

TABLE 1
SOIL SAMPLE ANALYTICAL AND FIELD RESULTS
BADGER WASH FEDERAL 1-32
MESA COUNTY, COLORADO
GADECCO, LLC

Analyte	COGCC Table 915-1 Cleanup Concentrations		Sample ID / Results (mg/kg)																			
	Residential Soil Screening Level Concentrations (mg/kg)	Protection of Groundwater Soil Screening Level Concentrations (mg/kg)	5/1/2023	5/1/2023	5/1/2023	5/1/2023	5/1/2023	5/1/2023	5/1/2023	5/1/2023	5/1/2023	5/2/2023	5/2/2023	5/2/2023	5/2/2023	5/2/2023	5/2/2023	5/2/2023	5/2/2023	5/2/2023	5/2/2023	5/2/2023
			SS01	SS02	SS03	SS04	SS05	SS06	SS07	SS08	SS09	SS10	SS11	SS12	SS13	SS14	SS15	SS16	SS17	SS18	SS19	SS20
PID (ppm)	NA		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	118.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Depth (feet bgs)	NA		1	1	1	1	1	1	1	1	1	5	1	1	1	5	5	5	5	5	1	1
Total Petroleum Hydrocarbons by USEPA Method 8015D																						
TPH - GRO	NA		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	64	<0.50	<0.50	NA	NA	<0.50
TPH - DRO	NA		<50	<50	<50	<50	<50	<50	<50	<50	<50	270	<50	65	88	53	4,000	<50	<50	NA	NA	<50
TPH - ORO	NA		<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	290	<50	<50	NA	NA	<50
TPH - Total	500*		<100.50	<100.50	<100.50	<100.50	<100.50	<100.50	<100.50	<100.50	<100.50	270	<100.50	65	88	53	4,354	<100.50	<100.50	NA	NA	<100.50
Soil Suitability for Reclamation																						
EC (mmhos/cm)	4		2.48	2.47	3.19	3.93	3.39	3.60	3.47	3.84	3.49	4.96	0.423	0.423	0.401	4.99	3.75	5.13	1.33	6.64	0.225	2.96
SAR	6		0.202	0.0766	0.210	1.45	0.687	0.753	0.761	1.15	0.980	1.98	0.648	0.530	0.157	2.04	1.24	2.63	0.911	NA	NA	0.0603
pH	6-8.3		7.83	7.63	7.63	7.73	7.77	7.70	7.78	7.79	7.76	7.75	8.10	8.05	8.04	7.86	7.92	7.99	8.01	NA	NA	7.44
boron	2		0.193	0.136	0.180	0.151	0.159	0.403	0.284	0.316	0.264	0.742	0.0601	0.138	0.0968	0.960	0.523	0.935	0.197	NA	NA	0.341
Organic Compounds in Soils																						
benzene	1.2	0.0026	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0032	<0.0020	<0.0020	<0.0020	0.18	<0.0020	<0.0020	NA	NA	<0.0020
toluene	490	0.69	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	2.2	<0.0050	<0.0050	NA	NA	<0.0050
ethylbenzene	5.8	0.78	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.40	<0.0050	<0.0050	NA	NA	<0.0050
total xylenes	58	9.9	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	3.6	<0.010	<0.010	NA	NA	<0.010
1,2,4-trimethylbenzene	30	0.0081	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0075	<0.0050	0.91	<0.0050	<0.0050	NA	NA	<0.0050
1,3,5-trimethylbenzene	27	0.0087	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.42	<0.0050	<0.0050	NA	NA	<0.0050
naphthalene	2	0.0038	<0.0038	<0.0038	<0.0038	<0.0038	<0.0038	<0.0038	<0.0038	<0.0038	<0.0038	<0.0038	<0.0038	<0.0038	0.0039	<0.0038	0.51	<0.0038	<0.0038	NA	NA	<0.0038
acenaphthene	360	0.55	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0188	<0.0050	NA	NA	<0.0050
anthracene	1800	5.8	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	<0.0050
benz(a)anthracene	1.1	0.011	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0170	0.0213	<0.0050	<0.0050	<0.0050	0.0116	<0.0050	<0.0050	NA	NA	<0.0050
benzo(a)pyrene	0.11	0.24	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	<0.0050
benzo(b)fluoranthene	1.1	0.3	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	<0.0050
benzo(k)fluoranthene	11	2.9	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	<0.0050
chrysene	110	9	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0252	0.00926	<0.0050	<0.0050	<0.0050	<0.0050	0.0177	<0.0050	NA	NA	<0.0050
dibenz(a,h)anthracene	0.11	0.096	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	<0.0050
fluoranthene	240	8.9	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	<0.0050
fluorene	240	0.54	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0907	<0.0050	NA	NA	<0.0050
indeno(1,2,3-cd)pyrene	1.1	0.98	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	<0.0050
pyrene	180	1.3	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	<0.0050
1-methylnaphthalene	18	0.006	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.00618	0.00544	0.0111	<0.0050	0.0147	<0.0050	1.07	<0.0050	NA	NA	<0.0050
2-methylnaphthalene	24	0.019	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.00532	0.00693	0.0186	0.0126	0.0244	<0.0050	1.47	0.00539	NA	NA	<0.0050
Metals in Soils																						
arsenic	0.68	0.29	3.46	3.48	3.34	3.25	3.39	2.62	2.99	3.49	3.09	2.45	2.06	3.73	3.79	2.85	3.03	3.29	3.75	7.39	4.75	3.18
barium	15000	82	155	149	162	145	117	82.7	96.6	111	84.8	46.6	86.4	143	117	59.0	147	95.6	162	80.9	140	118
cadmium	71	0.38	<0.223	<0.224	<0.227	0.217	<0.214	<0.221	<0.220	0.220	<0.221	<0.231	<0.214	0.280	<0.224	<0.235	0.241	<0.222	<0.220	NA	NA	0.253
chromium (VI)	0.3	0.00067	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	NA	NA	<0.30
copper	3100	46	5.03	4.91	4.75	5.60	6.01	4.48	4.98	5.76	5.00	4.40	5.39	6.90	6.41	6.50	5.00	5.28	5.74	NA	NA	6.30
lead	400	14	6.18	5.54	5.58	7.53	7.43	5.11	6.50	8.35	5.51	6.20	4.89	9.07	5.79	8.22	5.90	5.99	5.99	NA	NA	6.99
nickel	1500	26	6.73	6.44	6.35	6.62	6.78	5.28	6.37	7.55	6.12	5.61	4.73	7.89	6.92	6.61	6.47	7.42	7.00	NA	NA	7.72
selenium	390	0.26	0.324	0.226	0.332	0.343	0.323	0.328	0.392	0.503	0.342	0.487	0.262	0.338	0.215	0.548	0.697	0.821	0.243	1.39	<0.260	0.304
silver	390	0.8	0.0387	0.0331	0.0418	0.0381	0.0377	0.0265	0.0326	0.0422	0.0318	<0.0231	0.0244	0.0484	0.0263	0.0401	0.0293	0.0370	NA	NA	0.0412	
zinc	23000	370	21.5	20.7	20.4	22.6	23.4	18.9	22.6	25.5	21.3	19.8	17.2	27.6	21.3	23.1	21.8	25.0	22.3	NA	NA	26.0

Notes:

COGCC - Colorado Oil and Gas Conservation Commission

mg/kg - milligrams per kilogram

PID - Photoionization Detector

bgs - below ground surface

ppm - parts per million

TPH - total petroleum hydrocarbons

GRO - gasoline range organics