

FREMONT ENVIRONMENTAL INC.

January 26, 2023

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

Subject: **Site Investigation Report**
 PTF 64N64W 32SENE
 SENE Sec 32, T4N, R64W
 Weld County, Colorado
 Fremont Project No. C022-089
 Facility #327571, Remediation #23226

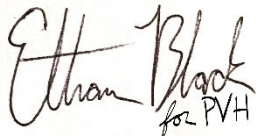
Dear Mr. Peterson:

Enclosed please find a copy of the above referenced Site Investigation Report for the PTF 64N64W 32SENE tank battery location in Weld County, Colorado. The enclosed report describes site investigation and sampling efforts to assess soil and groundwater quality at the site.

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. Henahan, P.E.
Senior Consultant

Enclosure

SITE INVESTIGATION REPORT

NOBLE ENERGY INC.

PTF 64N64W 32SENE

WELD COUNTY, COLORADO

FREMONT PROJECT NO. C022-089

FACILITY # 327571, REMEDIATION # 23226

Prepared by:

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

January 26, 2023

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SITE INVESTIGATION REPORT
NOBLE ENERGY INC.
PTF 64N64W 32SENE
WELD COUNTY, COLORADO
FREMONT PROJECT NO. C022-089
FACILITY # 327571, REMEDIATION # 23226

1.0 INTRODUCTION

The purpose of this document is to present information collected to delineate the extent of petroleum-impacted soil and groundwater at the PTF 64N64W 32SENE (PTF) tank battery location in Weld County, Colorado. Impacted soil was identified within the Miller produced water vault (PWV) excavation during facility closure activities. Eleven soil borings, one of which was completed as a monitoring well, were advanced during the site investigation completed on October 6, 2022, to delineate the magnitude and extent of subsurface soil and groundwater impacts.

2.0 BACKGROUND INFORMATION

2.1 Site Location

The PTF facility is located approximately eight miles south of Kersey, Colorado in Weld County as shown on Figure 1. The site is located in a rural and agricultural area approximately 0.31 miles south of the intersection of County Road 40 and County Road 53. The location is further described as the SE $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 32, Township 4N, Range 64W.

2.2 Site History

The site consists of the PTF tank battery which serviced the PTF C 32-8 natural gas well. The PTF C 32-9 well was drilled in 1991 to a measured depth of 7,118 feet.

A historical release was discovered within the PWV excavation during decommissioning activities at the PTF facility in June 2022. A site investigation to determine the extent of soil impacts was undertaken on October 6, 2022. Groundwater was encountered at that time.

3.0 SITE INVESTIGATION ACTIVITIES

3.1 Soil Borings/Monitoring Wells

A total of 11 soil borings were advanced utilizing a Geoprobe rig during the site investigation conducted at the former PWV location on October 6, 2022. One of the borings was completed as temporary, one-inch diameter, monitoring well. These borings and monitoring well were used to delineate the extent of soil and groundwater impacts at the site. The location of the soil borings/monitoring well are illustrated on the attached figures.

Generally, the subsurface consists of poorly graded sand; with lens of silty sand and sandy clay interspersed between four and seven feet below ground surface, that extends to approximately 12 feet bgs. The maximum depth of the borings was 12 feet bgs. Groundwater is present at the site at an average depth of approximately eight feet bgs. Geologic cross sections illustrating the soil lithology are presented on Figure 4.

The one-inch diameter monitoring well was constructed with 10-feet of well screen placed at a total depth of approximately 12 feet and completed at the ground surface as a temporary PVC stick-up well. Soil samples from each of the borings were evaluated in the field using a photoionization detector (PID). Logs of the borings and monitoring well are presented in Appendix A.

Soil samples were collected from each of the borings and sent to Summit Scientific, Inc. in Golden, Colorado for the analyses of for benzene, toluene, ethylbenzene and total

xylenes (BTEX), naphthalene, 1,2,4-trimethylbenzene, 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.

Soil impacts exceeding the COGCC Table 915-1 protection of groundwater soil screening levels (PGSSLs) were and/or residential soil screening levels (RSSLs) for organic petroleum constituents were observed in seven of the eleven borings. Soil chemistry is presented in Figure 5 and summarized on Tables 1 and 2. A copy of the laboratory report and chain of custody documentation is provided in Appendix C.

3.2 Groundwater Monitoring

The groundwater level was measured in one monitoring well on October 6, 2022 in accordance with the Sampling Plan included in Appendix B. The data is summarized in Table 3.

3.3 Groundwater Sampling and Analysis

A groundwater sample was collected from one monitoring well (MW-1) on October 6, 2022. The sample was submitted to Summit Scientific, Inc. for the analyses of organic petroleum constituents BTEX, TMBs and naphthalene by EPA Method 8260B.

The groundwater concentrations in MW-1 comply with the COGCC Table 915-1 organic constituent standards. The groundwater chemistry is shown on Figure 6 and the analytical data are summarized in Table 3. A copy of the laboratory report and chain of custody documentation is provided in Appendix C.

4.0 DISCUSSION

A site investigation was conducted at the former PTF tank battery location on October 6, 2022 resulting from a historical release discovered within the PWV excavation during site decommissioning activities. Eleven soil borings were advanced and one was completed as a temporary monitoring well on site to delineate the magnitude and extent of soil and groundwater impacts.

Soil impacts above the COGCC Table 915-1 PGSSLs and RSSLs were observed in one of the five soil borings. The groundwater data collected from the temporary monitoring well indicates communication between groundwater and the overlying impacted soils has not occurred. The soil and groundwater data are illustrated and summarized in the attached tables and figures.

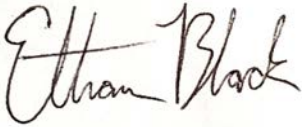
Impacted soils at the PTF tank battery location will be removed via excavation. The excavation extent will be based on the location and depths of residual impacts observed during the site investigation.

If groundwater is collected during the excavation and is subsequently discovered to be impacted additional monitoring wells will be installed and monitored quarterly in accordance with the groundwater sampling plan outlined in Appendix B. Should groundwater not be encountered during the forthcoming excavation, Noble will request closure under the COGCC Table 915-1 PGSSLs based on laboratory analysis demonstrating remediation of impacted soils in the excavation sidewalls and floor of the area encompassing the release.

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.**



1/26/23

Date_____

Ethan D. Black, P.G.

Geologist

Reviewed by:



1/26/23

Date_____

Paul V. Henahan, P.E.

Senior Consultant

TABLES

TABLE 1
SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA
NOBLE ENERGY INC.
PTF 64N64W 32SENE, WELD COUNTY, COLORADO
FREMONT PROJECT NO. C022-089

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		
SB - Cen 6 ft	10/06/2022	6	<0.0020	<0.0050	0.048	0.039	0.2	<0.0050	0.026	21	120	<50
SB - Cen 8 ft	10/06/2022	8	<0.0020	<0.0050	<0.0050	0.014	<0.0050	0.058	<0.0038	5.9	<50	<50
SB - E1 3 ft	10/06/2022	3	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	67	<50
SB - E1 6 ft	10/06/2022	6	<0.0020	<0.0050	<0.0050	0.15	0.5	4	0.089	390	250	<50
SB - E1 8 ft	10/06/2022	8	<0.0020	<0.0050	0.012	0.38	0.16	1	0.005	270	130	<50
SB - E2 6 ft	10/06/2022	6	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
SB - E2 8 ft	10/06/2022	8	<0.0020	<0.0050	8.0	97	36	18	2.1	2900	1100	76
SB - E3 6 ft	10/06/2022	6	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
SB - E3 8 ft	10/06/2022	8	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	16	<50	<50
SB - N1 3 ft	10/06/2022	3	<0.0020	<0.0050	<0.0050	0.012	<0.0050	0.15	0.0044	9.1	150	<50
SB - N1 7 ft	10/06/2022	7	<0.0020	<0.0050	0.0	0.052	<0.0050	1.1	0.29	200	290	<50
SB - N1 9 ft	10/06/2022	9	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	0.19	<0.0038	22	<50	<50
SB - N2 3 ft	10/06/2022	3	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
SB - N2 8 ft	10/06/2022	8	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	8.2	57	<50
SB - N3 6 ft	10/06/2022	6	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
SB - S1 6 ft	10/06/2022	6	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	9.6	110	<50
SB - S1 8 ft	10/06/2022	8	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	10	<50	<50
SB - SE 6 ft	10/06/2022	6	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
SB - W1 6 ft	10/06/2022	6	<0.0020	<0.0050	<0.0050	1	0.53	0.68	0.015	56	540	<50
SB - W1 8 ft	10/06/2022	8	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	43	110	<50
SB - W2 4 ft	10/06/2022	4	<0.0020	<0.0050	2.4	0.041	17	18	0.011	1900	4800	510
SB - W2 8 ft	10/06/2022	8	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	22	<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.
PTF 64N64W 32SENE, WELD COUNTY, COLORADO
FREMONT PROJECT NO. C022-089

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
SB - Cen 6 ft	10/06/2022	6	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0177	<0.00500	<0.00500	0.197	0.0639
SB - Cen 8 ft	10/06/2022	8	<0.00500	<0.00500	<0.00500	0.00628	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.179	0.27
SB - E1 3 ft	10/06/2022	3	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.02	<0.00500	<0.00500	0.134	<0.00500
SB - E1 6 ft	10/06/2022	6	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00626	<0.00500	<0.00500	0.039	<0.00500	<0.00500	0.0939	0.407
SB - E1 8 ft	10/06/2022	8	<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
SB - E2 6 ft	10/06/2022	6	<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
SB - E2 8 ft	10/06/2022	8	<0.00500	<0.00500	<0.00500	<0.00500	0.00756	<0.00500	0.0286	<0.00500	<0.00500	0.128	<0.00500	0.0119	1.17	2.16
SB - E3 6 ft	10/06/2022	6	<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
SB - E3 8 ft	10/06/2022	8	<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
SB - N1 3 ft	10/06/2022	3	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00618	<0.00500	<0.00500	0.0455	<0.00500	<0.00500	0.125	0.699
SB - N1 7 ft	10/06/2022	7	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00683	<0.00500	<0.00500	0.037	<0.00500	<0.00500	0.21	0.53
SB - N1 9 ft	10/06/2022	9	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0102	<0.00500	<0.00500	0.098	0.135
SB - N2 3 ft	10/06/2022	3	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SB - N2 8 ft	10/06/2022	8	<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
SB - N3 6 ft	10/06/2022	6	<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
SB - S1 6 ft	10/06/2022	6	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0108	<0.00500	<0.00500	0.066	0.071
SB - S1 8 ft	10/06/2022	8	<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
SB - SE 6 ft	10/06/2022	6	<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
SB - W1 6 ft	10/06/2022	6	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0101	<0.00500	<0.00500	0.0647	<0.00500	<0.00500	0.552	0.951
SB - W1 8 ft	10/06/2022	8	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0229	<0.00500	<0.00500	0.162	0.262
SB - W2 4 ft	10/06/2022	4	<0.00500	<0.00500	<0.00500	<0.00500	0.0116	<0.00500	0.058	<0.00500	<0.00500	0.0446	<0.00500	0.0232	1.93	2.05
SB - W2 8 ft	10/06/2022	8	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0461	0.0823

