorium MDC	μCi/kg	2.2E-06		1.8E-06		1.6E-06		4.9E-06		7.2E-07		1.8E-06		1.5E-06		1.5E-06		1.1E-06		
METALS																				
Uranium	mg/kg	0.63 D	0.0031	0.0093	0.00073	0.08	0.02	0.043 D	0.0015	0.0023	0.00040	0.20	0.02	0.0010 D	0.00072	0.0021	0.00030	0.16	0.02	
Uranium Activity	μCi/kg	4.2E-04 D	2.1E-06	6.3E-06	4.9E-07	5.0E-05	1.0E-05	2.9E-05 D	9.9E-07	1.6E-06	2.7E-07	1.3E-04	1.0E-05	6.8E-07 D	4.9E-07	1.4E-06	2.0E-07	1.1E-04	1.0E-05	2E-07

μCi/kg - microcuries per kilogram

mg/g - milligrams per gram

RL - Analyte Reporting Limit

D - RL increased due to sample matrix

LLD - Lower Limit of Detection

MDC - Minimum Detectable Concentration

^a NRC Regulatory Guide 4.14, Revision 1, Radiological Effluent and Environmental Monitoring at Uranium Mills, April, 1980.