

FREMONT ENVIRONMENTAL INC.

March 28, 2025

Mr. Daniel Peterson
Noble Energy Inc.
2115 117th Avenue
Greeley, CO 80634

Subject: **Flowline Closure Data Submittal**
Oster 27-11G
API # 05-123-16595
NESW Sec. 27, T4N, R65W
Weld County, Colorado
Fremont Project No. C023-121
Facility # 248793, Remediation #28262

Dear Mr. Peterson:

As you requested, Fremont Environmental Inc. (Fremont) personnel conducted Flowline Closure activities for the Noble Energy Inc. (Noble) Oster 27-11G. Impacted soil was not encountered during abandonment activities. Details of the Oster 27-11G flowline closure activities are documented in the attached Closure Report. Groundwater was not encountered during flowline abandonment activities.

Additional sampling occurred on December 11, 2024, adjacent to the former flowline. One flowline sample was collected, FL02 5 Ft (2), adjacent to the former flowline, and five background samples were taken at 3' and 5' below ground surface (bgs). The laboratory results indicate that all samples taken adjacent to the former flowline are within 125% times the maximum background concentration for ECMC Table 915-1 Soil Suitability Limits. In addition to this, all samples taken adjacent to the former flowline are within 125% times the maximum background concentration for ECMC Table 915-1 Residential Soil Suitability Limits and Protection of Groundwater Soil Suitability Limits.

Please contact me at (303) 956-8714 if you require any additional information. Fremont appreciates the opportunity to provide this service.

Sincerely,

FREMONT ENVIRONMENTAL INC.



Jordan Suttles
Geologist

Attachments:

- Facility Closure Checklist
- Tables
- Figures
- Photos

Flowline Closure Checklist

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

Additional Attachments:		Tank Battery Closure		Wellhead Closure		Pit Closure		Partially Buried Vault Closure
Site Name & COGCC Facility Number: <small>Oster-64N65W 27NESW Facility: 328900</small>		Date: 04/27/2023			Remediation Project #: 28262			
Associated Wells: <small>Oster 27-11G Facility ID: 248793 API: 05-123-16595</small>		Age of Site: 1993			Number of Photos Attached: 3 Photos			

Starting point: (GPS coordinates and descriptions) **40.281273, -104.651112**

End point: (GPS coordinates and descriptions) **40.281483, -104.649997**

USCS Soil Type: **SW and SC** Estimated Depth to Groundwater: **N/A**

Hydrocarbon Impacted Soils / Spills: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)
None observed

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

Flowline type	Multi Phase							
Depth	Roughly 3ft							
Age	1993							
Length	340ft							
Construction Material	BLK Non ACM							
Were flowlines pulled?	Yes							
Visual Integrity of lines	No Damage							
Visual impacts if trenched	N/A							
PID Readings if trenched	High @ 4.5ppm							
Sample taken? Location/Sample ID#	FL01@5.0' FL02@5.0' FL03@5.0'							
Photo Number(s)	Photo 1A-1C							

Other observations regarding on location flowlines:

Summary

Was impacted soil identified?		No	Yes - less than 10 cubic yards	Yes - more than 10 cubic yards
Total number of samples field screened: 3 Samples		Total number of samples collected: 3 Samples		
Highest PID Reading: High @ 4.5ppm (FL03@5.0')		Total number of samples submitted to lab for analysis: 3 Samples		
If more than 10 cubic yards of impacted soil were observed:				
Vertical extent: N/A		Estimated spill volume: N/A		
Lateral extent: N/A		Volume of soil removed: N/A		
Is additional investigation required? N/A				
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: N/A		Was remedial groundwater removal conducted? Yes No		
Date Groundwater was encountered: N/A		Commencement date of removal: N/A		
Sheen on groundwater? Yes No		Volume of groundwater removed prior to sampling: N/A		
Free product observed? Yes No		Volume of groundwater removed post sampling: N/A		
Total number of samples collected: N/A		Total Volume of groundwater removed: N/A		
Total number of samples submitted to lab for analysis: N/A				

TABLE 1
FIELD DATA SUMMARY TABLE
NOBLE 100322
OSTER 27-11G, WELD COUNTY, COLORADO
REM # 28262

Sample ID	Sample Date	Depth (ft)	GPS Data Latitude/Longitude		PDOP Value	VOC Concentration (ppm)
FL01@5.0'	4/27/2023	5.0 Ft	40.281273	-104.651112	-	0.0
FL03@5.0'	4/27/2023	5.0 Ft	40.281483	-104.649997	-	4.5
FL02 5 Ft (2)	12/11/2024	5.0 Ft	40.2814614	-104.6507907	0.8	0.0
FL02@5.5'	4/27/2023	5.5 Ft	40.281461	-104.650791	-	0.0
BKG 1	12/11/2024	3, 5 Ft	40.2814795	-104.6517487	1.0	0.0
BKG 2	12/11/2024	3, 5 Ft	40.2813060	-104.6516326	0.9	0.0
BKG 3	12/11/2024	3, 5 Ft	40.2812262	-104.6513872	0.9	0.0
BKG 4	12/11/2024	3, 5 Ft	40.2810863	-104.6510454	0.9	0.0
BKG 5	12/11/2024	3, 5 Ft	40.2810211	-104.6507733	0.9	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
OSTER 27-11G, WELD COUNTY, COLORADO
REM # 28262

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@5.0'	4/27/2023	5.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
FL02 5 Ft (2)	12/11/2024	5.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
FL03@5.0'	4/27/2023	5.0 Ft	<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
OSTER 27-11G, WELD COUNTY, COLORADO
REM # 28262

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@5.0'	4/27/2023	5.0 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 5 Ft (2)	12/11/2024	5.0 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
FL03@5.0'	4/27/2023	5.0 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

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
OSTER 27-11G, WELD COUNTY, COLORADO
REM # 28262

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@5.0'	4/27/2023	5.0 Ft	7.43	0.162	0.380	0.241
FL02 5Ft (2)	12/11/2024	5.0 Ft	7.21	0.945	2.41	<2.00
FL03@5.0'	4/27/2023	5.0 Ft	7.54	0.187	0.165	0.236
BKG01 3Ft	12/11/2024	3.0 Ft	7.26	1.07	4.61	<2.00
BKG02 3Ft	12/11/2024	3.0 Ft	7.25	0.444	1.95	<2.00
BKG03 3Ft	12/11/2024	3.0 Ft	7.18	0.170	0.564	<2.00
BKG04 3Ft	12/11/2024	3.0 Ft	8.48	0.355	0.564	<2.00
BKG05 3Ft	12/11/2024	3.0 Ft	8.54	0.389	0.433	<2.00
BKG01 5Ft	12/11/2024	5.0 Ft	8.12	1.51	3.20	<2.00
BKG02 5Ft	12/11/2024	5.0 Ft	7.92	0.272	0.729	<2.00
BKG03 5Ft	12/11/2024	5.0 Ft	7.29	0.107	0.468	<2.00
BKG04 5Ft	12/11/2024	5.0 Ft	8.31	0.329	0.518	<2.00
BKG05 5Ft	12/11/2024	5.0 Ft	8.45	0.233	0.471	<2.00
Maximum Background Concentration		3.0 Ft	8.54	1.07	4.61	<2.00
Maximum Background Concentration		5.0 Ft	8.45	1.51	3.20	<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
OSTER 27-11G, WELD COUNTY, COLORADO
REM # 28262

