

OBED MOUNTAIN MINE
SOIL/SEDIMENT TABLE
TABLE 2 - MAIN POND AREA

Monitoring Zone
Location
Date
Depth (m)
Lab Report
Easting (NAD83 Zone 11N)
Northing (NAD83 Zone 11N)

Main Pond			
ENV654	ENV655	ENV656	ENV657
10-Jan-14	10-Jan-14	10-Jan-14	10-Jan-14
-0.32			
L1411681	L1411681	L1411681	L1411681
469891	470086	470262	470411
5938710	5938741	5938786	5938673

Parameter	Unit	MDL	AB Tier 1, Natural Area (Fine Soil)	CSQG FW Sediment ISQG	CSQG FW Sediment PEL					
Hydrocarbons										
F2 (C10-C16 Hydrocarbons)	mg/kg	20				<20	35	21	<20	
Total Hydrocarbons (C6-C50)	mg/kg	20				137	379	222	169	
Chrom. to baseline at nC50	-					1	0	0	1	
Gravimetric Heavy Hydrocarbons	mg/kg	500				<500	<500	<500	<500	
TEH: (C16-C34)	mg/kg	20				100	254	146	119	
TEH: (C34-C50)	mg/kg	20				37	90	55	50	
TVH	mg/kg	10				<10	<20	<10	<20	
TVH: (C6-C10 / BTEX CORRECTED)	mg/kg	10				<10	<20	<10	<20	
Leachable Metals										
Barium, extractable	mg/kg	5				72.9	71.8	104	66.9	
Boron (B), Hot Water Ext.	mg/kg	0.1				0.92	0.68	0.78	1.01	
Metals										
Aluminium	mg/kg	50				7470	12,000	10,100	7470	
Antimony	mg/kg	0.1	20			0.34	0.26	0.26	0.27	
Arsenic	mg/kg	0.1	17	5.9	17	5.71	6.7	7.03	6.8	
Barium	mg/kg	0.5	750			696	957	977	777	
Barium, fusion	mg/kg	100				-	1230	1360	1250	
Beryllium	mg/kg	0.2	5			1	0.6	0.63	0.63	
Bismuth	mg/kg	0.2				<0.2	0.22	0.2	<0.2	
Cadmium	mg/kg	0.1	3.8	0.6	3.5	0.26	0.24	0.24	0.2	
Calcium	mg/kg	100				16,500	14,200	14,000	13,900	
Chromium (III+VI)	mg/kg	0.5	64	37.3	90	18.6	8.12	6.51	6.32	
Cobalt	mg/kg	0.1	20			4.1	3.23	2.62	3.28	
Copper	mg/kg	0.5	63	35.7	197	11.4	11.3	9.86	9.95	
Iron	mg/kg	50				8520	7850	6480	6670	
Lead	mg/kg	0.5	70	35	91.3	11	15.2	14.5	11.6	
Lithium	mg/kg	0.5				5.44	6.76	5.72	4.99	
Magnesium	mg/kg	20				3270	4750	4150	3380	
Manganese	mg/kg	1				213	143	112	144	
Mercury	mg/kg	0.005	12	0.17	0.486	0.0685	0.0759	0.0806	0.0668	
Molybdenum	mg/kg	0.1	4			2.2	0.91	1.02	1.16	
Nickel	mg/kg	0.5	50			14.6	8.78	6.88	9.07	
Phosphorus	mg/kg	50				177	222	214	216	
Potassium	mg/kg	50				806	988	886	651	
Selenium	mg/kg	0.2	1			0.56	0.5	0.55	0.52	
Silver	mg/kg	0.2	20			<0.2	<0.2	<0.2	<0.2	
Sodium	mg/kg	100				820	1790	1400	1020	
Strontium	mg/kg	1				213	278	271	215	
Thallium	mg/kg	0.05	1			0.181	0.132	0.151	0.172	
Tin	mg/kg	2	5			<2	<2	<2	<2	
Titanium	mg/kg	1				210	99.6	136	182	
Uranium	mg/kg	0.05	33			2.68	3.16	3.03	2.33	
Vanadium	mg/kg	0.2	130			14.9	11.7	11	12.9	
Zinc	mg/kg	5	200	123	315	64.2	57.7	55	46.2	
Organic / Inorganic Carbon										
CaCO3 Equivalent	%	0.8				2.95	1.11	1.96	2.22	
Inorganic Carbon	mg/kg	0.1				0.35	0.13	0.23	0.27	
TOC	% dry weight	0.1				11.7 ^{#1}	10.4 ^{#1}	20.4 ^{#1}	22.8 ^{#1}	
Total Carbon by Combustion	%	0.1				12	10.5	20.6	23.1	
Particle Size										
Soil Particle Size (>75 um)	% by weight	1				44.5	6.7	12.2	35.4	
Physical Tests										
Moisture	%	0.1				28.2	61.1	33.3	45.1	

