

September 3, 2024

Noble Energy, Inc – Loustalet-64N64W 30NESE

Site Investigation Update

NESE Sec 30, T4N, R64W

40.281460, -104.586420

Weld County, Colorado

Fremont Project No. C023-134

Facility # 327430, Remediation # 26975

Site Overview – Site History

The site consists of the former Loustalet-64N64W 30NESE facility. A historical release was identified at the produced water vault (PWV) and above ground storage tank (AST) during decommissioning activities on May 15, 2023. A comprehensive site investigation was undertaken on August 21, 2024 to define the magnitude and extent of soil impacts. Soil impacts will be removed via excavation at and adjacent to the former PWV and AST location. The proposed dimensions of the excavation extent are estimated to be 60'x75'x24' deep. Groundwater was encountered at approximately 17 feet below ground surface (bgs) during the site investigation.

Conceptual Site Model*

*Data presented represents the most recent sampling event

- **Land Use** – Agricultural Rangeland
- **Lithology (USCS)** – SW underlain by CL
- **Potential Receptors within ¼ mile** – Intermittent Riverine Wetlands 0.17mi ESE (Neres Canal)
- Palustrine Wetlands 0.18mi ESE, 0.23mi SE
- **Groundwater Encountered** – Yes
- **Estimated Depth to Groundwater** – 17 feet
- **Impacted Media and Excavation Extent** – Soil and groundwater – 60'x75'x24' deep
- **Volume of Impacts Removed** – Impacts remain in situ
- **Waste Type** – Non-hazardous

Contaminants of Concern (COC)

The laboratory data indicates organic and inorganic soil constituents in 22 of the 22 samples exceed the ECMC Table 915-1 standards collected during the August 21, 2024 supplemental site investigation conducted at and adjacent to the former PWV and AST locations. COCs include benzene, toluene, ethylbenzene, xylenes, naphthalene, 1,2,4-and-1,3,5 TMBs, TPH, benzo (a) anthracene, 1-and-2 methylnaphthalene, pH, arsenic, cadmium, lead and nickel. The soil analytical data are summarized in Tables 2-5.

The source soil boring was completed as a one-inch PVC, stickup, groundwater monitoring well to a total depth of 20 feet bgs. Groundwater was encountered at 16.66 feet bgs in the monitoring well and was sampled for Table 915 organic and inorganic constituents in groundwater (BTEX, 1,2,4 Trimethylbenzene, 1,3,5 Trimethylbenzene, and Naphthalene). Groundwater COCs include benzene, ethylbenzene, xylenes, 1,2,4-and-1,3,5 TMBs. A copy of the laboratory's report, quality control data, and chain-of-custody documentation is attached.

Remedial Actions

The source will be excavated, and confirmation soil samples will be collected and analyzed for the full Table 915 suite of organic and inorganic constituents. Groundwater sample(s) will be collected for full Table 915-1 organic and inorganic constituents in groundwater (Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX), naphthalene, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, Chloride ion, Sulfate ion and Total Dissolved Solids (TDS).

Additionally, the operator will install soil borings that will be improved with temporary PVC monitoring wells. One monitoring well will be installed within the source area (if possible) and additional wells will be installed to monitor up-gradient, down-gradient, and cross-gradient groundwater conditions. Each soil boring location will have the soil type logged, will be field screened with a PID, and the interval with the highest PID measurement and/or the interval directly above groundwater will be collected and submitted for analysis of Table 915-1 constituents in soil. Quarterly groundwater monitoring will be conducted until four consecutive quarters of groundwater sampling have been completed and reported at the location with concentrations of Table 915-1 constituents below regulatory limits. Groundwater monitoring wells will be sampled and submitted to a laboratory for analysis of Table 915-1 groundwater constituents: Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX), naphthalene, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, Chloride ion, Sulfate ion and Total Dissolved Solids (TDS).

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.**



9/3/24

Date_____

Jeff T. Griggs

Geologist

Reviewed by:



9/3/24

Date_____

Paul V. Henehan, P.E.

Senior Consultant

Attachments:

Tables

Figures

Boring Logs

Laboratory Report

Appendix :

Appendix A: Groundwater Sampling Plan

ATTACHMENTS

TABLE 1
FIELD DATA SUMMARY TABLE
NOBLE 100322
LOUSTALET-64N64W 30NESE, WELD COUNTY, COLORADO
REM # 26975

Sample ID	Sample Date	Depth (ft)	GPS Data Latitude/Longitude		PDOP Value	VOC Concentration (ppm)
AST01@4.0'	5/15/2023	4.0 Ft	40.281416	-104.586815	-	887.8
SEP01@5.5'	5/15/2023	5.5 Ft	40.281447	-104.586463	-	0.6
SEP02@5.5'	5/15/2023	5.5 Ft	40.281481	-104.586462	-	0.0
PWVB01@7.0'	5/15/2023	7.0 Ft	40.281374	-104.586813	-	0.3
PWVN01@6.0'	5/15/2023	6.0 Ft	40.281392	-104.586813	-	750.1
PWVS01@6.0'	5/15/2023	6.0 Ft	40.281354	-104.586816	-	0.4
PWVE01@6.0'	5/15/2023	6.0 Ft	40.281374	-104.586784	-	48.7
PWVW01@6.0'	5/15/2023	6.0 Ft	40.281373	-104.586841	-	1033
DL01@4.0'	5/15/2023	4.0 Ft	40.281448	-104.586489	-	0.1
ECD01@6.0"	5/15/2023	0.5 Ft	40.281530	-104.586450	-	0.0
ECD02@6.0"	5/15/2023	0.5 Ft	40.281180	-104.586450	-	0.0
MET01@6.0"	5/15/2023	0.5 Ft	40.281180	-104.586661	-	0.0
BKG01@6.0"	5/15/2023	0.5 Ft	40.281089	-104.587067	-	0.0
SEP01@5.5' (SB)	8/21/2024	5.5 Ft	40.281447	-104.586463	1.00	Refer to Bore Logs
SEP02@5.5' (SB)	8/21/2024	5.5 Ft	40.281481	-104.586462	1.00	Refer to Bore Logs
SB-1	8/21/2024	15.0 Ft, 20.0Ft, 22.0 Ft, 24.0 Ft	40.2813674	-104.5867973	1.90	Refer to Bore Logs
MW-1	8/21/2024	14.0 Ft, 18.0 Ft	40.2814350	-104.5867956	1.80	Refer to Bore Logs
SB-3	8/21/2024	1.0 Ft, 20.0 Ft	40.2814858	-104.5867931	1.90	Refer to Bore Logs
SB-4	8/21/2024	15.0 Ft, 18.0 Ft	40.2814343	-104.5867304	1.80	Refer to Bore Logs
SB-5	8/21/2024	17.0 Ft, 20.0 Ft	40.2814351	-104.5866556	1.80	Refer to Bore Logs
SB-6	8/21/2024	16.0 Ft, 20.0 Ft	40.2814340	-104.5865903	1.80	Refer to Bore Logs
SB-7	8/21/2024	16.0 Ft, 19.0 Ft	40.2813206	-104.5868010	1.20	Refer to Bore Logs
SB-8	8/21/2024	15.0 Ft, 19.0 Ft	40.2813678	-104.5868558	0.90	Refer to Bore Logs

TABLE 1
FIELD DATA SUMMARY TABLE
NOBLE 100322
LOUSTALET-64N64W 30NESE, WELD COUNTY, COLORADO
REM # 26975

Sample ID	Sample Date	Depth (ft)	GPS Data		PDOP Value	VOC Concentration (ppm)
			Latitude/Longitude			
SB-9	8/21/2024	16.0 Ft, 18.0 Ft	40.2813630	-104.5866650	0.90	Refer to Bore Logs
SB-10	8/21/2024	16.0 Ft, 20.0 Ft	40.2813613	-104.5865913	0.90	Refer to Bore Logs

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

Confirmation (Re-sample)

TABLE 2
SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA
NOBLE 100322
LOUSTALET-64N64W 30NESE, WELD COUNTY, COLORADO
REM # 26975

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**		
AST01@4.0'	5/15/2023	4.0 Ft	0.052	0.63	<0.050	6.7	2.8	1.9	0.14	<500	130	95	<50
SEP01@5.5'	5/15/2023	5.5 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
SEP02@5.5'	5/15/2023	5.5 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
PWVB01@7.0'	5/15/2023	7.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
PWVN01@6.0'	5/15/2023	6.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	0.14	<0.0038	<500	3.8	<50	<50
PWVS01@6.0'	5/15/2023	6.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
PWVE01@6.0'	5/15/2023	6.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
PWVW01@6.0'	5/15/2023	6.0 Ft	<0.0020	<0.0050	0.24	14	<0.0050	13	1.7	7,832	7600	180	52
SB-1 (15.0')	8/21/2024	15.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
SB-1 (20.0')	8/21/2024	20.0 Ft	<0.0020	<0.0050	0.42	<0.010	<0.0050	<0.0050	0.069	<500	<0.50	320	54
SB-1 (22.0')	8/21/2024	22.0 Ft	0.29	0.15	0.23	1.6	0.46	0.29	0.11	<500	79	120	<50
SB-1 (24.0')	8/21/2024	24.0 Ft	0.18	0.12	0.057	0.43	0.066	0.037	0.032	<500	7.7	<50	<50
MW-1 (14.0')	8/21/2024	14.0 Ft	0.062	<0.0050	<0.0050	14	7.9	5.2	0.21	1,397	370	940	87
MW-1 (18.0')	8/21/2024	18.0 Ft	<0.0020	4.8	1.2	20	5.7	3.9	0.15	950	780	120	<50
SB-3 (1.0')	8/21/2024	1.0 Ft	0.0037	0.075	0.038	0.99	0.38	0.23	0.018	<500	8.8	<50	<50
SB-3 (20.0')	8/21/2024	20.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
SB-4 (15.0')	8/21/2024	15.0 Ft	<0.0020	0.016	<0.0050	3.9	1.7	1.7	0.067	<500	130	170	<50
SB-4 (18.0')	8/21/2024	18.0 Ft	0.48	0.53	0.11	1.6	0.21	0.15	0.012	<500	35	<50	<50
SB-5 (17.0')	8/21/2024	17.0 Ft	<0.0020	5.3	0.50	12	2.2	0.59	0.038	<500	210	73	<50
SB-5 (20.0')	8/21/2024	20.0 Ft	<0.0020	0.0053	0.0060	0.10	0.055	0.035	0.0050	<500	6.3	<50	<50
SB-6 (16.0')	8/21/2024	16.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
SB-6 (20.0')	8/21/2024	20.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
SB-7 (16.0')	8/21/2024	16.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
SB-7 (19.0')	8/21/2024	19.0 Ft	0.31	0.23	0.0065	0.093	0.0074	<0.0050	<0.0038	<500	2.1	<50	<50
SB-8 (15.0')	8/21/2024	15.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
SB-8 (19.0')	8/21/2024	19.0 Ft	0.019	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
SB-9 (16.0')	8/21/2024	16.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	0.0059	<0.0038	<500	<0.50	<50	<50
SB-9 (18.0')	8/21/2024	18.0 Ft	<0.0020	0.87	1.2	28	15	9.6	0.59	1,450	790	610	<50