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 GROUNDWATER ELEVATION DATA AND ORGANIC CHEMISTRY DATA
NOBLE ENERGY INC.
PTF 64N64W 32SENE, WELD COUNTY, COLORADO
FREMONT PROJECT NO. C022-089

Sample ID	Sample Date	Benzene (ug/L)	Toluene (ug/L)	Ethyl-Benzene (ug/L)	Xylenes (ug/L)	Naphthalene (ug/L)	1,2,4- Trimethyl- Benzene (ug/L)	1,3,5- Trimethyl- Benzene (ug/L)	TOC Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	LNAPL Thickness (ft)
COGCC Table 915-1 Limits		5.0	560	700.0	1400	140	67	67				
W1	10/06/2022	<1.0	<1.0	8.5	160	6.5	34	19	NA	7.88	NA	NA

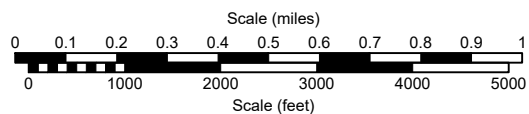
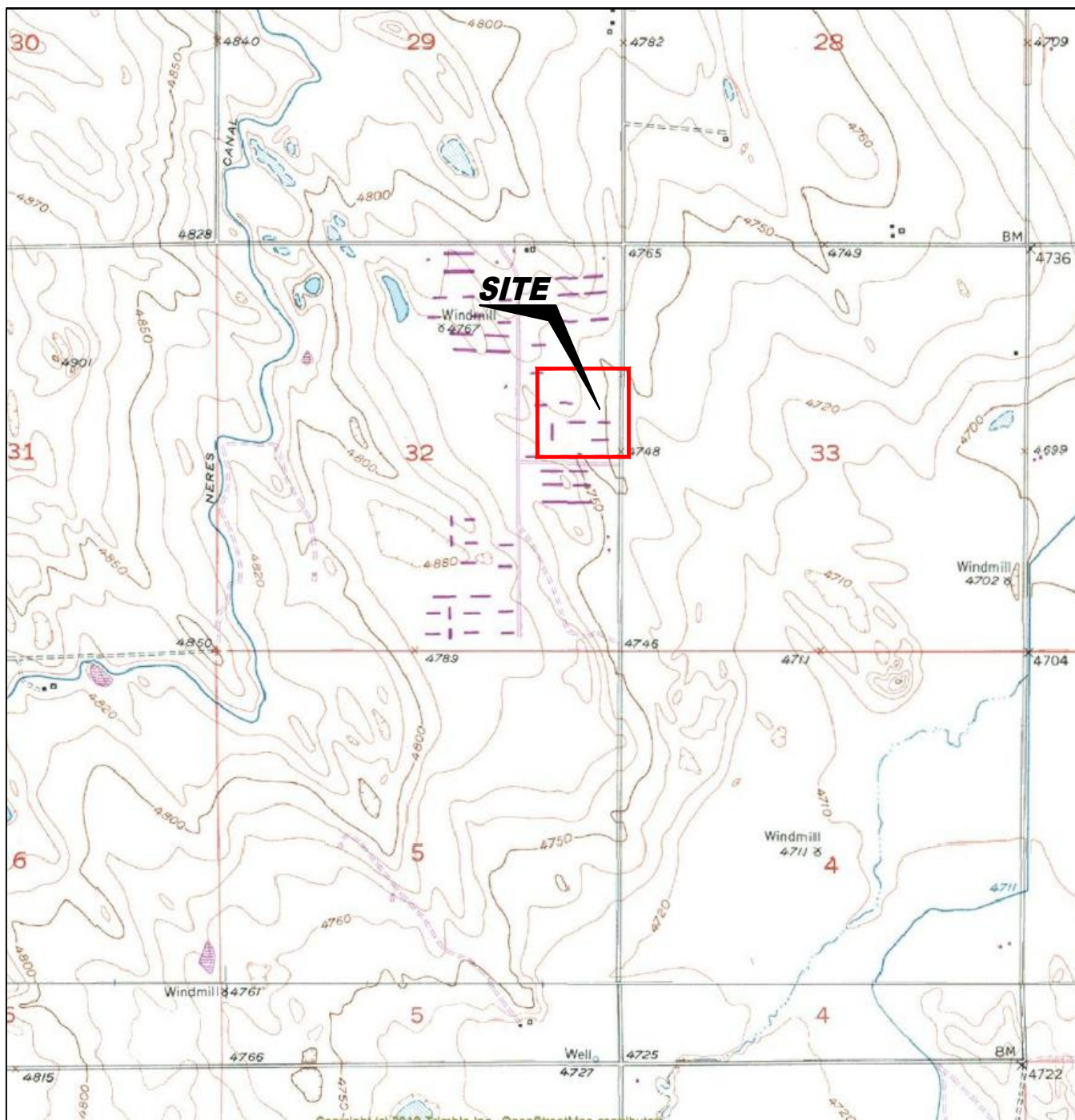
Bold face values exceed the COGCC limits

NP - No measureable LNAPL

DES - Destroyed

NA - Not Analyzed

FIGURES



USGS 7.5 MINUTE SERIES (TOPOGRAPHIC)

Figure 1
SITE LOCATION MAP

Noble Energy, Inc. ~ PTF-64N64W 32SENE
SENE Sec. 32, T4N, R64W, 6th PM
Weld County, Colorado
40.271692°, -104.565620°

Project # C022-089	API # 05-123-14878	Facility # 327571
Date 12/28/22	Remediation # 23226	Filename 22089T





LEGEND

● SOIL BORING LOCATION	○ ABOVE GROUND STORAGE TANK	FORMER FACILITY	BUILDING	CONTAINMENT WALL	EXTENT OF EXCAVATION	FENCE LINE
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Figure 2
SITE MAP

Noble Energy, Inc. ~ North PTF-64N64W 32SENE Site
 SENE Sec. 32, T4N, R64W, 6th PM
 Weld County, Colorado
 40.271692°, -104.565620°

Project No. C022-089	API # 05-123-14878	Facility # 327571
Date 1/26/23	Reviewed By 23226	Filename 22089QN1





LEGEND

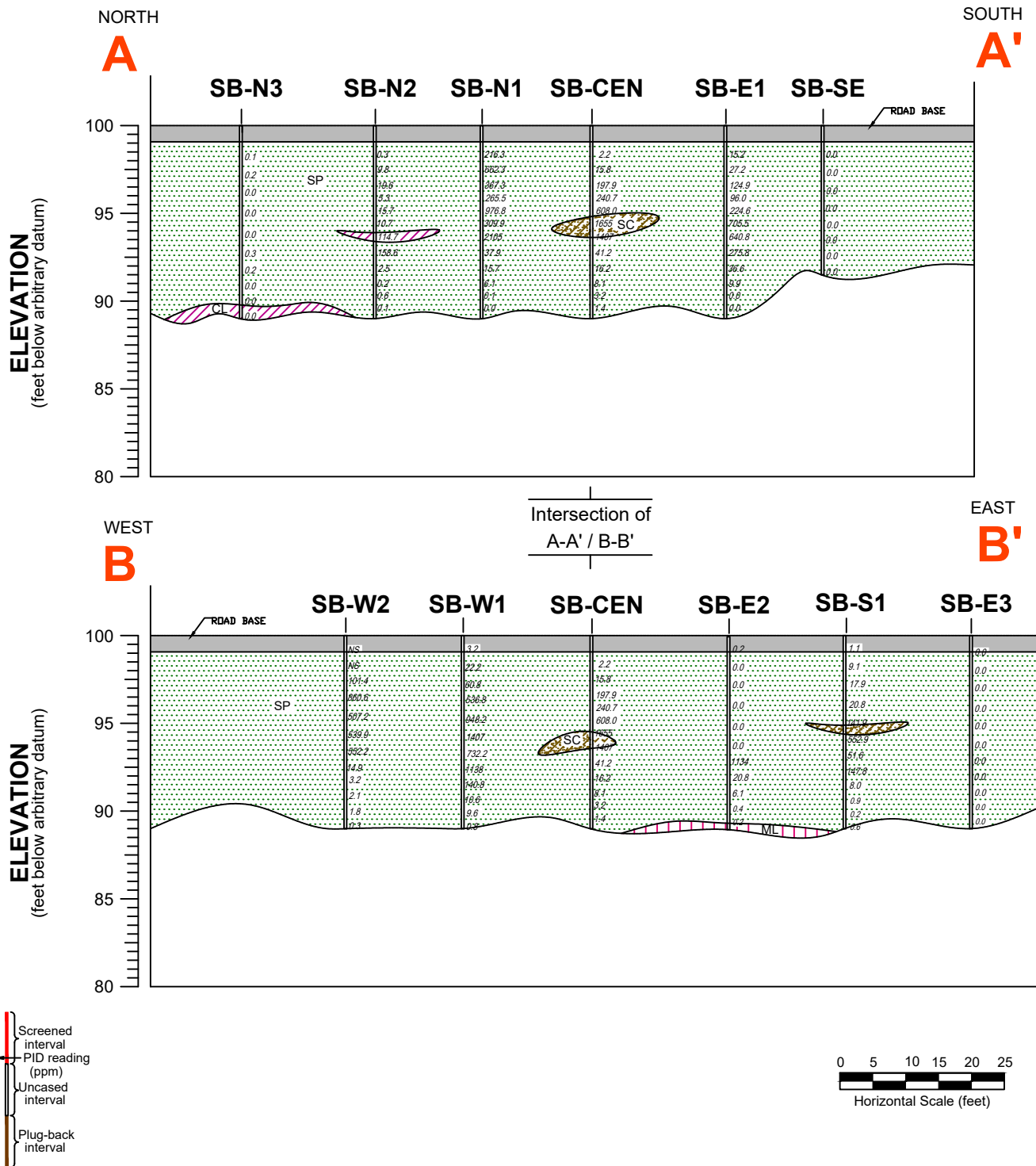
● SOIL BORING LOCATION	○ ABOVE GROUND STORAGE TANK	FORMER FACILITY	BUILDING	CONTAINMENT WALL	EXTENT OF EXCAVATION
				— FENCE LINE	— CROSS SECTION CUT LINE
					A — A'

Figure 3
CROSS SECTION MAP

Noble Energy, Inc. ~ North PTF-64N64W 32SENE Site
SENE Sec. 32, T4N, R64W, 6th PM
Weld County, Colorado
40.271692°, -104.565620°

