



CDH Consulting, LLC  
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## **Closure Investigation and Environmental Summary**

WCL 5-8 Wellhead and Flowline  
ECMC Remediation Project #42577  
Weld County, Colorado

### **Attachments:**

**Field Form**

**Figure 1 – Site Location Map**

**Figure 2 – Soil Sample and Field Screening Locations Map**

**Figure 3 – Supplemental Source Mass Removal Map**

**Table 1 – Field Data Summary Table**

**Table 2 – Summary of Volatile Organic Soil Chemistry Data**

**Table 3 – Summary of Polycyclic Aromatic Hydrocarbon Soil Chemistry Data**

**Table 4 – Summary of Soil Suitability for Reclamation**

**Table 5 – Summary of Metals in Soil Chemistry Data**

**Photographic Log**



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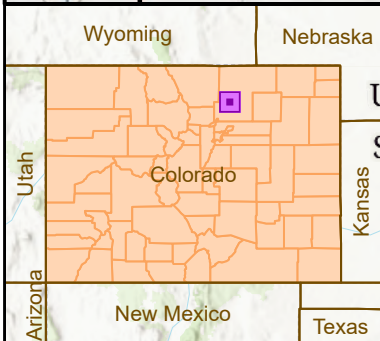
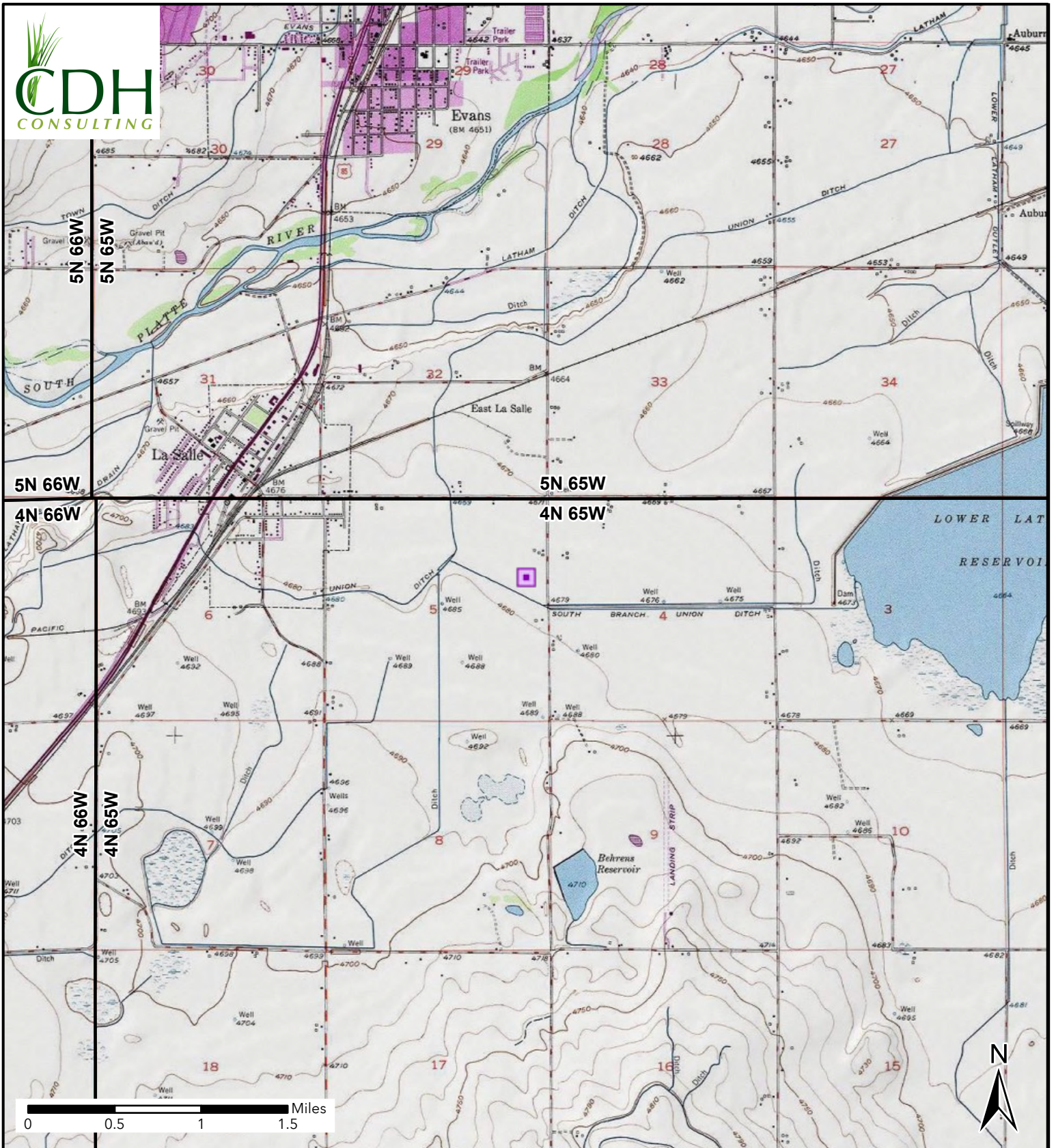
## **FIELD FORM**





