

FREMONT ENVIRONMENTAL INC.

April 12, 2023

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

Subject: **Flowline Closure Data Submittal**
Parker 29-34
API # 05-123-20684
SWSE Sec. 29, T2N, R64W
Weld County, Colorado
Fremont Project No. C023-104
Facility # 262080, Remediation #26176

Dear Mr. Peterson:

As you requested, Fremont Environmental Inc. (Fremont) personnel conducted Flowline Closure activities for the Noble Energy Inc. (Noble) Parker 29-34. Impacted soil was not encountered during abandonment activities. Details of the Parker 29-34 flowline closure activities are documented in the attached Closure Report. Groundwater was not encountered during flowline abandonment activities.

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.



Paul V. Henehan, P.E.
Senior Consultant

Attachments:

- Facility Closure Checklist
- Tables
- Figures
- Photos
- Laboratory Reports

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: Baumgartner-62N64W 29SWSW Facility: 305210		Date: 04/10/2023-04/12/2023						Remediation Project #: 26176	
Associated Wells: Parker 29-34 Facility ID: 262080 API: 05-123-20684		Age of Site: 2002						Number of Photos Attached: 14 Photos	

Starting point: (GPS coordinates and descriptions) 40.104941, -104.573197

End point: (GPS coordinates and descriptions) 40.106079, -104.583962

USCS Soil Type: 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	2" Steel							
Depth	Roughly 3ft							
Age	2002							
Length	3,075ft							
Construction Material	YL Jacket /GN FBE							
Were flowlines pulled?	Yes							
Visual Integrity of lines	No Damage							
Visual impacts if trenched	N/A							
PID Readings if trenched	High @ 1.3ppm							
Sample taken? Location/Sample ID#	FL01@4.0' FL08@4.0' FL09@5.0' FL15@3.5'							
Photo Number(s)	Photo 1A-1N							

Other observations regarding on loction flowlines:
Construction material change discovered at FL08@4.0'. Flowline went from yellow jacket coating to green FBE coating. Samples collected at that location and were submitted for lab analysis.

Summary

Was impacted soil identified?		No	Yes - less than 10 cubic yards	Yes - more than 10 cubic yards
Total number of samples field screened: 11 samples		Total number of samples collected: 15 samples		
Highest PID Reading: High @ 1.3ppm (FL08@4.0')		Total number of samples submitted to lab for analysis: 4 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
SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA
NOBLE ENERGY INC.
PARKER 29-34, WELD COUNTY, COLORADO
FREMONT PROJECT NO. C023-104

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 GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)
COGCC Table 915-1 Limits (Residential SSL)			1.2	490	5.8	58	30	27	2	500		
COGCC Table 915-1 Limits (Protection of Groundwater SSL)			0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	500		
FL01@4.0'	4/10/2023	4.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
FL08@4.0'	4/10/2023	4.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
FL09@5.0'	4/12/2023	5.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
FL15@3.5'	4/12/2023	3.5 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50

Bold faced values exceed the COGCC Table 915-1 concentrations

Red & blue highlighted 915-1 Limits indicate the referenced soil screening level (SSL)

* Summation of GRO+DRO+ORO must be less than 500 mg/kg

TABLE 2
SUMMARY OF POLYCYCLIC AROMATIC HYDROCARBON SOIL CHEMISTRY DATA
NOBLE ENERGY INC.
PARKER 29-34, WELD COUNTY, COLORADO
FREMONT PROJECT NO. C023-104

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)
COGCC 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
COGCC 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@4.0'	4/10/2023	4.0 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
FL08@4.0'	4/10/2023	4.0 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
FL09@5.0'	4/12/2023	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
FL15@3.5'	4/12/2023	3.5 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

