

TABLE 1
LUDWIG H 06-31 FLOWLINE
SOIL SAMPLE FIELD DATA SUMMARY TABLE
KERR-McGEE OIL AND GAS ONSHORE LP

Soil Sample Location	Date	Depth (ft. bgs)	PID Reading (ppm)	Visual Observation	Olfactory Observation	Latitude	Longitude	GPS PDOP Value	Submitted for Lab Analysis? (Y/N)
FL-B01@4'	1/6/2025	4	0.1	No Staining	No Odor	40.26094817	-104.7149408	1.0	Yes
FL-B02@4'	1/6/2025	4	0.0	No Staining	No Odor	40.26134196	-104.7155469	1.4	Yes
BACKGROUND SOIL SAMPLING - LUDWIG 17-1									
WH-BG-01@10'	6/2/2022	10	0.0	No Staining	No Odor	40.25830325	-104.7199362	1.0	Yes
WH-BG-01@12'	6/2/2022	12	0.0	No Staining	No Odor	40.25830325	-104.7199362	1.0	Yes
WH-BG-02@10'	6/2/2022	10	0.0	No Staining	No Odor	40.25814469	-104.7199316	1.1	Yes
WH-BG-02@12'	6/2/2022	12	0.0	No Staining	No Odor	40.25814469	-104.7199316	1.1	Yes
FL-BG01@4'	2/2/2024	4	0.3	No Staining	No Odor	40.25660669	-104.7200357	0.8	Yes
FL-BG02@4'	2/2/2024	4	0.5	No Staining	No Odor	40.25649824	-104.7200554	0.9	Yes
FL-BG03@4'	2/2/2024	4	0.5	No Staining	No Odor	40.25634365	-104.7199791	0.9	Yes
FL-BG04@4'	2/27/2024	4	0.8	No Staining	No Odor	40.25728868	-104.7200965	1.2	Yes
FL-BG05@4'	2/27/2024	4	0.8	No Staining	No Odor	40.25631991	-104.7197148	0.9	Yes
FL-BG06@4'	2/27/2024	4	0.7	No Staining	No Odor	40.2562322	-104.7201766	0.9	Yes
WH-BG07@14'	2/27/2024	14	0.7	No Staining	No Odor	40.25832709	-104.7200004	NA	Yes
WH-BG07@16'	2/27/2024	16	0.7	No Staining	No Odor	40.25832709	-104.7200004	NA	Yes
WH-BG08@14'	2/27/2024	14	0.5	No Staining	No Odor	40.25825271	-104.7201336	NA	Yes
WH-BG08@16'	2/27/2024	16	0.2	No Staining	No Odor	40.25825271	-104.7201336	NA	Yes

Notes:

ft. bgs = Feet below ground surface
 PID = Photoionization detector
 ppm = Parts per million
 GPS = Global positioning system
 PDOP = Position dilution of precision
 NA = Not applicable; GPS data not available

TABLE 2
LUDWIG H 06-36 FLOWLINE
SOIL SAMPLE RESULTS SUMMARY TABLE - VOCs
KERR-McGEE OIL AND GAS ONSHORE LP

Soil Sample Location	Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Naphthalene (mg/kg)	TVPH-GRO (mg/kg)	TEPH-DRO (mg/kg)	TEPH-ORO (mg/kg)	1,2,4-TMB (mg/kg)	1,3,5-TMB (mg/kg)
ECMC standards for soil (mg/kg) ⁽¹⁾		0.0026	0.69	0.78	9.9	0.0038	500			0.0081	0.0087
ECMC standards for soil (mg/kg) ⁽²⁾		1.2	490	5.8	58	2	500			30	27
FL-B01@4'	01/06/2025	<0.00200	<0.00200	<0.00200	<0.00200	<0.00145	<0.200	<25.0	<100	<0.00200	<0.00200
FL-B02@4'	01/06/2025	<0.00200	<0.00200	<0.00200	<0.00200	<0.00145	<0.200	<25.0	<100	<0.00200	<0.00200

Notes:
(1) Standards for soil are taken from ECMC Table 915-1: Protection of Groundwater Soil Screening Level Concentrations, effective January 15, 2021
(2) Standards for soil are taken from ECMC Table 915-1: Residential Soil Screening Level Concentrations, effective January 15, 2021
ECMC = Colorado Energy and Carbon Management Commission
(<) = Analytical result is less than the indicated laboratory reporting limit
mg/kg = Milligram per kilogram
TVPH - GRO = Total volatile petroleum hydrocarbons - gasoline range organics
TEPH - DRO = Total extractable petroleum hydrocarbons - diesel range organics
TEPH - ORO = Total extractable petroleum hydrocarbons - oil range organics
1,2,4 - TMB = 1,2,4 - Trimethylbenzene
1,3,5 - TMB = 1,3,5 - Trimethylbenzene

TABLE 3
LUDWIG H 06-36 FLOWLINE
SOIL SAMPLE RESULTS SUMMARY TABLE - PAHs
KERR-McGEE OIL AND GAS ONSHORE LP

Soil Sample Location	Date	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo(a)A (mg/kg)	Benzo(b)F (mg/kg)	Benzo(k)F (mg/kg)	Benzo(a)P (mg/kg)	Chrysene (mg/kg)	D (a,h) A (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	1,2,3-CD (mg/kg)	1-M (mg/kg)	2-M (mg/kg)	Naphthalene (mg/kg)	Pyrene (mg/kg)
ECMC standards for soil (mg/kg) ⁽¹⁾		0.55	5.8	0.011	0.3	2.9	0.24	9	0.096	8.9	0.54	0.98	0.006	0.019	0.0038	1.3
ECMC standards for soil (mg/kg) ⁽²⁾		360	1,800	1.1	1.1	11	0.11	110	0.11	240	240	1.1	18	24	2	180
FL-B01@4'	01/06/2025	<0.000304	<0.000334	<0.000493	<0.000585	<0.000437	<0.000468	<0.000624	<0.000614	<0.000394	<0.000286	<0.000627	<0.00109	<0.00194	<0.00145	<0.000643
FL-B02@4'	01/06/2025	<0.000304	<0.000334	<0.000493	<0.000585	<0.000437	<0.000468	<0.000624	<0.000614	<0.000394	<0.000286	<0.000627	<0.00109	<0.00194	<0.00145	<0.000643

Notes:

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

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

ECMC = Colorado Energy and Carbon Management Commission

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

mg/kg = Milligrams per kilogram

Benzo(a)A = Benzo(a)anthracene

Benzo(b)F = Benzo(b)fluoranthene

Benzo(k)F = Benzo(k)fluoranthene

Benzo(a)P = Benzo(a)pyrene

D (a,h) A = Dibenz(a,h)anthracene

1,2,3-CD = Indeno(1,2,3-cd)pyrene

1-M = 1-Methylnaphthalene

2-M = 2-Methylnaphthalene

TABLE 4
LUDWIG H 06-31 FLOWLINE
SOIL SAMPLE RESULTS SUMMARY TABLE - METALS
KERR-McGEE OIL AND GAS ONSHORE LP

Soil Sample Location	Date	Depth (ft. bgs)	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)
ECMC standards for soil (mg/kg) ⁽¹⁾			0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
ECMC standards for soil (mg/kg) ⁽²⁾			0.68	15,000	71	0.3	3,100	400	1,500	390	390	23,000
Site-Specific Background Limits (x 1.25)			5.06	170	NA	NA	NA	5.5	4.17	NA	NA	22
FL-B01@4'	1/6/2025	4	1.15*	46.7	<0.0997	<0.5	<9.97	3.09	3.43	<0.259	<0.0997	<36.9
FL-B02@4'	1/6/2025	4	1.86*	63.5	<0.0905	<0.5	<9.05	4.97	5.96	<0.235	<0.0905	<33.5
BACKGROUND SOIL SAMPLING - LUDWIG 17-1												
WH-BG-01@10'	6/2/2022	10	0.724	NA	NA	NA	NA	NA	NA	NA	NA	NA
WH-BG-01@12'	6/2/2022	12	1.54	NA	NA	NA	NA	NA	NA	NA	NA	NA
WH-BG-02@10'	6/2/2022	10	1.55	NA	NA	NA	NA	NA	NA	NA	NA	NA
WH-BG-02@12'	6/2/2022	12	1.61	NA	NA	NA	NA	NA	NA	NA	NA	NA
FL-BG01@4'	2/2/2024	4	1.59	34.8	<0.0868	<0.5	<8.68	3.55	2.55	<0.0868	<0.0868	14.2
FL-BG02@4'	2/2/2024	4	1.85	72.1	<0.0919	<0.5	<9.19	4.40	3.34	<0.0919	<0.0919	17.6
FL-BG03@4'	2/2/2024	4	1.66	39.4	<0.0982	<0.5	<9.82	3.65	2.78	<0.0982	<0.0982	16.1
FL-BG04@4'	2/27/2024	4	1.98	44.3	NA	NA	NA	NA	NA	NA	NA	NA
FL-BG05@4'	2/27/2024	4	1.50	39.7	NA	NA	NA	NA	NA	NA	NA	NA
FL-BG06@4'	2/27/2024	4	2.14	48.1	NA	NA	NA	NA	NA	NA	NA	NA
WH-BG07@14'	2/27/2024	14	3.02	93.1	NA	NA	NA	NA	NA	NA	NA	NA
WH-BG07@16'	2/27/2024	16	2.58	73.4	NA	NA	NA	NA	NA	NA	NA	NA
WH-BG08@14'	2/27/2024	14	3.76	136	NA	NA	NA	NA	NA	NA	NA	NA
WH-BG08@16'	2/27/2024	16	4.08	103	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

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

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

ECMC = Colorado Energy and Carbon Management Commission

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

mg/kg = Milligrams per kilogram

BOLD = Analytical result is in exceedance of ECMC Table 915-1 soil standards

TABLE 4
LUDWIG H 06-31 FLOWLINE
SOIL SAMPLE RESULTS SUMMARY TABLE - METALS
KERR-McGEE OIL AND GAS ONSHORE LP

Soil Sample Location	Date	Depth (ft. bgs)	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)
ECMC standards for soil (mg/kg) ⁽¹⁾			0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
ECMC standards for soil (mg/kg) ⁽²⁾			0.68	15,000	71	0.3	3,100	400	1,500	390	390	23,000
Site-Specific Background Limits (x 1.25)			5.06	170	NA	NA	NA	5.5	4.17	NA	NA	22

* Result exceeded the ECMC Table 915-1 standard, but was within site-specific background concentrations x 1.25

Italics = Laboratory minimum detection limit exceeds the ECMC Table 915-1 standard

NA = Constituent not analyzed; No background standard

TABLE 5
LUDWIG H 06-31 FLOWLINE
SOIL SAMPLE RESULTS SUMMARY TABLE - SOIL SUITABILITY FOR RECLAMATION
KERR-McGEE OIL AND GAS ONSHORE LP

Soil Sample Location	Date	Depth (ft. bgs)	pH	SAR	EC (mmhos/cm)	Boron (mg/L)
ECMC standards for soil (mg/kg) ⁽¹⁾			6 - 8.3	< 6	< 4	2
Site-Specific Background Limits			7.94 - 8.44	4.90	0.876	0.142
FL-B01@4'	1/6/2025	4	8.01	0.121	0.0801	<0.0984
FL-B02@4'	1/6/2025	4	7.43	0.128	0.108	<0.100
BACKGROUND SOIL SAMPLING - LUDWIG 17-1						
WH-BG-01@10'	6/2/2022	10	8.38	NA	NA	NA
WH-BG-01@12'	6/2/2022	12	8.01	NA	NA	NA
WH-BG-02@10'	6/2/2022	10	8.25	NA	NA	NA
WH-BG-02@12'	6/2/2022	12	8.44	NA	NA	NA
FL-BG01@4'	2/2/2024	4	8.08	1.69	0.299	<0.0992
FL-BG02@4'	2/2/2024	4	8.14	4.90	0.876	0.142
FL-BG03@4'	2/2/2024	4	7.94	2.87	0.366	<0.100
FL-BG04@4'	2/27/2024	4	NA	4.25	NA	NA
FL-BG05@4'	2/27/2024	4	NA	2.78	NA	NA
FL-BG06@4'	2/27/2024	4	NA	2.40	NA	NA
WH-BG07@14'	2/27/2024	14	NA	2.87	NA	NA
WH-BG07@16'	2/27/2024	16	NA	2.25	NA	NA
WH-BG08@14'	2/27/2024	14	NA	2.12	NA	NA
WH-BG08@16'	2/27/2024	16	NA	1.90	NA	NA

Notes:

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

ECMC = Colorado Energy and Carbon Management Commission

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

ft. bgs = Feet below ground surface

mmhos/cm = Millmhos per centimeter

mg/L = Milligrams per liter

SAR = Sodium Adsorption Ratio

EC = Electrical Conductivity