Project No. C022-089	API # 05-123-14878	Facility # 327571
Date 1/26/23	Reviewed By 23226	Filename 22089QN1





LEGEND

CH	Clay, high plasticity	SW	Sand, well-graded	FILL	FILL
CL	Clay, low plasticity	SP	Sand, poorly-graded	Asphalt	Asphalt
MH	Silt, high plasticity	SC	Sand, clayey	Concrete	Concrete
ML	Silt, low plasticity	SM	Sand silty	Basin fill	Basin fill
CH-MH	Clay, silty high plasticity	GW	Gravel, well-graded	Claystone	Claystone
CL-ML	Clay, silty, low plasticity	GP	Gravel, poorly-graded	Siltstone	Siltstone
MH-CH	Silt, clayey high plasticity	GC	Gravel, clayey	Shale	Shale
ML-CL	Silt, clayey low plasticity	GM	Gravel, silty	Sandstone	Sandstone

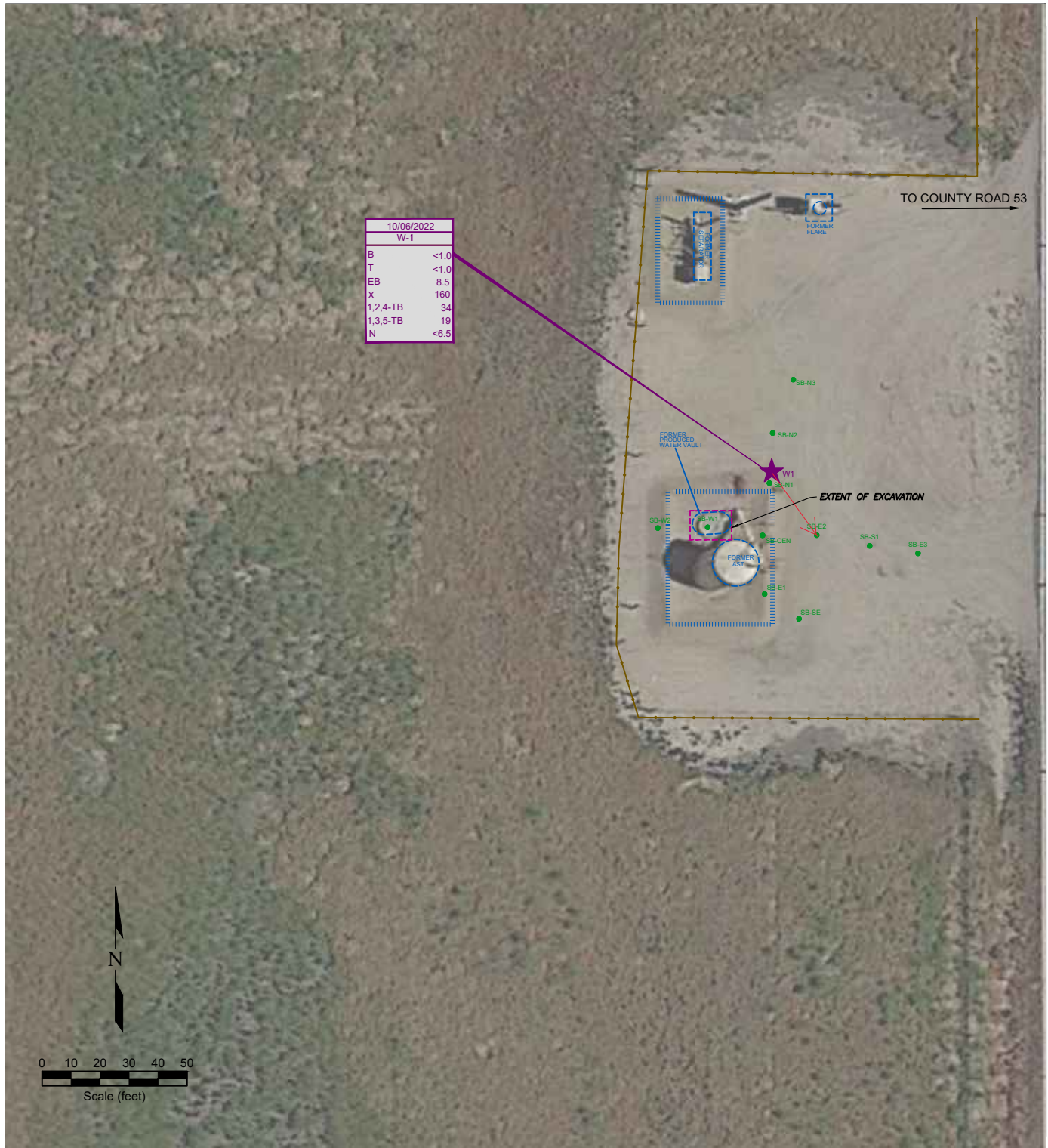
Figure 4

CROSS SECTION A-A' and B-B'

Noble Energy, Inc. ~ North PTF-64N64W 32SENE Site
SENE Sec. 32, T4N, R64W, 6th PM
Weld County, Colorado
40.271692°, -104.565620°

Project No. C022-089	API # 05-123-14878	Location # 327571
Date 12/26/2022	Remediation # 23226	Filename 22089XN





10/06/2022 W-1	
B	<1.0
T	<1.0
EB	8.5
X	160
1,2,4-TB	34
1,3,5-TB	19
N	<6.5

LEGEND	
● SOIL BORING LOCATION	○ ABOVE GROUND STORAGE TANK
★ GROUNDWATER SAMPLE LOCATION	FORMER FACILITY
	BUILDING
	CONTAINMENT WALL
	EXTENT OF EXCAVATION
	FENCE LINE
10/06/2022	DATE SAMPLED
W-1	SAMPLE ID
B	BENZENE (ug/L)
T	TOLUENE (ug/L)
EB	ETHYLBENZENE (ug/L)
X	TOTAL XYLENES (ug/L)
1,2,4-TB	1,2,4-TRIMETHYLBENZENE (ug/L)
1,3,5-TB	1,3,5-TRIMETHYLBENZENE (ug/L)
N	NAPHTHALENE (ug/L)

Figure 6
GROUNDWATER CHEMISTRY MAP
October 6, 2022

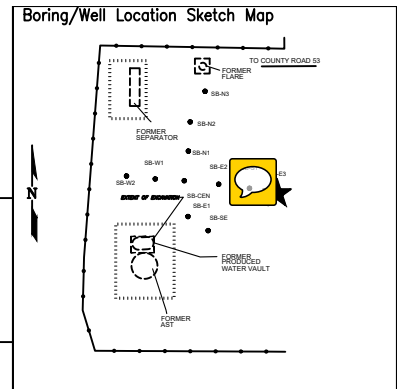
Noble Energy, Inc. ~ North PTF-64N64W 32SENE Site
SENE Sec. 32, T4N, R64W, 6th PM
Weld County, Colorado
40.271692°, -104.565620°

Project No. C022-089	API # 05-123-14878	Facility # 327571
Date 1/26/23	Reviewed By 23226	Filename 22089QN1



APPENDIX A

BORING LOGS

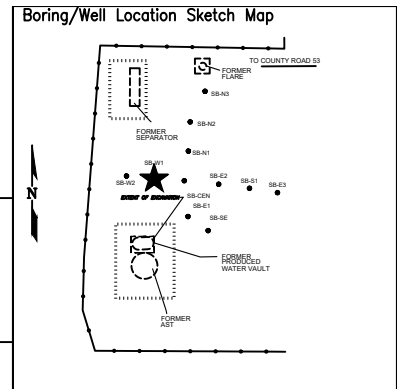


Page 1 of 1

Boring/Well No. SB-E3		Total Depth 12'		Location Noble Energy North PTF-64N64W 32SENE Site SENE Sec. 32, T4N, R64W, 6th PM Weld County, Colorado									
Project No./Name C022-089 / Noble North PTF-64N64W 32SENE Site				Approved By 									
Drilling Contractor/Driller DrillPro													
Geologist/Office Ethan Black / Fremont Environmental, Inc.													
Drilling Equipment/Method Geoprobe				Size/Type of Bit 2.5" direct push		Sampling Method direct push		Start/Finish Date 10/6/2022					
Well Installed?		Casing Mtrl./Dia.		Screen:		Mtrl. -		Length -		Dia. -		Slot Size -	
Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		-		Type -									
Elevation of: (ft. above datum)		Ground Surface		Top of Well Casing		Top of Screen		Bottom of Screen		Ground Water Surface/Date Measured			

[illegible]

[illegible]



Page 1 of 1

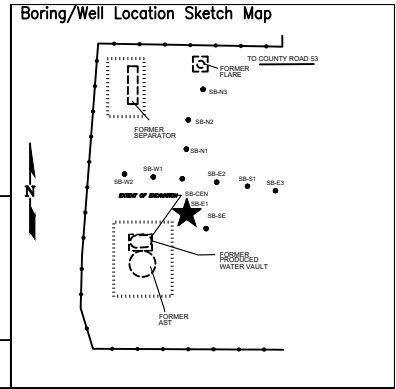
Boring/Well No. SB-W1		Total Depth 12'		Location Noble Energy North PTF-64N64W 32SENE Site SENE Sec. 32, T4N, R64W, 6th PM Weld County, Colorado					
Project No./Name C022-089 / Noble North PTF-64N64W 32SENE Site				Approved By 					
Drilling Contractor/Driller DrillPro									
Geologist/Office Ethan Black / Fremont Environmental, Inc.									
Drilling Equipment/Method Geoprobe				Size/Type of Bit 2.5" direct push		Sampling Method direct push		Start/Finish Date 10/6/2022	
Well Installed?		Casing Mtrl./Dia.		Screen:					
Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		-		Type -		Mtrl. -		Length -	
								Dia. -	
Elevation of:		Ground Surface		Top of Well Casing		Top of Screen		Bottom of Screen	
(ft. above datum)									
								Ground Water Surface/Date Measured	

[illegible]

[illegible][illegible]



BORING/WELL CONSTRUCTION LOG



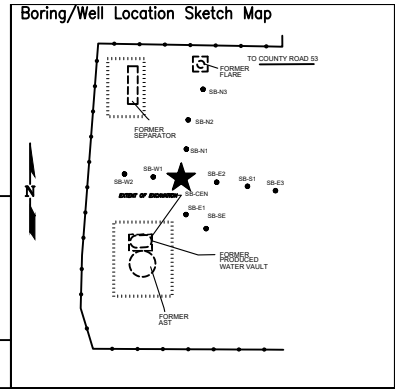
Page 1 of 1

Boring/Well No. SB-E1		Total Depth 12'		Location Noble Energy North PTF-64N64W 32SENE Site SENE Sec. 32, T4N, R64W, 6th PM Weld County, Colorado			
Project No./Name C022-089 / Noble North PTF-64N64W 32SENE Site				Approved By			
Drilling Contractor/Driller DrillPro				Geologist/Office Ethan Black / Fremont Environmental, Inc.			
Drilling Equipment/Method Geoprobe		Size/Type of Bit 2.5" direct push		Sampling Method direct push		Start/Finish Date 10/6/2022	
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					SP	Road base				15.2
						Sand: Brown To Dark Brown, Fine, Moist				27.2
										124.9
								90%		96.0
										224.6
10						Color change to gray, strong odor				705.5
										640.8
								90%		275.8
						Wet, Sand, Black, strong odor Color Change To Tan, Orange				36.6
										9.9
15										0.0
										0.0
								90%		0.0
20						TD 12'				



