

**Table 1**  
**Soil Sampling Results**  
**COGCC Form 27 Sampling and Mapping**  
**Red Mesa 12 Well Plugging Project**  
**Colorado Oil and Gas Conservation Commission**

Parameter	Haun-Delaney (OWP) #1 Tank Battery SS01 7/20/2021	Haun-Delaney (OWP) #1 Tank Battery SS02 7/20/2021	Background (Haun-Delaney (OWP) #1 SS04) 7/20/2021	COGCC Table 915-1 Standard	Units
Sample Location	West AST	East AST	Background	NA	NA
Latitude/Longitude	37.111141/-108.116723	37.111138/-108.116682	37.109761/-108.117091	NA	NA
Depth	0-0.5	0-0.5	0-0.67	NA	feet bgs
PID	53.2	0.8	0.2	NA	ppm
Conductivity	0.505	1.390	1.760	<4	mmhos/cm
pH	7.36	7.34	7.06	6-8.3	pH units
SAR	0.52	0.65	0.41	<6	no units
Calcium	68.1	188	109	NA	mg/L
Magnesium	10.8	25.9	24.1	NA	mg/L
Sodium	17.5	36.0	18.0	NA	mg/L
Arsenic	<b>8.39</b>	<b>6.14</b>	<b>4.82</b>	0.68	mg/kg
Barium	205	186	186	15,000	mg/kg
Cadmium	<5.00	<5.00	<5.00	71	mg/kg
Total Chromium	13.9	13.5	12.0	NA	mg/kg
Copper	37.0	36.7	22.4	3,100	mg/kg
Lead	11.4	11.4	11.6	400	mg/kg
Nickel	11.5	10.4	10.0	1,500	mg/kg
Selenium	<20.0	<20.0	<20.0	390	mg/kg
Silver	<1.00	<1.00	<1.00	390	mg/kg
Zinc	42.7	49.6	44.7	23,000	mg/kg
Boron	<1.20	1.31	1.59	2	mg/L
TPH (GRO)	13.1	<10.0	<10.0	NA	mg/kg
TPH (DRO)	1,070	<10.0	<10.0	NA	mg/kg
TPH (EXT DRO)	261	<10.0	<10.0	NA	mg/kg
Total TPH	<b>1,344.1</b>	<30.0	<30.0	500	mg/kg
Benzene	<0.0250	<0.0250	<0.0250	1.2	mg/kg
Toluene	<0.0250	<0.0250	<0.0250	490	mg/kg
Ethylbenzene	<0.0250	<0.0250	<0.0250	5.8	mg/kg
Total Xylenes	<0.0750	<0.0750	<0.0750	58	mg/kg
1,3,5-trimethylbenzene	0.258	<0.0250	<0.0250	27	mg/kg
1,2,4-trimethylbenzene	0.594	<0.0250	<0.0250	30	mg/kg
Naphthalene	0.506	<0.0250	<0.0250	2	mg/kg
2-methylnaphthalene	2.77	<0.023	<0.023	24	mg/kg
1-methylnaphthalene	2.23	<0.016	<0.016	18	mg/kg
Acenaphthene	<0.235	<0.024	<0.024	360	mg/kg
Fluorene	0.507	<0.014	<0.014	240	mg/kg
Anthracene	<0.172	<0.017	<0.017	1,800	mg/kg
Fluoranthene	<0.185	<0.019	<0.019	240	mg/kg
Pyrene	<0.132	<0.013	<0.013	180	mg/kg
Benzo(a)anthracene	<0.230	<0.023	<0.023	1.1	mg/kg
Chrysene	<0.172	<0.017	<0.017	110	mg/kg
Benzo(b)fluoranthene	<0.192	<0.019	<0.019	1.1	mg/kg
Benzo(k)fluoranthene	<0.157	<0.016	<0.016	11	mg/kg
Benzo(a)pyrene	<0.182*	<0.018	<0.018	0.11	mg/kg
Indeno(1,2,3-cd)pyrene	<0.168	<0.017	<0.017	1.1	mg/kg
Dibenz(a,h)anthracene	<0.186*	<0.019	<0.019	0.11	mg/kg

**Notes:**

PID - Photoionization Detector  
SAR - Sodium Adsorption Ratio  
BTEX - Benzene, Toluene,  
Ethylbenzene, & Total Xylenes  
TPH - Total Petroleum Hydrocarbons  
GRO - Gasoline Range Organics  
DRO - Diesel Range Organics  
EXT - Extended  
NA - Not Applicable  
ppm - parts per million

bgs - below ground surface  
mmhos/cm - millihos per centimeter  
mg/L - milligrams per liter  
mg/kg - milligrams per kilogram  
COGCC - Colorado Oil & Gas Conservation  
Commission

\* - Laboratory detection limit exceeds COGCC Standard

\*\* - Value detected below the reporting limit; result is an estimate.

**Bold** values exceed COGCC Standard

Values reported below the laboratory detection limit are  
considered zero in Total TPH calculations.