

Obed Mountain Mine
Soil and Sediment Quality
September 2014

		Metals																											
		Aluminium	Antimony	Arsenic	Barium	Beryllium	Bismuth	Cadmium	Calcium	Chromium (III+VI)	Cobalt	Copper	Iron	Lead	Lithium	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Phosphorus	Potassium	Selenium	Silver	Sodium	Strontium	Thallium	Tin	Titanium
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
MDL		50	0.1	0.1	0.5	0.2	0.2	0.1	100	0.5	0.1	0.5	50	0.5	0.5	20	1	0.005	0.1	0.5	50	50	0.2	0.2	100	1	0.05	2	1
Location	Date																												
ATR-FF-6	22-Sep-14	774	<0.1	3.24	29.4	<0.2	<0.2	<0.1	6760	1.61	2.5	1.13	6040	1.65	1.42	726	179	<0.005	0.18	3.46	152	151	<0.2	<0.2	<100	12	<0.05	<2	28.4
ATR-FF-7	22-Sep-14	7360	0.22	5.07	200	0.44	<0.2	0.17	17,100	13.9	6.54	10.1	14,900	7.52	10	6380	363	0.0314	0.56	14.9	592	1150	0.26	<0.2	100	49.5	0.125	<2	84.1
PLC-DS	11-Sep-14	3670	0.16	5.08	59.5	0.24	<0.2	0.12	9180	8.13	4.38	5.93	9750	4.11	6.04	2470	236	0.0152	0.29	11.2	299	348	<0.2	<0.2	<100	24.4	<0.05	<2	41.7
PLC-US	11-Sep-14	4180	<0.1	4.94	59.8	0.2	<0.2	<0.1	2970	8.27	4.34	4.15	9460	3.74	6.17	1880	128	0.0189	<0.1	9.94	287	344	<0.2	<0.2	<100	13.3	<0.05	<2	32.1

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	Organic / Inorganic Carbon							Particle Size				Physical Tests															
	Uranium	Vanadium	Zinc	CaCO3 Equivalent	Inorganic Carbon	TOC	Total Carbon by Combustion	Clay % Texture	Sand % Texture	Silt % Texture	Texture	Moisture	Benzo[b+j]fluoranthene	C4 Benzantracenes/Chrysenes	C4 Dibenzothiophenes	C4 Fluoranthenes/Pyrenes	C4 Naphthalenes	C4 Phenanthrenes/Anthracenes	Biphenyl	1-Methylnaphthalene	2-methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene		
	mg/kg	mg/kg	mg/kg	%	mg/kg	% dry weight	%	% by weight	% by weight	% by weight	-	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
MDL	0.05	0.2	5	0.8	0.1	0.1	0.1	1	1	1		0.1	0.01	0.04	0.04	0.04	0.04	0.04	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	
Location	Date																										
ATR-FF-6	22-Sep-14	0.107	4.11	8.8	-	-	-	1.3	<1	100	<1	1	34.8	<0.01	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01
ATR-FF-7	22-Sep-14	0.724	23.4	47	-	-	-	0.4	8.6	67	24.4	-	16.1	<0.01	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01
PLC-DS	11-Sep-14	0.3	12	20.6	2.02	0.24	0.85	1.1	3.9	92	4.1	1	28.6	<0.01	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01
PLC-US	11-Sep-14	0.257	10.2	27.6	<0.8	<0.1	1	1	7.4	86	6.6	1	29.9	<0.01	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01

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Polycyclic Aromatic Hydrocarbons

	Benzo(a)pyrene	Acridine	Benzo(e)pyrene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	C1 Acenaphthenes	C1 Benz(a)Anthracenes/Chrysenes	C1 Benzofluoranthenes/Benzopyrenes	C1 Biphenyls	C1 Dibenzothiophenes	Chrysene	C1 Fluoranthenes/Pyrenes	C1 Fluorenes	C1 Phenanthrenes/Anthracenes	Dibenz(a,h)anthracene	Dibenzothiophene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Perylene	Phenanthrene	Pyrene	Quinoline	Retene	C2 Benzofluoranthenes/Benzopyrenes	C2 Biphenyls	C2 Dibenzothiophenes	
MDL	0.01	0.01	0.01	0.01	0.01	0.04	0.04	0.04	0.04	0.04	0.01	0.04	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.05	0.01	0.01	0.01	0.01	0.01	0.04	0.04	0.04	
Location	Date																												
ATR-FF-6	22-Sep-14	<0.01	<0.01	<0.01	<0.01	<0.01	<0.04	<0.04	<0.04	<0.04	<0.01	<0.04	<0.04	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	0.018	<0.01	<0.01	<0.01	0.013	<0.04	<0.04	<0.04	
ATR-FF-7	22-Sep-14	<0.01	<0.01	<0.01	<0.01	<0.01	<0.04	<0.04	<0.04	<0.04	<0.01	<0.04	<0.04	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.04	<0.04	<0.04	
PLC-DS	11-Sep-14	<0.01	<0.01	<0.01	<0.01	<0.01	<0.04	<0.04	<0.04	<0.04	<0.01	<0.04	<0.04	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	0.021	<0.04	<0.04	<0.04		
PLC-US	11-Sep-14	<0.01	<0.01	<0.01	<0.01	<0.01	<0.04	<0.04	<0.04	<0.04	<0.01	<0.04	<0.04	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.04	<0.04	<0.04	

		C2 Fluoranthenes/Pyrenes	C2 Naphthalenes	C2 Phenanthrenes/Anthracenes	C2 Fluorenes	C2 subd B(a)Anthracenes/Chrysenes	C3 Benzantracenes/Chrysenes	C3 Dibenzothiophenes	C3 Fluoranthenes/Pyrenes	C3 Fluorenes	C3 Naphthalenes	C3 Phenanthrenes/Anthracenes
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
MDL		0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Location	Date	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
ATR-FF-6	22-Sep-14	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
ATR-FF-7	22-Sep-14	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
PLC-DS	11-Sep-14	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
PLC-US	11-Sep-14	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04