FREMONT ENVIRONMENTAL INC.

August 11, 2022

Mr. Jason Davidson
PDC Energy
4000 Burlington Ave
Evans, CO 80620

Subject: **Excavation Report**
Champlin 67F
NWNW Sec 21, T2S, R63W
Adams County, Colorado
Fremont Project No. C021-028
Facility #104726, Remediation #9466

Dear Mr. Davidson:

Enclosed please find a copy of the above referenced Excavation Report for the Champlin 67F site in Adams County, Colorado. The enclosed report describes excavation actions to remove impacted soil from the site. Groundwater was not encountered during the excavation work.

Please contact me at (303) 956-8714 if you require any additional information.

Fremont appreciates the opportunity to provide this service.

Sincerely,
FREMONT ENVIRONMENTAL INC.

Paul V. Henehan, P.E.
Senior Consultant

Enclosure

1759 REDWING LANE, BROOMFIELD, CO 80020
(303) 956-8714 (DIRECT)

EXCAVATION REPORT

PDC ENERGY

CHAMPLIN 67F

ADAMS COUNTY, COLORADO

FREMONT PROJECT NO. C021-028

FACILITY #104726, REMEDIATION #9466

Prepared by:

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

August 11, 2022

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EXCAVATION REPORT

PDC ENERGY

CHAMPLIN 67F

ADAMS COUNTY, COLORADO

FREMONT PROJECT NO. C021-028

FACILITY #104726, REMEDIATION #9466

1.0 INTRODUCTION

The purpose of this document is to present information collected during the excavation of petroleum-impacted soil at the Champlin 67F former produced water pit and elevated pH and/or SAR levels adjacent to the former produced water pit in Adams County, Colorado. This excavation project was completed on July 7, 2022.

2.0 BACKGROUND INFORMATION

2.1 Site Location

The Champlin 67F site is located approximately 7.5 miles northwest of Bennet, Colorado in Adams County as shown on Figure 1. The site is located in an agricultural area 0.85 miles north of the intersection of East 88th Ave and Penrith Rd. The location is further described as the NW ¼ of the NW ¼ of Section 21, Township 2S, Range 63W.

2.2 Site History

The site's excavation area consisted of the soil immediately beneath and adjacent to the facility's former produced water pit. A site investigation was conducted on October 13, 2021, January 10, 2022 and February 22, 2022 using 22 Geoprobe borings, ranging at various depths, to determine the anticipated depth of the remedial excavation. Laboratory analyses from soil samples collected from these borings indicated petroleum soil impacts were present to a depth of approximately 12 feet at the location of the former produced water pit. These analytical data are summarized on Table 1 and illustrated on Figure 4.

Elevated concentrations of boron, EC, pH and SAR were present adjacent to the former water pit. Boring "SB-Background", which was the background sample, had elevated concentrations of boron, pH and SAR at eight feet. Figure 3 illustrates the extent of SAR and pH concentrations which exceed the Table 915-1 standards. Two contours showing the areas that exceed the SAR and pH standards at less than three feet, as well as between three and eight feet, are presented. The proposed and approved remedial action plan (Form 27, Document #403051183) included the removal of SAR and pH impacted soil to a depth of three feet; SAR and pH below a depth of three feet were to be left in place. Further, these boring samples adequately defined the extent of the inorganic impacts, therefore, additional confirmation sampling was not required. These analytical data are summarized on Table 2 and presented on Figure 4.

3.0 FIELD ACTIVITIES

Remediation efforts consisted of the excavation of petroleum and inorganic impacted soil at the site. The soil consisted of silt to silty sand to a depth of 15 ft. The petroleum impacted soil excavation extent measured approximately 20′ x 20′ x 15′ deep and is represented by the green contour line on Figure 3. The pH and/or SAR soil excavation was performed to a depth of three feet radially outward in all directions from the petroleum impacted excavation; this portion of the excavation is represented by the purple outline on Figure 3.

Excavation was initiated at the site on July 5, 2022 and completed on July 7, 2022. Soil samples were collected from the petroleum-impacted soil excavation sidewalls between 10 and 12 feet deep and from the excavation floor at 15 feet. No soil samples for pH or SAR were collected.

The soil samples were analyzed by Summit Scientific Inc. of Golden, Colorado for benzene, toluene, ethylbenzene and xylenes (BTEX), naphthalene, trimethylbenzenes, Total Petroleum Hydrocarbons – Gasoline Range Organics (TPH-GRO) by EPA method 8260B, and TPH – Diesel Range Organics (TPH-DRO) and TPH-Residual Range Organics (TPH-ORO) by EPA method 8015. The laboratory reports and chain-of-custody documentation are included in Appendix A.

Summaries of the laboratory data are included in Tables 1 and 2. Table 1 presents the laboratory analyses for volatile organic constituents and Table 2 provides inorganics in soil. The laboratory analyses indicate that organic petroleum constituents in soil samples collected from the sidewalls and floor of the former produced water pit excavation achieved the COGCC Table 915-1 for Residential Soil Screening Levels (RSSLs).

A total of approximately 707 cubic yards of petroleum/inorganic impacted soil was removed by Standard Resources of CO LLC from the location during this project. The impacted soil was disposed of at the Buffalo Ridge Landfill in Keenesburg, Colorado as non-hazardous waste. The excavation was backfilled using clean, imported fill.

4.0 DISCUSSION

As demonstrated by the soil sampling, impacted soil has been removed from the site by excavation. This was confirmed by the analyses of the soil samples collected from the former produced water pit exterior sidewalls and floor which were below the COGCC's Table 915-1 RSSLs, while the surrounding impacted inorganic soil was removed to a depth of three feet based on the previously defined extent of inorganic impacts. Approximately 700 cubic yards of impacted soil were removed and transported to the Buffalo Ridge landfill. The soil data is illustrated and summarized in the attached tables and figures.

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.**

8/11/22

_____ Date_____

Paul V. Henehan, P.E.
Senior Consultant

TABLES

TABLE 1
SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA
PDC ENERGY
CHAMPLIN 67F, ADAMS COUNTY, COLORADO
FREMONT PROJECT NO. C021-028

Sample	Depth (ft)	Date Sampled	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)	Naphth-alene (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)
COGCC Table 915-1 Limits (Protection of Groundwater SSL)			0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	500	500	500
COGCC Table 915-1 Limits (Residential SSL)			1.2	490	5.8	58	30	27	2	500	500	500
SB-A 8 Ft	8	10/13/2021	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0038	<0.200	<25	<100
SB-A 20 Ft	20	10/13/2021	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0038	<0.200	<25	<100
SB-B 8 Ft	8	10/13/2021	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0038	<0.200	<25	<100
SB-B 20 Ft	20	10/13/2021	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0038	<0.200	<25	<100
SB-C 6 Ft	6	10/13/2021	0.217	<0.05	3.75	8.37	4.62	3.36	**5.8**	**256**	**3080**	**1800**
SB-C 12 Ft	12	10/13/2021	<0.002	<0.002	0.0134	0.0597	0.104	0.0298	0.0821	2.26	<25	<100
SB-C 16 Ft	16	10/13/2021	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0038	<0.200	<25	<100
SB-C 20 Ft	20	10/13/2021	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0038	<0.200	<25	<100
SB-D 8 Ft	8	10/13/2021	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0038	<0.200	<25	<100
SB-D 20 Ft	20	10/13/2021	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0038	<0.200	<25	<100
SB-E 8 Ft	8	10/13/2021	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0038	<0.200	70.7	209
SB-E 20 Ft	20	10/13/2021	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0038	<0.200	<25	<100
SB-F 8 Ft	8	10/13/2021	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0038	<0.200	<25	<100
SB-F 20 Ft	20	10/13/2021	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0038	<0.200	<25	<100
BG-1 1 Ft	1	10/13/2021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B01@15.0' (floor)	15	7/6/2022	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
N01@12.0' (Sidewall)	12	7/6/2022	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
S01@12.0' (Sidewall)	12	7/6/2022	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
E01@10.0' (Sidewall)	10	7/5/2022	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
W01@12.0' (Sidewall)	12	7/6/2022	**0.0046**	<0.0050	0.14	0.64	0.42	0.21	**11**	**11**	**800**	**160**
W02@12.0' (Sidewall)	12	7/7/2022	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	280	74

Bold faced values exceed the COGCC Table 915-1 concentrations

Green background indicates that sample exceeded one or more regulatory limits and was removed through excavation

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

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

NA - Not analyzed

TABLE 2
SUMMARY OF INORGANIC SOIL CHEMISTRY DATA
PDC ENERGY
CHAMPLIN 67F, ADAMS COUNTY, COLORADO
FREMONT PROJECT NO. C021-028

SAMPLE LOCATION	DATE SAMPLED	DEPTH ft	EC mmhos/cm	pH pH units	SAR units	BORON mg/L
Table 915-1 Limits			<4	6-8.3	<6	2
SB-A 8 Ft	10/13/2021	8	1.42	**8.77**	**23.8**	**2.39**
SB-A 20 Ft	10/13/2021	20	**4.01**	7.76	**6.58**	1.92
SB-B 8 Ft	10/13/2021	8	**7.15**	8.14	**41.1**	**3.26**
SB-B 20 Ft	10/13/2021	20	**11.7**	7.84	**10.7**	**5.79**
SB-C 6 Ft	10/13/2021	6	3.28	8.02	**74.6**	**8.25**
SB-C 12 Ft	10/13/2021	12	3.33	**8.76**	**82.9**	**13.8**
SB-C 16 Ft	10/13/2021	16	**4.30**	**8.66**	**80.7**	**7.15**
SB-C 20 Ft	10/13/2021	20	**4.52**	**8.57**	**67.3**	**11.50**
SB-D 8 Ft	10/13/2021	8	3.69	**8.73**	**55.8**	**4.33**
SB-D 20 Ft	10/13/2021	20	**4.71**	8.19	**31.0**	**4.63**
SB-E 8 Ft	10/13/2021	8	**8.65**	8.18	**60.1**	**4.60**
SB-E 20 Ft	10/13/2021	20	**10.2**	7.97	**36.5**	**14.3**
SB-F 8 Ft	10/13/2021	8	**5.36**	**8.74**	**75.9**	**6.81**
SB-F 20 Ft	10/13/2021	20	**8.99**	8.12	**45.7**	**19.3**
BG-1 1 Ft	10/13/2021	1	0.851	7.42	0.837	<0.202
SB-G 1FT	1/10/2022	1	**10.1**	7.32	**53.0**	**12.8**
SB-G 3 Ft	1/10/2022	3	**11.5**	7.75	**50.1**	**5.28**
SB-G 8 Ft	1/10/2022	8	**8.93**	7.84	**33.0**	**2.69**
SB-H 1 Ft	1/10/2022	1	**7.61**	7.54	**47.5**	**6.26**
SB-H 3ft	1/10/2022	3	**6.79**	7.98	**49.3**	**5.82**
SB-H 8ft	1/10/2022	8	**4.69**	**8.35**	**47.0**	**3.59**
SB-I 1ft	1/10/2022	1	**9.07**	7.56	**75.0**	**7.56**
SB-I 3ft	1/10/2022	3	**7.54**	8.07	**72.8**	**11.4**
SB-I 8ft	1/10/2022	8	**7.26**	8.18	**62.0**	**4.43**
SB-J 1ft	1/10/2022	1	**4.18**	7.99	**31.4**	**2.63**
SB-J 3ft	1/10/2022	3	3.29	8.19	**39.6**	**6.16**
SB-J 8ft	1/10/2022	8	2.36	**8.68**	**34.4**	**2.92**
SB-K 1ft	1/10/2022	1	1.89	7.90	**21.4**	1.85
SB-K 3ft	1/10/2022	3	1.69	**8.56**	**24.2**	**3.13**
SB-K 8ft	1/10/2022	8	3.05	8.27	**24.3**	1.47
SB-L 1ft	1/10/2022	1	0.703	7.95	3.75	0.742
SB-L 3ft	1/10/2022	3	0.533	8.04	2.34	0.553
SB-L 8ft	1/10/2022	8	1.37	7.39	**28.7**	**3.77**
SB-M 1ft	1/10/2022	1	0.520	7.31	3.45	<1.96
SB-M 3ft	1/10/2022	3	0.608	8.25	4.96	1.13
SB-M 8ft	1/10/2022	8	1.20	8.08	5.17	1.21
SB-N 1ft	1/10/2022	1	1.98	6.87	4.04	<1.98
SB-N 3ft	1/10/2022	3	2.93	7.57	2.20	0.482
SB-N 8ft	1/10/2022	8	**4.82**	7.61	3.59	1.38
SB-O 1ft	1/10/2022	1	**6.43**	7.74	**22.3**	1.03
SB-O 3ft	1/10/2022	3	**8.17**	7.52	**8.24**	0.476
SB-O 8ft	1/10/2022	8	**7.76**	7.58	**6.39**	0.694

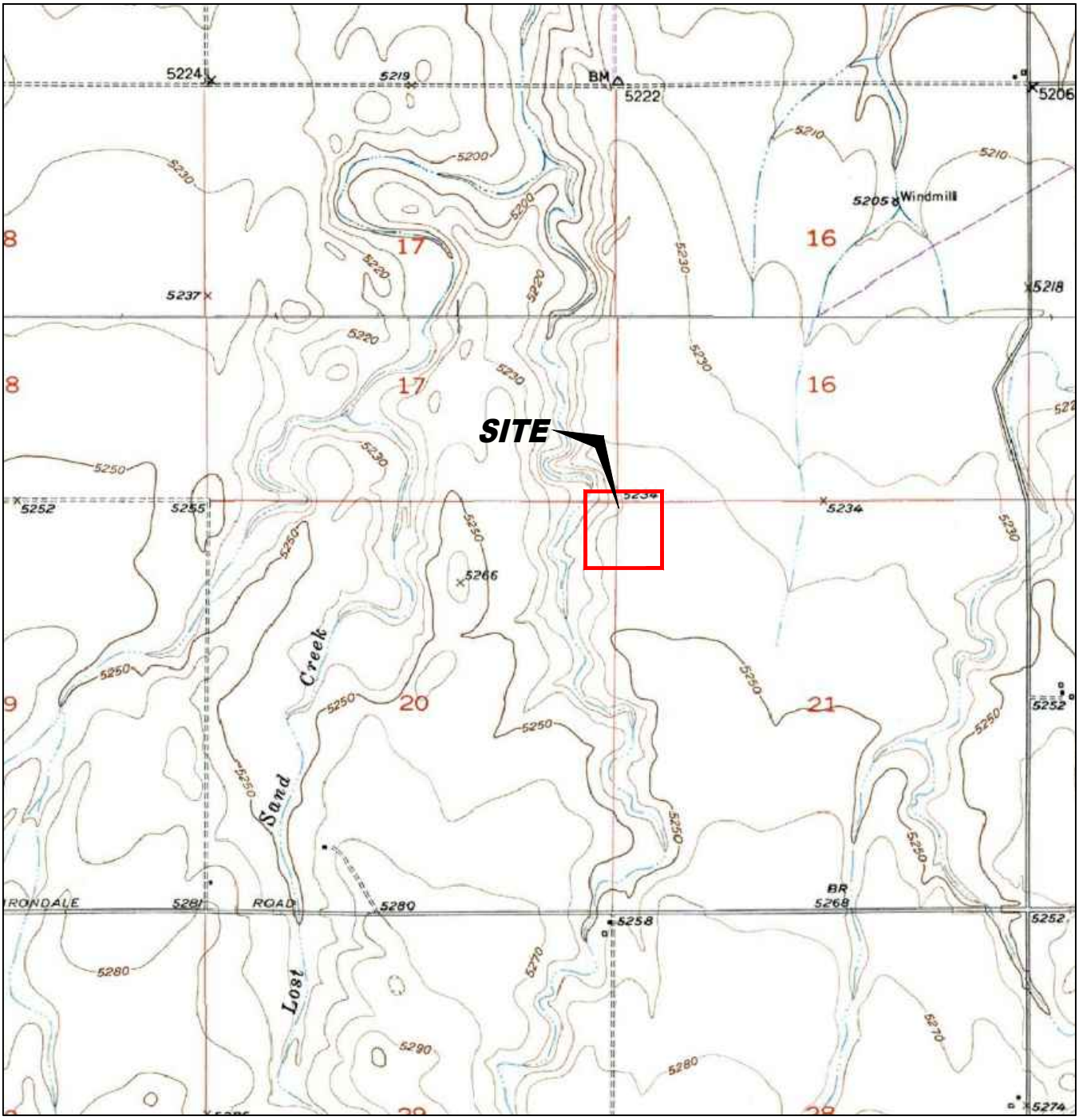
SAMPLE LOCATION	DATE SAMPLED	DEPTH ft	EC mmhos/cm	pH pH units	SAR units	BORON mg/L
SB-P 1ft	1/10/2022	1	**4.48**	8.03	**25.4**	0.355
SB-P 3ft	1/10/2022	3	**10.7**	7.47	**13.3**	0.381
SB-P 8ft	1/10/2022	8	**15.6**	7.55	**13.1**	0.871
SB-Background 1ft	1/10/2022	1	0.283	7.69	0.411	**<2.02**
SB-Background 3ft	1/10/2022	3	0.299	7.98	0.403	0.395
SB-Background 8ft	1/10/2022	8	0.727	**8.73**	**11.3**	**2.26**
SB-Q 1 Ft	2/22/2022	1	0.137	7.49	0.214	0.118
SB-Q 3 Ft	2/22/2022	3	0.246	8.03	0.754	0.380
SB-Q 8 Ft	2/22/2022	8	0.444	**8.38**	5.17	1.36
SB-R 1 Ft	2/22/2022	1	0.189	8.01	3.28	1.01
SB-R 3 Ft	2/22/2022	3	0.500	**8.67**	**8.34**	1.11
SB-R 8 Ft	2/22/2022	8	**4.16**	7.69	5.30	1.24
SB-S 1 Ft	2/22/2022	1	0.347	7.66	2.68	<1.00
SB-S 3 Ft	2/22/2022	3	0.508	**8.53**	**6.69**	0.966