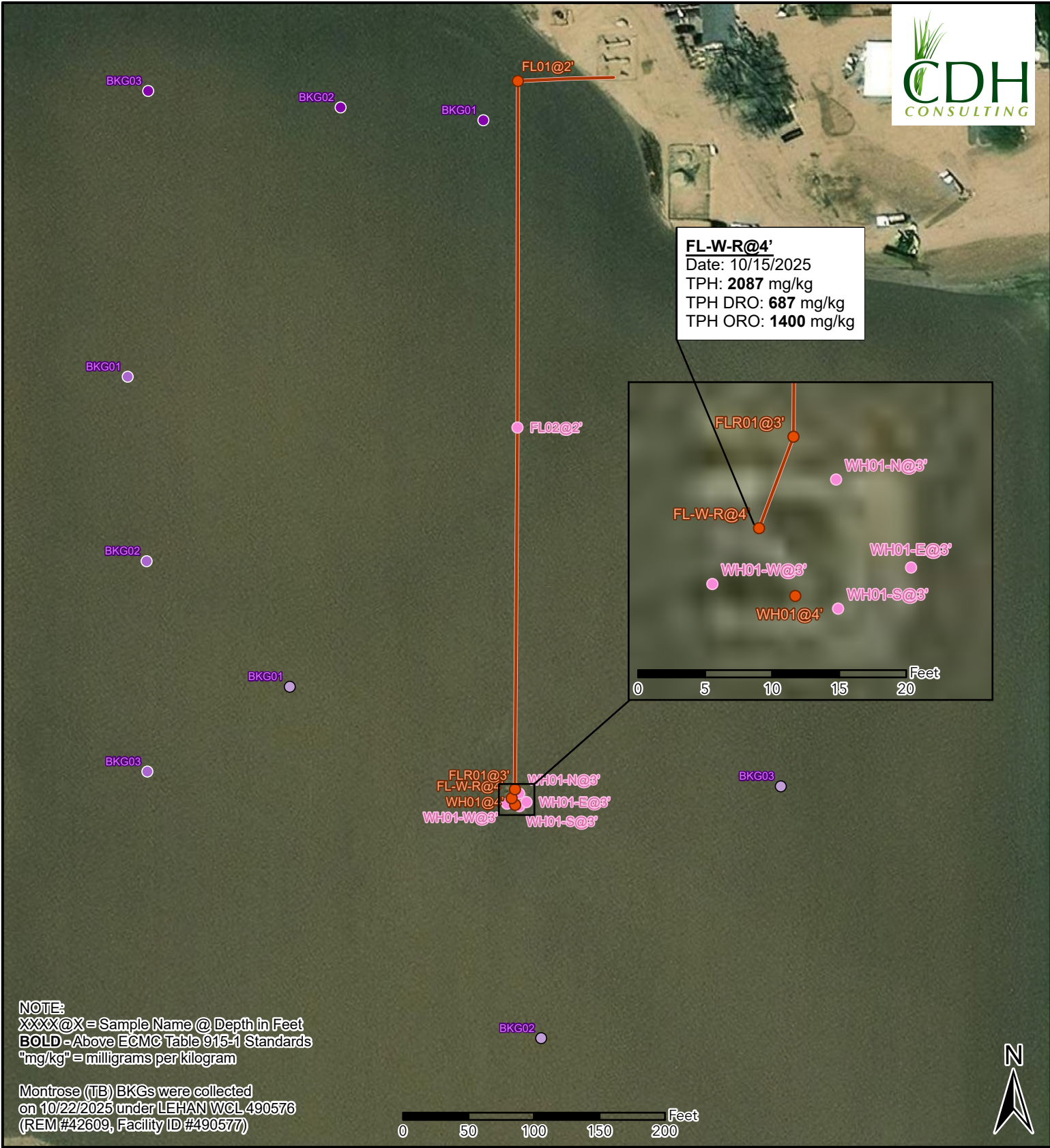
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## FIGURES