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Parameter	Unit	MDL	AB Tier 1, Natural Area (Fine Soil)	CSQG FW Sediment ISQG	CSQG FW Sediment PEL				
Polycyclic Aromatic Hydrocarbons									
Benzo(b)fluoranthene	mg/ka	0.005	6.2			<0.005	<0.005	<0.005	<0.005
C4 Benzantracenes/Chrysenes	mg/ka	0.04				<0.04	<0.04	<0.04	<0.04
C4 Dibenzothiophenes	mg/ka	0.04				0.114	0.086	0.072	0.088
C4 Fluoranthenes/Pyrenes	mg/ka	0.04				<0.04	0.022	<0.04	0.031
C4 Naphthalenes	mg/ka	0.04				3.17	1.39	1.44	2.18
C4 Phenanthrenes/Anthracenes	mg/ka	4				<40	12.8	13.3	22
Biphenyl	mg/ka	0.01				<0.01	<0.01	<0.01	<0.01
1-Methylnaphthalene	mg/ka	0.01				0.44	0.147	0.177	0.34
2-methylnaphthalene	mg/ka	0.005		0.0202	0.201	0.311	0.105	0.124	0.215
Acenaphthene	mg/ka	0.005	0.32	0.00671	0.0899	0.041	0.0326	0.0293	0.0387
Acenaphthylene	mg/ka	0.005	5	0.00587	0.128	<0.005	<0.005	<0.005	<0.005
Anthracene	mg/ka	0.004	0.0046	0.00469	0.245	<0.004	0.0375	0.0354	0.0467
Benz(a)anthracene	mg/ka	0.005	0.07	0.0317	0.385	<0.005	<0.005	<0.005	<0.005
Benzo(a)pyrene	mg/ka	0.005	0.6	0.0319	0.782	<0.005	<0.005	<0.005	<0.005
Acridine	mg/ka	0.005				<0.005	<0.005	<0.005	0.0123
Benzo(e)pyrene	mg/ka	0.01				<0.01	<0.01	<0.01	<0.01
Benzo(a,h,i)perylene	mg/ka	0.005				<0.005	0.0132	<0.005	<0.005
Benzo(k)fluoranthene	mg/ka	0.005	6.2			0.0583	<0.005	<0.005	<0.005
C1 Acenaphthenes	mg/ka	0.04				<0.04	<0.04	<0.04	<0.04
C1 Benz(a)Anthracenes/Chrysenes	mg/ka	0.04				<0.04	0.04	<0.04	0.043
C1 Benzofluoranthenes/Benzopyrenes	mg/ka	0.04				0.051	<0.04	<0.04	0.052
C1 Biphenyls	mg/ka	0.04				0.047	<0.04	<0.04	<0.04
C1 Dibenzothiophenes	mg/ka	0.04				0.127	0.065	0.065	0.091
Chrysene	mg/ka	0.005	6.2	0.0571	0.862	<0.005	<0.005	<0.005	<0.005
C1 Fluoranthenes/Pyrenes	mg/ka	0.04				0.187	0.121	0.11	0.123
C1 Fluorenes	mg/ka	0.04				0.18	0.099	0.093	0.13
C1 Phenanthrenes/Anthracenes	mg/ka	0.04				0.3	0.171	0.179	0.22
Dibenz(a,h)anthracene	mg/ka	0.005	7.4	0.00622	0.135	<0.005	<0.005	<0.005	<0.005
Dibenzothiophene	mg/ka	0.01				<0.01	<0.01	<0.01	<0.01
Fluoranthene	mg/ka	0.005	0.032	0.111	2.355	<0.005	0.0862	0.0844	0.106
Fluorene	mg/ka	0.005	0.29	0.0212	0.144	<0.005	0.0749	0.0742	0.107
Indeno(1,2,3-c,d)pyrene	mg/ka	0.005				<0.005	0.0156	<0.005	<0.005
Naphthalene	mg/ka	0.005	0.016	0.0346	0.391	0.125	0.0536	0.0635	0.109
Perylene	mg/ka	0.01				0.183	0.116	0.095	0.13
Phenanthrene	mg/ka	0.005	0.051	0.0419	0.515	0.24	0.11	0.11	0.158
Pyrene	mg/ka	0.005	0.034	0.053	0.875	0.0823	0.0941	0.0874	0.107
Quinoline	mg/ka	0.005				<0.005	<0.005	<0.005	<0.005
Retene	mg/ka	1				32	12.8	13.3	22
C2 Benzo(a)fluoranthenes/Benzopyrenes	mg/ka	0.04				0.041	<0.04	<0.04	<0.04
C2 Biphenyls	mg/ka	0.04				0.065	0.047	0.04	0.06
C2 Dibenzothiophenes	mg/ka	0.04				0.114	0.09	0.089	0.108
C2 Fluoranthenes/Pyrenes	mg/ka	0.04				0.212	0.108	0.108	0.124
C2 Naphthalenes	mg/ka	0.04				2.21	0.757	0.891	1.52
C2 Phenanthrenes/Anthracenes	mg/ka	0.04				0.669	0.308	0.423	0.549
C2 Fluorenes	mg/ka	0.04				0.23	0.114	0.074	0.107
C2 subd B(a)Anthracenes/Chrysenes	mg/ka	0.04				0.06	<0.04	<0.04	<0.04
C3 Benzantracenes/Chrysenes	mg/ka	0.04				<0.04	<0.04	<0.04	<0.04
C3 Dibenzothiophenes	mg/ka	0.04				0.132	0.069	0.07	0.071
C3 Fluoranthenes/Pyrenes	mg/ka	0.04				0.075	0.056	0.045	<0.04
C3 Fluorenes	mg/ka	0.04				0.194	0.101	0.094	0.127
C3 Naphthalenes	mg/ka	0.04				3.22	1.11	1.25	2.11
C3 Phenanthrenes/Anthracenes	mg/ka	0.04				0.382	0.173	0.171	0.219