TABLE 2
SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA
NOBLE 100322
LOUSTALET-64N64W 30NESE, WELD COUNTY, COLORADO
REM # 26975

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**		
SB-10 (16.0')	8/21/2024	16.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
SB-10 (20.0')	8/21/2024	20.0 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 4
SUMMARY OF SOIL SUITABILITY FOR RECLAMATION
NOBLE 100322
LOUSTALET-64N64W 30NESE, WELD COUNTY, COLORADO
REM # 26975

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
AST01@4.0'	5/15/2023	4.0 Ft	6.51	0.705	1.83	0.216
SEP01@5.5'	5/15/2023	5.5 Ft	5.33	0.151	0.0876	0.162
SEP02@5.5'	5/15/2023	5.5 Ft	5.47	0.187	0.138	0.181
PWVB01@7.0'	5/15/2023	7.0 Ft	7.00	0.210	0.0832	0.197
PWVN01@6.0'	5/15/2023	6.0 Ft	6.55	0.217	0.302	0.160
PWVS01@6.0'	5/15/2023	6.0 Ft	6.24	0.186	0.848	0.132
PWVE01@6.0'	5/15/2023	6.0 Ft	5.85	0.088	0.386	0.0904
PWVW01@6.0'	5/15/2023	6.0 Ft	5.78	0.214	1.34	0.677
BKG01@6.0"	5/15/2023	0.5 Ft	5.06	0.0499	0.0290	0.139
SEP01@5.5' (SB)	8/21/2024	5.5 Ft	7.64	NA	NA	NA
SEP02@5.5' (SB)	8/21/2024	5.5 Ft	7.22	NA	NA	NA
SB-1 (15.0')	8/21/2024	15.0 Ft	9.06	0.202	1.18	<2.00
SB-1 (20.0')	8/21/2024	20.0 Ft	8.16	0.419	1.15	<2.00
SB-1 (22.0')	8/21/2024	22.0 Ft	8.13	0.571	4.68	<2.00
SB-1 (24.0')	8/21/2024	24.0 Ft	7.50	0.186	0.896	<2.00
MW-1 (14.0')	8/21/2024	14.0 Ft	8.41	0.261	0.0781	<2.00
MW-1 (18.0')	8/21/2024	18.0 Ft	8.32	0.264	0.332	<2.00
SB-3 (1.0')	8/21/2024	1.0 Ft	7.35	1.01	0.701	<2.00
SB-3 (20.0')	8/21/2024	20.0 Ft	8.45	0.202	1.01	<2.00
SB-4 (15.0')	8/21/2024	15.0 Ft	8.41	0.301	0.507	<2.00
SB-4 (18.0')	8/21/2024	18.0 Ft	8.16	0.380	0.357	<2.00

TABLE 4
SUMMARY OF SOIL SUITABILITY FOR RECLAMATION
NOBLE 100322
LOUSTALET-64N64W 30NESE, WELD COUNTY, COLORADO
REM # 26975

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
SB-5 (17.0')	8/21/2024	17.0 Ft	8.71	0.146	0.500	<2.00
SB-5 (20.0')	8/21/2024	20.0 Ft	8.44	0.158	0.547	<2.00
SB-6 (16.0')	8/21/2024	16.0 Ft	8.44	0.352	0.561	<2.00
SB-6 (20.0')	8/21/2024	20.0 Ft	8.07	0.316	1.10	<2.00
SB-7 (16.0')	8/21/2024	16.0 Ft	8.87	0.241	1.24	<2.00
SB-7 (19.0')	8/21/2024	19.0 Ft	8.04	0.466	3.19	<2.00
SB-8 (15.0')	8/21/2024	15.0 Ft	8.98	0.443	2.09	<2.00
SB-8 (19.0')	8/21/2024	19.0 Ft	8.52	0.150	0.527	<2.00
SB-9 (16.0')	8/21/2024	16.0 Ft	8.21	0.256	1.09	<2.00
SB-9 (18.0')	8/21/2024	18.0 Ft	8.25	0.175	0.890	<2.00
SB-10 (16.0')	8/21/2024	16.0 Ft	8.43	0.258	0.164	<2.00
SB-10 (20.0')	8/21/2024	20.0 Ft	7.94	0.177	0.913	<2.00
Maximum Background Concentration			5.06	0.0499	0.0290	0.139

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

Confirmation (Re-sample)

TABLE 5
SUMMARY OF METALS IN SOIL CHEMISTRY DATA
NOBLE 100322
LOUSTALET-64N64W 30NESE, WELD COUNTY, COLORADO
REM # 26975

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
AST01@4.0'	5/15/2023	4.0 Ft	0.483	31.7	<2.14	<0.30	1.25	2.73	1.05	<0.279	<0.0214	4.14
PWVW01@6.0'	5/15/2023	6.0 Ft	0.447	64.2	<0.232	<0.30	1.34	3.88	1.18	<0.301	<0.0232	5.18
BKG01@6.0"	5/15/2023	0.5 Ft	0.391	22.3	<0.212	<0.30	1.01	2.28	0.925	<0.260	<0.0212	3.97
SB-1 (15.0')	8/21/2024	15.0 Ft	1.09	28.9	<0.200	<0.30	2.15	2.32	2.44	<0.260	<0.0200	9.14
SB-1 (20.0')	8/21/2024	20.0 Ft	1.19	35.6	<0.200	<0.30	2.81	3.00	3.97	<0.260	<0.0200	11.8
SB-1 (22.0')	8/21/2024	22.0 Ft	2.72	46.1	<0.200	<0.30	15.4	10.2	4.31	<0.260	0.0329	12.1
SB-1 (24.0')	8/21/2024	24.0 Ft	7.30	75.9	0.581	<0.30	32.7	24.6	28.4	<0.260	0.0374	151
MW-1 (14.0')	8/21/2024	14.0 Ft	1.17	38.9	<0.200	<0.30	2.32	2.75	2.64	<0.260	<0.0200	11.0
MW-1 (18.0')	8/21/2024	18.0 Ft	1.04	31.3	<0.200	<0.30	2.51	2.73	3.34	<0.260	<0.0200	11.3
SB-3 (1.0')	8/21/2024	1.0 Ft	1.45	30.8	<0.200	<0.30	4.09	6.34	3.59	<0.260	<0.0200	14.6
SB-3 (20.0')	8/21/2024	20.0 Ft	8.44	60.7	0.794	<0.30	26.5	25.5	40.3	<0.260	0.0364	121
SB-4 (15.0')	8/21/2024	15.0 Ft	1.18	43.7	<0.200	<0.30	2.65	2.83	3.22	<0.260	<0.0200	12.2
SB-4 (18.0')	8/21/2024	18.0 Ft	0.957	43.0	<0.180	<0.30	2.42	2.98	2.76	<0.234	<0.0180	11.2
SB-5 (17.0')	8/21/2024	17.0 Ft	4.12	34.9	0.200	<0.30	13.9	11.7	9.20	<0.260	0.0241	35.2
SB-5 (20.0')	8/21/2024	20.0 Ft	4.32	43.2	0.339	<0.30	11.2	10.7	15.7	<0.260	<0.0200	90.5
SB-6 (16.0')	8/21/2024	16.0 Ft	1.46	36.2	<0.200	<0.30	3.41	3.48	5.44	<0.260	<0.0200	16.7
SB-6 (20.0')	8/21/2024	20.0 Ft	2.99	20.4	0.257	<0.30	11.5	17.5	8.55	<0.260	0.0229	49.8
SB-7 (16.0')	8/21/2024	16.0 Ft	1.32	34.5	<0.200	<0.30	2.56	2.77	2.50	<0.260	<0.0200	11.0
SB-7 (19.0')	8/21/2024	19.0 Ft	1.45	49.8	<0.200	<0.30	2.74	2.93	3.21	<0.260	<0.0200	12.2
SB-8 (15.0')	8/21/2024	15.0 Ft	1.33	41.2	<0.200	<0.30	2.61	2.82	3.24	<0.260	<0.0200	12.0
SB-8 (19.0')	8/21/2024	19.0 Ft	3.38	30.4	<0.200	<0.30	12.3	10.6	6.21	<0.260	<0.0200	28.3
SB-9 (16.0')	8/21/2024	16.0 Ft	4.78	29.5	<0.200	<0.30	5.74	7.72	4.52	<0.260	<0.0200	22.2
SB-9 (18.0')	8/21/2024	18.0 Ft	6.15	77.9	0.543	<0.30	20.6	18.1	21.1	<0.260	0.0425	126

