

TABLE 1
STRONG P 28-2
SOIL SAMPLE FIELD DATA SUMMARY TABLE
KERR-McGEE OIL AND GAS ONSHORE LP

Sample Location	Date	Approximate Depth (feet bgs)	PID (ppm-v)	Visual Observation	Olfactory Observation	Latitude, Longitude	Submitted for Lab Analysis (Y/N)
Wellhead Soil Samples							
Initial Waste Characterization @ 4'	09/07/22	4	339.0	HC Staining	HC Odor	40.2003708531402, -104.891294329247	Y
WH-B01 @ 6'	09/08/22	6	1181	HC Staining	HC Odor	40.2003913963862, -104.891290280184	Y
WH-N01 @ 5'	09/08/22	5	7.1	N.S	N.O	40.200405119967, -104.8912807397	N
WH-S01 @ 5'	09/08/22	5	8.9	N.S	N.O	40.2003831737449, -104.891287490887	N
WH-E01 @ 5'	09/08/22	5	2.2	N.S	N.O	40.2003929580574, -104.891268390636	N
WH-W01 @ 5'	09/08/22	5	31.5	N.S	N.O	40.2003926136634, -104.891297283119	N
WHS-N01 @ 3"	09/08/22	0.25	3.4	N.S	N.O	40.2004589419087, -104.891280131731	N
WHS-S01 @ 3"	09/08/22	0.25	2.8	N.S	N.O	40.2003618738675, -104.891269496134	N
WHS-E01 @ 3"	09/08/22	0.25	2.7	N.S	N.O	40.2004007822653, -104.891232222224	N
WHS-W01 @ 3"	09/08/22	0.25	260.1	N.S	HC Odor	40.2004021025937, -104.891336196926	Y
WH-B02 @ 11'	11/01/22	11	2.8	N.S	N.O	40.2003846012175, -104.891275942489	Y
WH-N02 @ 6'	11/01/22	6	0.3	N.S	N.O	40.2004046609669, -104.891306678548	Y
WH-N03 @ 6'	11/01/22	6	0.2	N.S	N.O	40.2003955609693, -104.891322878545	Y
WH-S02 @ 6'	11/01/22	6	0.4	N.S	N.O	40.2003613399631, -104.891325710631	Y
WH-S03 @ 6'	11/01/22	6	0.3	N.S	N.O	40.2003600598138, -104.89128486158	Y
WH-E02 @ 6'	11/01/22	6	0.2	N.S	Slight HC odor	40.2003916609646, -104.891248878563	Y
WH-W02 @ 6'	11/01/22	6	0.2	N.S	N.O	40.2003797278266, -104.891345752029	Y
WH-W02 @ 1'	11/01/22	1	0.1	N.S	Slight HC odor	40.2003797278266, -104.891345752029	Y
Flowline Soil Samples							
FL-B01 @ 2'	09/07/22	2	0.9	N/O	N/S	40.2003876487077, -104.89126115507	Y
FL-B02 @ 3'	09/07/22	3	0.9	N/O	N/S	40.2008477186183, -104.891559468178	Y
FL-B03 @ 4'	09/07/22	4	2.3	N/O	N/S	40.2006182235819, -104.891372362788	N
FL-B04 @ 3'	09/09/22	3	0.1	N/O	N/S	40.2005133576084, -104.891373926433	N
DL-B01 @ 5'	09/15/22	5	31.6	HC Staining	HC Odor	40.2006801867664, -104.891421424863	Y
Wellhead Background Soil Samples							
WH-BG01 @ 3'	09/07/22	3	1.8	N/S	N/O	40.200450267686, -104.891220202246	Y
WH-BG01 @ 6'	09/07/22	6	2.3	N/S	N/O	40.200450267686, -104.891220202246	Y
WH-BG02 @ 3'	09/07/22	3	0.5	N/S	N/O	40.200365650143, -104.891416303172	Y
WH-BG02 @ 6'	09/07/22	6	0.6	N/S	N/O	40.200365650143, -104.891416303172	Y
WH-BG03 @ 10'	11/01/22	10	0.8	N/S	N/O	40.2004825501, -104.891316999424	Y
WH-BG04 @ 10'	11/01/22	10	0.5	N/S	N/O	40.2004071386033, -104.891431920183	Y

bgs = below ground surface

PID = photoionization detector

ppm-v = parts per million by volume

N/S = No Staining

N/O = No Odor

HC = hydrocarbon

Values presented in **BOLD** contained concentrations exceeding COGCC Table 915-1 Cleanup Concentrations