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Parameter	Unit	MDL	AB Tier 1, Natural Area (Fine Soil)	CSQG FW Sediment ISQG	CSQG FW Sediment PEL				
Saturated Paste Extractables									
Sulfur (as SO4)	mg/kg	21				235 ^{#1}	208 ^{#1}	207 ^{#1}	227 ^{#1}
Calcium	mg/kg	3.5				56.8 ^{#1}	27.1 ^{#1}	51.5 ^{#1}	58.9 ^{#1}
Chloride	mg/kg	14				22 ^{#1}	<27 ^{#1}	84 ^{#1}	<15 ^{#1}
Saturation Percentage	%	1				70.3	133	105	75.6
Electrical Conductivity (lab)	dS/m	0.01				1.44	0.712	1.2	1.51
Magnesium	mg/kg	2.1				12.5 ^{#1}	6 ^{#1}	10.2 ^{#1}	11.7 ^{#1}
pH (Lab)	pH	0.1	6-8.5			7.78	8.69	8.37	7.98
Potassium	mg/kg	1.4				4 ^{#1}	3.1 ^{#1}	7.5 ^{#1}	7 ^{#1}
Sodium	mg/kg	1.4				168 ^{#1}	183 ^{#1}	216 ^{#1}	198 ^{#1}
Sodium Adsorption Ratio	---	0.1				6.28 ^{#1}	7.18 ^{#1}	7.03 ^{#1}	7.09 ^{#1}
Speciated Metals									
Chromium (hexavalent)	mg/kg	0.1	0.4			<0.1	<0.15	<0.1	<0.1
Volatile Organic Compounds									
Benzene	mg/kg	0.005	0.046			<0.005	<0.01	0.0062	<0.01
Toluene	mg/kg	0.05	0.52			<0.05	<0.1	<0.05	<0.1
Ethylbenzene	mg/kg	0.01	0.11			<0.015	<0.03	<0.015	<0.03
Xylene (m & p)	mg/kg	0.05				<0.05	<0.1	<0.05	<0.1
Xylene (o)	mg/kg	0.05				<0.05	<0.1	<0.05	<0.1
Xylenes Total	mg/kg	0.1	15			<0.1 ^{#1}	<0.2 ^{#1}	<0.1 ^{#1}	<0.2 ^{#1}
Styrene	mg/kg	0.05	0.68			<0.05	<0.1	<0.05	<0.1

Comments
#1 CALC