TABLE 5
SUMMARY OF METALS IN SOIL CHEMISTRY DATA
NOBLE 100322
LOUSTALET-64N64W 30NESE, WELD COUNTY, COLORADO
REM # 26975

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
SB-10 (16.0')	8/21/2024	16.0 Ft	1.06	28.5	<0.200	<0.30	2.22	2.36	2.50	<0.260	<0.0200	9.97
SB-10 (20.0')	8/21/2024	20.0 Ft	2.58	27.3	<0.200	<0.30	16.2	15.3	10.1	<0.260	0.0409	49.0
1.25x Maximum Background Concentration			0.489	27.9	<0.212	<0.30	1.26	2.85	1.16	<0.260	<0.0212	4.96

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

TABLE 5
SUMMARY OF GROUNDWATER ELEVATION DATA AND ORGANIC CHEMISTRY DATA
NOBLE 100322
LOUSTALET-64N64W 30NESE, WELD COUNTY, COLORADO
REM # 26975

Sample ID	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Xylenes (µg/L)	Naphthalene (µg/L)	1,2,4- Trimethyl- Benzene (µg/L)	1,3,5- Trimethyl- Benzene (µg/L)	TOC Elevation (ft)	Depth to Groundwater Below TOC (ft)	Depth to Groundwater Below Ground Surface (ft)	Groundwater Elevation (ft)	LNAPL Thickness (ft)
ECMC Table 915-1 Limits		5.0	560	700	1400	140	67	67					
MW-1	08/21/24	7000	22000	1300	16000	42	1400	200	NM	17.76	16.66	NM	NP

1. Bold values exceed the ECMC limit(s)
 2. Red highlighted groundwater analytical values indicate a regulatory exceedance
 NP - No measurable LNAPL, NA - Not Analyzed, NL - No Limit, INA - Inaccessible, IW - Insufficient Water, DES - Destroyed

TABLE 6
SUMMARY OF INORGANIC GROUNDWATER CHEMISTRY DATA
NOBLE 100322
LOUSTALET-64N64W 30NESE, WELD COUNTY, COLORADO
REM # 26975

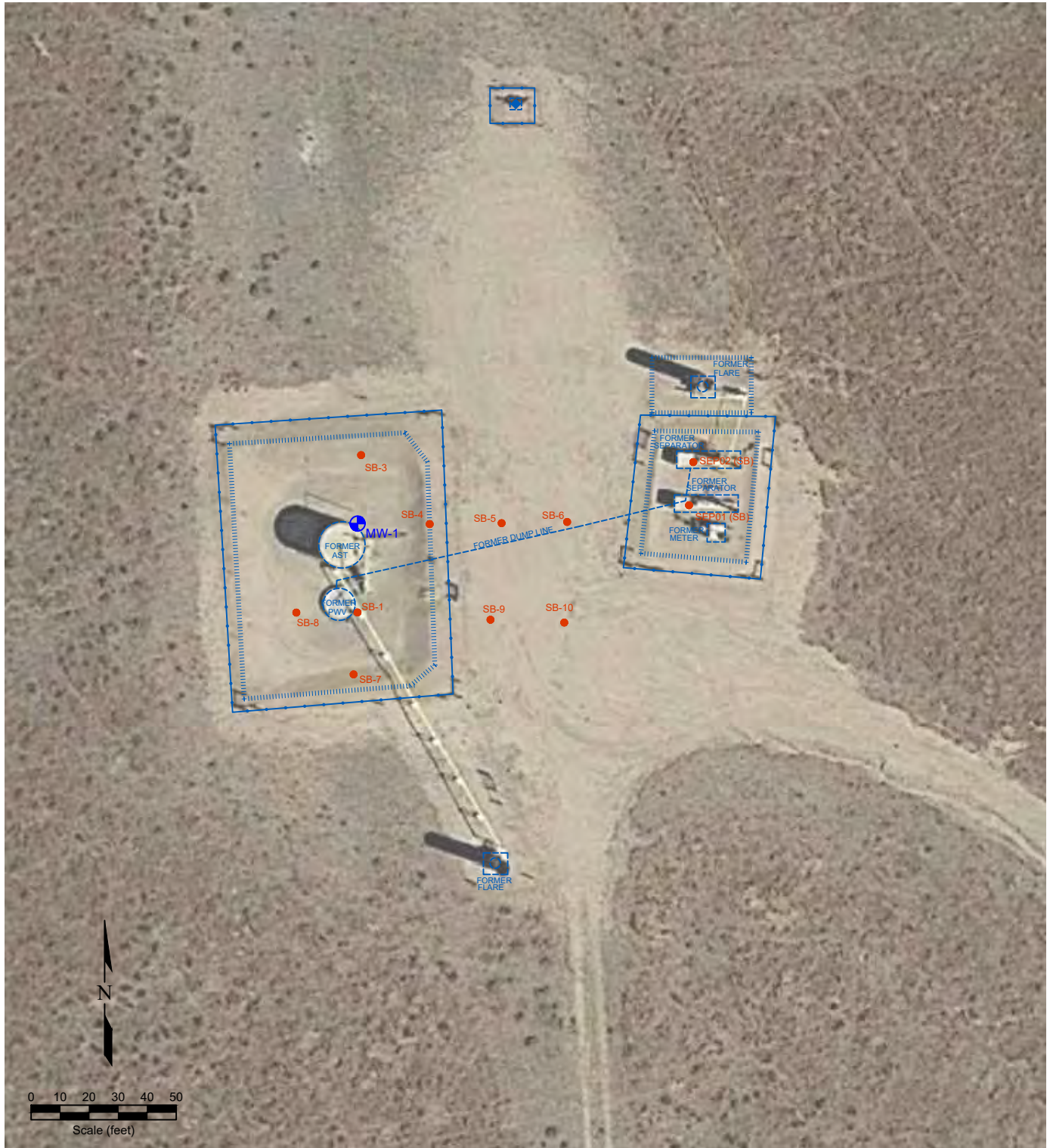
Sample ID	Sample Date	Total Dissolved Solids (mg/L)	Chloride Ion (mg/L)	Sulfate Ion (mg/L)
ECMC Table 915-1 Limits*		<1.25 x local background	250 or <1.25 x local background	250 or <1.25 x local background
MW-1	8/21/24	722	7.58	4.38
Background Concentration (Current)		NA	NA	NA

1. Bold values exceed the ECMC limit(s)

2. Blue highlighted groundwater analytical values indicate a regulatory exceedance

NP - No measurable LNAPL, NA - Not Analyzed, INA - Inaccessible, IW - Insufficient Water, DES - Destroyed

*Dissolved metals refer to Colorado Regulation 41 Standards



LEGEND

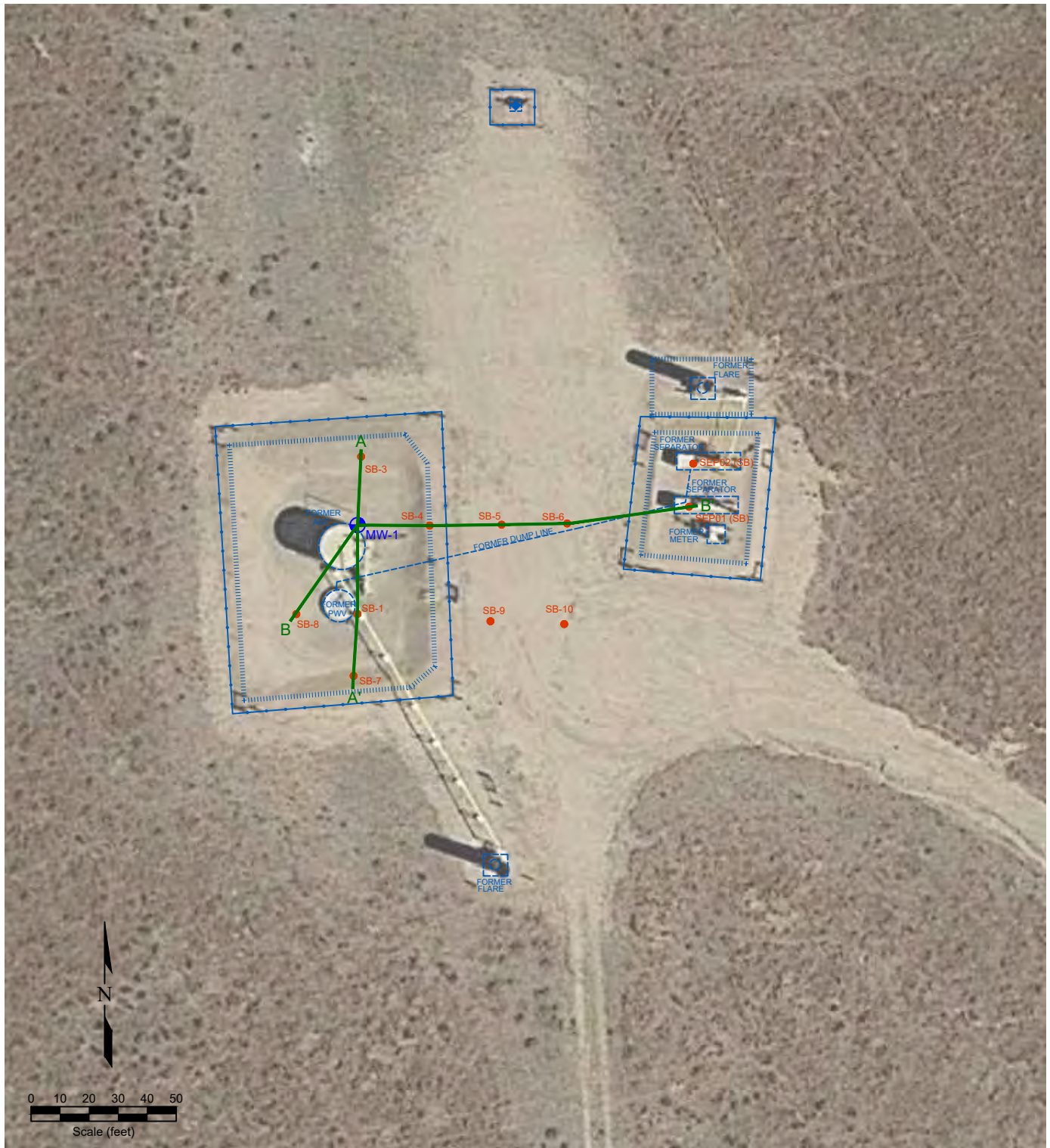
	WELL HEAD LOCATION		ABOVE GROUND STORAGE TANK		FORMER FACILITY		FENCE LINE
	SOIL BORING LOCATION				CONTAINMENT BERM		CONTAINMENT WALL
	MONITORING WELL LOCATION						