Bold faced values exceed the COGCC Table 915-1 concentrations

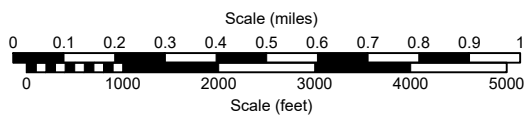
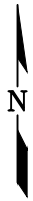
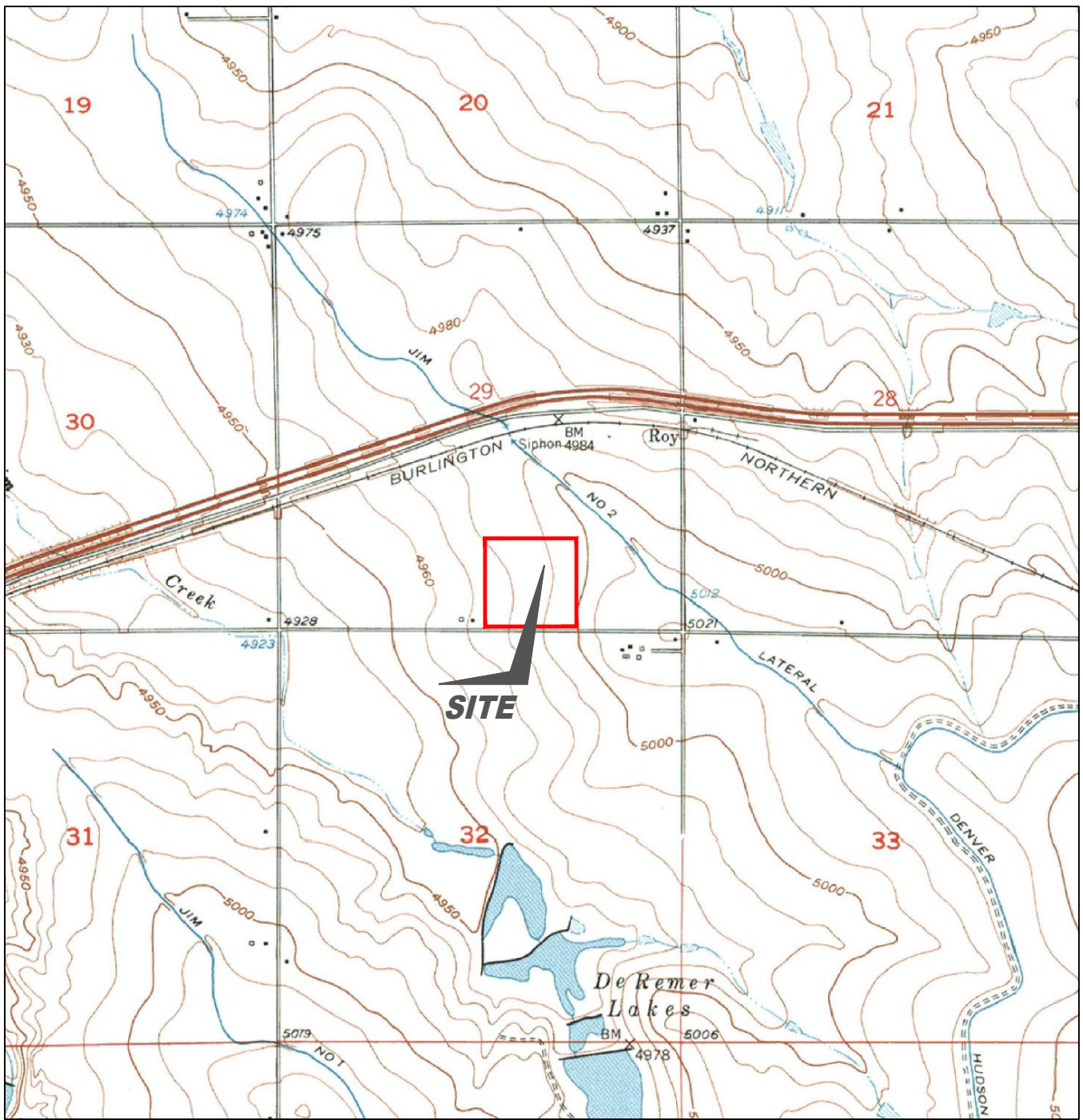
Red & blue highlighted 915-1 Limits indicate the referenced soil screening level (SSL)

**TABLE 3
SUMMARY OF SOIL SUITABILITY FOR RECLAMATION
NOBLE ENERGY INC.
PARKER 29-34, WELD COUNTY, COLORADO
FREMONT PROJECT NO. C023-104**

Sample ID	Sample Date	Depth (ft)	pH	EC (mmhos/cm)	SAR	Boron (mg/L)
COGCC Table 915-1 Soil Suitability Limits			6 - 8.3	<4	<6	2
FL01@4.0'	4/10/2023	4.0 Ft	8.00	0.452	2.12	0.136
FL08@4.0'	4/10/2023	4.0 Ft	7.81	0.580	3.21	0.274
FL09@5.0'	4/12/2023	5.0 Ft	7.82	1.12	3.97	0.306
FL15@3.5'	4/12/2023	3.5 Ft	7.98	0.324	1.66	0.168

Bold faced values exceed the COGCC Table 915-1 concentrations

Yellow highlighted 915-1 Limits indicate the referenced soil screening level (SSL)



USGS 7.5 MINUTE SERIES (TOPOGRAPHIC)

Figure 1
SITE LOCATION MAP

NOBLE ENERGY INC - PARKER 29-34
 SWSE Sec. 29, T2N, R64W, 6th PM
 Weld County, Colorado
 40.104950°, -104.573210°

Project # CO23-104	API # 05-123-20684	Facility # 262080
Date 10/17/2023	Remediation # 26176	Filename 23104T





LEGEND

- WELLHEAD LOCATION
 - ▲ PID READING LOCATION
 - ABOVE GROUND STORAGE TANK
 - ▭ BUILDING
 - ▭ FORMER FACILITY
 - FENCE LINE
 - - - CONTAINMENT BERM
 - - - FLOW LINE
- | | | |
|------|---------|---|
| FL01 | PID 0.1 | PID READING LOCATION IDENTIFICATION
PHOTO IONIZATION DETECTION (ppm) |
| | | |

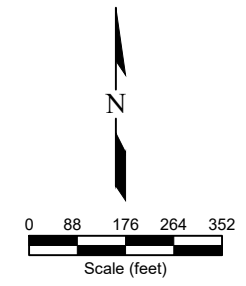
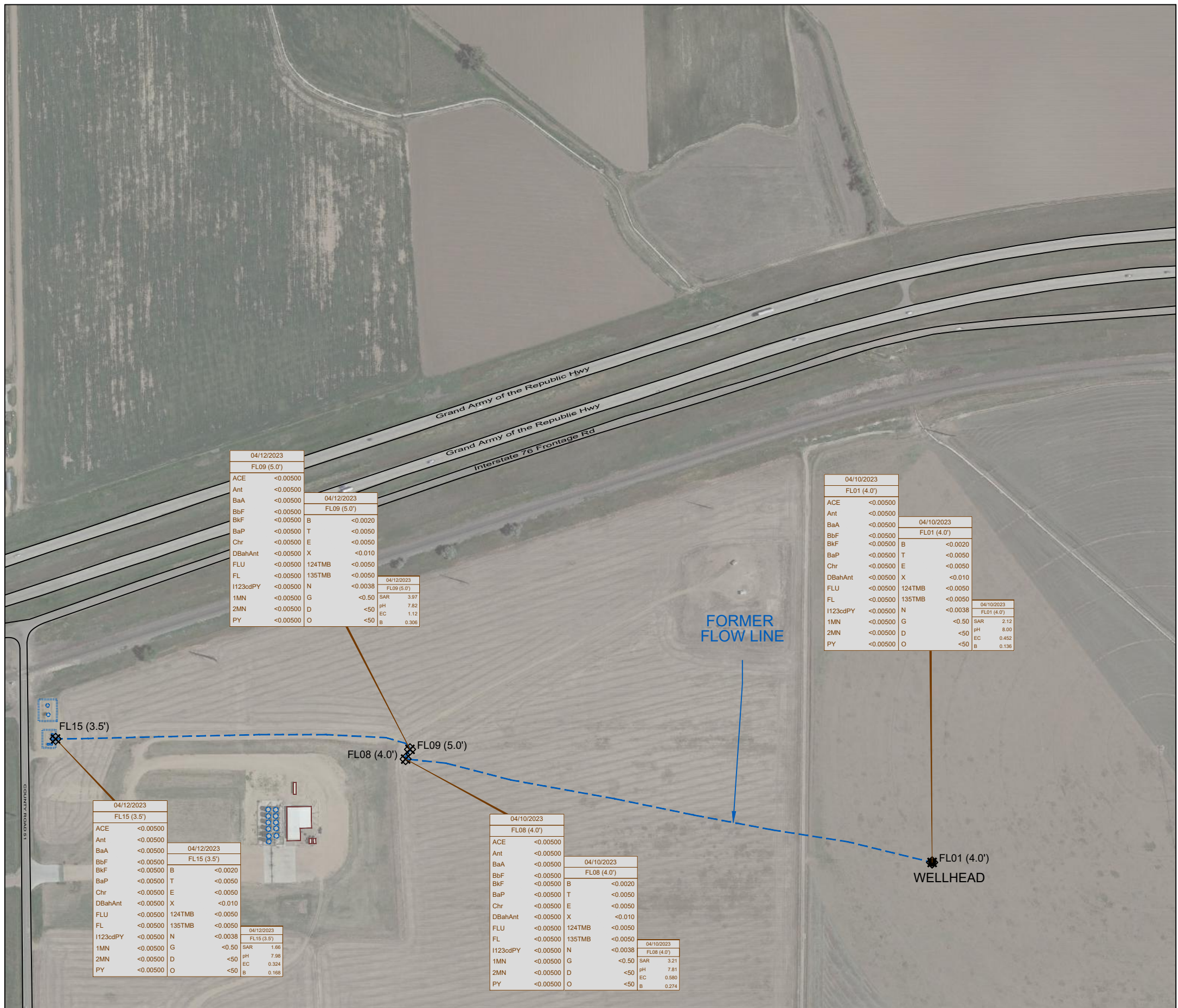