BORING/WELL CONSTRUCTION LOG



Page 1 of 1

Boring/Well No. SB-CEN		Total Depth 12'		Location Noble Energy North PTF-64N64W 32SENE Site SENE Sec. 32, T4N, R64W, 6th PM Weld County, Colorado			
Project No./Name C022-089 / Noble North PTF-64N64W 32SENE Site				Approved By			
Drilling Contractor/Driller DrillPro				Geologist/Office Ethan Black / Fremont Environmental, Inc.			
Drilling Equipment/Method Geoprobe				Size/Type of Bit 2.5" direct push		Sampling Method direct push	
						Start/Finish Date 10/6/2022	
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						Road base				2.2
					SP	Sand: Brown-Dark Brown, Fine, Moist				15.8
										197.9
								90%		240.7
										608.0
10					SC	13" Lens from 5.5'-6.5' gray, odor				1655
										1407
					SP	Wet, Black Sand, Fine, Color Change To Tan				41.2
										16.2
										8.1
15										3.2
										1.4
20						TD 12'				

APPENDIX B

SAMPLING PLAN

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 (BTX)	EPA Method – 8260B
1,2,4- and 1,3,5-Trimethylbenzene and Naphthalene	EPA Method – 8260B

APPENDIX C

LABORATORY DOCUMENTATION

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

October 18, 2022

Paul Henchan
Fremont Environmental
PO Box 1289
Wellington, CO 80549
RE: Noble - PTF North
Work Order #2210122

Enclosed are the results of analyses for samples received by Summit Scientific on 10/06/22 16:31. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Mikayla Axtell For Paul Shrewsbury
President



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB - Cen 6 ft	2210122-01	Soil	10/06/22 00:00	10/06/22 16:31
SB - Cen 8 ft	2210122-02	Soil	10/06/22 00:00	10/06/22 16:31
SB - N1 3 ft	2210122-03	Soil	10/06/22 00:00	10/06/22 16:31
SB - N1 7 ft	2210122-04	Soil	10/06/22 00:00	10/06/22 16:31
SB - N1 9 ft	2210122-05	Soil	10/06/22 00:00	10/06/22 16:31
SB - N2 3 ft	2210122-06	Soil	10/06/22 00:00	10/06/22 16:31
SB - N2 8 ft	2210122-07	Soil	10/06/22 00:00	10/06/22 16:31
SB - N3 6 ft	2210122-08	Soil	10/06/22 00:00	10/06/22 16:31
SB - S1 6 ft	2210122-09	Soil	10/06/22 00:00	10/06/22 16:31
SB - S1 8 ft	2210122-10	Soil	10/06/22 00:00	10/06/22 16:31
SB - SE 6 ft	2210122-11	Soil	10/06/22 00:00	10/06/22 16:31
SB - E1 3 ft	2210122-12	Soil	10/06/22 00:00	10/06/22 16:31
SB - E1 6 ft	2210122-13	Soil	10/06/22 00:00	10/06/22 16:31
SB - E2 6 ft	2210122-14	Soil	10/06/22 00:00	10/06/22 16:31
SB - E2 8 ft	2210122-15	Soil	10/06/22 00:00	10/06/22 16:31
SB - E3 6 ft	2210122-16	Soil	10/06/22 00:00	10/06/22 16:31
SB - E3 8 ft	2210122-17	Soil	10/06/22 00:00	10/06/22 16:31
SB - W1 6 ft	2210122-18	Soil	10/06/22 00:00	10/06/22 16:31
SB - W1 8 ft	2210122-19	Soil	10/06/22 00:00	10/06/22 16:31
SB - W2 4 ft	2210122-20	Soil	10/06/22 00:00	10/06/22 16:31
SB - W2 8 ft	2210122-21	Soil	10/06/22 00:00	10/06/22 16:31
W1	2210122-22	Water	10/06/22 00:00	10/06/22 16:31
SB - E1 8 ft	2210122-23	Soil	10/06/22 00:00	10/06/22 16:31
SB - Cen 6 ft	2210122-24	Soil	10/06/22 00:00	10/06/22 16:31
SB - Cen 8 ft	2210122-25	Soil	10/06/22 00:00	10/06/22 16:31

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North
Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

A handwritten signature in black ink, appearing to read 'Myla Austin'.

Summit Scientific

2210122.1

S₂

4653 Table Mountain Drive ♦ Golden, Colorado 80403

303-277-9310 ♦ 303-374-5933 (f)

Page 1 of 3

Client: Fremont Environmental

Project Manager: Paul Henehan

Address:

E-Mail: Fremont Distribution List: PaulH, EthanB, JeffG and ChrisL. @fremontenv.com

City/State/Zip:

Bill to Noble: Dan

Phone:

Project Name: Noble - PTF NORTH

Sampler Name: EB

Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested							Special Instructions	
					HCl	HNO ₃	None	Other	Water	Soil	Air-Canister #	Other	TPH, BTEX, TMBs, Naph.	PAH (915)	EC, SAR, pH, Boron	Metals (915)	TDS, Chloride, Sulfate	HOLD			
1	SB-CEN 6FT	10/6/22		2			X			X				X	X						
2	SB-CEN 8FT																				
3	SB-N1 3FT																				
4	SB-N1 7FT																				
5	SB-N1 9FT																				
6	SB-N2 3FT																				
7	SB-N2 8FT																				
8	SB-N3 6FT																				
9	SB-S1 6FT																				
10	SB-S1 8FT																				

Relinquished by: <u>Ethan Black</u>	Date/Time: <u>10/6/22</u>	Received by: <u>[Signature]</u>	Date/Time: <u>10/6/22</u> <u>10/31</u>	Turn Around Time (Check) Same Day <input type="checkbox"/> 72 hours 24 hours <input type="checkbox"/> Standard <input checked="" type="checkbox"/> 48 hours <input type="checkbox"/>	Notes:
Relinquished by:	Date/Time:	Received by:	Date/Time:	Sample Integrity: Temperature Upon Receipt: <u>7.6</u> Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No	
Relinquished by:	Date/Time:	Received by:	Date/Time:		

Summit Scientific

S₂

2210122.2

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310 ♦ 303-374-5933 (f)

Page 2 of 3

Client: Fremont Environmental

Project Manager: Paul Henehan

Address:

E-Mail: Fremont Distribution List: PaulH, EthanB, JeffG and ChrisL. @fremontenv.com

City/State/Zip:

Bill to Noble: Den

Phone:

Project Name: Noble - PTF North

Sampler Name: EB

Project Number:

					Preservative				Matrix				Analysis Requested								Special Instructions
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	TPH, BTEX, TMBs, Naph.	PAH (915)	EC, SAR, pH, Boron	Metals (915)	TDS, Chloride, Sulfate			HOLD	
1	SB-SE 6FT	10/6/22		2			X			X			X	X							
2	SB-E1 3FT																				
3	SB-E1 6FT																				
4	SB-E2 6FT																				
5	SB-E2 6FT																				
6	SB-E3 6FT																				
7	SB-E3 8FT																				
8	SB-W1 6FT																				
9	SB-W1 8FT																				
10	SB-W2 4FT																				

Relinquished by:	Date/Time:	Received by:	Date/Time:	Turn Around Time	(Check)	Notes:
<u>Ethan Black</u>	10/6/22	<u>[Signature]</u>	10/6/22 1631	Same Day	72 hours	
Relinquished by:	Date/Time:	Received by:	Date/Time:	24 hours	Standard	
Relinquished by:	Date/Time:	Received by:	Date/Time:	48 hours		
				Sample Integrity:		
				Temperature Upon Receipt:	<u>7.8</u>	
				Samples Intact:	<u>Yes</u>	No

Summit Scientific

2210122.3

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310 ♦ 303-374-5933 (f)

Page 3 of 3

Client: Fremont Environmental

Project Manager: Paul Henehan

Address:

E-Mail: Fremont Distribution List: PaulH, EthanB, JeffG and ChrisL. @fremontenv.com

City/State/Zip:

Bill to : Dan

Phone:

Project Name: Noble - PTF North

Sampler Name: EB

Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested								Special Instructions		
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEX, TMBs, Naph.	TPH	PAH (915)	EC, SAR, pH, Boron	Metals (915)	TDS, Chloride, Sulfate	HOLD			
1	SB-WZ 8FT	10/6/22		2			X			X				X	X	X						
2	W1	10/6/22		3	X				X					X	X	X						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						

Relinquished by:	Date/Time:	Received by:	Date/Time:	Turn Around Time (Check) Same Day — 72 hours 24 hours — Standard <input checked="" type="checkbox"/> 48 hours — Sample Integrity: Temperature Upon Receipt: 7.6 Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No	Notes:
Relinquished by:	Date/Time:	Received by:	Date/Time:		
Relinquished by:	Date/Time:	Received by:	Date/Time:		

S₂313
Sample Receipt Checklist

S2 Work Order# 2210122

Client: Fremont Client Project ID: Noble/PTF NorthShipped Via: H.D./P.U./FedEx/UPS/USPS/Other ☐ Airbill #: ☐☐ ☐ ☐ ☐ ☐Matrix (Check all that apply) Air ☐ Soil/Solid ☒ Water ☒ Other ☐Temp (°C) 7.8Thermometer # 1

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? ⁽¹⁾ NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	on ICE
If custody seals are present, are they intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are samples due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe ²⁺), Hexavalent Chromium (Cr ⁶⁺ , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? ⁽¹⁾	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1 extra sample
Do the sample IDs on the bottle labels match the COC? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling)? ⁽¹⁾ Note the type of preservative in the comments column – HCl, H ₂ SO ₄ , NaOH, HNO ₃ , etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2? ⁽¹⁾ Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.

