

# **FREMONT ENVIRONMENTAL INC.**

November 22, 2024

Mr. Daniel Peterson  
Noble Energy Inc.  
2115 117<sup>th</sup> Avenue  
Greeley, CO 80634

Subject:           **Flowline Closure Data Submittal**  
Rouse USX A05-06  
API # 05-123-29405  
SENW Sec. 5, T6N, R64W  
Weld County, Colorado  
Fremont Project No. C024-075  
Remediation # 33055

Dear Mr. Peterson:

As you requested, Fremont Environmental Inc. (Fremont) personnel conducted flowline closure activities for the Noble Energy Inc. (Noble) Rouse USX A05-06. Impacted soil was encountered during abandonment activities. Details of the Rouse USX A05-06 closure activities are documented in the attached Closure Report. Groundwater was not encountered during flowline abandonment activities.

Please contact me at (303) 261-6246 if you require any additional information. Fremont appreciates the opportunity to provide this service.

Sincerely,

**FREMONT ENVIRONMENTAL INC.**



Stanley Gilbert  
Environmental Scientist

Attachments:

- Facility Closure Checklist
- Tables
- Figures
- Photos

**1759 REDWING LANE, BROOMFIELD, CO 80020  
(303) 956-8714 (DIRECT)**

# Flowline Closure Checklist

## COGCC Rule 911.a.(4) Environmental Site Closure Assessment Field Form

<i>Additional Attachments:</i>		Tank Battery Closure		Wellhead Closure		Pit Closure		Partially Buried Vault Closure
<i>Site Name &amp; COGCC Facility Number:</i> Rouse USX A05-06 (API: 05-123-29405)		<i>Date:</i> 04/08/2024-04/09/2024		<i>Remediation Project #:</i> 33055				
<i>Associated Wells:</i>		<i>Age of Site:</i> 2008		<i>Number of Photos Attached:</i> See Attached				

*Starting point: (GPS coordinates and descriptions)*  
40.51961725, -104.5822811

*End point: (GPS coordinates and descriptions)*  
40.51644, -104.575880

*USCS Soil Type:* SC *Estimated Depth to Groundwater:* >5'

*Hydrocarbon Impacted Soils / Spills: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)*  
Impacts discovered at sample location FL02 5'. Refer to the organic soil chemistry table (Table 2) and the polycyclic aromatic hydrocarbon soil chemistry table (Table 3) for reference. Impacts left in place. Further remediation is required.

*Salt Crusted Soils or Impacted Vegetation: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)*  
**None observed**

### Flowlines

<i>Flowline type</i>	OIL/Water/Gas						
<i>Depth</i>	3'-5'						
<i>Age</i>	2012						
<i>Length</i>	256'						
<i>Construction Material</i>	Steel						
<i>Were flowlines pulled?</i>	Yes, partially						
<i>Visual Integrity of lines</i>	Good						
<i>Visual impacts if trenched</i>	N/A						
<i>PID Readings if trenched</i>	N/A						
<i>Sample taken? Location/Sample ID#</i>	Yes, See Attached						
<i>Photo Number(s)</i>	See Attached						

*Other observations regarding on location flowlines:*  
**Flowline was partially abandoned in place from FL07 5' to former separator tie-in**

### Summary

*Was impacted soil identified?*  
 No     Yes - less than 10 cubic yards     Yes - more than 10 cubic yards

*Total number of samples field screened:* 9    *Total number of samples collected:* 9

*Highest PID Reading:* 2.0ppm (SEP02 FL 3')    *Total number of samples submitted to lab for analysis:* 5

*If more than 10 cubic yards of impacted soil were observed:*

*Vertical extent:* Unknown    *Estimated spill volume:* Unknown

*Lateral extent:* Unknown    *Volume of soil removed:* Impacts left in place

*Is additional investigation required?*  
**Yes, further remediation is required.**

*Was groundwater encountered during the investigation?*  
 No     Yes - not impacted or in contact with impacted soils     Yes - groundwater impacted and/or in contact with impacted soils

*Measured depth to groundwater:*    *Was remedial groundwater removal conducted?* Yes  No

*Date Groundwater was encountered:*    *Commencement date of removal:*

*Sheen on groundwater?*  Yes  No    *Volume of groundwater removed prior to sampling:*

*Free product observed?*  Yes  No    *Volume of groundwater removed post sampling:*

*Total number of samples collected:*    *Total Volume of groundwater removed:*

*Total number of samples submitted to lab for analysis:*

**TABLE 1**  
**FIELD DATA SUMMARY TABLE**  
**NOBLE 100322**  
**ROUSE USX A 05-06, WELD COUNTY, COLORADO**  
**REM # 33055**

Sample ID	Sample Date	Depth (ft)	GPS Data Latitude/Longitude		PDOP Value	VOC Concentration (ppm)
SEP01 FL 3'	04/08/2024	3'	40.5195802	-104.5822848	-	1.4
SEP02 FL 3'	04/08/2024	3'	40.5196161	-104.5822843	-	2.0
FL04 4'	04/09/2024	4'	40.5187550	-104.5798975	-	0.2
FL05 4'	04/09/2024	4'	40.5190463	-104.5805626	-	0.5
FL06 4'	04/09/2024	4'	40.5191633	-104.5808107	1.2	0.3
FL01 5'	04/09/2024	5'	40.5164318	-104.5758758	0.9	0.3
FL02 5'	04/09/2024	5'	40.5172079	-104.5766764	0.9	0.2
FL03 5'	04/09/2024	5'	40.5181096	-104.5784770	0.9	0.5
FL07 5'	04/09/2024	5'	40.5196555	-104.5816452	0.8	0.1
BKG01	04/08/2024	0.5', 3', 5'	40.5197544	-104.5823424	0.8	0.0
BKG02	04/08/2024	0.5', 3', 5'	40.5193910	-104.5825008	0.8	0.0
BKG03	04/08/2024	0.5', 3', 5'	40.5190635	-104.5824674	0.8	0.0
BKG04	04/09/2024	0.5', 3', 5'	40.5190878	-104.5816621	0.8	0.0
BKG05	04/09/2024	0.5', 3', 5'	40.5162896	-104.5816589	0.9	0.0
BKG06	04/09/2024	0.5', 3', 5'	40.5165652	-104.5756896	0.8	0.0
BKG07	04/09/2024	0.5', 3', 5'	40.5185225	-104.5790567	0.8	0.0
BKG08	04/09/2024	0.5', 3', 5'	40.5198988	-104.5759613	1.0	0.0
BKG09	04/09/2024	0.5', 3', 5'	40.5199293	-104.5811431	1.0	0.0

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).