Figure 2
SITE MAP

Noble Energy, Inc. ~ Loustalet-64N64W 30NESE
NESE Sec. 30, T4N, R64W, 6th PM
Weld County, Colorado
40.281460°, -104.586420°

Project No. CO23-134	API # 05-123-19847	Facility # 327430
Date 9/25/24	Remediation # 26975	Filename 24170Q1





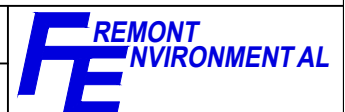
LEGEND

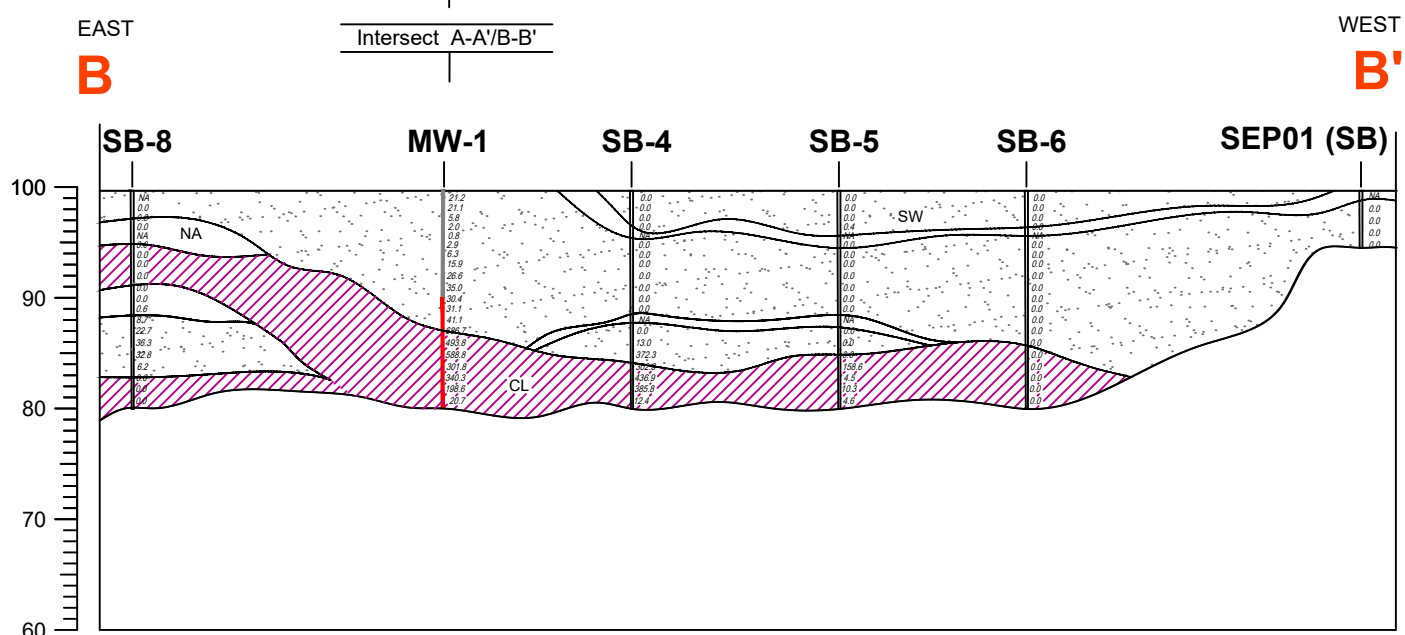
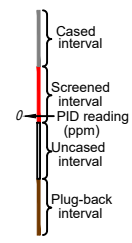
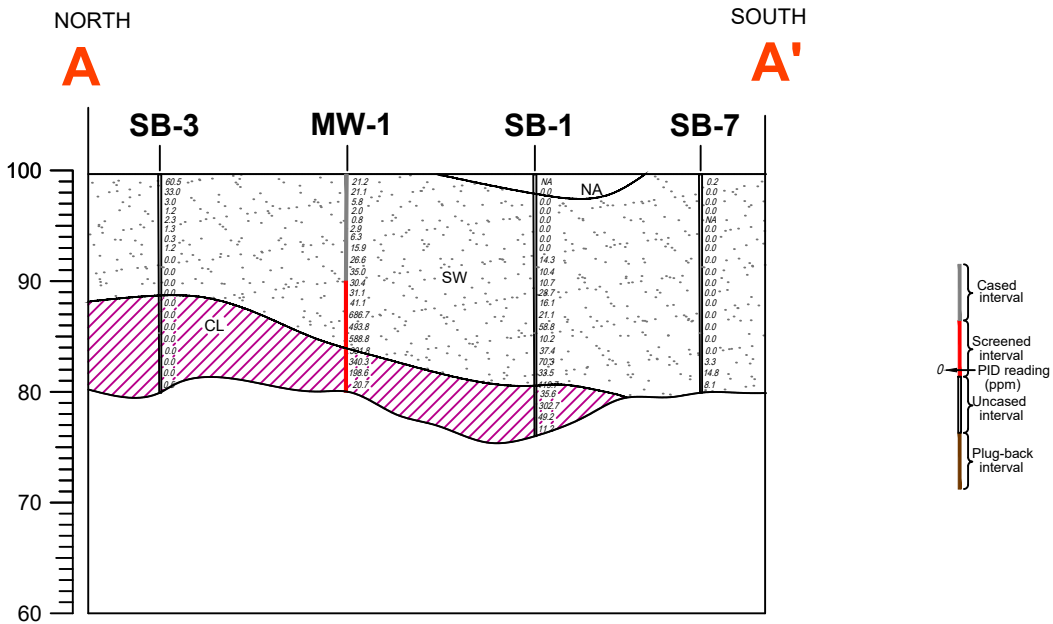
	WELL HEAD LOCATION		ABOVE GROUND STORAGE TANK		FORMER FACILITY		FENCE LINE
	SOIL BORING LOCATION				CONTAINMENT BERM		CONTAINMENT WALL
	MONITORING WELL LOCATION				CONTAINMENT WALL		

Figure 3
CROSS SECTION MAP

Noble Energy, Inc. ~ Loustalet-64N64W 30NESE
NESE Sec. 30, T4N, R64W, 6th PM
Weld County, Colorado
40.281460°, -104.586420°

Project No. CO23-134	API # 05-123-19847	Facility # 327430
Date 9/25/24	Remediation # 26975	Filename 24170Q1





LEGEND

CH	Clay, high plasticity	SW	Sand, well-graded	Fill
CL	Clay, low plasticity	SP	Sand, poorly-graded	Asphalt
MF	Silt, high plasticity	SC	Sand, clayey	Roadbase
ML	Silt, low plasticity	SM	Sand silty	Basin fill
CH-MH	Clay, silty, high plasticity	GW	Gravel, well-graded	Claystone
CL-ML	Clay, silty, low plasticity	GF	Gravel	Firm sandy clay
MH-CH	Silt, clayey, high plasticity	GC	Gravel, clayey	Shale
ML-CL	Silt, clayey, low plasticity	GM	Gravel, silty	Sandstone

Figure 4
CROSS SECTIONS A - A' AND B - B'

Noble Energy Inc. ~ Loustalet-64N64W 30NESE
NESE Sec. 30, T4N, R64W, 6th PM
Weld County, Colorado
40.281460°, -104.586420°

Project No. CO23-134	API # 05-123-19847	Facility # 327430
Date 11/27/24	Remediation # 26975	Filename 23134T