Custodian Printed Name

Date/Time

10-7-22

19:25



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

SB - Cen 6 ft
2210122-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BFJ0217	10/10/22	10/11/22	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	0.048	0.0050		"	"	"	"	"	"	
Xylenes (total)	0.039	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	0.20	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	0.026	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	21	0.50		"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		101 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		73.6 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		110 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	120	50		mg/kg	1	BFJ0218	10/10/22	10/10/22	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		75.7 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

SB - Cen 6 ft
2210122-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFJ0221	10/10/22	10/10/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	0.0177	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	0.197	0.0500	"	10	"	"	"	"	
2-Methylnaphthalene	0.253	0.0500	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		116 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		66.4 %	40-150		"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henehan

Reported:
10/18/22 08:56

SB - Cen 8 ft
2210122-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFJ0217	10/10/22	10/11/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.014	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	5.9	0.50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		92.2 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		86.6 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		118 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFJ0218	10/10/22	10/10/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		61.0 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

SB - Cen 8 ft
2210122-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Acenaphthene	ND	0.00500	mg/kg	1	BFJ0221	10/10/22	10/10/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		75.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		76.6 %	40-150		"	"	"	"	

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

SB - N1 3 ft
2210122-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFJ0217	10/10/22	10/11/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.012	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	0.15	0.0050	"	"	"	"	"	"	
Naphthalene	0.0044	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	9.1	0.50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		94.9 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		89.3 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		90.9 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	150	50	mg/kg	1	BFJ0218	10/10/22	10/10/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		55.4 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henehan

Reported:
10/18/22 08:56

SB - N1 3 ft
2210122-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFJ0221	10/10/22	10/10/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	0.00618	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	0.0455	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	0.125	0.100	"	20	"	"	"	"	
2-Methylnaphthalene	0.699	0.100	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		105 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		68.0 %	40-150		"	"	"	"	

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

SB - N1 7 ft
2210122-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFJ0217	10/10/22	10/11/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.027	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.052	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	1.1	0.0050	"	"	"	"	"	"	
Naphthalene	0.29	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	200	5.0	"	10	"	"	10/11/22	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		104 %	50-150		"	"	10/11/22	"	
Surrogate: Toluene-d8		71.0 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		172 %	50-150		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	290	50	mg/kg	1	BFJ0218	10/10/22	10/10/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		64.0 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

SB - N1 7 ft
2210122-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFJ0221	10/10/22	10/11/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	0.00683	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	0.0370	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	0.210	0.100	"	20	"	"	"	"	
2-Methylnaphthalene	0.530	0.100	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		78.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		65.9 %	40-150		"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henehan

Reported:
10/18/22 08:56

SB - N1 9 ft
2210122-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFJ0217	10/10/22	10/11/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	0.19	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	22	0.50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		97.1 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		73.7 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFJ0218	10/10/22	10/11/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		71.1 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henehan

Reported:
10/18/22 08:56

SB - N1 9 ft
2210122-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFJ0221	10/10/22	10/11/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	0.0102	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	0.0980	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	0.135	0.00500	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		85.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		72.6 %	40-150		"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henehan

Reported:
10/18/22 08:56

SB - N2 3 ft
2210122-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFJ0217	10/10/22	10/11/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		100 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		89.8 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFJ0218	10/10/22	10/11/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		73.5 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North
Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

SB - N2 3 ft
2210122-06 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Acenaphthene	ND	0.00500	mg/kg	1	BFJ0221	10/10/22	10/11/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		70.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		68.2 %	40-150		"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

SB - N2 8 ft
2210122-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFJ0217	10/10/22	10/11/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	8.2	0.50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		94.3 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		88.6 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.4 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	57	50	mg/kg	1	BFJ0218	10/10/22	10/11/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		76.6 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

SB - N2 8 ft
2210122-07 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Acenaphthene	ND	0.00500	mg/kg	1	BFJ0221	10/10/22	10/11/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		88.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		75.0 %	40-150		"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henehan

Reported:
10/18/22 08:56

SB - N3 6 ft
2210122-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFJ0217	10/10/22	10/11/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		95.5 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		89.9 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.1 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFJ0218	10/10/22	10/11/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		71.7 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

SB - N3 6 ft
2210122-08 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Acenaphthene	ND	0.00500	mg/kg	1	BFJ0221	10/10/22	10/11/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		72.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		82.0 %	40-150		"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

SB - S1 6 ft
2210122-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFJ0217	10/10/22	10/11/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	9.6	0.50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		94.0 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		88.4 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		117 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	110	50	mg/kg	1	BFJ0218	10/10/22	10/11/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		78.9 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henehan

Reported:
10/18/22 08:56

SB - S1 6 ft
2210122-09 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFJ0221	10/10/22	10/11/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	0.0108	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	0.0660	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	0.0710	0.00500	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		78.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		65.7 %	40-150		"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

SB - S1 8 ft
2210122-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFJ0217	10/10/22	10/11/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	10	0.50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		94.4 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		91.1 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFJ0218	10/10/22	10/11/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		83.9 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

SB - S1 8 ft
2210122-10 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Acenaphthene	ND	0.00500	mg/kg	1	BFJ0221	10/10/22	10/11/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		65.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		72.7 %	40-150		"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

SB - SE 6 ft
2210122-11 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFJ0217	10/10/22	10/11/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		93.2 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		88.3 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFJ0218	10/10/22	10/11/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		90.1 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

SB - SE 6 ft
2210122-11 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Acenaphthene	ND	0.00500	mg/kg	1	BFJ0221	10/10/22	10/11/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		75.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		74.2 %	40-150		"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henehan

Reported:
10/18/22 08:56

SB - E1 3 ft
2210122-12 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFJ0217	10/10/22	10/11/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		94.4 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		90.0 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.2 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	67	50	mg/kg	1	BFJ0218	10/10/22	10/11/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		91.9 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henehan

Reported:
10/18/22 08:56

SB - E1 3 ft
2210122-12 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFJ0221	10/10/22	10/11/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	0.0200	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	0.134	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		86.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		70.4 %	40-150		"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

SB - E1 6 ft
2210122-13 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFJ0217	10/10/22	10/11/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.15	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	0.50	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	4.0	0.50	"	100	"	"	10/13/22	"	
Naphthalene	0.089	0.0038	"	1	"	"	10/11/22	"	
Gasoline Range Hydrocarbons	390	50	"	100	"	"	10/13/22	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		96.7 %	50-150		"	"	10/11/22	"	
Surrogate: Toluene-d8		75.9 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		160 %	50-150		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	250	50	mg/kg	1	BFJ0218	10/10/22	10/11/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		89.6 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

SB - E1 6 ft
2210122-13 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFJ0221	10/10/22	10/11/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	0.00626	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	0.0390	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	0.0939	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	0.407	0.100	"	20	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		64.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		75.7 %	40-150		"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henehan

Reported:
10/18/22 08:56

SB - E2 6 ft
2210122-14 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFJ0217	10/10/22	10/11/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		97.0 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		89.0 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		109 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFJ0218	10/10/22	10/11/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		91.1 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

SB - E2 6 ft
2210122-14 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Acenaphthene	ND	0.00500	mg/kg	1	BFJ0221	10/10/22	10/11/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		78.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		70.5 %	40-150		"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

SB - E2 8 ft
2210122-15 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFJ0217	10/10/22	10/11/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	8.0	0.50	"	100	"	"	"	"	
Xylenes (total)	97	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	36	0.50	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	18	0.50	"	"	"	"	"	"	
Naphthalene	2.1	0.38	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	2900	50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		104 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		83.0 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	1100	50	mg/kg	1	BFJ0218	10/10/22	10/11/22	EPA 8015M	
C28-C36 (ORO)	76	50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		93.4 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henehan

Reported:
10/18/22 08:56

SB - E2 8 ft
2210122-15 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Acenaphthene	ND	0.00500	mg/kg	1	BFJ0221	10/10/22	10/11/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	0.00756	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	0.0286	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	0.128	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	0.0119	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	1.17	0.500	"	100	"	"	"	"	
2-Methylnaphthalene	2.16	0.500	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		77.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		87.9 %	40-150		"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henehan

Reported:
10/18/22 08:56

SB - E3 6 ft
2210122-16 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFJ0217	10/10/22	10/11/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		96.3 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		89.9 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.4 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFJ0218	10/10/22	10/11/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		100 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

SB - E3 6 ft
2210122-16 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Acenaphthene	ND	0.00500	mg/kg	1	BFJ0221	10/10/22	10/11/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		75.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		74.4 %	40-150		"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

SB - E3 8 ft
2210122-17 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFJ0217	10/10/22	10/11/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	16	0.50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		98.8 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		92.0 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		119 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFJ0218	10/10/22	10/11/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		92.7 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

SB - E3 8 ft
2210122-17 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Acenaphthene	ND	0.00500	mg/kg	1	BFJ0221	10/10/22	10/11/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		89.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		73.6 %	40-150		"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

SB - W1 6 ft
2210122-18 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFJ0217	10/10/22	10/11/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	1.0	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	0.53	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	0.68	0.0050	"	"	"	"	"	"	
Naphthalene	0.015	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	56	5.0	"	10	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		99.3 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		71.4 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		144 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	540	50	mg/kg	1	BFJ0218	10/10/22	10/11/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		93.3 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

SB - W1 6 ft
2210122-18 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFJ0221	10/10/22	10/11/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	0.0101	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	0.0647	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	0.552	0.100	"	20	"	"	"	"	
2-Methylnaphthalene	0.951	0.100	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		90.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		60.5 %	40-150		"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

SB - W1 8 ft
2210122-19 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFJ0217	10/10/22	10/11/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	43	0.50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		107 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		76.4 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		147 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	110	50	mg/kg	1	BFJ0218	10/10/22	10/11/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		95.3 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

SB - W1 8 ft
2210122-19 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFJ0221	10/10/22	10/11/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	0.0229	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	0.162	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	0.262	0.0500	"	10	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		109 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		76.2 %	40-150		"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

SB - W2 4 ft
2210122-20 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFJ0217	10/10/22	10/11/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	2.4	0.50	"	100	"	"	"	"	
Xylenes (total)	0.041	0.010	"	1	"	"	"	"	
1,2,4-Trimethylbenzene	17	0.50	"	100	"	"	"	"	
1,3,5-Trimethylbenzene	18	0.50	"	"	"	"	10/13/22	"	
Naphthalene	0.011	0.0038	"	1	"	"	10/11/22	"	
Gasoline Range Hydrocarbons	1900	50	"	100	"	"	10/13/22	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		109 %	50-150		"	"	10/11/22	"	
Surrogate: Toluene-d8		67.6 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		480 %	50-150		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	4800	50	mg/kg	1	BFJ0218	10/10/22	10/11/22	EPA 8015M	
C28-C36 (ORO)	510	50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		104 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henehan

Reported:
10/18/22 08:56

SB - W2 4 ft
2210122-20 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFJ0221	10/10/22	10/11/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	0.0116	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	0.0580	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	0.0446	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	0.0232	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	1.93	0.500	"	100	"	"	"	"	
2-Methylnaphthalene	2.05	0.500	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		50.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		89.7 %	40-150		"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