PDOP = Position Dilution of Precision

ppm = Parts per million

in. = Inches

ft. = Feet

bgs = Below ground surface

TABLE 2  
SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA  
NOBLE 100322  
ROUSE USX A 05-06, WELD COUNTY, COLORADO  
REM # 33055

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**		
SEP01 FL 3'	04/08/2024	3'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
SEP02 FL 3'	04/08/2024	3'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
FL01 5'	04/09/2024	5'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
FL02 5'	04/09/2024	5'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<b>0.018</b>	<500	<0.50	<50	<50
FL07 5'	04/09/2024	5'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50

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
- (<) = 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  
bgs = Below ground surface  
NA - Not analyzed

TABLE 3  
SUMMARY OF POLYCYCLIC AROMATIC HYDROCARBON SOIL CHEMISTRY DATA  
NOBLE 100322  
ROUSE USX A 05-06, WELD COUNTY, COLORADO  
REM # 33055

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
SEP01 FL 3'	04/08/2024	3'	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SEP02 FL 3'	04/08/2024	3'	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
FL01 5'	04/09/2024	5'	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
FL02 5'	04/09/2024	5'	0.0952	0.131	<b>0.147</b>	0.099	0.155	0.0740	0.166	0.0134	0.410	0.0849	0.133	0.387	0.00598	0.0113
FL07 5'	04/09/2024	5'	0.013	0.0174	0.00562	0.0102	0.0158	0.00701	0.0188	<0.00500	0.0611	0.00979	0.0112	0.0613	<0.00500	<0.00500

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
- (<) = 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  
bgs = Below ground surface  
NA - Not analyzed

**TABLE 4**  
**SUMMARY OF SOIL SUITABILITY FOR RECLAMATION**  
**NOBLE 100322**  
**ROUSE USX A 05-06, WELD COUNTY, COLORADO**  
**REM # 33055**

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
SEP01 FL 3'	04/08/2024	3'	8.98	0.0867	0.0164	<2.00
SEP02 FL 3'	04/08/2024	3'	8.98	0.0966	0.0202	<2.00
FL01 5'	04/09/2024	5'	8.78	0.184	0.210	<2.00
FL02 5'	04/09/2024	5'	8.60	0.730	1.61	<2.00
FL07 5'	04/09/2024	5'	8.66	0.687	2.27	<2.00
BKG01 0.5'	04/08/2024	0.5'	8.42	0.0445	0.0615	<2.00
BKG02 0.5'	04/08/2024	0.5'	8.46	0.145	0.184	<2.00
BKG03 0.5'	04/08/2024	0.5'	8.48	0.312	0.543	<2.00
BKG04 0.5'	04/09/2024	0.5'	8.74	0.266	0.613	<2.00
BKG05 0.5'	04/09/2024	0.5'	8.31	0.406	1.04	<2.00
BKG06 0.5'	04/09/2024	0.5'	8.23	0.526	1.29	<2.00
BKG07 0.5'	04/09/2024	0.5'	8.69	0.223	0.713	<2.00
BKG08 0.5'	04/09/2024	0.5'	8.90	0.275	0.643	<2.00
BKG09 0.5'	04/09/2024	0.5'	8.88	0.314	0.608	<2.00
BKG01 3'	04/08/2024	3'	8.54	0.0471	0.0684	<2.00
BKG02 3'	04/08/2024	3'	9.11	0.492	3.38	<2.00
BKG03 3'	04/08/2024	3'	8.64	0.820	2.51	<2.00
BKG04 3'	04/09/2024	3'	9.07	0.149	0.405	<2.00
BKG05 3'	04/09/2024	3'	8.90	0.236	0.598	<2.00
BKG06 3'	04/09/2024	3'	8.28	0.360	0.931	<2.00
BKG07 3'	04/09/2024	3'	8.93	0.218	0.708	<2.00
BKG08 3'	04/09/2024	3'	8.94	0.208	0.434	<2.00

**TABLE 4**  
**SUMMARY OF SOIL SUITABILITY FOR RECLAMATION**  
**NOBLE 100322**  
**ROUSE USX A 05-06, WELD COUNTY, COLORADO**  
**REM # 33055**

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
BKG09 3'	04/09/2024	3'	<b>8.78</b>	0.237	0.560	<2.00
BKG01 5'	04/08/2024	5'	<b>8.81</b>	1.46	5.28	<2.00
BKG02 5'	04/08/2024	5'	<b>9.19</b>	0.762	5.30	<2.00
BKG03 5'	04/08/2024	5'	<b>9.35</b>	0.457	3.28	<2.00
BKG04 5'	04/09/2024	5'	<b>8.83</b>	0.153	0.498	<2.00
BKG05 5'	04/09/2024	5'	<b>9.09</b>	0.154	0.331	<2.00
BKG06 5'	04/09/2024	5'	<b>9.19</b>	0.454	3.03	<2.00
BKG07 5'	04/09/2024	5'	8.14	0.250	0.91	<2.00
BKG08 5'	04/09/2024	5'	<b>9.15</b>	0.488	2.85	<2.00
BKG09 5'	04/09/2024	5'	<b>8.99</b>	0.674	3.69	<2.00
Maximum Background Concentration		0.5'	8.90	0.526	1.29	<2.00
Maximum Background Concentration		3'	9.11	0.820	3.38	<2.00
Maximum Background Concentration		5'	9.35	1.46	5.3	<2.00

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.