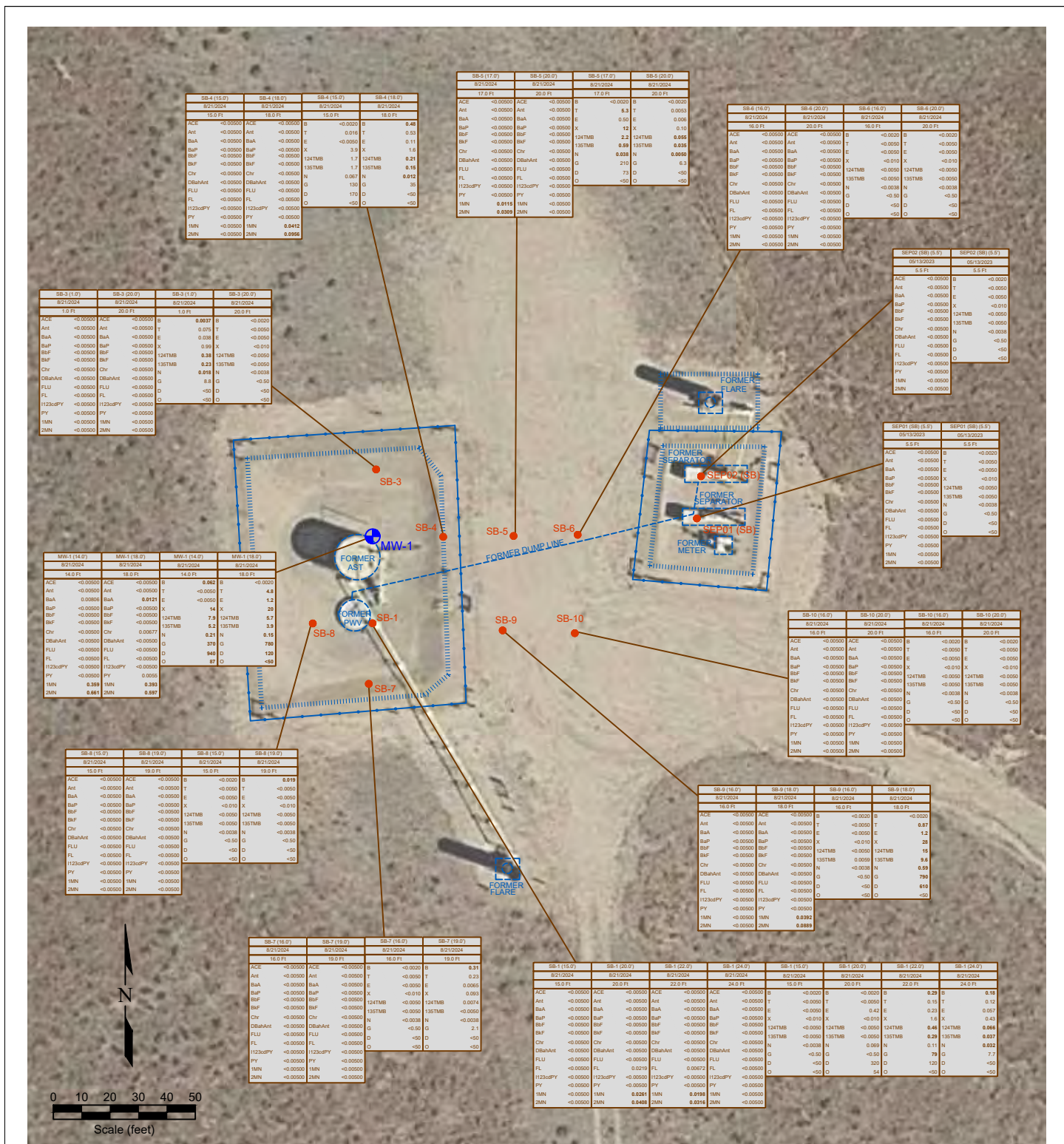
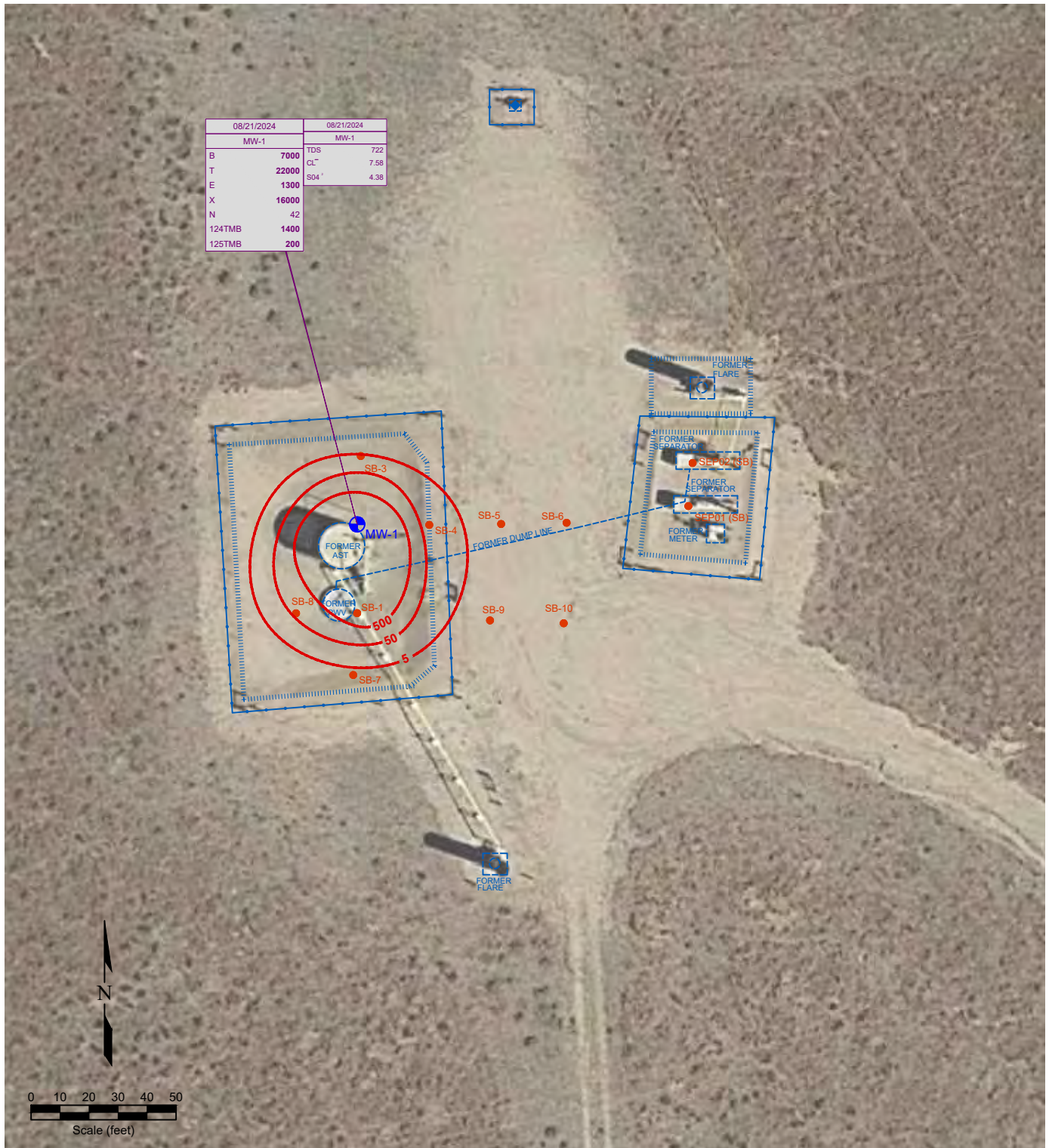


Figure 5
ORGANIC SOIL CHEMISTRY MAP

Noble Energy, Inc. ~ Loustalet-64N64W 30NESE
NESE Sec. 30, T4N, R64W, 6th PM
Weld County, Colorado
40.281460° - 104.586420°

Project No. CO23-134	API # 05-123-19847	Facility # 327430	
Date 9/25/24	Remediation # 26975	Filename 24170Q1	



LEGEND

WELL HEAD LOCATION
 ABOVE GROUND STORAGE TANK
 FORMER FACILITY
 FENCE LINE
 SOIL BORING LOCATION
 CONTAINMENT BERM
 MONITORING WELL LOCATION
 CONTAINMENT WALL

08/21/2024	DATE SAMPLED
MW-1	SAMPLE ID
B	BENZENE (ug/L)
T	TOLUENE (ug/L)
E	ETHYL BENZENE (ug/L)
X	TOTAL XYLENES (ug/L)
N	NAPHTHALENE (ug/L)
124TMB	1,2,4-TRIMETHYLBENZENE (ug/L)
125TMB	1,3,5-TRIMETHYLBENZENE (ug/L)

BENZENE ISOCENTRATION (ug/L)

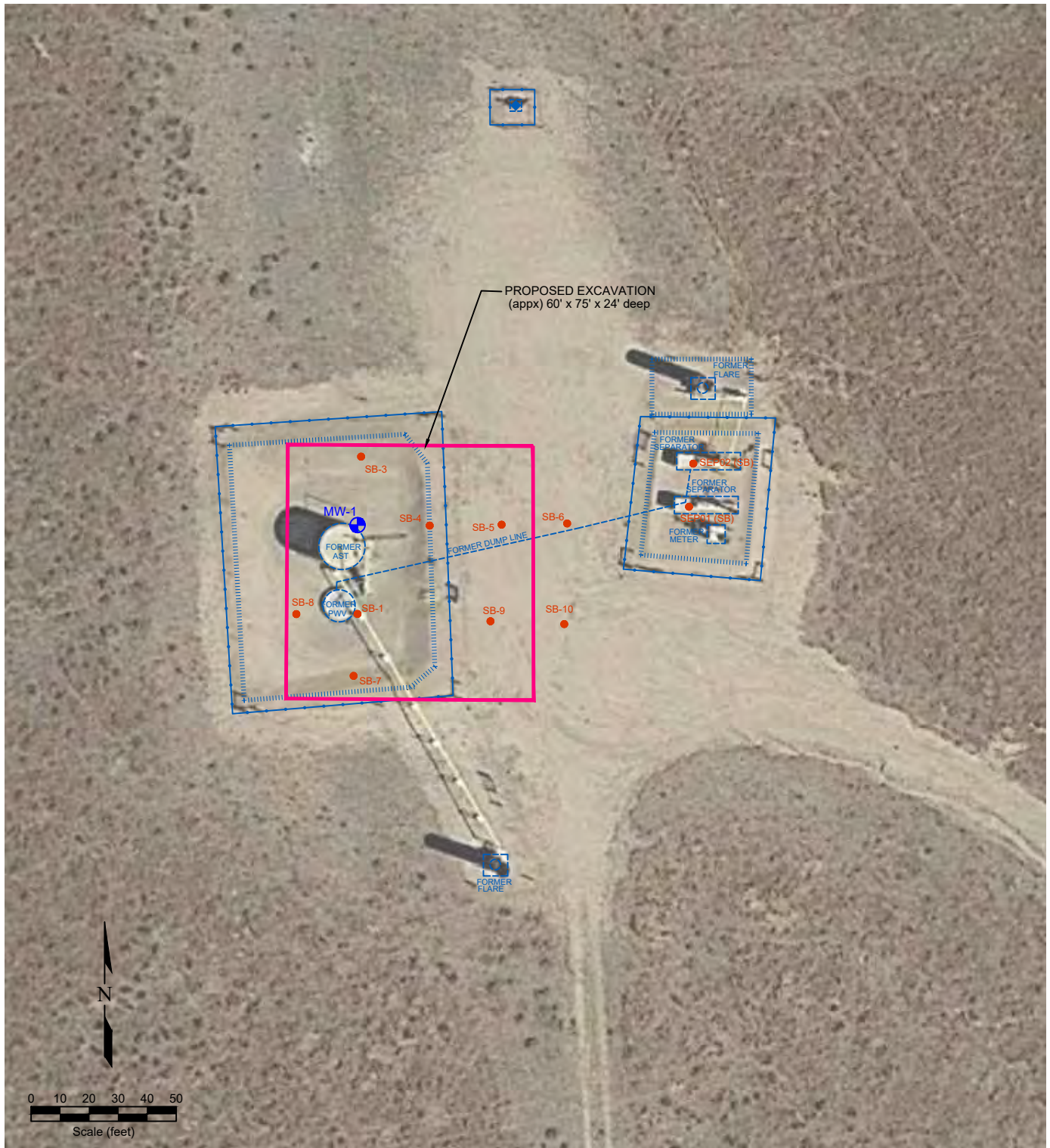
08/21/2024	DATE SAMPLED
MW-1	SAMPLE ID
TDS	TOTAL DISSOLVED SOLIDS (mg/L)
CL ⁻	CHLORIDE ION (mg/L)
SO4 ⁻²	SULFATE ION (mg/L)