SB - W2 8 ft
2210122-21 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFJ0263	10/11/22	10/12/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	22	0.50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		95.2 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		78.0 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.6 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFJ0264	10/11/22	10/11/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		83.4 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henehan

Reported:
10/18/22 08:56

SB - W2 8 ft
2210122-21 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFJ0197	10/10/22	10/11/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	0.0461	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	0.0823	0.00500	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		91.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		63.8 %	40-150		"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

W1
2210122-22 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	BFJ0267	10/11/22	10/15/22	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	8.5	1.0	"	"	"	"	"	"	
Xylenes (total)	160	2.0	"	"	"	"	"	"	
Naphthalene	6.5	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	34	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	19	1.0	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		99.8 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.8 %	21-167		"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

SB - E1 8 ft
2210122-23 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFJ0263	10/11/22	10/12/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.012	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.38	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	0.16	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	1.0	0.0050	"	"	"	"	"	"	
Naphthalene	0.0050	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	270	5.0	"	10	"	"	10/12/22	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		136 %	50-150		"	"	10/12/22	"	
Surrogate: Toluene-d8		72.4 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		236 %	50-150		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	130	50	mg/kg	1	BFJ0264	10/11/22	10/11/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		83.1 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

SB - E1 8 ft
2210122-23 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Acenaphthene	ND	0.00500	mg/kg	1	BFJ0274	10/12/22	10/13/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		64.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		54.1 %	40-150		"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

SB - Cen 6 ft
2210122-24 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

BTL-01

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFJ0263	10/11/22	10/12/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	0.010	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	84	0.50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		108 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		83.9 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		150 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	290	50	mg/kg	1	BFJ0264	10/11/22	10/11/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		76.9 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henehan

Reported:
10/18/22 08:56

SB - Cen 6 ft
2210122-24 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFJ0274	10/12/22	10/13/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	0.00779	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	0.103	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	0.0639	0.00500	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		76.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		61.9 %	40-150		"	"	"	"	

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

SB - Cen 8 ft
2210122-25 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

BTL-01

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFJ0263	10/11/22	10/12/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	0.058	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	86	5.0	"	10	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		107 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		77.8 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		156 %	50-150		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	55	50	mg/kg	1	BFJ0264	10/11/22	10/12/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		81.0 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

SB - Cen 8 ft
2210122-25 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFJ0274	10/12/22	10/13/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	0.00628	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	0.179	0.0500	"	10	"	"	"	"	
2-Methylnaphthalene	0.270	0.0500	"	"	"	"	"	"	

Date Sampled: **10/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		79.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		61.5 %	40-150		"	"	"	"	

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BFJ0217 - EPA 5030 Soil MS

Blank (BFJ0217-BLK1)

Prepared: 10/10/22 Analyzed: 10/11/22

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0375		"	0.0400		93.8	50-150			
Surrogate: Toluene-d8	0.0368		"	0.0400		92.0	50-150			
Surrogate: 4-Bromofluorobenzene	0.0373		"	0.0400		93.3	50-150			

LCS (BFJ0217-BS1)

Prepared: 10/10/22 Analyzed: 10/11/22

Benzene	0.110	0.0020	mg/kg	0.125		87.9	70-130			
Toluene	0.0968	0.0050	"	0.125		77.4	70-130			
Ethylbenzene	0.147	0.0050	"	0.125		118	70-130			
m,p-Xylene	0.252	0.010	"	0.250		101	70-130			
o-Xylene	0.139	0.0050	"	0.125		111	70-130			
1,2,4-Trimethylbenzene	0.145	0.0050	"	0.125		116	70-130			
1,3,5-Trimethylbenzene	0.139	0.0050	"	0.125		111	70-130			
Naphthalene	0.125	0.0038	"	0.125		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0381		"	0.0400		95.3	50-150			
Surrogate: Toluene-d8	0.0369		"	0.0400		92.2	50-150			
Surrogate: 4-Bromofluorobenzene	0.0365		"	0.0400		91.3	50-150			

Matrix Spike (BFJ0217-MS1)

Source: 2210122-02

Prepared: 10/10/22 Analyzed: 10/11/22

Benzene	0.106	0.0020	mg/kg	0.125	ND	84.8	70-130			
Toluene	0.115	0.0050	"	0.125	ND	92.0	70-130			
Ethylbenzene	0.145	0.0050	"	0.125	ND	116	70-130			
m,p-Xylene	0.319	0.010	"	0.250	0.0142	122	70-130			
o-Xylene	0.138	0.0050	"	0.125	ND	110	70-130			
1,2,4-Trimethylbenzene	0.144	0.0050	"	0.125	ND	115	70-130			
1,3,5-Trimethylbenzene	0.143	0.0050	"	0.125	ND	115	70-130			
Naphthalene	0.129	0.0038	"	0.125	ND	103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0386		"	0.0400		96.4	50-150			
Surrogate: Toluene-d8	0.0338		"	0.0400		84.6	50-150			
Surrogate: 4-Bromofluorobenzene	0.0444		"	0.0400		111	50-150			

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BFJ0217 - EPA 5030 Soil MS

Matrix Spike Dup (BFJ0217-MSD1)

Source: 2210122-02

Prepared: 10/10/22 Analyzed: 10/11/22

Benzene	0.106	0.0020	mg/kg	0.125	ND	84.5	70-130	0.425	30	
Toluene	0.0886	0.0050	"	0.125	ND	70.9	70-130	26.0	30	
Ethylbenzene	0.145	0.0050	"	0.125	ND	116	70-130	0.393	30	
m,p-Xylene	0.315	0.010	"	0.250	0.0142	120	70-130	1.22	30	
o-Xylene	0.133	0.0050	"	0.125	ND	107	70-130	3.23	30	
1,2,4-Trimethylbenzene	0.139	0.0050	"	0.125	ND	112	70-130	3.15	30	
1,3,5-Trimethylbenzene	0.139	0.0050	"	0.125	ND	111	70-130	2.93	30	
Naphthalene	0.133	0.0038	"	0.125	ND	106	70-130	2.93	30	
Surrogate: 1,2-Dichloroethane-d4	0.0385		"	0.0400		96.2	50-150			
Surrogate: Toluene-d8	0.0368		"	0.0400		91.9	50-150			
Surrogate: 4-Bromofluorobenzene	0.0383		"	0.0400		95.8	50-150			

Batch BFJ0263 - EPA 5030 Soil MS

Blank (BFJ0263-BLK1)

Prepared: 10/11/22 Analyzed: 10/12/22

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0405		"	0.0400		101	50-150			
Surrogate: Toluene-d8	0.0391		"	0.0400		97.8	50-150			
Surrogate: 4-Bromofluorobenzene	0.0424		"	0.0400		106	50-150			

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BFJ0263 - EPA 5030 Soil MS

LCS (BFJ0263-BS1)

Prepared: 10/11/22 Analyzed: 10/12/22

Benzene	0.144	0.0020	mg/kg	0.150		96.0	70-130			
Toluene	0.143	0.0050	"	0.150		95.1	70-130			
Ethylbenzene	0.142	0.0050	"	0.150		94.5	70-130			
m,p-Xylene	0.283	0.010	"	0.300		94.4	70-130			
o-Xylene	0.142	0.0050	"	0.150		94.6	70-130			
1,2,4-Trimethylbenzene	0.140	0.0050	"	0.150		93.3	70-130			
1,3,5-Trimethylbenzene	0.140	0.0050	"	0.150		93.6	70-130			
Naphthalene	0.145	0.0038	"	0.150		96.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0409		"	0.0400		102	50-150			
Surrogate: Toluene-d8	0.0401		"	0.0400		100	50-150			
Surrogate: 4-Bromofluorobenzene	0.0405		"	0.0400		101	50-150			

Matrix Spike (BFJ0263-MS1)

Source: 2210085-01

Prepared: 10/11/22 Analyzed: 10/12/22

Benzene	0.155	0.0020	mg/kg	0.150	ND	103	70-130			
Toluene	0.158	0.0050	"	0.150	ND	105	70-130			
Ethylbenzene	0.156	0.0050	"	0.150	ND	104	70-130			
m,p-Xylene	0.306	0.010	"	0.300	ND	102	70-130			
o-Xylene	0.154	0.0050	"	0.150	ND	102	70-130			
1,2,4-Trimethylbenzene	0.149	0.0050	"	0.150	ND	99.5	70-130			
1,3,5-Trimethylbenzene	0.151	0.0050	"	0.150	ND	100	70-130			
Naphthalene	0.132	0.0038	"	0.150	ND	88.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0397		"	0.0400		99.3	50-150			
Surrogate: Toluene-d8	0.0400		"	0.0400		100	50-150			
Surrogate: 4-Bromofluorobenzene	0.0405		"	0.0400		101	50-150			

Matrix Spike Dup (BFJ0263-MSD1)

Source: 2210085-01

Prepared: 10/11/22 Analyzed: 10/12/22

Benzene	0.156	0.0020	mg/kg	0.150	ND	104	70-130	0.811	30	
Toluene	0.158	0.0050	"	0.150	ND	106	70-130	0.209	30	
Ethylbenzene	0.161	0.0050	"	0.150	ND	108	70-130	3.50	30	
m,p-Xylene	0.318	0.010	"	0.300	ND	106	70-130	3.85	30	
o-Xylene	0.158	0.0050	"	0.150	ND	105	70-130	2.92	30	
1,2,4-Trimethylbenzene	0.151	0.0050	"	0.150	ND	101	70-130	1.34	30	
1,3,5-Trimethylbenzene	0.156	0.0050	"	0.150	ND	104	70-130	3.25	30	
Naphthalene	0.136	0.0038	"	0.150	ND	90.7	70-130	3.09	30	
Surrogate: 1,2-Dichloroethane-d4	0.0385		"	0.0400		96.2	50-150			
Surrogate: Toluene-d8	0.0400		"	0.0400		100	50-150			
Surrogate: 4-Bromofluorobenzene	0.0403		"	0.0400		101	50-150			

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BFJ0267 - EPA 5030 Water MS

Blank (BFJ0267-BLK1)

Prepared: 10/11/22 Analyzed: 10/12/22

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	2.0	"							
Naphthalene	ND	1.0	"							
1,2,4-Trimethylbenzene	ND	1.0	"							
1,3,5-Trimethylbenzene	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	14.1		"	13.3		106	23-173			
Surrogate: Toluene-d8	13.0		"	13.3		97.3	20-170			
Surrogate: 4-Bromofluorobenzene	14.2		"	13.3		107	21-167			

LCS (BFJ0267-BS1)