NA - Not analyzed/Not applicable

TABLE 5  
SUMMARY OF METALS IN SOIL CHEMISTRY DATA  
NOBLE 100322  
ROUSE USX A 05-06, WELD COUNTY, COLORADO  
REM # 33055

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
SEP01 FL 3'	04/08/2024	3'	3.10	64.4	<0.200	<0.30	6.26	6.92	6.49	<0.260	0.0273	26.1
SEP02 FL 3'	04/08/2024	3'	4.63	112	0.301	<0.30	8.02	7.85	9.01	<0.260	0.0332	31.5
FL01 5'	04/09/2024	5'	8.29	75.4	0.226	<0.30	7.12	8.81	5.91	<0.234	0.0239	25.0
FL02 5'	04/09/2024	5'	3.04	71.5	0.205	<0.30	11.4	10.8	11.7	<0.260	0.0369	52.2
FL07 5'	04/09/2024	5'	3.54	89.6	0.262	<0.30	7.14	6.95	7.12	<0.260	0.0301	29.4
BKG01 0.5'	04/08/2024	0.5'	3.54	72.5	0.225	<0.30	7.04	7.10	7.99	<0.260	0.0527	27.6
BKG02 0.5'	04/08/2024	0.5'	4.05	66.0	0.254	<0.30	7.98	8.78	7.65	<0.260	0.0430	32.8
BKG03 0.5'	04/08/2024	0.5'	4.48	69.1	0.290	<0.30	9.95	9.31	7.35	<0.260	0.0417	40.7
BKG04 0.5'	04/09/2024	0.5'	3.83	75.7	0.333	<0.30	12.7	8.56	7.98	<0.260	0.0428	44.5
BKG05 0.5'	04/09/2024	0.5'	3.60	67.5	0.336	<0.30	11.5	8.97	7.24	<0.260	0.0412	41.7
BKG06 0.5'	04/09/2024	0.5'	3.99	86.9	0.383	<0.30	17.1	10.0	9.25	0.266	0.0484	54.1
BKG07 0.5'	04/09/2024	0.5'	3.37	69.0	0.317	<0.30	14.0	9.56	7.26	<0.260	0.0412	45.3
BKG08 0.5'	04/09/2024	0.5'	2.78	47.7	0.293	<0.30	9.35	6.02	4.82	<0.260	0.0242	30.6
BKG09 0.5'	04/09/2024	0.5'	3.77	49.9	0.241	<0.30	10.3	6.67	5.59	<0.260	0.0287	33.1
BKG01 3'	04/08/2024	3'	3.26	61.1	0.207	<0.30	6.00	6.35	7.24	<0.260	0.0408	24.0
BKG02 3'	04/08/2024	3'	2.30	34.8	<0.200	<0.30	3.08	3.78	3.95	<0.260	<0.0200	14.6
BKG03 3'	04/08/2024	3'	2.96	88.7	<0.200	<0.30	4.22	4.95	5.17	<0.260	0.0282	17.6
BKG04 3'	04/09/2024	3'	3.97	92.5	0.375	<0.30	10.1	9.46	9.20	<0.260	0.0500	39.3
BKG05 3'	04/09/2024	3'	3.47	110	0.328	<0.30	10.1	9.07	9.52	<0.260	0.0474	38.9
BKG06 3'	04/09/2024	3'	3.25	39.4	0.352	<0.30	14.7	10.7	15.3	<0.260	0.0436	54.3
BKG07 3'	04/09/2024	3'	4.91	114	0.349	<0.30	10.1	9.82	11.4	<0.260	0.0596	42.1
BKG08 3'	04/09/2024	3'	4.08	52.9	<0.200	<0.30	5.68	5.32	5.89	<0.260	0.0211	21.0
BKG09 3'	04/09/2024	3'	4.54	69.3	0.199	<0.30	6.38	6.11	7.45	<0.234	0.0190	22.7
BKG01 5'	04/08/2024	5'	3.48	59.2	<0.200	<0.30	4.42	4.44	5.62	<0.260	0.0304	18.0
BKG02 5'	04/08/2024	5'	2.36	37.8	<0.200	<0.30	3.74	4.35	4.73	<0.260	<0.0200	17.2
BKG03 5'	04/08/2024	5'	9.48	64.6	0.462	<0.30	9.43	4.40	12.1	<0.260	0.0228	26.8
BKG04 5'	04/09/2024	5'	4.85	85.7	0.371	<0.30	12.4	9.92	9.04	<0.260	0.0410	44.2
BKG05 5'	04/09/2024	5'	5.08	74.1	0.348	<0.30	6.95	5.04	7.51	<0.260	<0.0200	32.4
BKG06 5'	04/09/2024	5'	3.79	88.0	0.229	<0.30	7.17	7.25	8.12	<0.260	0.0510	28.0

TABLE 5  
SUMMARY OF METALS IN SOIL CHEMISTRY DATA  
NOBLE 100322  
ROUSE USX A 05-06, WELD COUNTY, COLORADO  
REM # 33055

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
BKG07 5'	04/09/2024	5'	<b>6.98</b>	73.9	<b>0.462</b>	<0.30	9.31	9.52	9.04	<0.260	0.0390	28.2
BKG08 5'	04/09/2024	5'	<b>3.04</b>	<b>106</b>	0.258	<0.30	5.92	6.57	7.77	<0.260	0.0381	26.8
BKG09 5'	04/09/2024	5'	<b>3.67</b>	<b>108</b>	0.249	<0.30	6.64	6.17	8.08	<0.260	0.0336	28.3
1.25x Maximum Background Concentration		0.5'	5.60	109	0.479	<0.30	21.4	12.5	11.6	0.333	0.0659	67.6
1.25x Maximum Background Concentration		3'	6.14	143	0.469	<0.30	18.4	13.4	19.1	<0.260	0.0745	67.9
1.25x Maximum Background Concentration		5'	11.9	135	0.578	<0.30	15.5	12.4	15.1	<0.260	0.0638	55.3

1. **Bold** faced values exceed the ECMC Table 915-1 limit(s), but are within 1.25x background concentrations.
2. **Bold** 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.