TABLE 2
STRONG P 28-2
SOIL SAMPLE RESULTS SUMMARY TABLE - VOCs
KERR-McGEE OIL AND GAS ONSHORE LP

Sample Location	Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Naphthalene (mg/kg)	1,2,4-TMB (mg/kg)	1,3,5-TMB (mg/kg)
<i>COGCC standards for soil (mg/kg) ⁽¹⁾</i>		0.0026	0.69	0.78	9.9	500			0.0038	0.0081	0.0087
<i>COGCC standards for soil (mg/kg) ⁽²⁾</i>		1.2	490	5.8	58	500			2	30	27
Wellhead Soil Samples											
Initial Waste Characterization @ 4'	09/07/22	<0.00200	<0.00200	<0.00200	<0.00200	<0.200	1040	498	0.187	<0.00200	<0.00200
WH-B01 @ 6'	09/08/22	<0.00200	<0.00200	<0.00200	0.102	173	455	218	0.0228	6.47	0.109
WHS-W01 @ 3"	09/08/22	<0.00200	<0.00200	<0.00200	<0.00200	1.55	253	187	0.017	0.0238	<0.00200
WH-B02 @ 11'	11/01/22	NA	NA	NA	NA	0.231	<25.0	<100	<0.00145	0.00328	<0.00200
WH-N02 @ 6'	11/01/22	NA	NA	NA	NA	<0.200	<25.0	<100	<0.00145	<0.00200	<0.00200
WH-N03 @ 6'	11/01/22	NA	NA	NA	NA	<0.200	<25.0	<100	<0.00145	<0.00200	<0.00200
WH-S02 @ 6'	11/01/22	NA	NA	NA	NA	<0.200	<25.0	<100	<0.0073	<0.00200	<0.00200
WH-S03 @ 6'	11/01/22	NA	NA	NA	NA	<0.200	<25.0	<100	<0.00145	<0.00200	<0.00200
WH-E02 @ 6'	11/01/22	NA	NA	NA	NA	<0.200	<25.0	<100	<0.0073	<0.00200	<0.00200
WH-W02 @ 6'	11/01/22	NA	NA	NA	NA	<0.200	<25.0	<100	<0.0073	<0.00200	<0.00200
WH-W02 @ 1'	11/01/22	NA	NA	NA	NA	<0.200	<25.0	<100	<0.00145	<0.00200	<0.00200
Flowline Soil Samples											
FL-B01 @ 2'	09/07/22	<0.00200	<0.00200	<0.00200	<0.00200	<0.200	<25.0	<100	<0.00380	<0.00200	<0.00200
FL-B02 @ 3'	09/07/22	<0.00200	<0.00200	<0.00200	<0.00200	<0.200	<25.0	<100	<0.00380	<0.00200	<0.00200
DL-B01 @ 5'	09/15/22	<0.00200	<0.00200	<0.00200	<0.00200	0.373	<25.0	<100	<0.00380	<0.00200	<0.00200

Notes:

⁽¹⁾ COGCC Table 915-1: Protection of Groundwater Soil Screening Level Concentrations, effective January 15, 2021

⁽²⁾ COGCC Table 915-1: Residential Soil Screening Level Concentrations, effective January 15, 2021

COGCC = Colorado Oil and Gas Conservation Commission

< = Analytical result is less than the laboratory reporting limit

mg/kg = milligrams per kilogram

Values presented in **BOLD** contained concentrations exceeding COGCC Table 915-1 Cleanup Concentrations

TPH-GRO = Total petroleum hydrocarbons - gasoline range organics

TPH-DRO = Total petroleum hydrocarbons - diesel range organics

TPH-ORO = Total petroleum hydrocarbons - oil range organics

TMB = Trimethylbenzene

TABLE 3
STRONG P 28-2
SOIL SAMPLE RESULTS SUMMARY TABLE - SOIL SUITABILITY FOR RECLAMATION
KERR-McGEE OIL AND GAS ONSHORE LP

Sample Location	Date	Depth (ft. bgs)	pH	SAR	EC (mmhos/cm)	Boron (mg/L)
COGCC standards for soil (mg/kg) ⁽¹⁾			6 - 8.3	<6	<4	2
Wellhead Soil Samples						
Initial Waste Characterization @ 4'	09/07/22	4	8.34	2.11	1.68	3.67
WH-B01 @ 6'	09/08/22	6	8.23	2.17	0.799	0.336
WHS-W01 @ 3"	09/08/22	0.25	8.10	1.19	1.03	0.637
WH-B02 @ 11'	11/01/22	11	7.84	NA	NA	0.861
WH-N02 @ 6'	11/01/22	6	8.11	NA	NA	0.326
WH-N03 @ 6'	11/01/22	6	8.07	NA	NA	1.69
WH-S02 @ 6'	11/01/22	6	8.19	NA	NA	0.706
WH-S03 @ 6'	11/01/22	6	8.19	NA	NA	0.977
WH-E02 @ 6'	11/01/22	6	8.25	NA	NA	0.275
WH-W02 @ 6'	11/01/22	6	8.06	NA	NA	1.02
WH-W02 @ 1'	11/01/22	1	8.00	NA	NA	0.601
Wellhead Background Soil Samples						
WH-BG01 @ 3'	09/07/22	3	8.23	2.72	2.45	1.10
WH-BG01 @ 6'	09/07/22	6	8.33	1.62	0.931	0.264
WH-BG02 @ 3'	09/07/22	3	8.18	1.750	3.20	1.62
WH-BG02 @ 6'	09/07/22	6	8.29	1.99	1.73	0.332
WH-BG03 @ 10'	11/01/22	10	8.33	NA	NA	<0.0990
WH-BG04 @ 10'	11/01/22	10	8.30	NA	NA	<0.0989

Notes:

⁽¹⁾Standards for soil are taken from COGCC Table 915-1, effective January 15, 2021

COGCC = Colorado Oil and Gas Conservation Commission

(<) = Analytical result is less than the indicated laboratory reporting limit

ft. bgs = Feet below ground surface

mmhos/cm = Millimhos per centimeter

mg/L = Milligrams per liter

SAR = Sodium Absorption Ratio

EC = Electrical Conductivity

Values presented in **BOLD** contained concentrations exceeding COGCC Table 915-1 Cleanup Concentrations

TABLE 4
STRONG P 28-2
SOIL SAMPLE RESULTS SUMMARY TABLE - PAHs
KERR-McGEE OIL AND GAS ONSHORE LP

Sample Location	Date	1-Methyl-naphthalene (mg/kg)	2-Methyl-naphthalene (mg/kg)	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo(a)-anthracene (mg/kg)	Benzo(a)-pyrene (mg/kg)	Benzo(b)-fluoranthene (mg/kg)	Benzo(k)-fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo(a,h)-anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Ideno(1,2,3-cd)-pyrene (mg/kg)	Pyrene (mg/kg)
COGCC standards for soil (mg/kg) ⁽¹⁾		0.006	0.019	0.55	5.8	0.011	0.24	0.3	2.9	9	0.096	8.9	0.54	0.98	1.3
COGCC standards for soil (mg/kg) ⁽²⁾		18	24	360	1,800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	180
Wellhead Soil Samples															
Initial Waste Characterization @ 4'	9/7/2022	0.702	1	0.0499	<0.00335	0.00572	0.00325	<0.00335	<0.00335	0.0283	<0.00335	<0.00335	0.153	<0.00335	0.018
WH-B01 @ 6'	09/08/22	1.21	1.69	0.11	0.00433	0.00738	0.00481	<0.00335	<0.00335	0.0469	<0.00335	0.00276	0.224	<0.00335	0.0228
WHS-W01 @ 3"	09/08/22	0.141	0.128	0.0174	0.00222	<0.00335	0.00438	<0.00335	<0.00335	0.0149	<0.00335	<0.00335	0.0559	<0.00335	0.0092
WH-B02 @ 11'	11/01/22	0.00114	<0.00194	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WH-N02 @ 6'	11/01/22	<0.00109	<0.00194	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WH-N03 @ 6'	11/01/22	<0.00109	<0.00194	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WH-S02 @ 6'	11/01/22	<0.00109	<0.00194	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WH-S03 @ 6'	11/01/22	<0.00109	<0.00194	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WH-E02 @ 6'	11/01/22	<0.00109	<0.00194	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WH-W02 @ 6'	11/01/22	<0.00109	<0.00194	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WH-W02 @ 1'	11/01/22	<0.00109	<0.00194	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

⁽¹⁾ Standards are taken from COGCC Table 915-1: Protection of Groundwater Soil Screening Level Concentrations, effective January 15, 2021

⁽²⁾ Standards for soil are taken from COGCC Table 915-1: Residential Soil Screening Level Concentrations, effective January 15, 2021

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mg/kg = milligrams per kilogram

PAH = Polycyclic Aromatic Hydrocarbons

Values presented in **BOLD** contained concentrations exceeding COGCC Table 915-1 Cleanup Concentrations

TABLE 5
STRONG P 28-2
SOIL SAMPLE RESULTS SUMMARY TABLE - METALS
KERR-McGEE OIL AND GAS ONSHORE LP

Sample Location	Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)
<i>COGCC standards for soil (mg/kg) ⁽¹⁾</i>		0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
<i>COGCC standards for soil (mg/kg) ⁽²⁾</i>		0.68	15,000	71	0.3	3,100	400	1,500	390	390	23,000
Wellhead Soil Samples											
Initial Waste Characterization @ 4'	09/07/22	6.83	474	0.504	<5	9.83	<8.74	35.1	0.462	<0.0874	<87.4
WH-B01 @ 6'	09/08/22	3.23*	96*	1.630	<2.5	9.4	10.8	<8.59	1.920	<0.0859	<85.9
WHS-W01 @ 3"	09/08/22	2.90*	101*	0.227	<1.03	16.9	20.0	7.9	0.385	<0.0781	<78.1
WH-B02 @ 11'	11/01/22	1.86*	92.6	<0.0906	NA	NA	<9.06	<9.06	0.465	NA	NA
WH-N02 @ 6'	11/01/22	1.35*	72.4	<0.0972	NA	NA	<9.72	<9.72	0.174	NA	NA
WH-N03 @ 6'	11/01/22	1.99*	407	0.216	NA	NA	<9.60	10.6	0.280*	NA	NA
WH-S02 @ 6'	11/01/22	1.95*	114*	0.144	NA	NA	9.29	<9.25	0.221	NA	NA
WH-S03 @ 6'	11/01/22	2.43*	398	0.325	NA	NA	<8.64	<8.64	0.291*	NA	NA
WH-E02 @ 6'	11/01/22	1.64*	64.8	<0.0865	NA	NA	<8.65	<8.65	0.205	NA	NA
WH-W02 @ 6'	11/01/22	4.49	319	0.148	NA	NA	<9.00	10.4	0.444*	NA	NA
WH-W02 @ 1'	11/01/22	1.69*	67.8	<0.0907	NA	NA	<9.07	<9.07	0.230	NA	NA
Background Soil Samples											
WH-BG01 @ 3'	08/16/22	3.48	135	0.165	<1.04	10.6	<9.61	<9.61	0.382	<0.0961	<96.1
WH-BG01 @ 6'	08/16/22	2.62	68.6	<0.0856	<2.5	<8.56	<8.56	<8.56	0.233	<0.0856	<85.6
WH-BG02 @ 3'	08/16/22	2.02	211	0.166	<0.508	<9.65	<9.65	<9.65	0.597	<0.0965	<96.5
WH-BG02 @ 6'	08/16/22	2.02	50.0	<0.0874	<2.5	<8.74	<8.74	<8.74	0.147	<0.0874	<87.4
WH-BG03 @ 10'	11/01/22	1.24	23.4	<0.0850	NA	NA	<8.50	<8.50	0.104	NA	NA
WH-BG04 @ 10'	11/01/22	1.86	20.9	0.133	NA	NA	<9.22	<9.22	0.149	NA	NA

Notes:

⁽¹⁾ Standards are taken from COGCC Table 915-1: Protection of Groundwater Soil Screening Level Concentrations, effective January 15, 2021

⁽²⁾ Standards for soil are taken from COGCC Table 915-1: Residential Soil Screening Level Concentrations, effective January 15, 2021

COGCC = Colorado Oil and Gas Conservation Commission

(<) = Analytical result is less than the indicated laboratory reporting limit

Values presented in **BOLD** contained concentrations exceeding COGCC Table 915-1 Cleanup Concentrations.

Values presented in **BOLD*** contained concentrations exceeding COGCC Table 915-1 Cleanup Concentrations, but are within background concentrations.

* = compound is in accordance with the COGCC Table 915-1 Footnote 9.

NA = Not Analyzed



TABLE 6
STRONG P 28-2
GROUNDWATER RESULTS SUMMARY TABLE - VOCs
KERR-McGEE OIL AND GAS ONSHORE LP

Sample Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Naphthalene (µg/L)	1,2,4- Trimethylbenzene (µg/L)	1,3,5- Trimethylbenzene (µg/L)
COGCC Standards for Groundwater (µg/L)⁽¹⁾		5	560	700	1400	140	67	67
GW-01	11/1/22	<1.00	2.17	<1.00	5.17	<2.00	<2.00	<2.00

⁽¹⁾ Standards are taken from COGCC Table 915-1:Protection of Groundwater Soil Screening Level Concentrations, effective January 15, 2021

COGCC = Colorado Oil and Gas Conservation Commission

µg/L = micrograms per liter

< = Analytical result is less than the laboratory reporting limit

TABLE 7
STRONG P 28-2
SOIL VAPOR DATA SUMMARY TABLE
KERR-McGEE OIL AND GAS ONSHORE LP

Soil Vapor Point ID	Date	Time	Methane (%)	Carbon Dioxide (%)	Carbon Monoxide (PPM)	Oxygen (%)	Hydrogen Sulfide (PPM)	Sample Collected (Y or N)
SVP-01 @ 8'	09/09/22	1104	Unable to get reading - groundwater present					
SVP-02 @ 8'	09/09/22	1108	Unable to get reading - groundwater present					
SVP-03 @ 5'	09/09/22	1113	0.0	3.8	0	16.1	0	N
SVP-04 @ 5'	09/09/22	1116	0.0	4.0	0	16.4	0	N
SVP-05 @ 5'	09/09/22	1119	0.0	5.2	0	15.1	0	N

% = percentage

ppm = parts per million