Prepared: 10/11/22 Analyzed: 10/12/22

Benzene	49.8	1.0	ug/l	50.0		99.5	51-132			
Toluene	49.8	1.0	"	50.0		99.5	51-138			
Ethylbenzene	48.2	1.0	"	50.0		96.5	58-146			
m,p-Xylene	96.6	2.0	"	100		96.6	57-144			
o-Xylene	48.9	1.0	"	50.0		97.9	53-146			
Naphthalene	47.2	1.0	"	50.0		94.4	70-130			
1,2,4-Trimethylbenzene	47.6	1.0	"	50.0		95.1	70-130			
1,3,5-Trimethylbenzene	47.9	1.0	"	50.0		95.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	14.4		"	13.3		108	23-173			
Surrogate: Toluene-d8	13.6		"	13.3		102	20-170			
Surrogate: 4-Bromofluorobenzene	13.5		"	13.3		101	21-167			

Matrix Spike (BFJ0267-MS1)

Source: 2210124-01

Prepared: 10/11/22 Analyzed: 10/12/22

Benzene	51.6	1.0	ug/l	50.0	ND	103	34-141			
Toluene	52.7	1.0	"	50.0	ND	105	27-151			
Ethylbenzene	52.0	1.0	"	50.0	ND	104	29-160			
m,p-Xylene	102	2.0	"	100	1.31	101	20-166			
o-Xylene	51.2	1.0	"	50.0	ND	102	33-159			
Naphthalene	44.0	1.0	"	50.0	ND	88.0	70-130			
1,2,4-Trimethylbenzene	49.8	1.0	"	50.0	ND	99.5	70-130			
1,3,5-Trimethylbenzene	50.2	1.0	"	50.0	ND	100	70-130			
Surrogate: 1,2-Dichloroethane-d4	13.2		"	13.3		99.3	23-173			
Surrogate: Toluene-d8	13.4		"	13.3		100	20-170			
Surrogate: 4-Bromofluorobenzene	13.5		"	13.3		101	21-167			

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BFJ0267 - EPA 5030 Water MS

Matrix Spike Dup (BFJ0267-MSD1)	Source: 2210124-01			Prepared: 10/11/22 Analyzed: 10/12/22						
Benzene	52.0	1.0	ug/l	50.0	ND	104	34-141	0.811	30	
Toluene	52.8	1.0	"	50.0	ND	106	27-151	0.209	30	
Ethylbenzene	53.8	1.0	"	50.0	ND	108	29-160	3.50	30	
m,p-Xylene	106	2.0	"	100	1.31	105	20-166	3.85	30	
o-Xylene	52.7	1.0	"	50.0	ND	105	33-159	2.92	30	
Naphthalene	45.4	1.0	"	50.0	ND	90.7	70-130	3.09	30	
1,2,4-Trimethylbenzene	50.4	1.0	"	50.0	ND	101	70-130	1.34	30	
1,3,5-Trimethylbenzene	51.8	1.0	"	50.0	ND	104	70-130	3.25	30	
Surrogate: 1,2-Dichloroethane-d4	12.8		"	13.3		96.2	23-173			
Surrogate: Toluene-d8	13.4		"	13.3		100	20-170			
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		101	21-167			

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BFJ0218 - EPA 3550A

Blank (BFJ0218-BLK1)

Prepared & Analyzed: 10/10/22

C10-C28 (DRO)	ND	50	mg/kg
C28-C36 (ORO)	ND	50	"

LCS (BFJ0218-BS1)

Prepared & Analyzed: 10/10/22

C10-C28 (DRO)	585	50	mg/kg	500	117	70-130
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Matrix Spike (BFJ0218-MS1)

Source: 2210122-01

Prepared & Analyzed: 10/10/22

C10-C28 (DRO)	701	50	mg/kg	500	123	116	70-130
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Matrix Spike Dup (BFJ0218-MSD1)

Source: 2210122-01

Prepared & Analyzed: 10/10/22

C10-C28 (DRO)	683	50	mg/kg	500	123	112	70-130	2.61	20
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Batch BFJ0264 - EPA 3550A

Blank (BFJ0264-BLK1)

Prepared & Analyzed: 10/11/22

C10-C28 (DRO)	ND	50	mg/kg
C28-C36 (ORO)	ND	50	"

LCS (BFJ0264-BS1)

Prepared & Analyzed: 10/11/22

C10-C28 (DRO)	561	50	mg/kg	500	112	70-130
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Matrix Spike (BFJ0264-MS1)

Source: 2210122-21

Prepared & Analyzed: 10/11/22

C10-C28 (DRO)	590	50	mg/kg	500	36.1	111	70-130
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Matrix Spike Dup (BFJ0264-MSD1)

Source: 2210122-21

Prepared & Analyzed: 10/11/22

C10-C28 (DRO)	555	50	mg/kg	500	36.1	104	70-130	6.10	20
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PO Box 1289
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Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

PAH by EPA Method 8270D SIM - Quality Control

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Reporting				Spike	Source	%REC			RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BFJ0197 - EPA 5030 Soil MS

Blank (BFJ0197-BLK1)

Prepared & Analyzed: 10/10/22

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0410		"	0.0333		123	40-150			
Surrogate: Fluoranthene-d10	0.0248		"	0.0333		74.5	40-150			

LCS (BFJ0197-BS1)

Prepared & Analyzed: 10/10/22

Acenaphthene	0.0226	0.00500	mg/kg	0.0333		67.8	31-137			
Anthracene	0.0302	0.00500	"	0.0333		90.7	30-120			
Benzo (a) anthracene	0.0332	0.00500	"	0.0333		99.7	30-120			
Benzo (a) pyrene	0.0282	0.00500	"	0.0333		84.7	30-120			
Benzo (b) fluoranthene	0.0284	0.00500	"	0.0333		85.3	30-120			
Benzo (k) fluoranthene	0.0275	0.00500	"	0.0333		82.5	30-120			
Chrysene	0.0316	0.00500	"	0.0333		94.9	30-120			
Dibenz (a,h) anthracene	0.0350	0.00500	"	0.0333		105	30-120			
Fluoranthene	0.0256	0.00500	"	0.0333		76.9	30-120			
Fluorene	0.0196	0.00500	"	0.0333		58.7	30-120			
Indeno (1,2,3-cd) pyrene	0.0280	0.00500	"	0.0333		83.9	30-120			
Pyrene	0.0274	0.00500	"	0.0333		82.2	35-142			
1-Methylnaphthalene	0.0391	0.00500	"	0.0333		117	35-142			
2-Methylnaphthalene	0.0411	0.00500	"	0.0333		123	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0394		"	0.0333		118	40-150			
Surrogate: Fluoranthene-d10	0.0256		"	0.0333		76.8	40-150			

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Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

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10/18/22 08:56

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Analyte	Reporting			Spike		Source		%REC		RPD	
	Result	Limit	Units	Level		Result	%REC	Limits	RPD	Limit	Notes

Batch BFJ0197 - EPA 5030 Soil MS

Matrix Spike (BFJ0197-MS1)

Source: 2210106-01

Prepared & Analyzed: 10/10/22

Acenaphthene	0.0197	0.00500	mg/kg	0.0333	ND	59.2	31-137		
Anthracene	0.0203	0.00500	"	0.0333	ND	61.0	30-120		
Benzo (a) anthracene	0.0210	0.00500	"	0.0333	ND	62.9	30-120		
Benzo (a) pyrene	0.0177	0.00500	"	0.0333	ND	53.0	30-120		
Benzo (b) fluoranthene	0.0175	0.00500	"	0.0333	ND	52.5	30-120		
Benzo (k) fluoranthene	0.0155	0.00500	"	0.0333	ND	46.4	30-120		
Chrysene	0.0190	0.00500	"	0.0333	ND	56.9	30-120		
Dibenz (a,h) anthracene	0.0213	0.00500	"	0.0333	ND	64.0	30-120		
Fluoranthene	0.0216	0.00500	"	0.0333	ND	64.9	30-120		
Fluorene	0.0152	0.00500	"	0.0333	ND	45.6	30-120		
Indeno (1,2,3-cd) pyrene	0.0297	0.00500	"	0.0333	ND	89.1	30-120		
Pyrene	0.0216	0.00500	"	0.0333	ND	64.9	35-142		
1-Methylnaphthalene	0.0274	0.00500	"	0.0333	ND	82.2	15-130		
2-Methylnaphthalene	0.0280	0.00500	"	0.0333	ND	84.0	15-130		
Surrogate: 2-Methylnaphthalene-d10	0.0280		"	0.0333		84.1	40-150		
Surrogate: Fluoranthene-d10	0.0209		"	0.0333		62.8	40-150		

Matrix Spike Dup (BFJ0197-MSD1)

Source: 2210106-01

Prepared & Analyzed: 10/10/22

Acenaphthene	0.0169	0.00500	mg/kg	0.0333	ND	50.6	31-137	15.6	30
Anthracene	0.0213	0.00500	"	0.0333	ND	64.0	30-120	4.93	30
Benzo (a) anthracene	0.0214	0.00500	"	0.0333	ND	64.1	30-120	1.99	30
Benzo (a) pyrene	0.0198	0.00500	"	0.0333	ND	59.3	30-120	11.2	30
Benzo (b) fluoranthene	0.0174	0.00500	"	0.0333	ND	52.2	30-120	0.585	30
Benzo (k) fluoranthene	0.0180	0.00500	"	0.0333	ND	53.9	30-120	15.0	30
Chrysene	0.0195	0.00500	"	0.0333	ND	58.5	30-120	2.71	30
Dibenz (a,h) anthracene	0.0203	0.00500	"	0.0333	ND	60.8	30-120	5.19	30
Fluoranthene	0.0226	0.00500	"	0.0333	ND	67.7	30-120	4.35	30
Fluorene	0.0119	0.00500	"	0.0333	ND	35.6	30-120	24.6	30
Indeno (1,2,3-cd) pyrene	0.0276	0.00500	"	0.0333	ND	82.9	30-120	7.20	30
Pyrene	0.0193	0.00500	"	0.0333	ND	57.9	35-142	11.3	30
1-Methylnaphthalene	0.0227	0.00500	"	0.0333	ND	68.0	15-130	19.0	50
2-Methylnaphthalene	0.0239	0.00500	"	0.0333	ND	71.7	15-130	15.9	50
Surrogate: 2-Methylnaphthalene-d10	0.0233		"	0.0333		69.8	40-150		
Surrogate: Fluoranthene-d10	0.0231		"	0.0333		69.4	40-150		

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Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

PAH by EPA Method 8270D SIM - Quality Control

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Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch BFJ0221 - EPA 5030 Soil MS

Blank (BFJ0221-BLK1)

Prepared & Analyzed: 10/10/22

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0238		"	0.0333		71.3	40-150			
Surrogate: Fluoranthene-d10	0.0291		"	0.0333		87.2	40-150			

LCS (BFJ0221-BS1)