ECMC = Energy & Carbon Management Commission

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

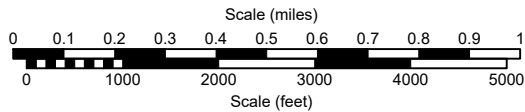
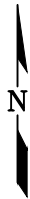
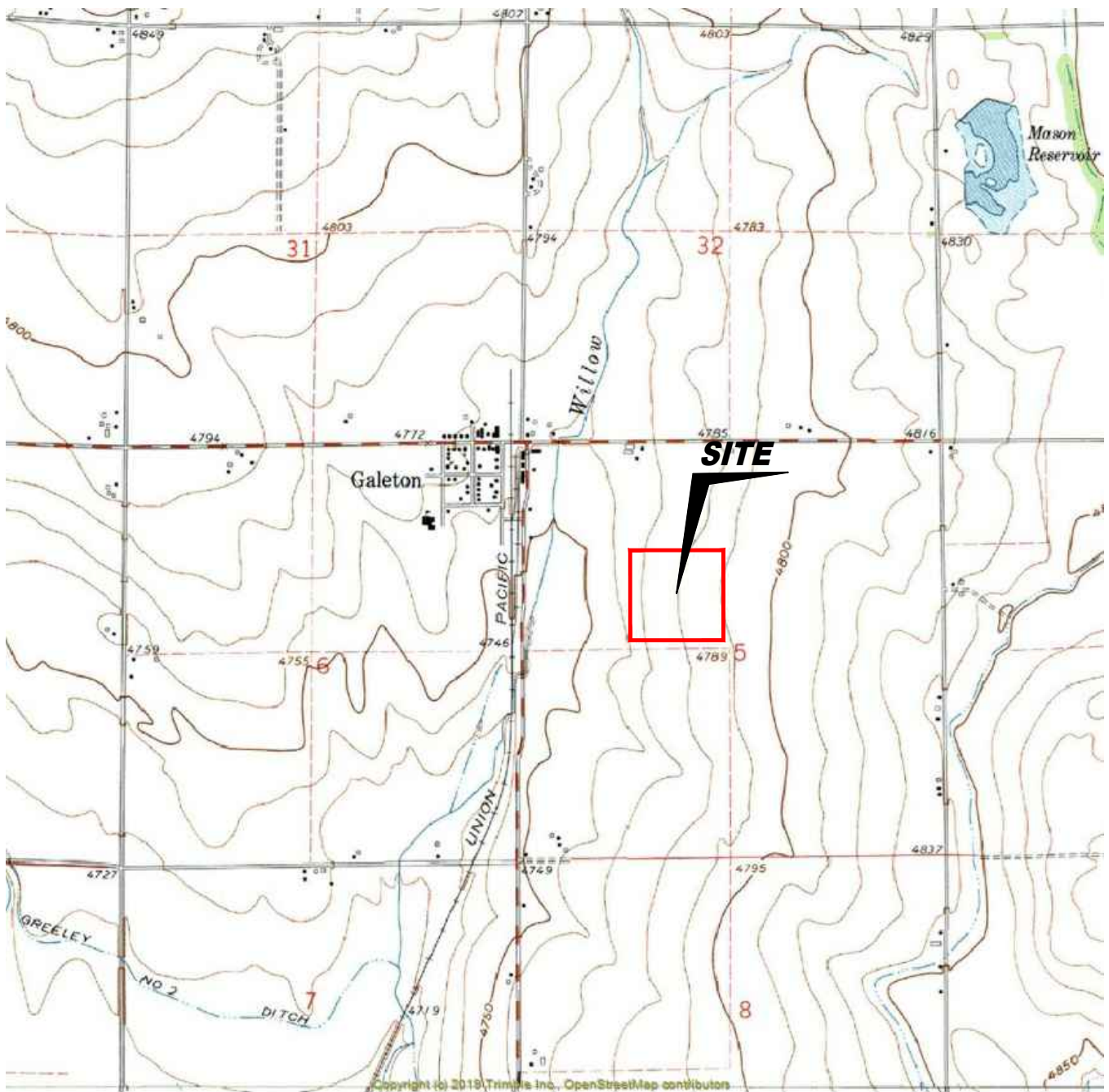
mg/kg = Milligrams per kilogram

ft. = Feet

bgs = Below ground surface

\* Indicates laboratory minimum detection limit in excess of SSL

NA - Not analyzed/Not applicable



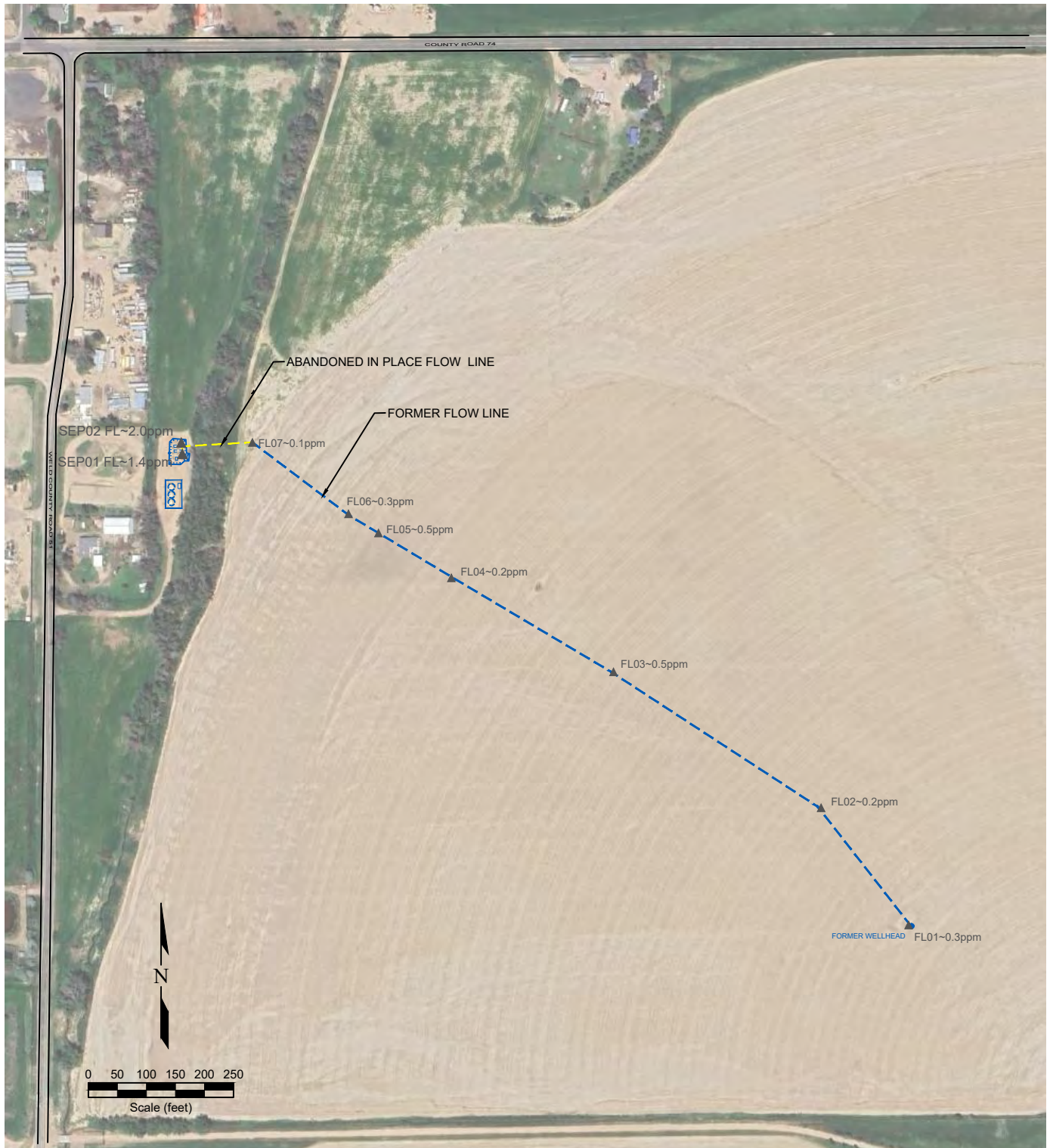
USGS 7.5 MINUTE SERIES (TOPOGRAPHIC)