**Figure 1**  
**Site Location Map**  
WCL 5-8  
SENE SEC 5-T4N-R65W  
Weld County, Colorado  
Noble Energy Inc

 Site Location



**NOTE:**  
 XXXX@X = Sample Name @ Depth in Feet  
**BOLD** - Above EC/MC Table 915-1 Standards  
 "mg/kg" = milligrams per kilogram

Montrose (TB) BKGs were collected on 10/22/2025 under LEHAN WCL 490576 (REM #42609, Facility ID #490577)

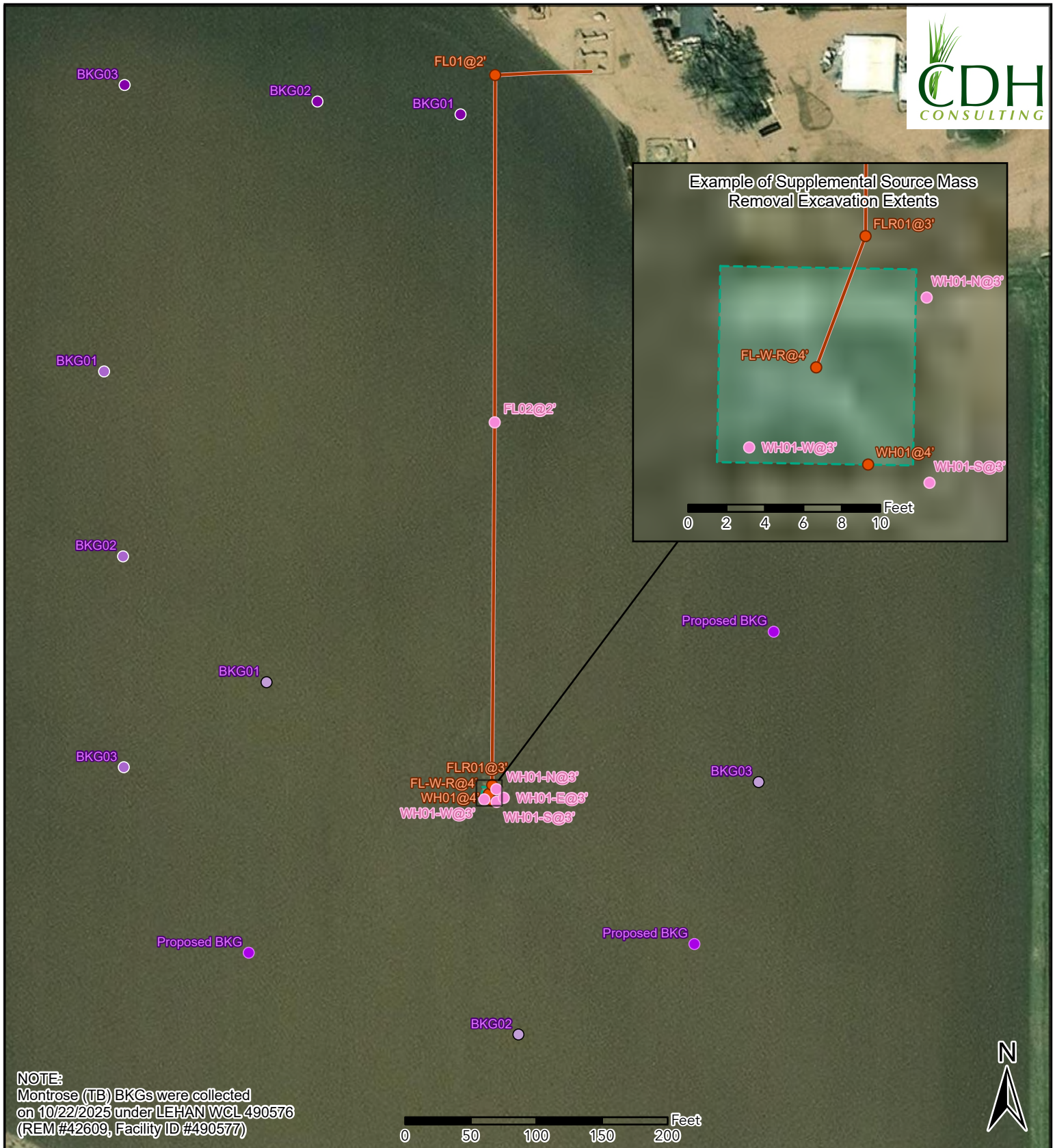
0 50 100 150 200 Feet



## Figure 2 Soil Sample and Field Screening Locations Map WCL 5-8

SENE SEC 5-T4N-R65W  
 Weld County, Colorado  
 Noble Energy Inc.

- Soil Sample
- Screening Point
- Background Sample Collected by Montrose (TB) on 10/22/2025
- Background Sample Collected by CDH on 10/20/2025
- Background Sample Collected by Montrose (FL) on 10/22/2025
- Flowline Removed



**NOTE:**  
 Montrose (TB) BKGs were collected on 10/22/2025 under LEHAN WCL 490576 (REM #42609, Facility ID #490577)



**Figure 3**  
**Supplemental Source Mass Removal Map**  
**WCL 5-8**  
 SENE SEC 5-T4N-R65W  
 Weld County, Colorado  
 Noble Energy Inc.

- Soil Sample
- Screening Point
- Background Sample Collected by Montrose (FL) on 10/22/2025
- Proposed BKG
- Background Sample Collected by CDH on 10/20/2025
- Background Sample Collected by Montrose (TB) on 10/22/2025
- Flowline Removed
- Proposed Excavation to 6 ft-bgs



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## **TABLES**

TABLE 1  
FIELD DATA SUMMARY TABLE  
NOBLE 100322  
WCL 5-8, WELD COUNTY, COLORADO  
REM # 42577

Sample ID	Sample Date	Depth (ft)	GPS Data		PDOP Value	VOC Concentration (ppm)	Consultant Who Collected Samples
			Latitude	Longitude			
WH01@4'	10/15/2025	4	40.343432	-104.679499	0.807398	0.0	CDH
WH01-N@3'	10/15/2025	3	40.343448	-104.679492	0.817124	0.0	CDH
WH01-S@3'	10/15/2025	3	40.343422	-104.679491	0.854897	0.0	CDH
WH01-E@3'	10/15/2025	3	40.343430	-104.679472	0.857465	0.0	CDH
WH01-W@3'	10/15/2025	3	40.343427	-104.679525	0.854114	0.0	CDH
FL-W-R@4'	10/15/2025	4	40.343438	-104.679512	0.907791	5.8	CDH
FL01@2'	10/21/2025	2	40.344942	-104.679488	1.000000	1.2	Montrose
FL02@2'	10/21/2025	2	40.344222	-104.679503	NM	1.0	Montrose
FLR01@3'	10/21/2025	3	40.343457	-104.679503	1.000000	1.3	Montrose
BKG01@3.5'	10/20/2025	3.5	40.343674	-104.680119	1.000000	0.3	CDH
BKG02@3.5'	10/20/2025	3.5	40.342935	-104.679434	1.000000	0.4	CDH
BKG03@3.5'	10/20/2025	3.5	40.343461	-104.678775	1.000000	0.2	CDH
BKG01@0.5 <sup>+</sup>	10/22/2025	0.5	40.344860	-104.679583	1.000000	1.3	Montrose
BKG01@2 <sup>+</sup>	10/22/2025	2	40.344860	-104.679583	1.000000	0.0	Montrose
BKG02@0.5 <sup>+</sup>	10/22/2025	0.5	40.344888	-104.679974	1.000000	0.1	Montrose
BKG02@2 <sup>+</sup>	10/22/2025	2	40.344888	-104.679974	1.000000	0.2	Montrose
BKG03@0.5 <sup>+</sup>	10/22/2025	0.5	40.344924	-104.680501	1.000000	0.1	Montrose
BKG03@2 <sup>+</sup>	10/22/2025	2	40.344924	-104.680501	1.000000	0.0	Montrose
BKG01@2'	10/22/2025	2	40.344325	-104.680560	1.000000	2.4	Montrose
BKG01@3'	10/22/2025	3	40.344325	-104.680560	1.000000	2.7	Montrose
BKG02@2'	10/22/2025	2	40.343938	-104.680510	1.000000	4.0	Montrose
BKG02@3'	10/22/2025	3	40.343938	-104.680510	1.000000	3.9	Montrose
BKG03@2'	10/22/2025	2	40.343497	-104.680512	1.000000	4.9	Montrose
BKG03@3'	10/22/2025	3	40.343497	-104.680512	1.000000	1.5	Montrose

1. Global Positioning System (GPS) data is provided in decimal degrees using North American Datum (NAD) 83 UTMZone 13 North.

2. Volatile organic compound (VOC) concentrations are measured in the field using a photoionization detector (PID).

+ Background samples collected under LEHAN WCL 490576 (REM #42609, Facility ID #490577)

PDOP = Position Dilution of Precision

ppm = Parts per million

ft = Feet

TABLE 2  
SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA  
NOBLE 100322  
WCL 5-8, WELD COUNTY, COLORADO  
REM # 42577

Sample ID	Sample Date	Depth (ft)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Xylenes (mg/kg)	1,2,4-Trimethyl-Benzene (mg/kg)	1,3,5-Trimethyl-Benzene (mg/kg)	Naphthalene (mg/kg)	TPH (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)
ECMC Table 915-1 Limits (Residential SSL)			1.2	490	5.8	58	30	27	2	500	500**		
ECMC Table 915-1 Limits (Protection of Groundwater SSL)			0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	500	500**		
WH01@4'	10/15/2025	4	<0.0011	<0.0022	<0.0022	<0.0022	<0.0022	<0.0022	<0.0022	28.1	<0.22	9.12	19.0
FL-W-R@4'	10/15/2025	4	<0.0011	<0.0021	<0.0021	<0.0021	<0.0021	<0.0021	<0.0022	<b>2087</b>	<0.21	<b>687</b>	<b>1400</b>
FL01@2'	10/21/2025	2	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<500	<0.229	<28.2	<113
FLR01@3'	10/21/2025	3	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<500	<0.223	<27.4	<109

1. Bold values exceed the ECMC Table 915-1 limit(s)
  2. Red & blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL)
  3. \* Indicates laboratory minimum detection limit in excess of SSL
  4. \*\* Summation of GRO+DRO+ORO must be less than 500 mg/kg
  5. Samples are reported as dry weight unless otherwise indicated in the laboratory PDF report(s).
- (<) = Analytical result is less than the indicated laboratory reporting limit.  
TPH-GRO = Total petroleum hydrocarbons - gasoline range organics  
TPH-DRO = Total petroleum hydrocarbons - diesel range organics  
TPH-ORO = Total petroleum hydrocarbons - oil range organics  
mg/kg = Milligrams per kilogram  
ft = Feet

TABLE 3  
SUMMARY OF POLYCYCLIC AROMATIC HYDROCARBON SOIL CHEMISTRY DATA  
NOBLE 100322  
WCL 5-8, WELD COUNTY, COLORADO  
REM # 42577

Sample ID	Sample Date	Depth (ft)	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)	Indeno (1,2,3-cd) Pyrene (mg/kg)	Pyrene (mg/kg)	1-Methyl - Naphthalene (mg/kg)	2-Methyl - Naphthalene (mg/kg)
ECMC Table 915-1 Limits (Residential SSL)			360	1800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	180	18	24
ECMC Table 915-1 Limits (Protection of Groundwater SSL)			0.55	5.8	0.011	0.24	0.3	2.9	9	0.096	8.9	0.54	0.98	1.3	0.006	0.019
WH01@4'	10/15/2025	4	<0.0044	<0.0044	<0.0054	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044
FL-W-R@4'	10/15/2025	4	<0.0043	<0.0043	<0.0054	<0.0043	<0.0043	<0.0043	<0.0043	<0.0043	<0.0043	<0.0043	<0.0043	0.0047	<0.0043	<0.0043
FL01@2'	10/21/2025	2	<0.022	<0.022	<0.006	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.002	<0.002
FLR01@3'	10/21/2025	3	<0.022	<0.022	<0.005	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.002	<0.002

1. Bold values exceed the ECMC Table 915-1 limit(s)
  2. Red & blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL)
  3. \* Indicates laboratory minimum detection limit in excess of SSL
  4. Samples are reported as dry weight unless otherwise indicated in the laboratory PDF report(s).
- (<) = Analytical result is less than the indicated laboratory reporting limit.  
mg/kg = Milligrams per kilogram  
ft = Feet

TABLE 4  
SUMMARY OF SOIL SUITABILITY FOR RECLAMATION  
NOBLE 100322  
WCL 5-8, WELD COUNTY, COLORADO  
REM # 42577

Sample ID	Sample Date	Depth (ft)	pH (Standard Units)	EC (mmhos/cm)	SAR (Standard Units)	Boron (mg/L)
ECMC Table 915-1 Soil Suitability Limits			6 - 8.3	<4	<6	2
WH01@4'	10/15/2025	4	8.01	0.43	2.27	<0.50
FL-W-R@4'	10/15/2025	4	7.68	0.55	2.75	<0.50
FL01@2'	10/21/2025	2	7.72	0.617	2.72	0.246
FLR01@3'	10/21/2025	3	8.05	0.480	1.82	0.182
BKG01@3.5'	10/20/2025	3.5	7.51	0.68	2.79	<0.50
BKG02@3.5'	10/20/2025	3.5	7.60	3.1	2.62	<0.50
BKG03@3.5'	10/20/2025	3.5	7.80	0.94	3.21	<0.50
BKG01@0.5 <sup>+</sup>	10/22/2025	0.5	6.69	1.280	2.13	<1.16
BKG01@2 <sup>+</sup>	10/22/2025	2	6.84	0.218	2.72	<0.110
BKG02@0.5 <sup>+</sup>	10/22/2025	0.5	6.62	0.510	2.01	0.333
BKG02@2 <sup>+</sup>	10/22/2025	2	7.43	0.227	2.54	<0.110
BKG03@0.5 <sup>+</sup>	10/22/2025	0.5	7.51	0.569	2.18	0.276
BKG03@2 <sup>+</sup>	10/22/2025	2	7.97	0.257	3.18	0.129
BKG01@2'	10/22/2025	2	7.94	0.258	3.09	0.153
BKG01@3'	10/22/2025	3	7.90	0.260	2.62	0.115
BKG02@2'	10/22/2025	2	7.80	0.282	2.67	0.112
BKG02@3'	10/22/2025	3	7.76	0.284	2.59	<0.112
BKG03@2'	10/22/2025	2	7.85	0.247	2.79	0.116
BKG03@3'	10/22/2025	3	7.75	0.282	2.38	0.112
Maximum Background Concentration			7.97	3.1	3.21	0.333

1. **Bold** faced values exceed the ECMC Table 915-1 limit(s), but are within background concentrations.

2. **Bold** faced values exceed the ECMC Table 915-1 limit(s) and native background concentrations.

3. **Brown highlighted** soil analytical values indicate a regulatory exceedance.

4. Samples are reported as dry weight unless otherwise indicated in the laboratory PDF report(s).

ft = Feet

EC = Electrical Conductivity

SAR = Sodium adsorption ratio

mmhos/cm = millimhos per centimeter

mg/L = milligrams per liter

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

+ Samples collected under LEHAN WCL 490576 (REM #42609, Facility ID #490577)

TABLE 5  
SUMMARY OF METALS IN SOIL CHEMISTRY DATA  
NOBLE 100322  
WCL 5-8, WELD COUNTY, COLORADO  
REM # 42577

Sample ID	Sample Date	Depth (ft)	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 Table 915-1 Limits (Residential SSL)			0.68	15000	71	0.3	3100	400	1500	390	390	23000
ECMC Table 915-1 Limits (Protection of Groundwater SSL)			0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
WH01@4'	10/15/2025	4	<b>2.0</b>	56.2	0.097	<0.45*	6.6	9.2	5.1	<0.17	<0.086	26.7
FL-W-R@4'	10/15/2025	4	<b>3.1</b>	72.6	<b>0.51</b>	<0.46*	28.0	<b>34.2</b>	7.9	<b>0.28</b>	0.19	72.9
FL01@2'	10/21/2025	2	<b>2.69</b>	64.6	0.329	<0.225*	<33.5	<b>15.1</b>	<18.9	0.197	<0.582	<269
FLR01@3'	10/21/2025	3	<b>2.12</b>	<60.8	<0.282	<0.216*	<34.1	<b>18.7</b>	<19.3	<0.182	<0.593	<274
BKG01@3.5'	10/20/2025	3.5	<b>2.0</b>	48.2	0.065	<0.45*	3.7	5.1	4.5	<0.13	<0.063	16.6
BKG02@3.5'	10/20/2025	3.5	<b>1.8</b>	49.8	<0.092	<0.45*	4.4	4.6	4.3	<0.18	<0.092	16.5
BKG03@3.5'	10/20/2025	3.5	<b>2.2</b>	50.7	0.096	<0.45*	5.2	5.1	5.1	<0.15	<0.076	20.1
BKG01@0.5"	10/22/2025	0.5	<b>3.26</b>	<b>96.1</b>	<b>0.726</b>	<0.225*	34.9	<b>30.7</b>	<19.5	<b>0.444</b>	<0.600	<277
BKG01@2"	10/22/2025	2	<b>3.23</b>	<b>96.2</b>	<0.269	<b>0.183</b>	<32.5	<9.90	<18.4	<0.174	<0.566	<262
BKG02@0.5"	10/22/2025	0.5	<b>3.93</b>	<b>88.1</b>	<b>0.618</b>	<b>0.196</b>	<32.5	<b>25.6</b>	<18.4	<b>0.349</b>	<0.565	<261
BKG02@2"	10/22/2025	2	<b>2.69</b>	67.2	<0.275	<0.212*	<33.3	<10.1	<18.8	<0.178	<0.580	<268
BKG03@0.5"	10/22/2025	0.5	<b>2.72</b>	62.8	0.37	<b>0.189</b>	<31.0	<b>15.3</b>	<17.5	0.184	<0.539	<249
BKG03@2"	10/22/2025	2	<b>2.78</b>	75.6	<0.280	<0.214*	<33.8	<10.3	<19.1	<0.181	<0.589	<272
BKG01@2'	10/22/2025	2	<b>2.59</b>	73.5	<0.273	<0.228*	<33.0	<10.1	<18.7	<0.177	<0.574	<266
BKG01@3'	10/22/2025	3	<b>3.19</b>	<b>82.4</b>	<0.282	<0.211*	<34.1	<10.4	<19.3	<0.183	<0.594	<275
BKG02@2'	10/22/2025	2	<b>3.45</b>	62.8	<0.274	<0.213*	<33.1	<10.1	<18.7	<0.177	<0.576	<267
BKG02@3'	10/22/2025	3	<b>3.56</b>	78.1	<0.273	<0.224*	<33.1	<10.1	<18.7	<0.177	<0.576	<266
BKG03@2'	10/22/2025	2	<b>2.75</b>	<b>89.5</b>	<0.290	<0.219*	<35.1	<10.7	<19.8	<0.188	<0.611	<282
BKG03@3'	10/22/2025	3	<b>2.91</b>	<b>100</b>	<0.272	<0.228*	<33.0	<10.0	<18.6	<0.176	<0.573	<265
1.25x Maximum Background Concentration			4.91	125	0.91	0.245	43.6	38.4	6.4	0.555	NA	25.1

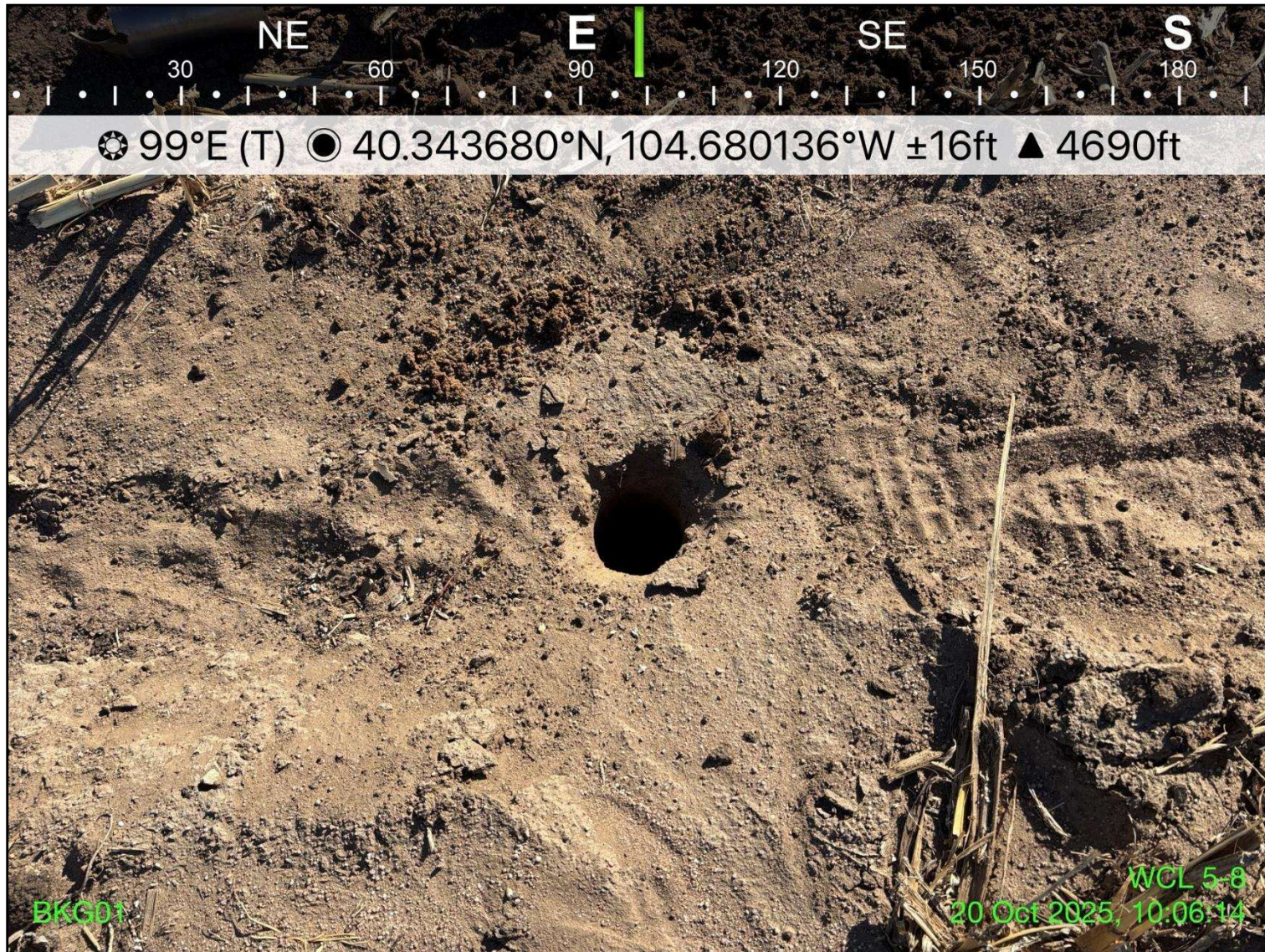
1. **Bold** faced values exceed the ECMC Table 915-1 limit(s), but are within 1.25x background concentrations.
  2. **Red** faced values exceed the ECMC Table 915-1 limit(s) and native background concentrations.
  3. Red & blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL).
  4. Non-detect background results accounted for in the highest background concentration by using the reporting limit.
  5. Samples are reported as dry weight unless otherwise indicated in the laboratory PDF report(s).
- (<) = Analytical result is less than the indicated laboratory reporting limit.  
mg/kg = Milligrams per kilogram  
ft = Feet  
\* Indicates laboratory minimum detection limit in excess of SSL  
+ Samples collected under LEHAN WCL 490576 (REM #42609, Facility ID #490577)



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## **PHOTOGRAPHIC LOG**

**Photographic Log**  
WCL 5-8 (REM #42577)  
Noble Energy, Inc.  
10/20/2025



**Photo 1:** View of BKG01 sample location, facing east

**Photographic Log**  
WCL 5-8 (REM #42577)  
Noble Energy, Inc.  
10/20/2025



**Photo 2:** View of BKG02 sample location, facing north

Photographic Log  
WCL 5-8 (REM #42577)  
Noble Energy, Inc.  
10/20/2025



Photo 3: View of BKG03 sample location, facing east