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
FL02 5Ft (2)	12/11/2024	5.0 Ft	2.90	85.2	<0.200	<0.30	5.48	5.98	6.68	<0.260	0.0557	24.7
BKG01 3Ft	12/11/2024	3.0 Ft	3.50	96.3	0.312	<0.30	10.6	9.78	10.6	<0.260	0.0878	42.3
BKG02 3Ft	12/11/2024	3.0 Ft	3.44	135	0.536	<0.30	13.1	13.4	11.9	<0.260	0.0902	53.3
BKG03 3Ft	12/11/2024	3.0 Ft	2.86	182	0.734	<0.30	18.0	15.3	15.9	<0.260	0.0794	77.6
BKG04 3Ft	12/11/2024	3.0 Ft	2.18	74.2	0.288	<0.30	7.38	8.64	6.45	<0.260	0.0648	31.0
BKG05 3Ft	12/11/2024	3.0 Ft	4.21	80.4	0.308	<0.30	7.94	8.65	9.12	<0.260	0.0762	38.2
BKG01 5Ft	12/11/2024	5.0 Ft	6.39	131	0.305	<0.30	9.14	7.24	10.1	<0.260	0.0567	31.4
BKG02 5Ft	12/11/2024	5.0 Ft	3.25	142	0.448	<0.30	12.4	11.5	11.2	<0.260	0.0678	51.7
BKG03 5Ft	12/11/2024	5.0 Ft	2.54	210	0.746	<0.30	17.4	15.7	15.2	<0.260	0.0828	77.3
BKG04 5Ft	12/11/2024	5.0 Ft	2.21	74.0	0.304	<0.30	7.48	8.29	6.45	<0.260	0.0659	31.7
BKG05 5Ft	12/11/2024	5.0 Ft	2.15	70.8	0.299	<0.30	7.02	8.61	5.70	<0.260	0.0658	32.7
1.25x Maximum Background Concentration		3.0 Ft	5.26	228	0.918	<0.30	22.5	19.1	19.9	<0.260	0.113	97.0
1.25x Maximum Background Concentration		5.0 Ft	7.99	263	0.933	<0.30	21.8	19.6	19.0	<0.260	0.104	96.6

- Bold** faced values exceed the ECMC Table 915-1 limit(s), but are within 1.25x background concentrations.
- Red** faced values exceed the ECMC Table 915-1 limit(s) and native background concentrations.
- Red & blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL).
- 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.

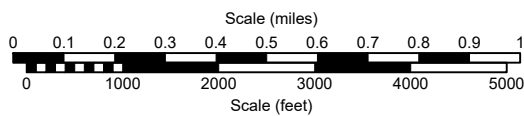
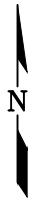
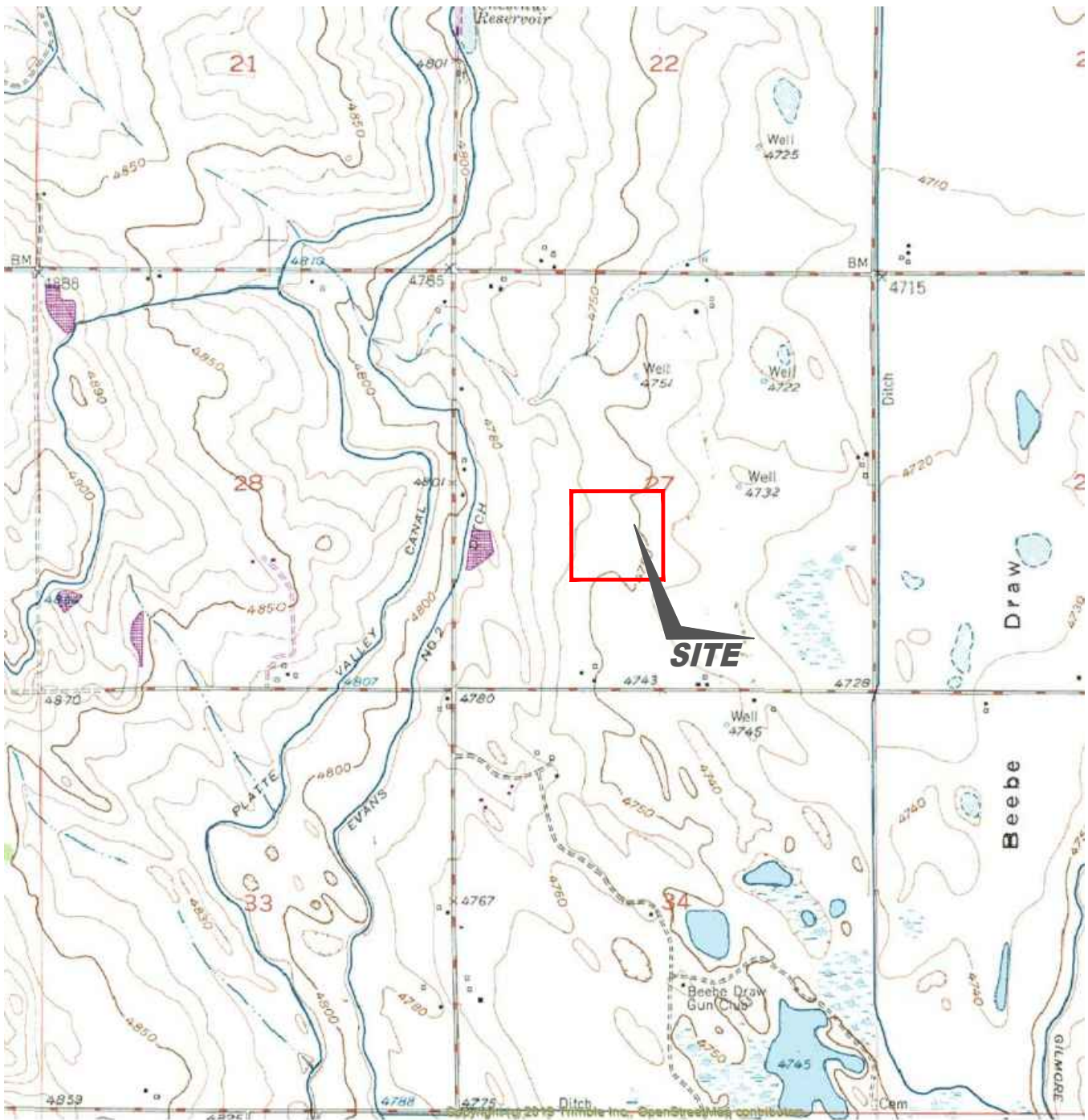
mg/kg = Milligrams per kilogram

ft. = Feet

bgs = Below ground surface

* Indicates laboratory minimum detection limit in excess of SSL

NA - Not analyzed/Not applicable

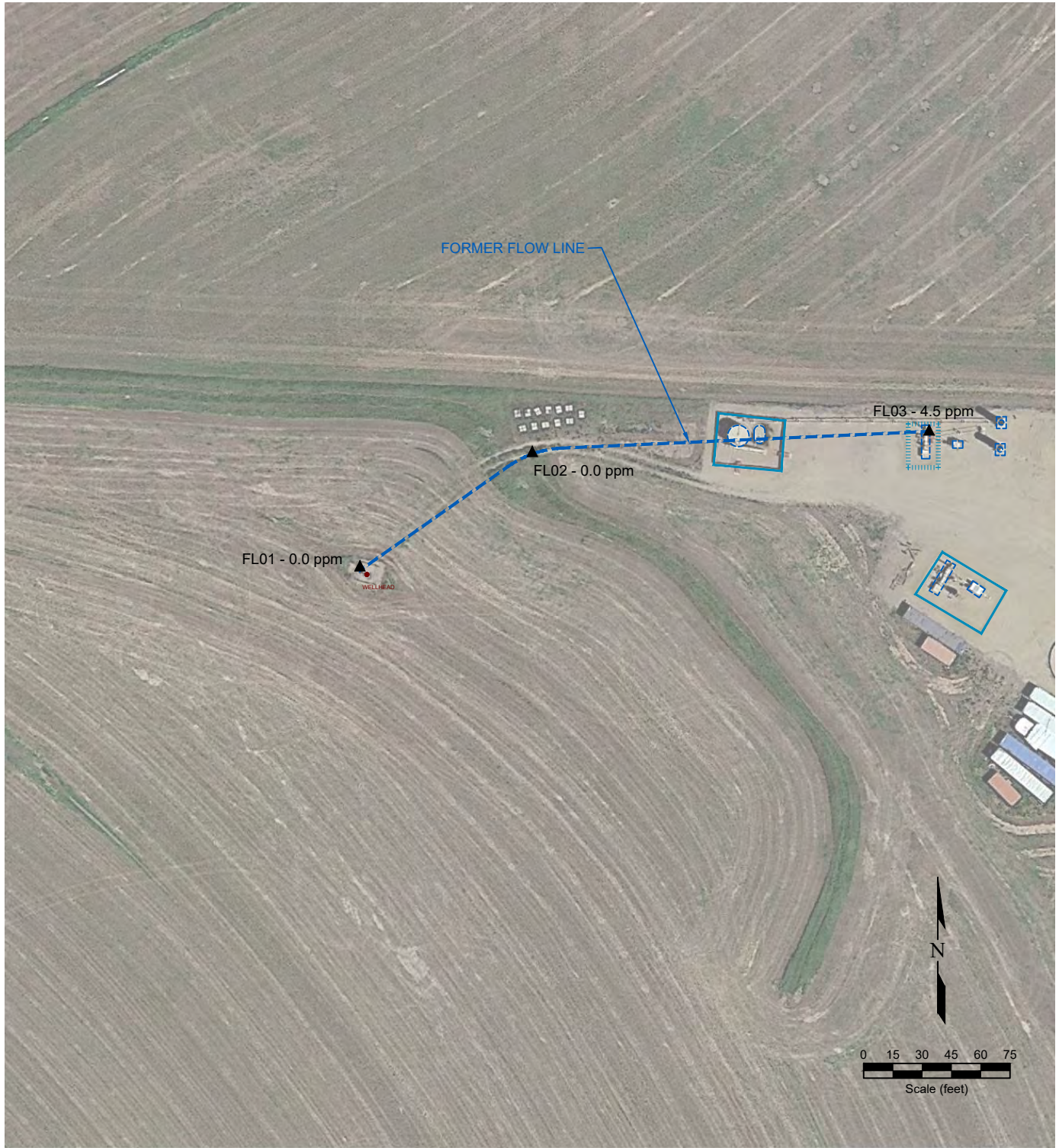


USGS 7.5 MINUTE SERIES (TOPOGRAPHIC)

Figure 1
SITE LOCATION MAP
Noble Energy, Inc. ~ Oster 27-11G

NESW Sec. 27, T4N, R65W, 6th PM
 Weld County, Colorado
 40.281250°, -104.651092°

Project # CO24-121	API # 05-123-16595	Facility #	
Date 3/27/25	Remediation # 28262	Filename 23121T	



LEGEND

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

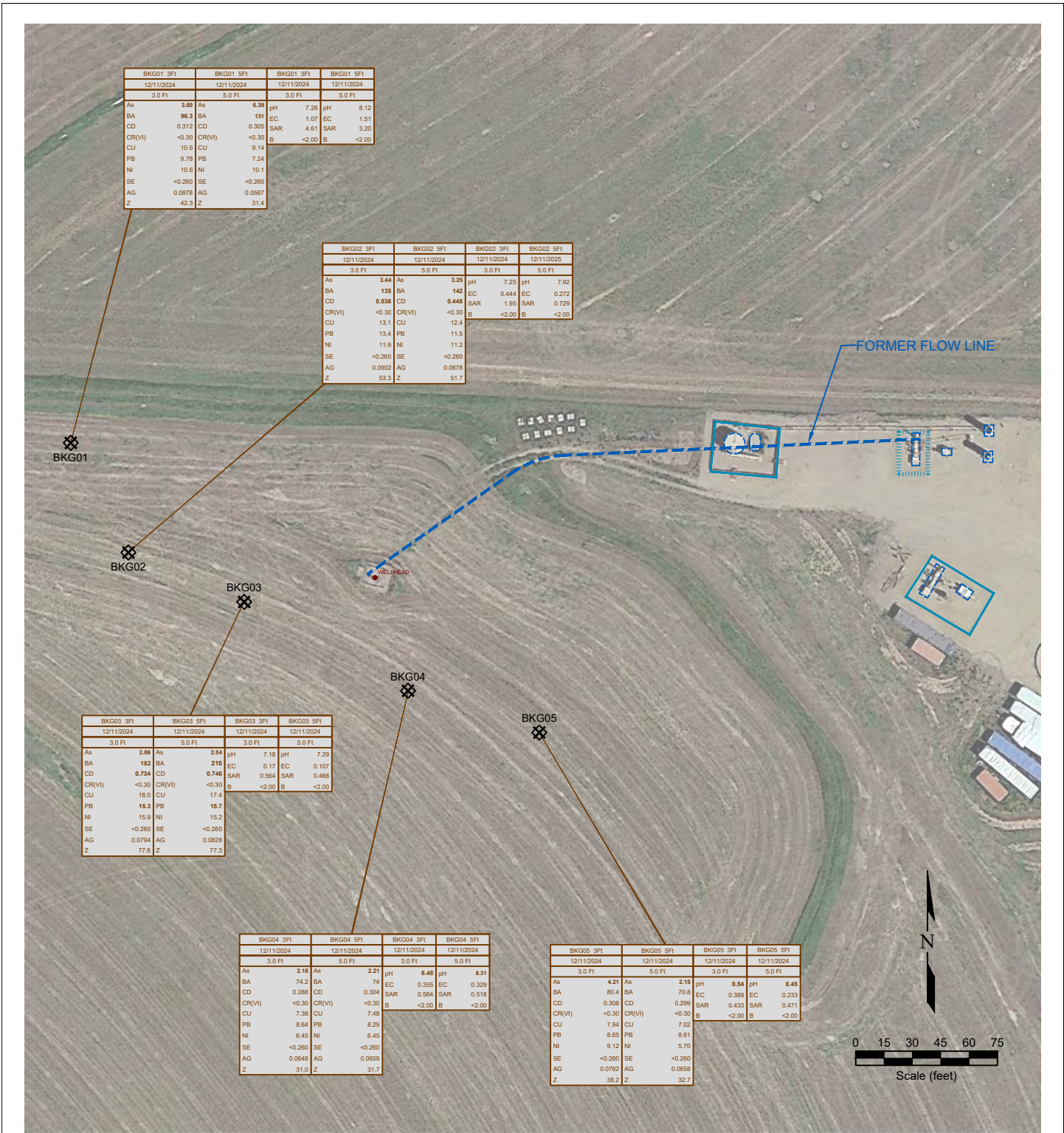
**Figure 2
SITE MAP**

Noble Energy, Inc. ~ Oster 27-11G

NESW Sec. 27, T4N, R65W, 6th PM
Weld County, Colorado
40.281250°, -104.651092°

Project No. CO24-121	API # 05-123-16595	Facility #
Date 3/27/25	Remediation # 28262	Filename 23121Q





LEGEND

- WELL HEAD LOCATION
- ABOVE GROUND STORAGE TANK
- ⊗ SOIL SAMPLE LOCATION
- FORMER FLOW LINE
- FENCE LINE
- ||||| CONTAINMENT BERM
- CONTAINMENT WALL

SAMPLE	SAMPLE ID	DATE SAMPLED	DEPTH	SAMPLE	SAMPLE ID	DATE SAMPLED	DEPTH
As	-0.01	ARSENIC (mg/kg)	pH	-500	pH (unit)		
BA	<-0.01	BARITUM (mg/kg)	EC	7.00	EC (microhm/cm)		
CD	<-0.01	CADMIUM (mg/kg)	SAR	<1	SAR (unit)		
CR(VI)	<-0.01	CHROMIUM (mg/kg)	B	<-3	BORON (mg/L)		
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
BACKGROUND SAMPLE SOIL CHEMISTRY MAP
Noble Energy, Inc. ~ Oster 27-11G

NESW Sec. 27, T4N, R65W, 6th PM
 Weld County, Colorado
 40.281250°, -104.651092°

Project No. CO24-121	API # 05-123-16595	Facility #
Date 3/27/25	Remediation # 28262	Filename 23121Q

Photo Log



Description:

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Photo Log



Description:

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Photo Log



Description:

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