Figure 1  
SITE LOCATION MAP

**Noble Energy, Inc.**  
**ROUSE USX A 05-06**  
 SENW Sec. 5, T6N, R64W, 6th PM  
 Weld County, Colorado  
 40.516436°, -104.575912°

Project No. <b>CO24-075</b>	API # <b>05-123-29405</b>	Facility #
Date <b>5/7/25</b>	Remediation # <b>33055</b>	Filename <b>24075TFL</b>





**LEGEND**

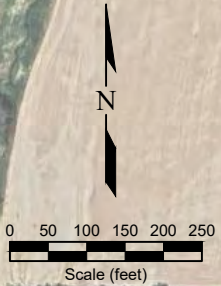
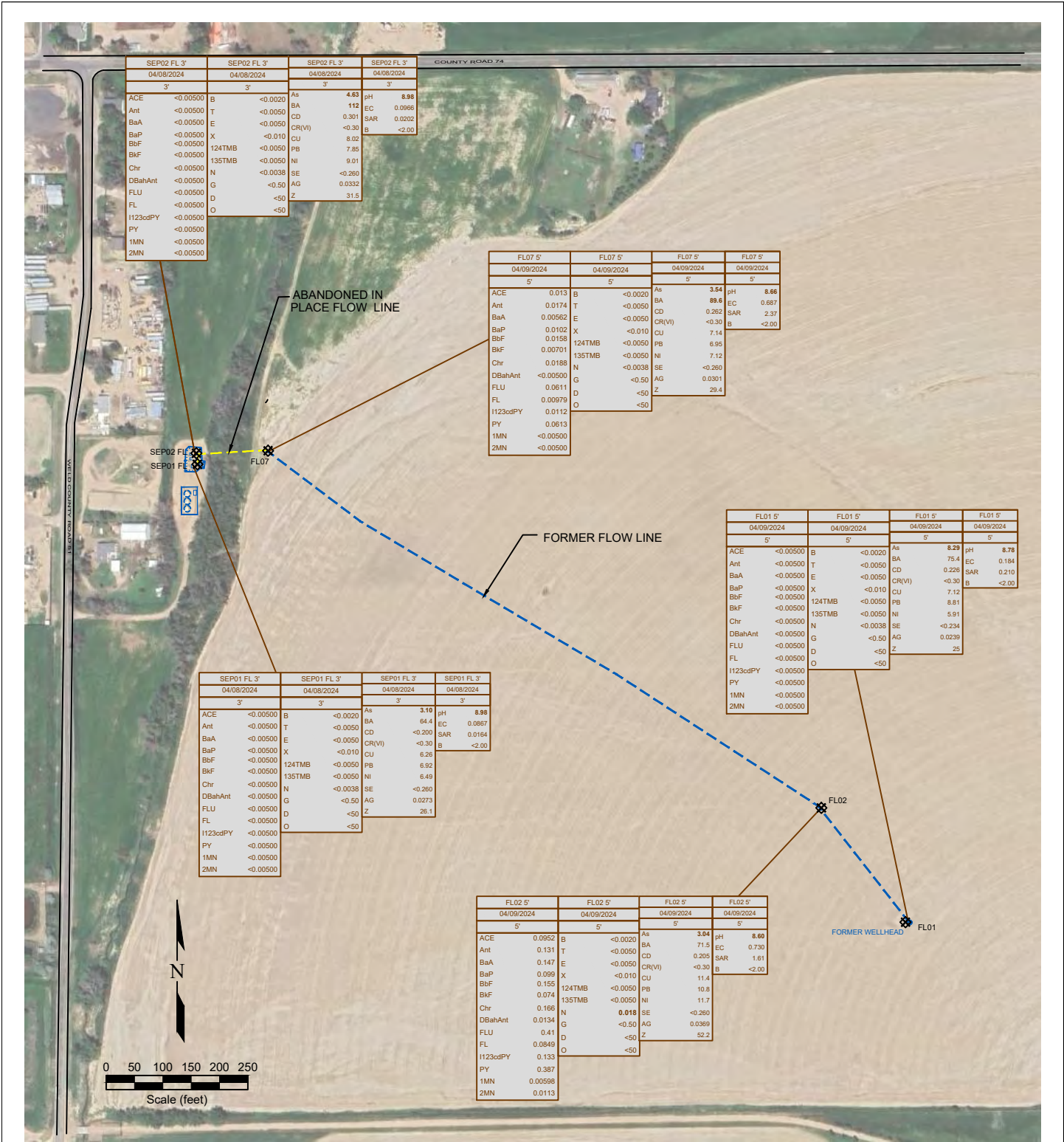
- WELL HEAD LOCATION
- ▲ PID READING LOCATION
- ABOVE GROUND STORAGE TANK
- FORMER FACILITY
- ABANDONED IN PLACE FLOW LINE
- FORMER FLOW LINE
- FENCE LINE
- CONTAINMENT BERM
- CONTAINMENT WALL