Figure 2
SITE MAP

NOBLE ENERGY INC - PARKER 29-34
 SWSE Sec. 29, T2N, R64W, 6th PM
 Weld County, Colorado
 40.104950°, -104.573210°

Project # CO23-104	API # 05-123-20684	Facility # 262080
Date 10/17/2023	Remediation # 26176	Filename 23104Q





LEGEND

- WELLHEAD LOCATION
- ⊗ SOIL SAMPLE LOCATION
- ABOVE GROUND STORAGE TANK
- ▭ BUILDING
- ▭ FORMER FACILITY
- FENCE LINE
- ||||| CONTAINMENT BERM
- - - - FLOW LINE

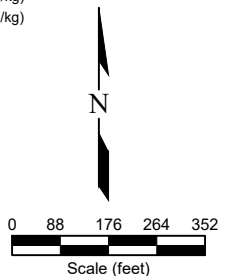
4/7/2023		DATE SAMPLED
FL01 (4')	ACE	<0.00500
	Ant	<0.00500
	BaA	<0.00500
	BbF	<0.00500
	BkF	<0.00500
	BaP	<0.00500
	Chr	<0.00500
	DBahAnt	<0.00500
	FLU	<0.00500
	FL	<0.00500
	I123cdPY	<0.00500
	1MN	<0.00500
	2MN	<0.00500
	PY	<0.00500

4/7/2023		DATE SAMPLED
FL01 (4')	SAR	0.960
	pH	8.04
	EC	0.385
	B	0.270

4/7/2023		DATE SAMPLED
FL01 (4')	B	<0.0020
	T	<0.0050
	E	<0.0050
	X	<0.010
	124TMB	<0.0050
	135TMB	<0.0050
	N	<0.0038
	G	<0.50
	D	<50
	O	<50

4/10/2023		DATE SAMPLED
FL01 (4.0')	ACE	<0.00500
	Ant	<0.00500
	BaA	<0.00500
	BbF	<0.00500
	BkF	<0.00500
	BaP	<0.00500
	Chr	<0.00500
	DBahAnt	<0.00500
	FLU	<0.00500
	FL	<0.00500
	I123cdPY	<0.00500
	1MN	<0.00500
	2MN	<0.00500
	PY	<0.00500