Figure 7 GROUNDWATER CHEMISTRY MAP

Noble Energy, Inc. ~ Loustalet-64N64W 30NESE
 NESE Sec. 30, T4N, R64W, 6th PM
 Weld County, Colorado
 40.281460°, -104.586420°

Project No. CO23-134	API # 05-123-19847	Facility # 327430
Date 9/25/24	Remediation # 26975	Filename 24170Q1





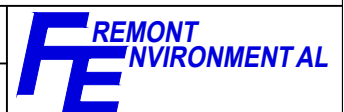
LEGEND

Figure 8

PROPOSED EXTENT OF EXCAVATION MAP

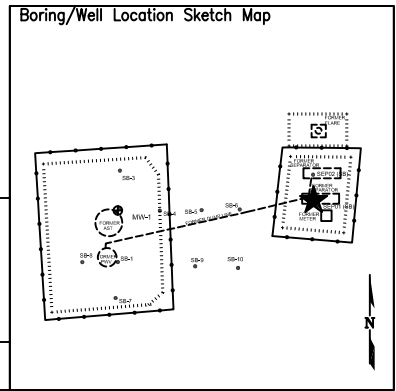
Noble Energy, Inc. ~ Loustalet-64N64W 30NESE
 NESE Sec. 30, T4N, R64W, 6th PM
 Weld County, Colorado
 40.281460°, -104.586420°

Project No. CO24-134	API # 05-123-19847	Facility # 327430
Date 1/10/25	Remediation # 26975	Filename 24134Q1





BORING/WELL CONSTRUCTION LOG



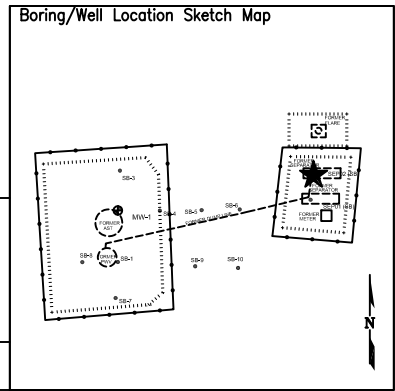
Page 1 of 1

Boring/Well No. SEP01 (SB)	Total Depth 5.5'	Location Noble Energy, Inc. Loustalet-64N64W 30NESE NESE Sec. 30, T4N, R64W, 6th PM Weld County, Colorado			
Project No./Name C023-134 / Noble Loustalet-64N64W 30NESE		Approved By			
Drilling Contractor/Driller DrillPro		Geologist/Office Jeff Griggs / Fremont Environmental, Inc.			
Drilling Equipment/Method Geoprobe		Size/Type of Bit 2.5" direct push	Sampling Method direct push	Start/Finish Date 08/21/2024	
Well Installed? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Casing Mtrl./Dia. .	Screen: Type .	Mtrl. .	Length .
Elevation of: (ft. above datum)		Ground Surface	Top of Well Casing	Top of Screen	Bottom of Screen
					Ground Water Surface/Date Measured

DEPTH (feet)	WELL CONSTRUCTION				LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
					GRAPHIC LOG	VISUAL DESCRIPTION				
5					NA	NA		75%		NA
					SW	Sand: tan, fine, no odor				0.0
						Sand: tan, fine, no odor				0.0
										0.0
						TD 5.5'				0.0
10								98%		
15										
20										



BORING/WELL CONSTRUCTION LOG



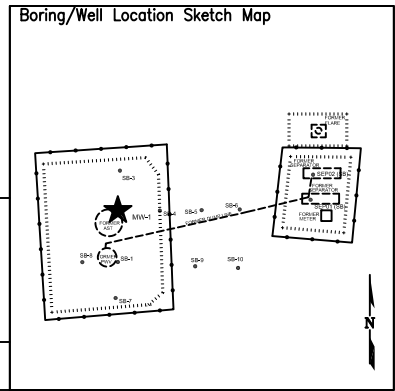
Page 1 of 1

Boring/Well No. SEP02 (SB)	Total Depth 5.5'	Location Noble Energy, Inc. Loustalet-64N64W 30NESE NESE Sec. 30, T4N, R64W, 6th PM Weld County, Colorado			
Project No./Name C023-134 / Noble Loustalet-64N64W 30NESE		Approved By			
Drilling Contractor/Driller DrillPro		Geologist/Office Jeff Griggs / Fremont Environmental, Inc.			
Drilling Equipment/Method Geoprobe		Size/Type of Bit 2.5" direct push	Sampling Method direct push	Start/Finish Date 08/21/2024	
Well Installed? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Casing Mtrl./Dia. .	Screen: Type .	Mtrl. .	Length .
Elevation of: (ft. above datum)		Ground Surface	Top of Well Casing	Top of Screen	Bottom of Screen
					Ground Water Surface/Date Measured

DEPTH (feet)	WELL CONSTRUCTION			LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
				GRAPHIC LOG	VISUAL DESCRIPTION				
5				NA	NA		75%		NA
				SW	Sand: tan, fine, no odor				0.0
					Sand: tan, fine, no odor				0.0
									0.0
					TD 5.5'				0.0
10							98%		
15									
20									



BORING/WELL CONSTRUCTION LOG



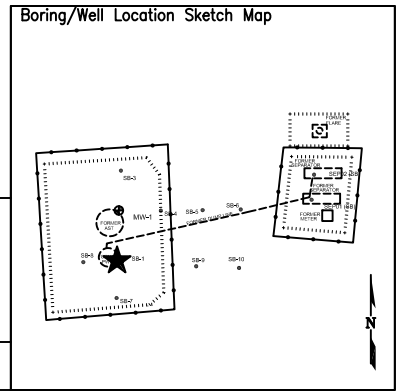
Page 1 of 1

Boring/Well No. MW-1	Total Depth 20'	Location Noble Energy, Inc. Loustalet-64N64W 30NESE NESE Sec. 30, T4N, R64W, 6th PM Weld County, Colorado		
Project No./Name C023-134 / Noble Loustalet-64N64W 30NESE		Approved By		
Drilling Contractor/Driller DrillPro		Geologist/Office Jeff Griggs / Fremont Environmental, Inc.		
Drilling Equipment/Method Geoprobe		Size/Type of Bit 2.5" direct push	Sampling Method direct push	Start/Finish Date 08/21/2024
Well Installed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Casing Mtrl./Dia. PVC/1"	Screen: Type Slotted Mtrl. PVC Length 10' Dia. 1" Slot Size 0.010"		
Elevation of: (ft. above datum)	Ground Surface .	Top of Well Casing .	Top of Screen .	Bottom of Screen .
		Ground Water Surface/Date Measured 17.76 08/21/2024		

DEPTH (feet)	WELL CONSTRUCTION		LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
			GRAPHIC LOG	VISUAL DESCRIPTION				
5				Sand: brown, SW, fine, odor		89%		21.2
								21.1
				Sand: brown, SW, fine, light odor				5.8
				Sand: tan, SW, fine, light odor				2.0
								0.8
10						90%		2.9
								6.3
				Sand: tan/brown, SW, fine, odor				15.9
								26.6
								35.0
15						100%		30.4
								31.1
								41.1
								686.7
								493.8
20				Sand: SW, soft, fine, odor, tan		100%		588.8
								301.8
								340.3
								198.6
								20.7
				Clay: gray, odor, compact, oxidized				
				TD 20'				



BORING/WELL CONSTRUCTION LOG



Page 1 of 2

Boring/Well No. SB-1		Total Depth 24'		Location Noble Energy, Inc. Loustalet-64N64W 30NESE NESE Sec. 30, T4N, R64W, 6th PM Weld County, Colorado			
Project No./Name C023-134 / Noble Loustalet-64N64W 30NESE				Approved By			
Drilling Contractor/Driller DrillPro							
Geologist/Office Jeff Griggs / Fremont Environmental, Inc.							
Drilling Equipment/Method Geoprobe				Size/Type of Bit 2.5" direct push		Sampling Method direct push	
						Start/Finish Date 08/21/2024	
Well Installed? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Casing Mtrl./Dia. .		Screen: Type .		Mtrl. .	
				Length .		Dia. .	
				Slot Size .			
Elevation of: (ft. above datum)		Ground Surface		Top of Well Casing		Top of Screen	
						Bottom of Screen	
						Ground Water Surface/Date Measured	