**Figure 2  
SITE MAP**

**Noble Energy, Inc.**  
**ROUSE USX A 05-06**  
 SENW Sec. 5, T6N, R64W, 6th PM  
 Weld County, Colorado  
 40.516436°, -104.575912°

Project No. <b>CO24-075</b>	API # <b>05-123-29405</b>	Facility #
Date <b>5/7/25</b>	Remediation # <b>33055</b>	Filename <b>24075QFL</b>





**LEGEND**

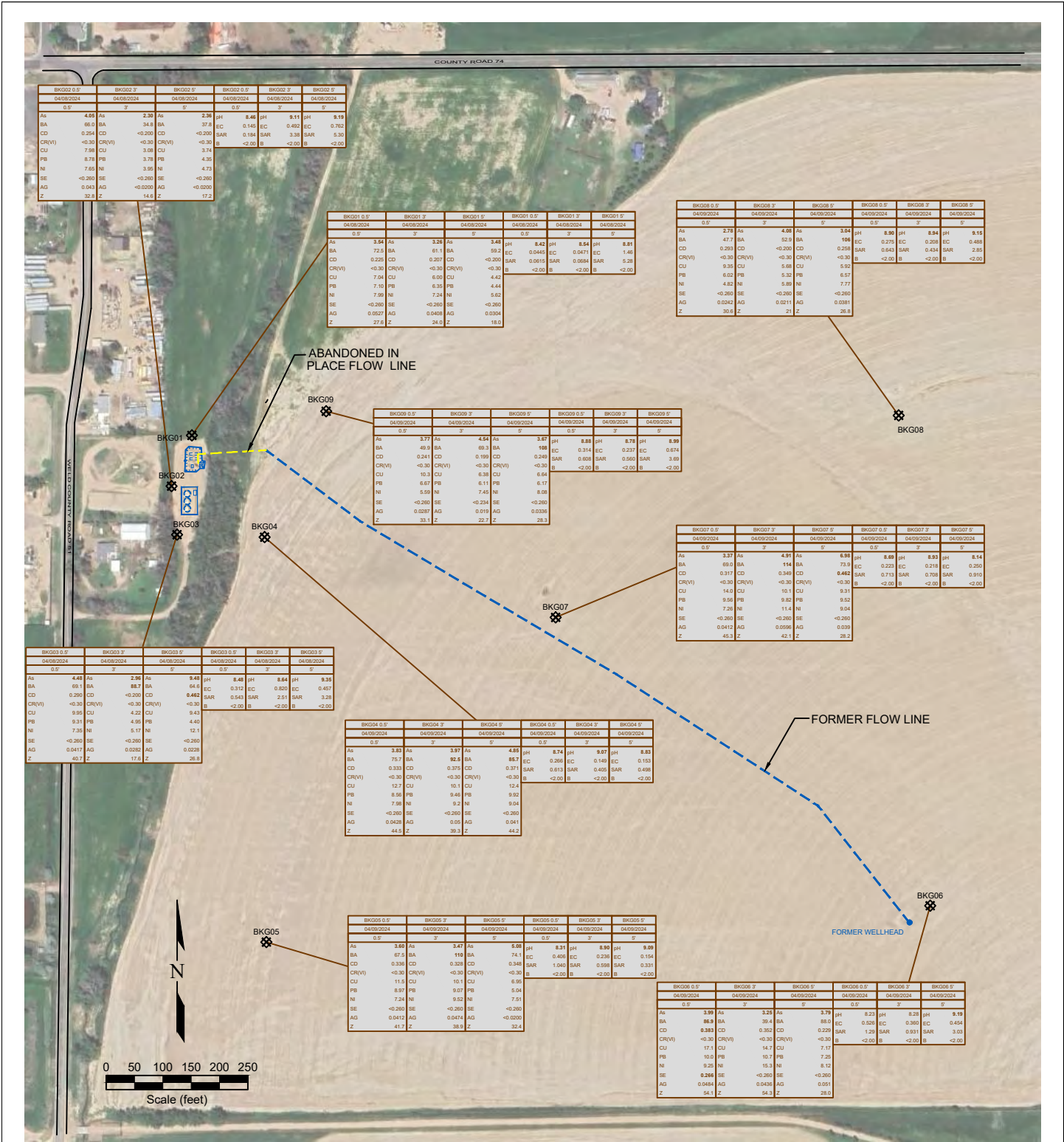
- WELL HEAD LOCATION
- ABOVE GROUND STORAGE TANK
- ⊗ SOIL SAMPLE LOCATION
- ABANDONED IN PLACE FLOW LINE
- FORMER FACILITY
- FORMER FLOW LINE
- FENCE LINE
- ||||| CONTAINMENT BERM

SAMPLE ID	DATE	DEPTH	SAMPLE ID	DATE	DEPTH	SAMPLE ID	DATE	DEPTH	SAMPLE ID	DATE	DEPTH
ACE	<0.00500		As	<0.01		As	<0.01		As	<0.01	
Ant	<0.00500		BA	<0.01		BA	<0.01		BA	<0.01	
BaA	<0.00500		CD	<0.01		CD	<0.01		CD	<0.01	
BaP	<0.00500		CR(VI)	<0.01		CR(VI)	<0.01		CR(VI)	<0.01	
BbF	<0.00500		CU	<0.01		CU	<0.01		CU	<0.01	
BkF	<0.00500		PB	<0.01		PB	<0.01		PB	<0.01	
Chr	<0.00500		NI	<0.01		NI	<0.01		NI	<0.01	
DBahAnt	<0.00500		SE	<0.01		SE	<0.01		SE	<0.01	
FLU	<0.00500		AG	<0.01		AG	<0.01		AG	<0.01	
FL	<0.00500		Z	<0.01		Z	<0.01		Z	<0.01	
1123cdPY	<0.00500										
PY	<0.00500										
1MN	<0.00500										
2MN	<0.00500										

**Figure 3**  
**SOIL CHEMISTRY MAP**  
 Noble Energy, Inc.  
 ROUSE USX A 05-06  
 SENW Sec. 5, T6N, R64W, 6th PM  
 Weld County, Colorado  
 40.516436°, -104.575912°

Project No. <b>CO24-075</b>	API # <b>05-123-29405</b>	Facility #
Date <b>5/7/25</b>	Remediation # <b>33055</b>	Filename <b>24075QFL</b>





BKG02 0.5'		BKG02 3'		BKG02 5'		BKG02 0.5'		BKG02 3'		BKG02 5'	
04/09/2024		04/09/2024		04/09/2024		04/09/2024		04/09/2024		04/09/2024	
O.P.		3'		5'		O.P.		3'		5'	
As	4.05	As	2.30	As	2.36	pH	8.46	pH	9.11	pH	9.19
BA	86.0	BA	34.8	BA	37.8	EC	0.140	EC	0.400	EC	0.762
CD	0.264	CD	<0.200	CD	<0.200	SAR	0.164	SAR	3.38	SAR	5.30
CR(V)	<0.30	CR(V)	<0.30	CR(V)	<0.30	B	<2.00	B	<2.00	B	<2.00
CU	7.98	CU	3.08	CU	3.74						
PB	8.78	PB	3.78	PB	4.35						
NI	7.65	NI	3.95	NI	4.75						
SE	<0.260	SE	<0.260	SE	<0.260						
AG	0.043	AG	<0.0200	AG	<0.0200						
Z	32.8	Z	14.6	Z	17.2						

BKG01 0.5'		BKG01 3'		BKG01 5'		BKG01 0.5'		BKG01 3'		BKG01 5'	
04/09/2024		04/09/2024		04/09/2024		04/09/2024		04/09/2024		04/09/2024	
O.P.		3'		5'		O.P.		3'		5'	
As	3.51	As	3.21	As	3.43	pH	8.42	pH	8.64	pH	8.81
BA	72.0	BA	61.0	BA	59.0	EC	0.0448	EC	0.0471	EC	1.46
CD	0.220	CD	0.207	CD	<0.200	SAR	0.0018	SAR	0.0064	SAR	5.28
CR(V)	<0.30	CR(V)	<0.30	CR(V)	<0.30	B	<2.00	B	<2.00	B	<2.00
CU	7.04	CU	6.00	CU	4.42						
PB	7.10	PB	6.30	PB	4.44						
NI	7.50	NI	7.24	NI	5.62						
SE	<0.260	SE	<0.260	SE	<0.260						
AG	0.0527	AG	0.0488	AG	0.0304						
Z	27.2	Z	24.2	Z	18.0						

BKG08 0.5'		BKG08 3'		BKG08 5'		BKG08 0.5'		BKG08 3'		BKG08 5'	
04/09/2024		04/09/2024		04/09/2024		04/09/2024		04/09/2024		04/09/2024	
O.P.		3'		5'		O.P.		3'		5'	
As	3.04	As	4.68	As	3.04	pH	8.90	pH	8.84	pH	9.16
BA	47.7	BA	52.9	BA	196	EC	0.275	EC	0.208	EC	0.488
CD	0.200	CD	<0.200	CD	0.268	SAR	0.842	SAR	0.448	SAR	2.88
CR(V)	<0.30	CR(V)	<0.30	CR(V)	<0.30	B	<2.00	B	<2.00	B	<2.00
CU	9.35	CU	5.68	CU	5.92						
PB	6.02	PB	5.32	PB	6.97						
NI	4.82	NI	5.88	NI	7.77						
SE	<0.260	SE	<0.260	SE	<0.260						
AG	0.0242	AG	0.0211	AG	0.0381						
Z	30.8	Z	21.2	Z	28.8						

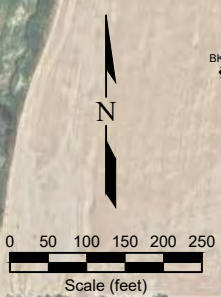
BKG09 0.5'		BKG09 3'		BKG09 5'		BKG09 0.5'		BKG09 3'		BKG09 5'	
04/09/2024		04/09/2024		04/09/2024		04/09/2024		04/09/2024		04/09/2024	
O.P.		3'		5'		O.P.		3'		5'	
As	3.77	As	4.84	As	3.87	pH	8.88	pH	8.78	pH	8.99
BA	49.8	BA	69.3	BA	108	EC	0.314	EC	0.237	EC	0.674
CD	0.241	CD	0.199	CD	0.248	SAR	0.608	SAR	0.560	SAR	3.69
CR(V)	<0.30	CR(V)	<0.30	CR(V)	<0.30	B	<2.00	B	<2.00	B	<2.00
CU	10.3	CU	6.38	CU	6.84						
PB	6.67	PB	6.11	PB	6.17						
NI	5.59	NI	7.45	NI	8.08						
SE	<0.260	SE	<0.234	SE	<0.260						
AG	0.0287	AG	0.019	AG	0.0338						
Z	33.1	Z	22.1	Z	28.1						

BKG07 0.5'		BKG07 3'		BKG07 5'		BKG07 0.5'		BKG07 3'		BKG07 5'	
04/09/2024		04/09/2024		04/09/2024		04/09/2024		04/09/2024		04/09/2024	
O.P.		3'		5'		O.P.		3'		5'	
As	3.27	As	4.91	As	6.98	pH	8.68	pH	8.93	pH	8.14
BA	69.0	BA	114	BA	73.9	EC	0.233	EC	0.218	EC	0.250
CD	0.317	CD	0.349	CD	0.482	SAR	0.713	SAR	0.708	SAR	0.910
CR(V)	<0.30	CR(V)	<0.30	CR(V)	<0.30	B	<2.00	B	<2.00	B	<2.00
CU	14.4	CU	10.1	CU	9.11						
PB	9.56	PB	8.82	PB	9.52						
NI	7.28	NI	11.4	NI	9.04						
SE	<0.260	SE	<0.260	SE	<0.260						
AG	0.0412	AG	0.0596	AG	0.039						
Z	46.3	Z	42.1	Z	28.2						

BKG03 0.5'		BKG03 3'		BKG03 5'		BKG03 0.5'		BKG03 3'		BKG03 5'	
04/09/2024		04/09/2024		04/09/2024		04/09/2024		04/09/2024		04/09/2024	
O.P.		3'		5'		O.P.		3'		5'	
As	4.48	As	2.96	As	9.49	pH	8.48	pH	8.64	pH	9.35
BA	69.1	BA	88.7	BA	65.6	EC	0.372	EC	0.808	EC	0.457
CD	0.260	CD	<0.200	CD	0.482	SAR	0.563	SAR	2.51	SAR	3.28
CR(V)	<0.30	CR(V)	<0.30	CR(V)	<0.30	B	<2.00	B	<2.00	B	<2.00
CU	9.95	CU	4.22	CU	9.43						
PB	8.31	PB	4.85	PB	4.40						
NI	7.35	NI	5.17	NI	12.1						
SE	<0.260	SE	<0.260	SE	<0.260						
AG	0.0417	AG	0.0282	AG	0.0228						
Z	40.7	Z	17.4	Z	28.8						

BKG04 0.5'		BKG04 3'		BKG04 5'		BKG04 0.5'		BKG04 3'		BKG04 5'	
04/09/2024		04/09/2024		04/09/2024		04/09/2024		04/09/2024		04/09/2024	
O.P.		3'		5'		O.P.		3'		5'	
As	3.83	As	3.97	As	4.85	pH	8.74	pH	9.07	pH	8.83
BA	75.7	BA	82.8	BA	88.7	EC	0.266	EC	0.148	EC	0.153
CD	0.333	CD	0.370	CD	0.371	SAR	0.813	SAR	0.488	SAR	0.468
CR(V)	<0.30	CR(V)	<0.30	CR(V)	<0.30	B	<2.00	B	<2.00	B	<2.00
CU	12.7	CU	10.1	CU	12.4						
PB	8.56	PB	8.46	PB	9.02						
NI	7.88	NI	9.2	NI	9.04						
SE	<0.260	SE	<0.260	SE	<0.260						
AG	0.0428	AG	0.05	AG	0.041						
Z	44.5	Z	39.3	Z	44.2						

BKG06 0.5'		BKG06 3'		BKG06 5'		BKG06 0.5'		BKG06 3'		BKG06 5'	
04/09/2024		04/09/2024		04/09/2024		04/09/2024		04/09/2024		04/09/2024	
O.P.		3'		5'		O.P.		3'		5'	
As	3.99	As	3.25	As	3.79	pH	8.23	pH	8.28	pH	9.19
BA	86.9	BA	39.4	BA	88.0	EC	0.528	EC	0.360	EC	0.454
CD	0.388	CD	0.350	CD	0.228	SAR	1.29	SAR	0.901	SAR	3.03
CR(V)	<0.30	CR(V)	<0.30	CR(V)	<0.30	B	<2.00	B	<2.00	B	<2.00
CU	17.1	CU	14.7	CU	7.17						
PB	10.0	PB	10.7	PB	7.25						
NI	9.28	NI	15.8	NI	8.15						
SE	0.268	SE	<0.260	SE	<0.260						
AG	0.0484	AG	0.0436	AG	0.051						
Z	54.1	Z	54.3	Z	28.0						



- LEGEND**
- WELL HEAD LOCATION
  - ABOVE GROUND STORAGE TANK
  - ⊗ SOIL SAMPLE LOCATION
  - ABANDONED IN PLACE FLOW LINE
  - FORMER FLOW LINE
  - FENCE LINE
  - CONTAINMENT BERM
  - CONTAINMENT WALL

SAMPLE DATE	SAMPLE ID	DEPTH (ft)	DATE SAMPLED	SAMPLE ID	DEPTH (ft)	DATE SAMPLED
<0.01	ARSENIC (mg/kg)	<0.01	<0.01	pH (pH units)	<0.01	<0.01
<0.01	BARIIUM (mg/kg)	EC 7.08	EC (microsiemens)	<0.01	SAR (units)	<0.01
<0.01	CADMIUM (mg/kg)	SAR <1	SAR (units)	<0.01	BORON (mg/L)	<0.01
<0.01	CHROMIUM (mg/kg)	<0.01	<0.01			
<0.01	COPPER (mg/kg)					
<0.01	LEAD (mg/kg)					
<0.01	NICKEL (mg/kg)					
<0.01	SELENIUM (mg/kg)					
<0.01	SILVER (mg/kg)					
<0.01	ZINC (mg/kg)					

Figure 4  
BACKGROUND SAMPLE SOIL CHEMISTRY MAP

Noble Energy, Inc.  
ROUSE USX A 05-06  
SENW Sec. 5, T6N, R64W, 6th PM  
Weld County, Colorado  
40.516436°, -104.575912°

Project No. <b>CO24-075</b>	API # <b>05-123-29405</b>	Facility #	
Date <b>5/7/25</b>	Remediation # <b>33055</b>	Filename <b>24075QFL</b>	

# Photo Log



***Description:***

#1-FL01 5' - No visual staining or odor



***Description:***

#2-FL02 5' - No visual staining or odor

# Photo Log



***Description:***

#3-FL03 5' - No visual staining or odor

# Photo Log



***Description:***

#4-FL04 4' - No visual staining or odor

# Photo Log



***Description:***

#5-FL05 3' - No visual staining or odor

# Photo Log



***Description:***

#6-FL06 4' - No visual staining or odor

# Photo Log



**Description:**

#7-FL07 5' - Start of abandonment no visual staining or

# Photo Log



***Description:***

#8- SEP01 FL 3' - Start of abandonment no visual staining or odor

# Photo Log



**Description:**

#9- SEP02 FL 3' - Start of abandonment no visual staining or odor