4/10/2023		DATE SAMPLED
FL01 (4.0')	SAR	2.12
	pH	8.00
	EC	0.452
	B	0.138



04/12/2023		DATE SAMPLED
FL09 (5.0')	ACE	<0.00500
	Ant	<0.00500
	BaA	<0.00500
	BbF	<0.00500
	BkF	<0.00500
	BaP	<0.00500
	Chr	<0.00500
	DBahAnt	<0.00500
	FLU	<0.00500
	FL	<0.00500
	I123cdPY	<0.00500
	1MN	<0.00500
	2MN	<0.00500
	PY	<0.00500

04/12/2023		DATE SAMPLED
FL09 (5.0')	B	<0.0020
	T	<0.0050
	E	<0.0050
	X	<0.010
	124TMB	<0.0050
	135TMB	<0.0050
	N	<0.0038
	G	<0.50
	D	<50
	O	<50

04/12/2023		DATE SAMPLED
FL09 (5.0')	SAR	3.97
	pH	7.82
	EC	1.12
	B	0.308

04/10/2023		DATE SAMPLED
FL01 (4.0')	ACE	<0.00500
	Ant	<0.00500
	BaA	<0.00500
	BbF	<0.00500
	BkF	<0.00500
	BaP	<0.00500
	Chr	<0.00500
	DBahAnt	<0.00500
	FLU	<0.00500
	FL	<0.00500
	I123cdPY	<0.00500
	1MN	<0.00500
	2MN	<0.00500
	PY	<0.00500

04/10/2023		DATE SAMPLED
FL01 (4.0')	B	<0.0020
	T	<0.0050
	E	<0.0050
	X	<0.010
	124TMB	<0.0050
	135TMB	<0.0050
	N	<0.0038
	G	<0.50
	D	<50
	O	<50

04/10/2023		DATE SAMPLED
FL01 (4.0')	SAR	2.12
	pH	8.00
	EC	0.452
	B	0.138

04/12/2023		DATE SAMPLED
FL15 (3.5')	ACE	<0.00500
	Ant	<0.00500
	BaA	<0.00500
	BbF	<0.00500
	BkF	<0.00500
	BaP	<0.00500
	Chr	<0.00500
	DBahAnt	<0.00500
	FLU	<0.00500
	FL	<0.00500
	I123cdPY	<0.00500
	1MN	<0.00500
	2MN	<0.00500
	PY	<0.00500

04/12/2023		DATE SAMPLED
FL15 (3.5')	B	<0.0020
	T	<0.0050
	E	<0.0050
	X	<0.010
	124TMB	<0.0050
	135TMB	<0.0050
	N	<0.0038
	G	<0.50
	D	<50
	O	<50

04/12/2023		DATE SAMPLED
FL15 (3.5')	SAR	1.66
	pH	7.98
	EC	0.324
	B	0.188

04/10/2023		DATE SAMPLED
FL08 (4.0')	ACE	<0.00500
	Ant	<0.00500
	BaA	<0.00500
	BbF	<0.00500
	BkF	<0.00500
	BaP	<0.00500
	Chr	<0.00500
	DBahAnt	<0.00500
	FLU	<0.00500
	FL	<0.00500
	I123cdPY	<0.00500
	1MN	<0.00500
	2MN	<0.00500
	PY	<0.00500

04/10/2023		DATE SAMPLED
FL08 (4.0')	B	<0.0020
	T	<0.0050
	E	<0.0050
	X	<0.010
	124TMB	<0.0050
	135TMB	<0.0050
	N	<0.0038
	G	<0.50
	D	<50
	O	<50

04/10/2023		DATE SAMPLED
FL08 (4.0')	SAR	3.21
	pH	7.81
	EC	0.580
	B	0.274

**Figure 3
SOIL CHEMISTRY MAP**

NOBLE ENERGY INC - PARKER 29-34
SWSE Sec. 29, T2N, R64W, 6th PM
Weld County, Colorado
40.104950°, -104.573210°

Project # CO23-104	API # 05-123-20684	Facility # 262080	
Date 10/17/2023	Remediation # 26176	Filename 23104Q	

Photo Log



Description:

Photo Log



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