Prepared & Analyzed: 10/10/22

Acenaphthene	0.0297	0.00500	mg/kg	0.0333		89.0	31-137			
Anthracene	0.0289	0.00500	"	0.0333		86.8	30-120			
Benzo (a) anthracene	0.0328	0.00500	"	0.0333		98.3	30-120			
Benzo (a) pyrene	0.0332	0.00500	"	0.0333		99.7	30-120			
Benzo (b) fluoranthene	0.0328	0.00500	"	0.0333		98.5	30-120			
Benzo (k) fluoranthene	0.0333	0.00500	"	0.0333		100	30-120			
Chrysene	0.0294	0.00500	"	0.0333		88.1	30-120			
Dibenz (a,h) anthracene	0.0330	0.00500	"	0.0333		98.9	30-120			
Fluoranthene	0.0266	0.00500	"	0.0333		79.7	30-120			
Fluorene	0.0290	0.00500	"	0.0333		86.9	30-120			
Indeno (1,2,3-cd) pyrene	0.0330	0.00500	"	0.0333		99.0	30-120			
Pyrene	0.0342	0.00500	"	0.0333		103	35-142			
1-Methylnaphthalene	0.0126	0.00500	"	0.0333		37.8	35-142			
2-Methylnaphthalene	0.0301	0.00500	"	0.0333		90.2	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0271		"	0.0333		81.4	40-150			
Surrogate: Fluoranthene-d10	0.0292		"	0.0333		87.7	40-150			

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Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

PAH by EPA Method 8270D SIM - Quality Control

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Reporting				Spike	Source	%REC			RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BFJ0221 - EPA 5030 Soil MS

Matrix Spike (BFJ0221-MS1)			Source: 2210122-03		Prepared & Analyzed: 10/10/22						
Acenaphthene	0.0287	0.00500	mg/kg	0.0333	ND	86.2	31-137				
Anthracene	0.0199	0.00500	"	0.0333	ND	59.8	30-120				
Benzo (a) anthracene	0.0259	0.00500	"	0.0333	ND	77.8	30-120				
Benzo (a) pyrene	0.0202	0.00500	"	0.0333	ND	60.7	30-120				
Benzo (b) fluoranthene	0.0212	0.00500	"	0.0333	ND	63.5	30-120				
Benzo (k) fluoranthene	0.0204	0.00500	"	0.0333	ND	61.1	30-120				
Chrysene	0.0297	0.00500	"	0.0333	0.00618	70.6	30-120				
Dibenz (a,h) anthracene	0.0193	0.00500	"	0.0333	ND	57.9	30-120				
Fluoranthene	0.0204	0.00500	"	0.0333	ND	61.1	30-120				
Fluorene	0.0697	0.00500	"	0.0333	0.0455	72.8	30-120				
Indeno (1,2,3-cd) pyrene	0.0210	0.00500	"	0.0333	ND	63.0	30-120				
Pyrene	0.0220	0.00500	"	0.0333	ND	65.9	35-142				
1-Methylnaphthalene	0.939	0.00500	"	0.0333	0.125	NR	15-130				QM-07
2-Methylnaphthalene	0.949	0.00500	"	0.0333	0.699	749	15-130				QM-07
Surrogate: 2-Methylnaphthalene-d10	0.0230		"	0.0333		69.1	40-150				
Surrogate: Fluoranthene-d10	0.0201		"	0.0333		60.4	40-150				

Matrix Spike Dup (BFJ0221-MSD1)			Source: 2210122-03		Prepared & Analyzed: 10/10/22						
Acenaphthene	0.0366	0.00500	mg/kg	0.0333	ND	110	31-137	24.2	30		
Anthracene	0.0248	0.00500	"	0.0333	ND	74.4	30-120	21.8	30		
Benzo (a) anthracene	0.0336	0.00500	"	0.0333	ND	101	30-120	25.7	30		
Benzo (a) pyrene	0.0269	0.00500	"	0.0333	ND	80.6	30-120	28.1	30		
Benzo (b) fluoranthene	0.0265	0.00500	"	0.0333	ND	79.5	30-120	22.4	30		
Benzo (k) fluoranthene	0.0259	0.00500	"	0.0333	ND	77.6	30-120	23.8	30		
Chrysene	0.0341	0.00500	"	0.0333	0.00618	83.8	30-120	13.8	30		
Dibenz (a,h) anthracene	0.0275	0.00500	"	0.0333	ND	82.6	30-120	35.2	30		QM-07
Fluoranthene	0.0240	0.00500	"	0.0333	ND	72.1	30-120	16.6	30		
Fluorene	0.0610	0.00500	"	0.0333	0.0455	46.7	30-120	13.3	30		
Indeno (1,2,3-cd) pyrene	0.0258	0.00500	"	0.0333	ND	77.3	30-120	20.4	30		
Pyrene	0.0286	0.00500	"	0.0333	ND	85.8	35-142	26.3	30		
1-Methylnaphthalene	0.541	0.00500	"	0.0333	0.125	NR	15-130	53.8	50		QM-07
2-Methylnaphthalene	0.244	0.00500	"	0.0333	0.699	NR	15-130	118	50		QM-07
Surrogate: 2-Methylnaphthalene-d10	0.0407		"	0.0333		122	40-150				
Surrogate: Fluoranthene-d10	0.0255		"	0.0333		76.6	40-150				

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Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

PAH by EPA Method 8270D SIM - Quality Control

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Analyte	Reporting			Spike	Source	%REC		RPD		
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BFJ0274 - EPA 5030 Soil MS

Blank (BFJ0274-BLK1)

Prepared: 10/12/22 Analyzed: 10/13/22

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0252		"	0.0333		75.6	40-150			
Surrogate: Fluoranthene-d10	0.0194		"	0.0333		58.1	40-150			

LCS (BFJ0274-BS1)

Prepared: 10/12/22 Analyzed: 10/13/22

Acenaphthene	0.0306	0.00500	mg/kg	0.0333		91.8	31-137			
Anthracene	0.0311	0.00500	"	0.0333		93.2	30-120			
Benzo (a) anthracene	0.0260	0.00500	"	0.0333		78.0	30-120			
Benzo (a) pyrene	0.0286	0.00500	"	0.0333		85.7	30-120			
Benzo (b) fluoranthene	0.0274	0.00500	"	0.0333		82.3	30-120			
Benzo (k) fluoranthene	0.0285	0.00500	"	0.0333		85.5	30-120			
Chrysene	0.0268	0.00500	"	0.0333		80.5	30-120			
Dibenz (a,h) anthracene	0.0318	0.00500	"	0.0333		95.5	30-120			
Fluoranthene	0.0314	0.00500	"	0.0333		94.2	30-120			
Fluorene	0.0229	0.00500	"	0.0333		68.8	30-120			
Indeno (1,2,3-cd) pyrene	0.0232	0.00500	"	0.0333		69.6	30-120			
Pyrene	0.0268	0.00500	"	0.0333		80.3	35-142			
1-Methylnaphthalene	0.0298	0.00500	"	0.0333		89.3	35-142			
2-Methylnaphthalene	0.0303	0.00500	"	0.0333		90.9	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0314		"	0.0333		94.1	40-150			
Surrogate: Fluoranthene-d10	0.0309		"	0.0333		92.7	40-150			

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Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Reporting			Spike Level	Source		%REC		RPD	
	Result	Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

Batch BFJ0274 - EPA 5030 Soil MS

Matrix Spike (BFJ0274-MS1)

Source: 2209590-01

Prepared: 10/12/22 Analyzed: 10/13/22

Acenaphthene	0.0276	0.00500	mg/kg	0.0333	ND	82.7	31-137		
Anthracene	0.0235	0.00500	"	0.0333	ND	70.6	30-120		
Benzo (a) anthracene	0.0183	0.00500	"	0.0333	ND	55.0	30-120		
Benzo (a) pyrene	0.0189	0.00500	"	0.0333	ND	56.7	30-120		
Benzo (b) fluoranthene	0.0176	0.00500	"	0.0333	ND	52.8	30-120		
Benzo (k) fluoranthene	0.0176	0.00500	"	0.0333	ND	52.9	30-120		
Chrysene	0.0205	0.00500	"	0.0333	ND	61.6	30-120		
Dibenz (a,h) anthracene	0.0224	0.00500	"	0.0333	ND	67.2	30-120		
Fluoranthene	0.0209	0.00500	"	0.0333	ND	62.8	30-120		
Fluorene	0.0181	0.00500	"	0.0333	ND	54.2	30-120		
Indeno (1,2,3-cd) pyrene	0.0165	0.00500	"	0.0333	ND	49.6	30-120		
Pyrene	0.0190	0.00500	"	0.0333	ND	57.1	35-142		
1-Methylnaphthalene	0.0273	0.00500	"	0.0333	ND	81.9	15-130		
2-Methylnaphthalene	0.0265	0.00500	"	0.0333	ND	79.6	15-130		
Surrogate: 2-Methylnaphthalene-d10	0.0199		"	0.0333		59.6	40-150		
Surrogate: Fluoranthene-d10	0.0184		"	0.0333		55.3	40-150		

Matrix Spike Dup (BFJ0274-MSD1)

Source: 2209590-01

Prepared: 10/12/22 Analyzed: 10/13/22

Acenaphthene	0.0293	0.00500	mg/kg	0.0333	ND	87.8	31-137	6.00	30
Anthracene	0.0253	0.00500	"	0.0333	ND	75.8	30-120	7.16	30
Benzo (a) anthracene	0.0197	0.00500	"	0.0333	ND	59.0	30-120	6.98	30
Benzo (a) pyrene	0.0209	0.00500	"	0.0333	ND	62.8	30-120	10.2	30
Benzo (b) fluoranthene	0.0199	0.00500	"	0.0333	ND	59.7	30-120	12.3	30
Benzo (k) fluoranthene	0.0197	0.00500	"	0.0333	ND	59.0	30-120	11.1	30
Chrysene	0.0225	0.00500	"	0.0333	ND	67.6	30-120	9.29	30
Dibenz (a,h) anthracene	0.0240	0.00500	"	0.0333	ND	72.1	30-120	7.11	30
Fluoranthene	0.0235	0.00500	"	0.0333	ND	70.6	30-120	11.7	30
Fluorene	0.0166	0.00500	"	0.0333	ND	49.8	30-120	8.43	30
Indeno (1,2,3-cd) pyrene	0.0182	0.00500	"	0.0333	ND	54.5	30-120	9.33	30
Pyrene	0.0225	0.00500	"	0.0333	ND	67.6	35-142	16.9	30
1-Methylnaphthalene	0.0277	0.00500	"	0.0333	ND	83.1	15-130	1.42	50
2-Methylnaphthalene	0.0255	0.00500	"	0.0333	ND	76.6	15-130	3.85	50
Surrogate: 2-Methylnaphthalene-d10	0.0214		"	0.0333		64.2	40-150		
Surrogate: Fluoranthene-d10	0.0209		"	0.0333		62.6	40-150		

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - PTF North

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/18/22 08:56

Notes and Definitions

S-02	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
BTL-01	Sample supplied in improper container.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference