

# **FREMONT ENVIRONMENTAL INC.**

April 3, 2025

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

Subject:     **Excavation Report**  
Howard USX A09-13  
SWSW Sec. 9, T6N, R64W  
Weld County, Colorado  
Fremont Project No. C024-056  
API: 05-123-24494, Remediation #: 32969

Dear Mr. Peterson:

Enclosed please find a copy of the above referenced Excavation Report for the Howard USX A09-13 release site in Weld County, Colorado. The enclosed report describes excavation and sampling efforts to remediate impacted soil at the site.

Please contact me at (314) 795-2372 if you require any additional information.

Fremont appreciates the opportunity to provide this service.

Sincerely,

**FREMONT ENVIRONMENTAL INC.**



Jeff T. Griggs  
Project Manager

Enclosure

**EXCAVATION REPORT**

**NOBLE ENERGY INC.**

**HOWARD USX A09-13**

**WELD COUNTY, COLORADO**

**FREMONT PROJECT NO. C024-056**

**API: 05-123-24494, REMEDIATION #: 32969**

**Prepared by:  
Fremont Environmental Inc.  
1759 Redwing Lane  
Broomfield, CO 80020  
(303) 956-8714**

**April 3, 2025**

## TABLE OF CONTENTS

1.0 INTRODUCTION .....	1
2.0 BACKGROUND INFORMATION .....	1
2.1 Site Location .....	1
2.2 Site History .....	1
3.0 FIELD ACTIVITIES .....	2
3.1 Soil Excavation and Sampling.....	2
4.0 DISCUSSION .....	3
5.0 REMARKS.....	5

### Tables

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 Inorganics in Soil Chemistry Data
Table 5:	Summary of Metals on Soil Chemistry Data

### Figures

Figure 1:	Site Location Map
Figure 2:	Site Map
Figure 3:	Organic Soil Chemistry Map
Figure 4:	Metals and Inorganic Soil Chemistry Map
Figure 5:	Background Sample Soil Chemistry Map

### Appendices

Appendix A:	Photo Log
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**EXCAVATION REPORT**  
**NOBLE ENRGY INC.**  
**HOWARD USX A09-13**  
**WELD COUNTY, COLORADO**  
**FREMONT PROJECT NO. C024-056**  
**API: 05-123-24494, REMEDIATION #: 32969**

**1.0 INTRODUCTION**

The purpose of this document is to present information collected during the excavation of petroleum-impacted soil at the Howard USX A09-13 location in Weld County, Colorado. This excavation project was completed on March 19, 2025.

**2.0 BACKGROUND INFORMATION**

**2.1 Site Location**

The Howard USX A09-13 is located approximately 4.33 miles northeast of Greeley, Colorado in Weld County as shown on Figure 1. The site is located in an agricultural area approximately 0.16 miles northeast of the intersection of Weld County Road 70 and Weld County Road 53. The location is further described as the SW  $\frac{1}{4}$  of the SW  $\frac{1}{4}$  of Section 9, Township 6N, Range 64W.

**2.2 Site History**

The site includes the Howard USX A-66N64W 9SWSW tank battery, which previously serviced the Howard USX A09-13 well. The Howard USX A09-13 well was drilled in 2006 to an approximate depth of 7,221 feet.

In March 2024, a historical release was identified during decommissioning activities along the former Howard USX A09-13 flowline. Soil impacts were observed at a depth of

approximately two feet at the base of the bell hole excavation. No groundwater was encountered during the decommissioning process.

### **3.0 FIELD ACTIVITIES**

#### **3.1 Soil Excavation and Sampling**

Soil remediation efforts involved the excavation and removal of petroleum-impacted soil located directly adjacent to the site's former flowline. The excavation area measured approximately ten feet by ten feet, with a maximum depth of three feet below ground surface (bgs). The soil encountered consisted of sandy clay (SC) to the excavation's maximum depth. No groundwater was encountered during the excavation process. The extent of the excavation is illustrated in Figures 2 through 5.

The excavation of impacted soil adjacent to the former Howard USX A09-13 flowline was completed on March 19, 2025. Soil samples were collected as grab samples from the excavation's exterior sidewalls at a depth of two feet, and from the floor of the excavation at three feet bgs.

The soil samples were analyzed by Origins Laboratory, Inc. in Denver, Colorado and Summit Scientific, Inc. in Golden, Colorado for benzene, toluene, ethylbenzene and total xylenes (BTEX), naphthalene, 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene (TMB), Total Petroleum Hydrocarbons - Gasoline Range Organics (TPH-GRO) by EPA method 8260B, TPH - Diesel Range Organics (TPH-DRO), Extended Range Organics (TPH-ORO) by EPA method 8015, Polycyclic Aromatic Hydrocarbons (PAH): Acenaphthene, Anthracene, Benzo (a) anthracene, Benzo (a) pyrene, Benzo (b) fluoranthene, Chrysene, Dibenz (a,h) anthracene, Fluoranthene, Fluorene, Indeno (1,2,3-cd) pyrene, Pyrene, 1-Methylnaphthalene, 2-Methylnaphthalene by EPA method 8270D, Specific Conductance (EC) by EPA Method 120.1 saturated paste extraction, saturated paste extraction of

soluble nutrients by EPA method 6020/USDA60 6(2) for calculated analysis of Sodium Absorption Ratio (SAR), pH by saturated paste extraction APHA/ASTM/EPA methods, Total Metals by EPA method 6020B, and Hexavalent Chromium by EPA method 7196. The laboratory reports and chain-of-custody documentation are submitted separately under attachments on the same supplemental form 27 as this report's submittal.

A summary of the soil laboratory data is provided in Tables 2 through 5. Laboratory analysis of soil samples collected from the exterior sidewalls and floor of the excavation indicates that organic petroleum constituents met the Energy and Carbon Management Commission (ECMC) Table 915-1 Protection of Groundwater Soil Screening Levels (PGSSLs). However, all samples exceeded ECMC Soil Suitability for Reclamation (SSR) standards for pH. In addition, all samples exceeded the Table 915-1 Residential Soil Screening Levels (RSSLs) for arsenic, one sample exceeded PGSSLs for barium, two samples exceeded PGSSLs for lead, and two samples exceeded PGSSLs for selenium. Local background samples collected from native soils adjacent to the site at depths of 0.5, 2, and 5 feet also exceeded ECMC SSRs for pH, Table 915-1 RSSLs for arsenic, and PGSSLs for barium and lead.

A total of approximately 14 tons (~ 10 cubic yards) of petroleum impacted soil was removed from the excavation by Tasman Geosciences Inc. during remediation efforts. Impacted soil was disposed of at Waste Management's North Weld Landfill in Ault, Colorado as non-hazardous waste. Following the remediation, the excavation was backfilled with clean, imported soil.

#### **4.0 DISCUSSION**

As demonstrated by soil sampling results, petroleum-impacted soil was successfully removed from the former Howard USX A09-13 flowline through targeted excavation

activities. This was confirmed by laboratory analyses of soil samples collected from the exterior sidewalls and floor of the excavation, all of which met the ECMC Table 915-1 PGSSLs for organic petroleum constituents. Approximately 10 cubic yards of impacted soil were excavated and transported to a licensed landfill for proper disposal. Excavation soil data are illustrated and summarized in the attached tables and figures.

To further evaluate potential residual impacts, the Operator proposes to resample areas where elevated concentrations of pH, arsenic, barium, lead, and selenium were previously identified and are not attributable to native soil conditions. The resampling effort will include all confirmation sample locations collected during the initial remedial excavation event (N Wall-2FT, S Wall-2FT, E Wall-2FT, W Wall-2FT, and Floor-3FT). These samples will be analyzed for the full ECMC Table 915-1 analyte suite. In addition, new local background soil samples will be collected to further support the characterization of native soil conditions and provide additional context for evaluating site-specific data.

If the resampling results confirm exceedances of Table 915-1 standards that cannot be attributed to background conditions, a minimum of five additional soil samples will be collected to delineate the magnitude and extent of the elevated constituents.

Following delineation, Noble will submit a comprehensive reclamation plan to address any exceedances of SSR constituents. The plan will include, but is not limited to, soil analysis of adjacent undisturbed areas, revegetation techniques, site stabilization measures, and a detailed list of seeded species. Noble will also request a No Further Action (NFA) designation under Rule 915.b: *Request to leave elevated inorganics in situ*. Concurrently, Noble will evaluate feasible remedial alternatives for addressing in situ

elevated metals that exceed applicable Table 915-1 standards and are not attributable to background concentrations.

### **5.0 REMARKS**

The discussion and conclusions contained in this report represent our professional opinions. These opinions are based on currently available information and are arrived at in accordance with currently accepted hydrogeologic and engineering practices at this time and location. Other than this, no warranty is implied or intended.

This report was prepared by **FREMONT ENVIRONMENTAL INC.**

Prepared By:



04/03/25

Date\_\_\_\_\_

Jeff T. Griggs  
Project Manager

Reviewed by:



04/03/25

Date\_\_\_\_\_

Ethan D. Black, P.G.  
Senior Consultant

## TABLES

**TABLE 1**  
**FIELD DATA SUMMARY TABLE**  
**NOBLE 100322**  
**HOWARD USX A09-13, WELD COUNTY, COLORADO**  
**REM # 32969**

Sample ID	Sample Date	Depth (ft)	GPS Data Latitude/Longitude		PDOP Value	VOC Concentration (ppm)
FL01 2FT	03/07/2024	2.0 Ft	40.4950771	-104.5620942	1.0	5.7
FL02 2FT	03/07/2024	2.0 Ft	40.4947779	-104.5621657	0.8	4.9
FL03 2FT	03/07/2024	2.0 Ft	40.4948793	-104.5629537	0.9	4.8
FL04 2FT	03/07/2024	2.0 Ft	40.4956708	-104.5637477	1.2	3.9
FL05 2FT	03/07/2024	2.0 Ft	40.4960238	-104.5641878	0.9	4.7
E Wall-2Ft	03/19/2025	2.0 Ft	40.4947752	-104.5621473	-	0.4
N Wall-2Ft	03/19/2025	2.0 Ft	40.4947901	-104.562167	-	0.4
S Wall-2Ft	03/19/2025	2.0 Ft	40.4947598	-104.5621694	-	0.2
W Wall-2Ft	03/19/2025	2.0 Ft	40.4947762	-104.5621868	-	0.3
Floor-3 Ft	03/19/2025	3.0 Ft	40.4947776	-104.5621673	0.9	0.5
BKG04@0.5'	03/07/2024	0.5 Ft	40.4948992	-104.5632637	-	1.2
BKG04@2'	03/07/2024	2.0 Ft	40.4948992	-104.5632637	-	1.4
BKG04@5'	03/07/2024	5.0 Ft	40.4948992	-104.5632637	-	1.1
BKG05@0.5'	03/07/2024	0.5 Ft	40.4951318	-104.5625985	-	1.2
BKG05@2'	03/07/2024	2.0 Ft	40.4951318	-104.5625985	-	1.3
BKG05@5'	03/07/2024	5.0 Ft	40.4951318	-104.5625985	-	1.4

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

Material excavated and transported off site for disposal.

TABLE 2  
SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA  
NOBLE 100322  
HOWARD USX A09-13, WELD COUNTY, COLORADO  
REM # 32969

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**		
FL01 2FT	03/07/2024	2.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
FL02 2FT	03/07/2024	2.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<b>0.021</b>	<500	<0.50	<50	<50
FL03 2FT	03/07/2024	2.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
FL04 2FT	03/07/2024	2.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
FL05 2FT	03/07/2024	2.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
E Wall-2Ft	03/19/2025	2.0 Ft	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.002	<500	<0.200	<25.0	<100
N Wall-2Ft	03/19/2025	2.0 Ft	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.002	<500	<0.200	<25.0	<100
S Wall-2Ft	03/19/2025	2.0 Ft	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.002	<500	<0.200	<25.0	<100
W Wall-2Ft	03/19/2025	2.0 Ft	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.002	<500	<0.200	<25.0	<100
Floor-3 Ft	03/19/2025	3.0 Ft	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.002	<500	<0.200	<25.0	<100

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

Material excavated and transported off site for disposal.

TABLE 3  
SUMMARY OF POLYCYCLIC AROMATIC HYDROCARBON SOIL CHEMISTRY DATA  
NOBLE 100322  
HOWARD USX A09-13, WELD COUNTY, COLORADO  
REM # 32969

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
FL01 2FT	03/07/2024	2.0 Ft	<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 2FT	03/07/2024	2.0 Ft	0.0151	0.0198	<b>0.0269</b>	0.0160	0.0211	0.00764	0.0237	<0.00500	0.0678	0.0166	0.0304	0.101	<0.00500	<0.00500
FL03 2FT	03/07/2024	2.0 Ft	<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
FL04 2FT	03/07/2024	2.0 Ft	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00755	<0.00500	<0.00500	0.0149	<0.00500	<0.00500
FL05 2FT	03/07/2024	2.0 Ft	<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
E Wall-2Ft	03/19/2025	2.0 Ft	<0.020	<0.020	<0.005	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.002	<0.002
N Wall-2Ft	03/19/2025	2.0 Ft	<0.020	<0.020	<0.005	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.002	<0.002
S Wall-2Ft	03/19/2025	2.0 Ft	<0.020	<0.020	<0.005	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.002	<0.002
W Wall-2Ft	03/19/2025	2.0 Ft	<0.020	<0.020	<0.005	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.002	<0.002
Floor-3 Ft	03/19/2025	3.0 Ft	<0.020	<0.020	<0.005	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<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. \*\* 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

Material excavated and transported off site for disposal.

**TABLE 4**  
**SUMMARY OF SOIL SUITABILITY FOR RECLAMATION**  
**NOBLE 100322**  
**HOWARD USX A09-13, WELD COUNTY, COLORADO**  
**REM # 32969**

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
FL01 2FT	03/07/2024	2.0 Ft	<b>8.45</b>	0.818	0.608	<2.00
FL02 2FT	03/07/2024	2.0 Ft	<b>8.39</b>	3.02	1.98	<2.00
FL03 2FT	03/07/2024	2.0 Ft	<b>8.46</b>	1.12	<b>6.90</b>	<2.00
FL04 2FT	03/07/2024	2.0 Ft	8.10	0.206	1.77	<2.00
FL05 2FT	03/07/2024	2.0 Ft	<b>8.70</b>	0.603	0.83	<2.00
E Wall-2Ft	03/19/2025	2.0 Ft	<b>8.52</b>	2.04	0.887	0.715
N Wall-2Ft	03/19/2025	2.0 Ft	<b>8.51</b>	2.26	0.819	0.510
S Wall-2Ft	03/19/2025	2.0 Ft	<b>8.48</b>	2.69	0.801	0.198
W Wall-2Ft	03/19/2025	2.0 Ft	<b>8.42</b>	1.61	0.619	0.192
Floor-3 Ft	03/19/2025	3.0 Ft	<b>8.32</b>	2.33	1.01	0.208
BKG04@0.5'	03/07/2024	0.5 Ft	8.28	0.442	1.29	<2.00
BKG05@0.5'	03/07/2024	0.5 Ft	7.88	0.582	1.37	<2.00
BKG04@2'	03/07/2024	2.0 Ft	<b>8.39</b>	0.847	2.46	<2.00
BKG05@2'	03/07/2024	2.0 Ft	8.17	0.564	2.70	<2.00
BKG04@5'	03/07/2024	5.0 Ft	8.24	0.544	1.46	<2.00
BKG05@5'	03/07/2024	5.0 Ft	<b>8.38</b>	0.670	1.45	<2.00
Maximum Background Concentration		0.5 Ft	8.28	0.582	1.37	<2.00
Maximum Background Concentration		2.0 Ft	8.39	0.847	2.70	<2.00
Maximum Background Concentration		5.0 Ft	8.38	0.670	1.46	<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.

Material excavated and transported off site for disposal.

TABLE 5  
SUMMARY OF METALS IN SOIL CHEMISTRY DATA  
NOBLE 100322  
HOWARD USX A09-13, WELD COUNTY, COLORADO  
REM # 32969

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
FL01 2FT	03/07/2024	2.0 Ft	15.3	55.9	<0.200	<0.30	4.90	10.1	4.16	<0.260	0.0269	24.5
FL02 2FT	03/07/2024	2.0 Ft	23.0	45.7	<0.200	<0.30	4.51	7.83	3.04	<0.260	0.0224	21.4
FL03 2FT	03/07/2024	2.0 Ft	7.65	63.5	0.319	<0.30	10.3	19.2	4.81	0.305	0.0828	30.5
FL04 2FT	03/07/2024	2.0 Ft	3.35	60.6	0.259	<0.30	6.15	11.5	6.36	<0.260	0.0328	29.8
FL05 2FT	03/07/2024	2.0 Ft	4.72	94.0	0.266	<0.30	5.92	8.52	6.69	<0.260	0.0393	23.2
E Wall-2Ft	03/19/2025	2.0 Ft	13.7	1500	0.156	<0.15	22.9	24.6	15.6	0.460	<0.0963	109
N Wall-2Ft	03/19/2025	2.0 Ft	7.30	52.4	0.211	<0.14	18.0	16.3	13.1	0.304	<0.0968	67.3
S Wall-2Ft	03/19/2025	2.0 Ft	10.6	74.5	<0.0848	<0.15	<8.48	8.21	4.61	<0.221	<0.0848	<31.4
W Wall-2Ft	03/19/2025	2.0 Ft	16.4	47.7	<0.0874	<0.14	<8.74	7.20	5.75	<0.227	<0.0874	38.8
Floor-3 Ft	03/19/2025	3.0 Ft	13.7	25.2	<0.0892	<0.11	<8.92	8.43	3.50	<0.232	<0.0892	<33.0
BKG04@0.5'	03/07/2024	0.5 Ft	6.48	71.2	0.308	<0.30	17.4	11.5	6.80	<0.260	0.0526	39.5
BKG05@0.5'	03/07/2024	0.5 Ft	5.35	80.7	0.329	<0.30	16.4	11.6	7.19	<0.260	0.0538	40.3
BKG04@2'	03/07/2024	2.0 Ft	7.49	31.0	0.294	<0.30	6.62	11.5	8.89	<0.260	0.0323	34.2
BKG05@2'	03/07/2024	2.0 Ft	8.28	33.0	0.279	<0.30	7.39	10.4	6.03	<0.260	0.0355	33.6
BKG04@5'	03/07/2024	5.0 Ft	1.90	24.0	<0.200	<0.30	5.07	6.51	4.95	<0.260	0.0225	29.2
BKG05@5'	03/07/2024	5.0 Ft	1.95	37.8	0.209	<0.30	5.02	10.2	5.99	<0.260	0.0244	31.4
1.25x Maximum Background Concentration		0.5 Ft	8.10	101	0.411	<0.30	21.8	14.5	8.99	<0.260	0.0673	50.4
1.25x Maximum Background Concentration		2.0 Ft	10.4	41.3	0.368	<0.30	9.24	14.4	11.1	<0.260	0.0444	42.8
1.25x Maximum Background Concentration		5.0 Ft	2.44	47.3	0.261	<0.30	6.34	12.8	7.49	<0.260	0.0305	39.3

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.

ECMC = Energy & Carbon Management Commission

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

mg/kg = Milligrams per kilogram

ft. = Feet

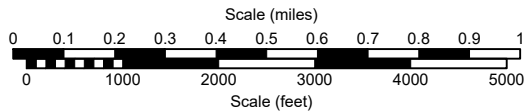
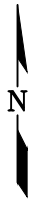
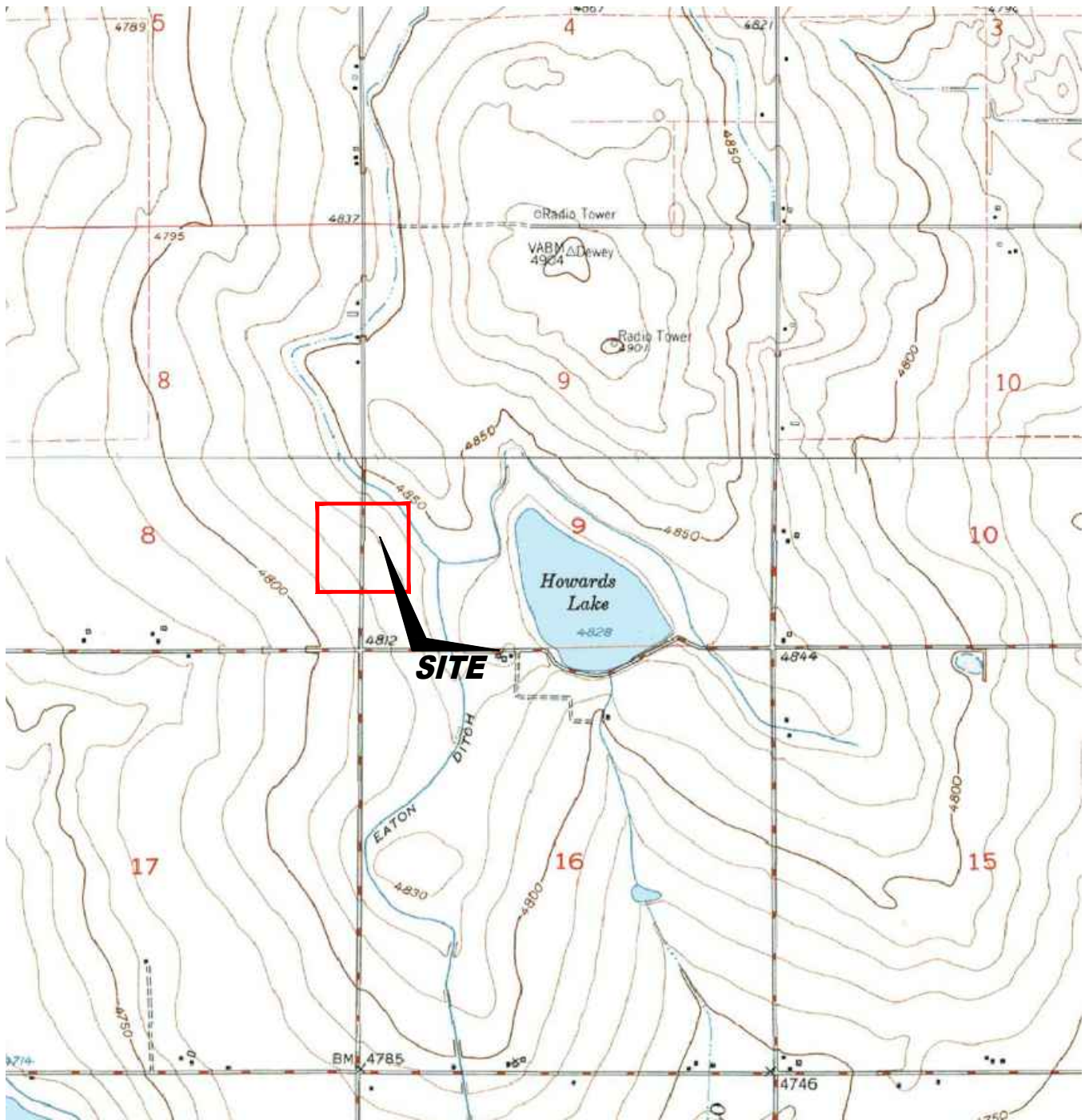
bgs = Below ground surface

\* Indicates laboratory minimum detection limit in excess of SSL

NA - Not analyzed/Not applicable

Material excavated and transported off site for disposal.

## FIGURES



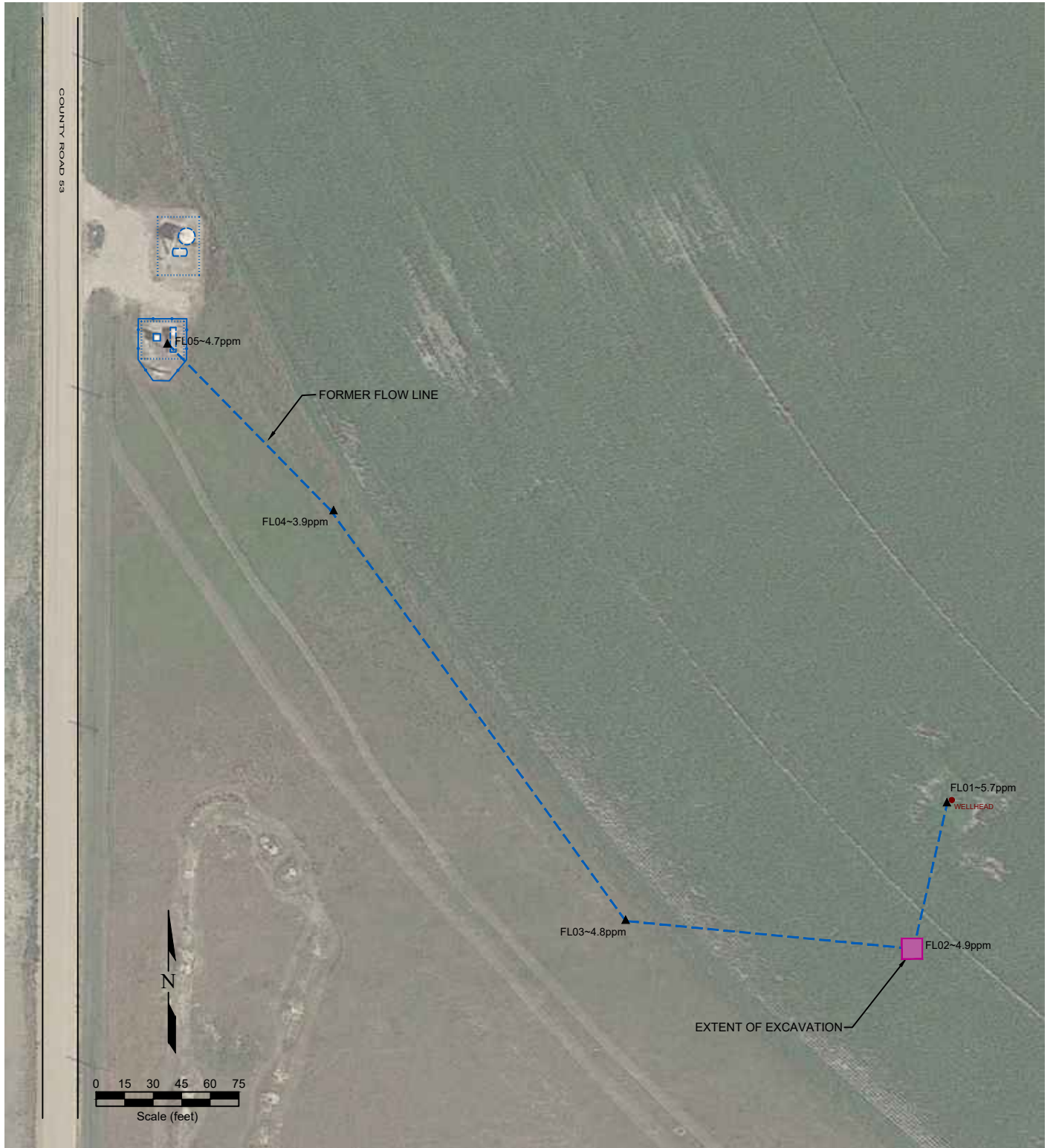
USGS 7.5 MINUTE SERIES (TOPOGRAPHIC)

Figure 1  
SITE LOCATION MAP

**Noble Energy, Inc. ~ Howard USX A 9-13**  
 SWSW Sec. 9, T6N, R64W, 6th PM  
 Weld County, Colorado  
 40.495090°, -104.562070°

Project # <b>C024-056</b>	API # <b>05-123-24494</b>	Facility #
Date <b>6/11/25</b>	Remediation # <b>32969</b>	Filename <b>24056TFL</b>





**LEGEND**

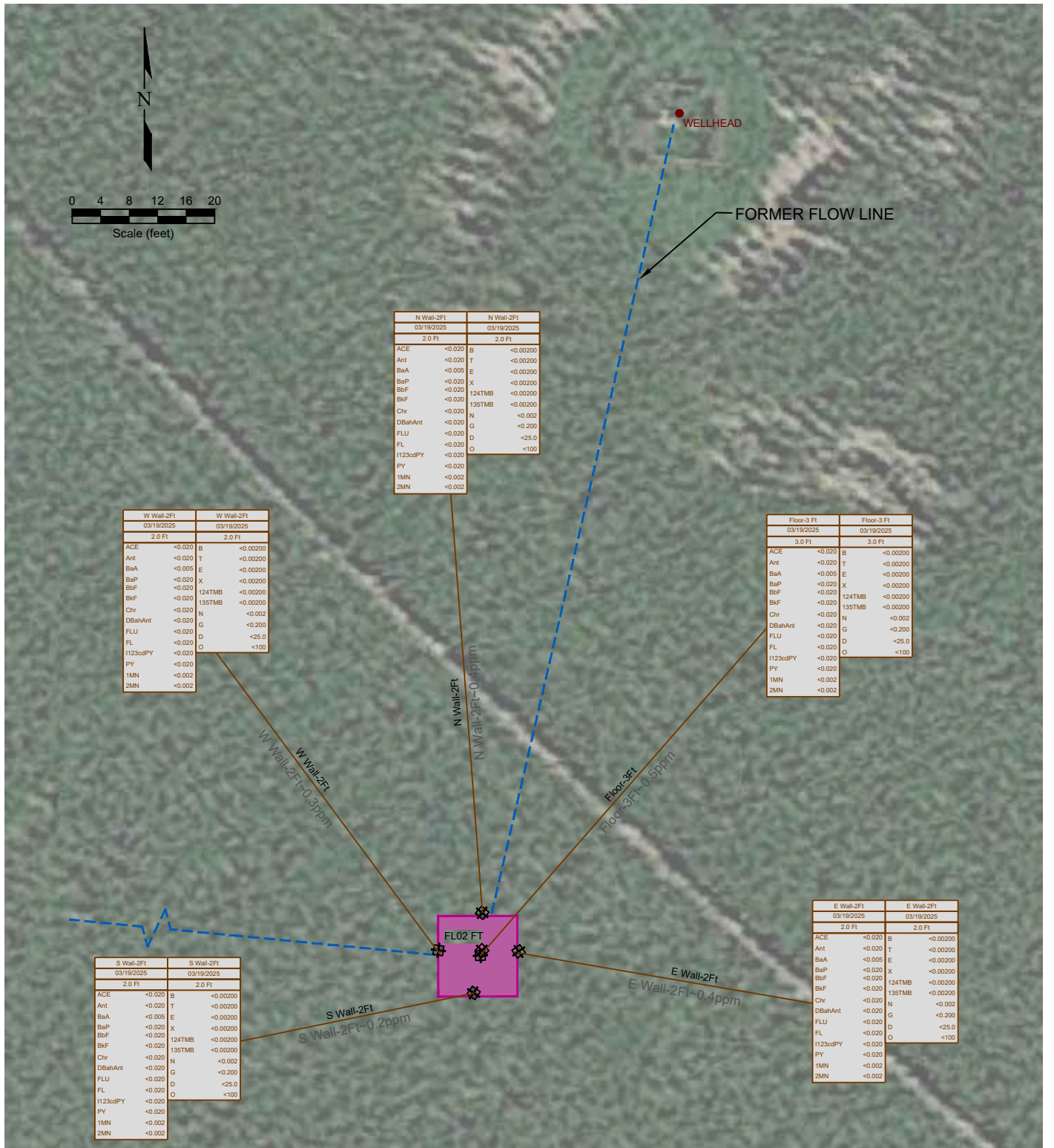
- WELL HEAD LOCATION
- ▲ PID READING LOCATION
- ABOVE GROUND STORAGE TANK
- FORMER FACILITY
- EXCAVATED AREA
- FORMER FLOW LINE
- FENCE LINE
- CONTAINMENT BERM
- CONTAINMENT WALL
- EXTENT OF EXCAVATION

**Figure 2  
SITE MAP**

**Noble Energy, Inc. ~ Howard USX A 9-13**  
 SWSW Sec. 9, T6N, R64W, 6th PM  
 Weld County, Colorado  
 40.495090°, -104.562070°

Project No. <b>C024-056</b>	API # <b>05-123-24494</b>	Facility #
Date <b>6/11/25</b>	Remediation # <b>32969</b>	Filename <b>24056QFL</b>





**LEGEND**

- WELL HEAD LOCATION
- ▲ PID READING LOCATION
- ⊗ SOIL SAMPLE LOCATION
- ABOVE GROUND STORAGE TANK
- FORMER FACILITY
- EXCAVATED AREA
- FORMER FLOW LINE
- FENCE LINE
- CONTAINMENT BERM
- CONTAINMENT WALL
- EXTENT OF EXCAVATION

SAMPLE ID	SAMPLE ID	SAMPLE ID	SAMPLE ID
DATE	DATE	DATE	DATE
DEPTH	DEPTH	DEPTH	DEPTH
ACE	<0.00500	AN	<0.00500
Ant	<0.00500	ANTH	<0.00500
BaA	<0.00500	BENZO (A)	<0.00500
BaP	<0.00500	BENZO (A) PYRENE	<0.00500
BbF	<0.00500	BENZO (B) FLUORANTHENE	<0.00500
BkF	<0.00500	BENZO (K) FLUORANTHENE	<0.00500
Chr	<0.00500	CHRYSENE	<0.00500
DBahAnt	<0.00500	DIBENZO (A,H) ANTHRACENE	<0.00500
FLU	<0.00500	FLUORANTHENE	<0.00500
FL	<0.00500	FLUORENE	<0.00500
1123cdPY	<0.00500	INDENO (1,2,3-CD) PYRENE	<0.00500
PY	<0.00500	PYRENE	<0.00500
1MN	<0.00500	1-METHYLNAPHTHALENE	<0.00500
2MN	<0.00500	2-METHYLNAPHTHALENE	<0.00500
B	<0.00500	BENZENE	<0.00500
T	<0.00500	TOLUENE	<0.00500
E	<0.00500	ETHYLBENZENE	<0.00500
X	<0.00500	TOTAL XYLENES	<0.00500
124TMB	<0.00500	1,2,4-TRIMETHYLBENZENE	<0.00500
135TMB	<0.00500	1,3,5-TRIMETHYLBENZENE	<0.00500
N	<0.00500	NAPHTHALENE	<0.00500
G	<0.00500	TPH-GRO	<0.00500
D	<0.00500	TPH-DRO	<0.00500
O	<0.00500	TPH-ORO	<0.00500

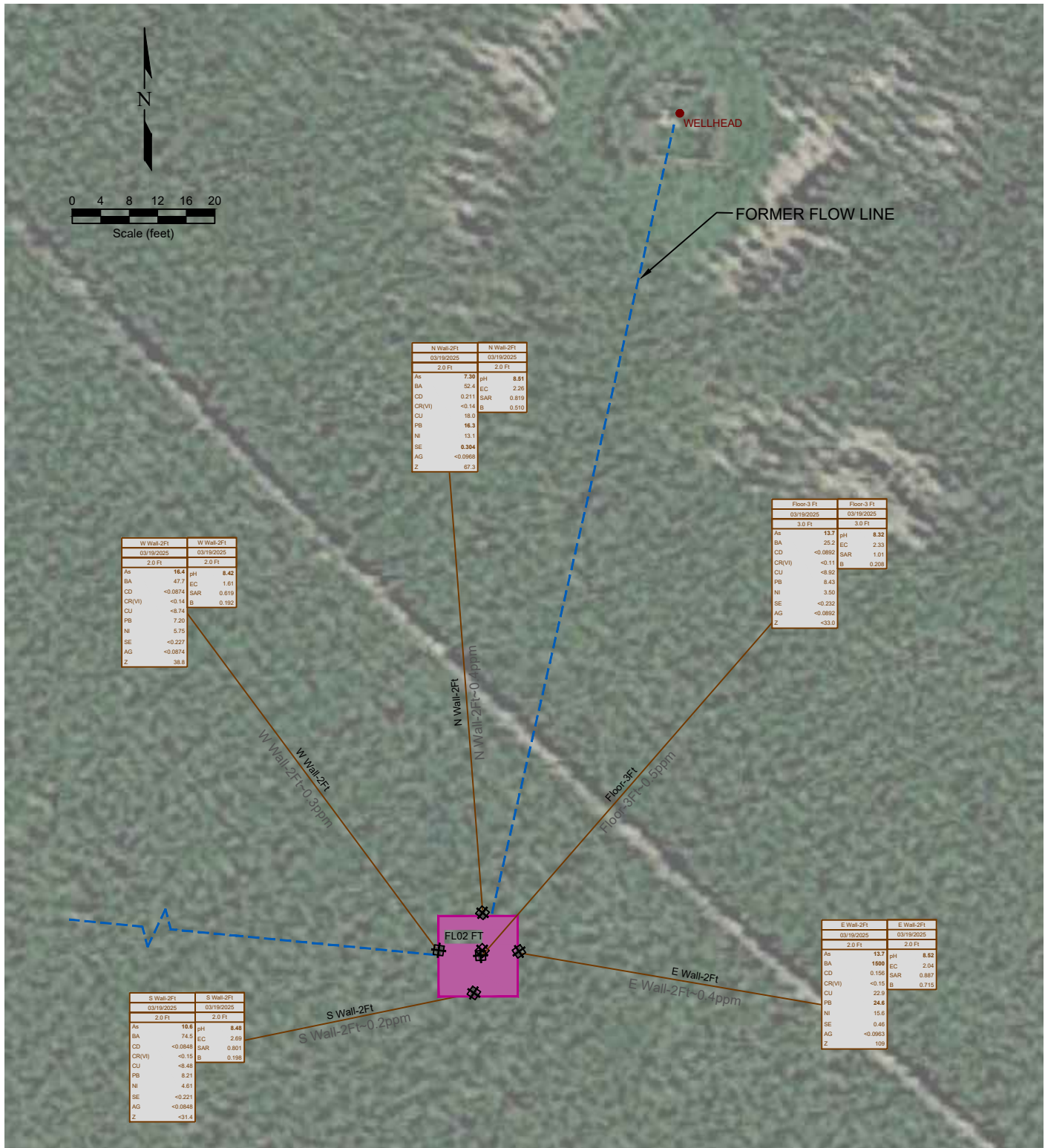
Figure 3

**ORGANIC SOIL CHEMISTRY MAP**

**Noble Energy, Inc. ~ Howard USX A 9-13**  
 SWSW Sec. 9, T6N, R64W, 6th PM  
 Weld County, Colorado  
 40.495090°, -104.562070°

Project No. <b>C024-056</b>	API # <b>05-123-24494</b>	Facility #
Date <b>6/11/25</b>	Remediation # <b>32969</b>	Filename <b>24056QFL1</b>





**LEGEND**

- WELL HEAD LOCATION
- ▲ PID READING LOCATION
- ⊗ SOIL SAMPLE LOCATION
- ABOVE GROUND STORAGE TANK
- FORMER FACILITY
- EXCAVATED AREA
- FORMER FLOW LINE
- FENCE LINE
- CONTAINMENT BERM
- CONTAINMENT WALL
- EXTENT OF EXCAVATION

SAMPLE	SAMPLE ID	SAMPLE	SAMPLE ID
DATE	DATE SAMPLED	DATE	DATE SAMPLED
DEPTH	DEPTH (ft)	DEPTH	DEPTH (ft)
As	<-0.01	ARSENIC (mg/kg)	
BA	<-0.01	BARIUM (mg/kg)	
CD	<-0.01	CADMIUM (mg/kg)	
CR(V)	<-0.01	CHROMIUM (mg/kg)	
CU	<-0.01	COPPER (mg/kg)	
PB	<-0.01	LEAD (mg/kg)	
NI	<-0.01	NICKEL (mg/kg)	
SE	<-0.01	SELENIUM (mg/kg)	
AG	<-0.01	SILVER (mg/kg)	
Z	<-0.01	ZINC (mg/kg)	

**Figure 4**  
**METALS AND INORGANIC SOIL CHEMISTRY MAP**

**Noble Energy, Inc. ~ Howard USX A 9-13**  
SWSW Sec. 9, T6N, R64W, 6th PM  
Weld County, Colorado  
40.495090°, -104.562070°

Project No. <b>C024-056</b>	API # <b>05-123-24494</b>	Facility #
Date <b>6/11/25</b>	Remediation # <b>32969</b>	Filename <b>24056QFL1</b>

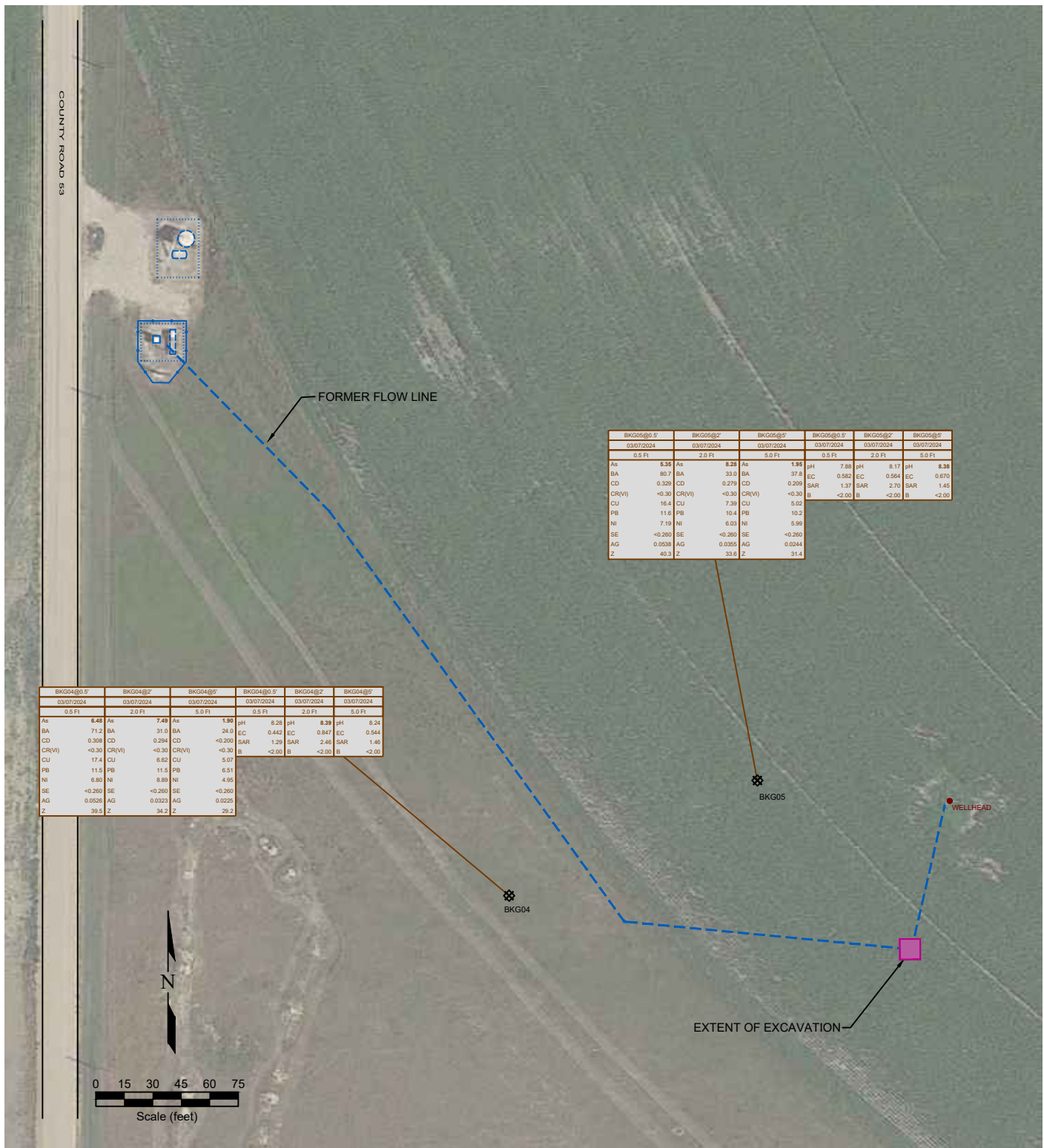


Figure 5  
BACKGROUND SAMPLE SOIL CHEMISTRY MAP

Noble Energy, Inc. ~ Howard USX A 9-13  
SWSW Sec. 9, T6N, R64W, 6th PM  
Weld County, Colorado  
40.495090°, -104.562070°

SAMPLE NAME	SAMPLE ID	DATE SAMPLED	DEPTH (ft)	SAMPLE NAME	SAMPLE ID	DATE SAMPLED	DEPTH (ft)
As	-0.01	ARSENIC (mg/kg)		pH	-0.00	pH (pH units)	
BA	<0.01	BARLIUM (mg/kg)		EC	7.00	EC (microhm/cm)	
CD	<0.01	CADMIUM (mg/kg)		SAR	<1	SAR (units)	
CR(VI)	<0.05	CHROMIUM (mg/kg)		B	<0	BORON (mg/L)	
CU	<0.01	COPPER (mg/kg)					
PB	<0.05	LEAD (mg/kg)					
NI	<0.05	NICKEL (mg/kg)					
SE	<0.4	SELENIUM (mg/kg)					
AG	<0.05	SILVER (mg/kg)					
Z	<0.05	ZINC (mg/kg)					

Project No. <b>C024-056</b>	API # <b>05-123-24494</b>	Facility #
Date <b>6/11/25</b>	Remediation # <b>32969</b>	Filename <b>24056QFL</b>



**APPENDIX A**

**PHOTO LOG**



***Description:***

#1- North wall facing north, no visual staining or odor



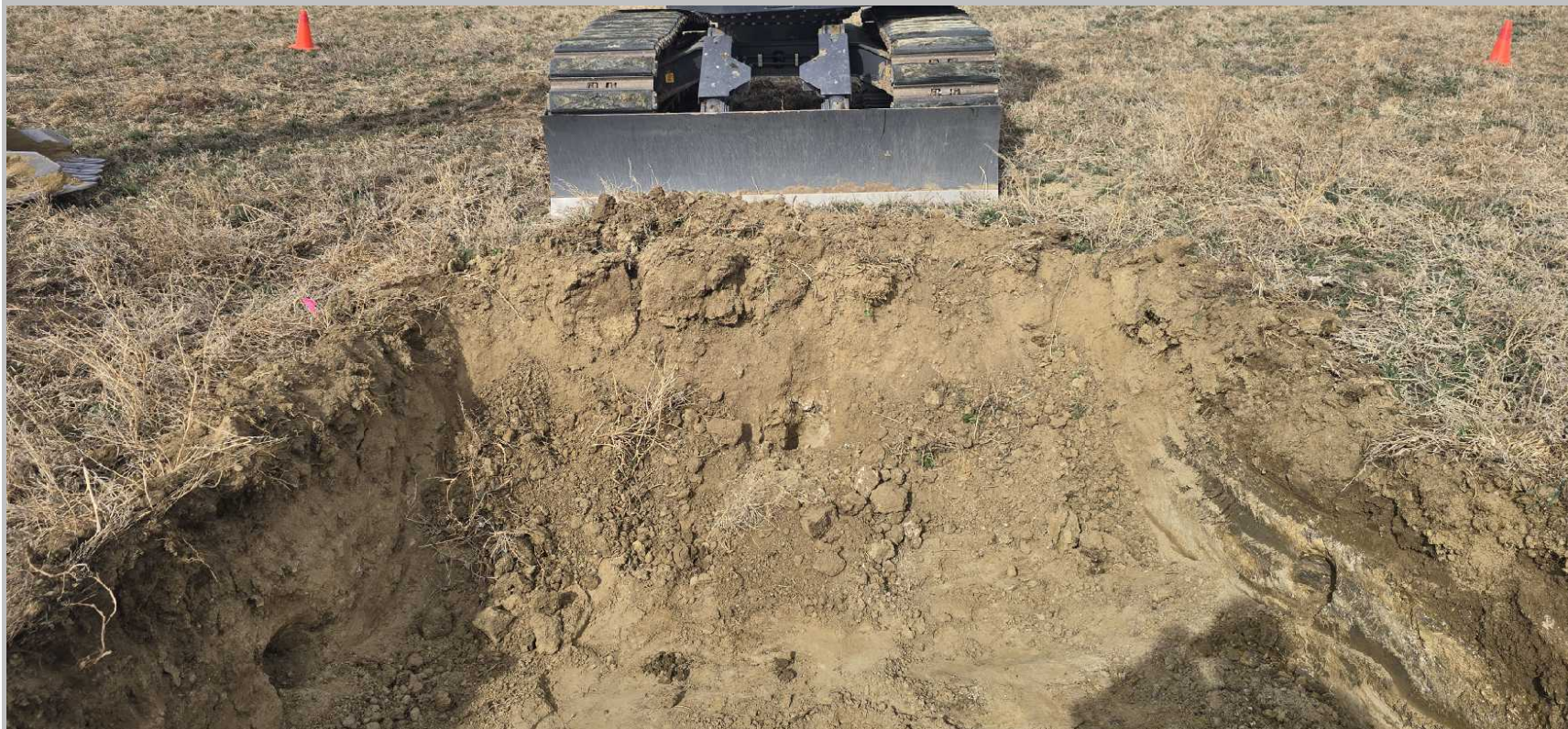
***Description:***

#2- East wall facing east, no visual staining or odor



***Description:***

#3- South wall facing south, no visual staining or odor



**Description:**

#4- West wall facing west, no visual staining or odor



***Description:***

#5- Base of excavation facing north west, no visual staining or odor