DEPTH (feet)	WELL CONSTRUCTION				LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
					GRAPHIC LOG	VISUAL DESCRIPTION				
5					NA	NA				NA
						Sand: brown, fine, no odor		78%		0.0
										0.0
						Sand: tan, fine, no odor				0.0
										0.0
10					SW			78%		0.0
										0.0
						Sand: gray with some black, sand, fine, odor				14.2
										10.4
						Sand: dark brown, sand, fine, odor		78%		10.7
15										28.7
										16.1
										21.1
								89%		58.8
						Sand: brown, sand, fine, odor				10.2
20										37.4
										70.3
						Sand: black/gray sand, fine saturated, odor				33.5
										119.7
						TD 20'		100%		

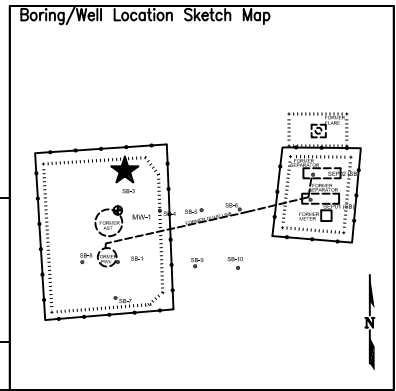


Weld County, Colorado

[illegible]



BORING/WELL CONSTRUCTION LOG



Page 1 of 1

Boring/Well No. SB-3	Total Depth 20'	Location Noble Energy, Inc. Loustalet-64N64W 30NESE NESE Sec. 30, T4N, R64W, 6th PM Weld County, Colorado		
Project No./Name C023-134 / Noble Loustalet-64N64W 30NESE		Approved By		
Drilling Contractor/Driller DrillPro		Geologist/Office Jeff Griggs / Fremont Environmental, Inc.		
Drilling Equipment/Method Geoprobe		Size/Type of Bit 2.5" direct push	Sampling Method direct push	Start/Finish Date 08/21/2024
Well Installed? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Casing Mtrl./Dia. .	Screen: Type .	Mtrl. .	Length .
Elevation of: (ft. above datum)		Ground Surface	Top of Well Casing	Top of Screen
		Bottom of Screen	Ground Water Surface/Date Measured	

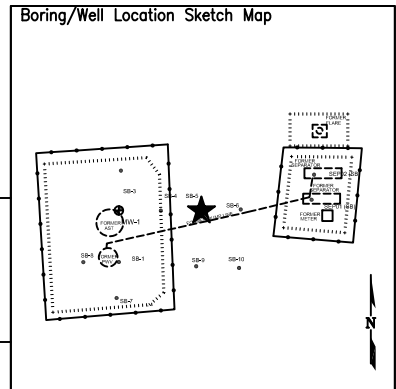
DEPTH (feet)	WELL CONSTRUCTION				LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
					GRAPHIC LOG	VISUAL DESCRIPTION				
5					SW	Sand: brown, SW, fine, odor		98%		60.5
										33.0
										3.0
						Sand: tan, SW, fine, no odor				1.2
										2.3
10					CL			97%		1.3
										0.3
										1.2
										0.0
										0.0
15					CL			100%		0.0
						Clay: compact, no odor, gray/dark brown, oxidized				0.0
										0.0
										0.0
										0.0
20					CL			100%		0.0
										0.0
										0.0
										0.0
										0.0
						TD 20'				0.5



Boring/Well No. SB-4		Total Depth 20'		Location Noble Energy, Inc. Lousalet-64N64W 30NESE NESE Sec. 30, T4N, R64W, 6th PM Weld County, Colorado					
Project No./Name C023-134 / Noble Lousalet-64N64W 30NESE				Approved By 					
Drilling Contractor/Driller DrillPro									
Geologist/Office Jeff Griggs / Fremont Environmental, Inc.									
Drilling Equipment/Method Geoprobe				Size/Type of Bit 2.5" direct push		Sampling Method direct push		Start/Finish Date 08/21/2024	
Well Installed?		Casing Mtrl./Dia.		Screen:					
Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				Type .		Mtrl. .		Length .	
						Dia. .		Slot Size .	
Elevation of: (ft. above datum)		Ground Surface		Top of Well Casing		Top of Screen		Bottom of Screen	
								Ground Water Surface/Date Measured	

DEPTH (feet)	WELL CONSTRUCTION					LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
						GRAPHIC LOG	VISUAL DESCRIPTION				
5						SW	Sand: brown, SW, fine, no odor		89%		0.0
							Sand: tan, SW, fine, no odor				0.0
						NA	NA				0.0
											0.0
						SW					0.0
											0.0
						NA					0.0
											0.0
						SW					0.0
											0.0
10						NA	NA	98%		0.0	
										0.0	
						NA				0.0	
										0.0	
						SW				0.0	
										0.0	
						NA				0.0	
										0.0	
						SW				0.0	
										0.0	
15						SW	Clay: compact, no odor, gray/dark brown, oxidized	75%		13.0	
										372.3	
						NA				302.8	
										436.9	
						SW				385.8	
						CL	Clay: compact, oxidized, light odor, gray/brown/red			12.4	
						NA				0.0	
										0.0	
20						SW		100%		0.0	
										0.0	
						NA				0.0	
										0.0	
						SW				0.0	
										0.0	
						NA				0.0	
										0.0	
						SW				0.0	
										0.0	
					CL	Clay: compact, oxidized, light odor, gray/brown/red	0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW		0.0				
							0.0				
					NA		0.0				
							0.0				
					SW</						

BORING/WELL CONSTRUCTION LOG

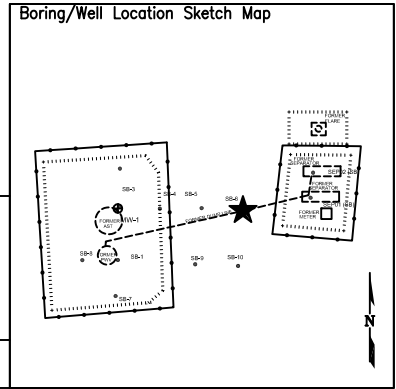


Page 1 of 1

Boring/Well No. SB-5		Total Depth 20'		Location Noble Energy, Inc. Loustalet-64N64W 30NESE NESE Sec. 30, T4N, R64W, 6th PM Weld County, Colorado			
Project No./Name C023-134 / Noble Loustalet-64N64W 30NESE				Approved By			
Drilling Contractor/Driller DrillPro							
Geologist/Office Jeff Griggs / Fremont Environmental, Inc.							
Drilling Equipment/Method Geoprobe				Size/Type of Bit 2.5" direct push		Sampling Method direct push	
						Start/Finish Date 08/21/2024	
Well Installed? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Casing Mtrl./Dia. .		Screen: Type .		Mtrl. .	
				Length .		Dia. .	
Elevation of: (ft. above datum)		Ground Surface		Top of Well Casing		Top of Screen	
						Bottom of Screen	
						Ground Water Surface/Date Measured	

DEPTH (feet)	WELL CONSTRUCTION				LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
					GRAPHIC LOG	VISUAL DESCRIPTION				
5					SW	Sand: brown, SW, fine, no odor				0.0
								95%		0.0
						Sand: tan, SW, fine, no odor				0.0
										0.4
						NA				NA
10					SW			75%		0.0
										0.0
										0.0
										0.0
										0.0
15					CL	Clay: compact, oxidized, no odor, red/gray/ brown		98%		0.0
										0.0
										0.0
										0.0
										0.0
20					CL	- odor appeared		75%		158.6
										4.5
						Clay: compact, oxidized, light odor, gray/red/ brown				10.3
										4.6
								100%		

BORING/WELL CONSTRUCTION LOG



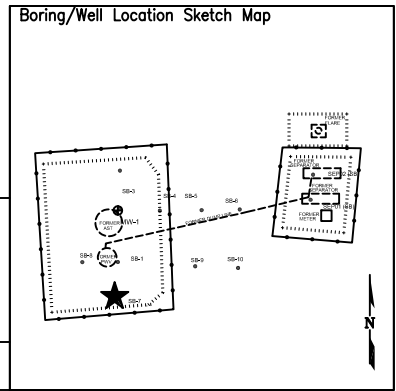
Page 1 of 1

Boring/Well No. SB-6		Total Depth 20'		Location Noble Energy, Inc. Loustalet-64N64W 30NESE NESE Sec. 30, T4N, R64W, 6th PM Weld County, Colorado			
Project No./Name C023-134 / Noble Loustalet-64N64W 30NESE				Approved By			
Drilling Contractor/Driller DrillPro							
Geologist/Office Jeff Griggs / Fremont Environmental, Inc.							
Drilling Equipment/Method Geoprobe				Size/Type of Bit 2.5" direct push		Sampling Method direct push	
						Start/Finish Date 08/21/2024	
Well Installed?		Casing Mtrl./Dia.		Screen:			
Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				Type . Mtrl. . Length . Dia. . Slot Size .			
Elevation of:		Ground Surface		Top of Well Casing		Top of Screen	
(ft. above datum)						Bottom of Screen	
						Ground Water Surface/Date Measured	

DEPTH (feet)	WELL CONSTRUCTION				LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
					GRAPHIC LOG	VISUAL DESCRIPTION				
5					SW	Sand: brown, SW, fine, no odor				0.0
								89%		0.0
						Sand: tan, SW, fine, no odor				0.0
										0.0
						NA				NA
10					SW			75%		0.0
										0.0
										0.0
										0.0
										0.0
15					SW			95%		0.0
										0.0
						Clay: compact, oxidized, no odor, red/gray/ brown				0.0
										0.0
										0.0
20					CL			95%		0.0
										0.0
						Clay: compact, oxidized, no odor, gray/red/ brown, saturated				0.0
										0.0
								100%		0.0
						TD 20'				



BORING/WELL CONSTRUCTION LOG



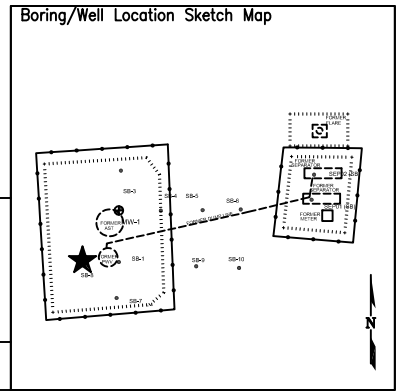
Page 1 of 1

Boring/Well No. SB-7	Total Depth 20'	Location Noble Energy, Inc. Loustalet-64N64W 30NESE NESE Sec. 30, T4N, R64W, 6th PM Weld County, Colorado			
Project No./Name C023-134 / Noble Loustalet-64N64W 30NESE		Approved By			
Drilling Contractor/Driller DrillPro					
Geologist/Office Jeff Griggs / Fremont Environmental, Inc.					
Drilling Equipment/Method Geoprobe		Size/Type of Bit 2.5" direct push	Sampling Method direct push	Start/Finish Date 08/21/2024	
Well Installed? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Casing Mtrl./Dia. .	Screen: Type .	Mtrl. .	Length .	Dia. .
Elevation of: (ft. above datum)		Ground Surface	Top of Well Casing	Top of Screen	Bottom of Screen
					Ground Water Surface/Date Measured

DEPTH (feet)	WELL CONSTRUCTION				LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
					GRAPHIC LOG	VISUAL DESCRIPTION				
5					SW	Sand: brown, SW, fine, no odor				0.2
								89%		0.0
										0.0
						Sand: tan, SW, fine, no odor				0.0
										NA
10								95%		0.0
										0.0
										0.0
								98%		0.0
										0.0
15										0.0
								98%		0.0
										0.0
						- saturation appeared				3.3
						Sand: gray/black, SW, fine, saturated, light odor				14.8
20						TD 20'		100%		8.1



BORING/WELL CONSTRUCTION LOG



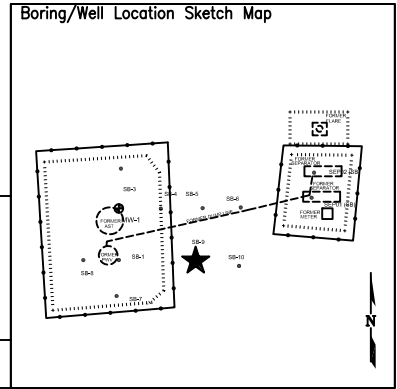
Page 1 of 1

Boring/Well No. SB-8	Total Depth 20'	Location Noble Energy, Inc. Loustalet-64N64W 30NESE NESE Sec. 30, T4N, R64W, 6th PM Weld County, Colorado			
Project No./Name C023-134 / Noble Loustalet-64N64W 30NESE		Approved By			
Drilling Contractor/Driller DrillPro		Geologist/Office Jeff Griggs / Fremont Environmental, Inc.			
Drilling Equipment/Method Geoprobe		Size/Type of Bit 2.5" direct push	Sampling Method direct push	Start/Finish Date 08/21/2024	
Well Installed? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Casing Mtrl./Dia. .	Screen: Type .	Mtrl. .	Length .
Elevation of: (ft. above datum)		Ground Surface	Top of Well Casing	Top of Screen	Bottom of Screen
					Ground Water Surface/Date Measured

DEPTH (feet)	WELL CONSTRUCTION				LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
					GRAPHIC LOG	VISUAL DESCRIPTION				
5					NA	NA				NA
						Sand: brown, SW, fine, no odor		75%		0.0
					SW					0.0
						Sand: tan, SW, fine, no odor				0.0
					NA	NA				NA
10								75%		0.0
										0.0
					SW					0.0
										0.0
										0.0
15								89%		0.0
										0.6
										8.7
						Sand: tan/gray, SW, fine, odor				22.7
								95%		36.3
20										32.8
										6.2
						- saturation appeared				0.0
						Clay: red/brown. oxidized, compact, no odor				0.0
					CL					0.0
						TD 20'				



BORING/WELL CONSTRUCTION LOG



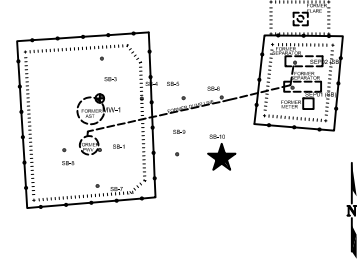
Page 1 of 1

Boring/Well No. SB-9	Total Depth 18'	Location Noble Energy, Inc. Loustalet-64N64W 30NESE NESE Sec. 30, T4N, R64W, 6th PM Weld County, Colorado			
Project No./Name C023-134 / Noble Loustalet-64N64W 30NESE		Approved By			
Drilling Contractor/Driller DrillPro		Geologist/Office Jeff Griggs / Fremont Environmental, Inc.			
Drilling Equipment/Method Geoprobe		Size/Type of Bit 2.5" direct push	Sampling Method direct push	Start/Finish Date 08/21/2024	
Well Installed? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Casing Mtrl./Dia. .	Screen: Type .	Mtrl. .	Length .
Elevation of: (ft. above datum)		Ground Surface	Top of Well Casing	Top of Screen	Bottom of Screen

DEPTH (feet)	WELL CONSTRUCTION				LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
					GRAPHIC LOG	VISUAL DESCRIPTION				
5					NA	NA				NA
						Sand: brown, SW, fine, no odor		75%		0.0
					SW					0.0
						Sand: tan, SW, fine, no odor				0.0
										0.0
10								85%		0.0
										0.0
										0.0
										0.0
										0.0
15								95%		0.0
										0.0
										0.0
										0.0
										0.0
20					CL	Clay: oxidized, compact, no odor, red/gray/brown		100%		0.0
										0.0
										1.1
					Claystone	Claystone, odor, saturated		100%		201.6
						TD 18'				

BORING/WELL CONSTRUCTION LOG

Boring/Well Location Sketch Map



Page 1 of 1

Boring/Well No. SB-10		Total Depth 20'		Location Noble Energy, Inc. Loustalet-64N64W 30NESE NESE Sec. 30, T4N, R64W, 6th PM Weld County, Colorado			
Project No./Name C023-134 / Noble Loustalet-64N64W 30NESE				Approved By			
Drilling Contractor/Driller DrillPro							
Geologist/Office Jeff Griggs / Fremont Environmental, Inc.							
Drilling Equipment/Method Geoprobe				Size/Type of Bit 2.5" direct push		Sampling Method direct push	
						Start/Finish Date 08/21/2024	
Well Installed? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Casing Mtrl./Dia. .		Screen: Type .		Mtrl. .	
				Length .		Dia. .	
				Slot Size .			
Elevation of: (ft. above datum)		Ground Surface		Top of Well Casing		Top of Screen	
						Bottom of Screen	
						Ground Water Surface/Date Measured	

DEPTH (feet)	WELL CONSTRUCTION				LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
					GRAPHIC LOG	VISUAL DESCRIPTION				
5					NA	NA				NA
						Sand: brown, SW, fine, no odor		75%		0.0
					SW					0.0
						Sand: tan, SW, fine, no odor				0.0
					NA	NA				NA
10								65%		0.0
										0.0
					SW					0.0
										0.0
										0.0
15								100%		0.0
										0.0
										0.0
										0.0
										0.0
20								98%		0.0
										0.0
										0.0
										0.0
										0.0
					CL	- saturation appeared				0.0
					Claystone	Clay: red/brown/gray, oxidized, compact, no odor				0.0
						Claystone: no odor		100%		0.0
						TD 20'				0.0

APPENDIX

SAMPLING METHODS AND PROCEDURES

Water Level Measurements

All groundwater level measurements will be obtained using an electric measuring device, which indicates when a probe is in contact with groundwater. Measurements will be obtained by lowering the device into the well until the water surface had been encountered, and by measuring the distance from the top of the inside riser pipe to the probe. All the measurements will be recorded to the nearest 0.01 ft. To minimize cross-contamination, the water level indicator will be decontaminated with isopropyl alcohol and distilled water between each well.

Monitoring Well Sampling

All monitoring wells were sampled from the “cleanest” to the “most contaminated” according to the protocols listed below.

Field Protocol

- | | |
|--------|--|
| Step 1 | Measure water level in each well. |
| Step 2 | Purge each monitoring well by evacuating a minimum of three well bore volumes using a disposable polyethylene bailer. |
| Step 3 | Collect water samples using a disposable polyethylene bailer. |
| Step 4 | Cool samples to approximately 4°C for transportation. |
| Step 5 | Store water samples and transport to a specific laboratory, following all documentation and chain-of-custody procedures. |

Upon completion of groundwater sampling, a chain-of-custody log will be completed. Chain-of-custody records include the following information: project, project number, shipped by, shipped to, suspected hazard, sampling point, location, field identification number, date collected, sample type, number of containers, analysis required, and sampler's signature.

The chain-of-custody records will be shipped with the samples to the laboratory. Upon arrival at the laboratory the samples will be checked in and signed by the appropriate laboratory personnel. Laboratory identification numbers will be noted on the chain-of-custody record. Upon completion of the laboratory analysis, the completed chain-of-custody record will be returned to the project manager.

Analytical Methods

The following list identifies the various chemical constituents and analytical methods which will be used for their quantification.

<u>Chemical Parameter</u>	<u>Method</u>
Benzene, Toluene, Ethylbenzene and Total Xylenes (BTEX)	EPA Method – 8260B
1,2,4- and 1,3,5-Trimethylbenzene and Naphthalene	EPA Method – 8260B
Chloride and Sulfate Anions	EPA Method – 300.0
Total Dissolved Solids (TDS)	Standard Method 2540C