SB-S 8 Ft	2/22/2022	8	3.30	7.91	**8.22**	1.32
SB-T 1 Ft	2/22/2022	1	0.419	7.68	0.311	0.336
SB-T 3 Ft	2/22/2022	3	0.284	8.23	1.44	0.496
SB-T 8 Ft	2/22/2022	8	2.28	8.15	**8.48**	1.42
SB-U 1 Ft	2/22/2022	1	0.884	6.43	0.491	<0.987
SB-U 3 Ft	2/22/2022	3	0.378	7.85	0.333	0.239
SB-U 8 Ft	2/22/2022	8	2.16	7.96	**8.18**	0.904
SB-V 1 Ft	2/22/2022	1	0.555	7.71	0.700	0.321
SB-V 3 Ft	2/22/2022	3	0.296	7.23	0.300	0.340
SB-V 8 Ft	2/22/2022	8	1.67	8.02	**6.72**	1.45

Bold face values exceed the COGCC Limits

Green background indicates that sample exceeded one or more regulatory limits and was removed through excavation

NA - Not Analyzed

FIGURES



N

Scale (miles)

0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1

0 1000 2000 3000 4000 5000

Scale (feet)

USGS 7.5 MINUTE SERIES (TOPOGRAPHIC)

Figure 1

SITE LOCATION MAP

PDC Energy ~ Champlin 67F

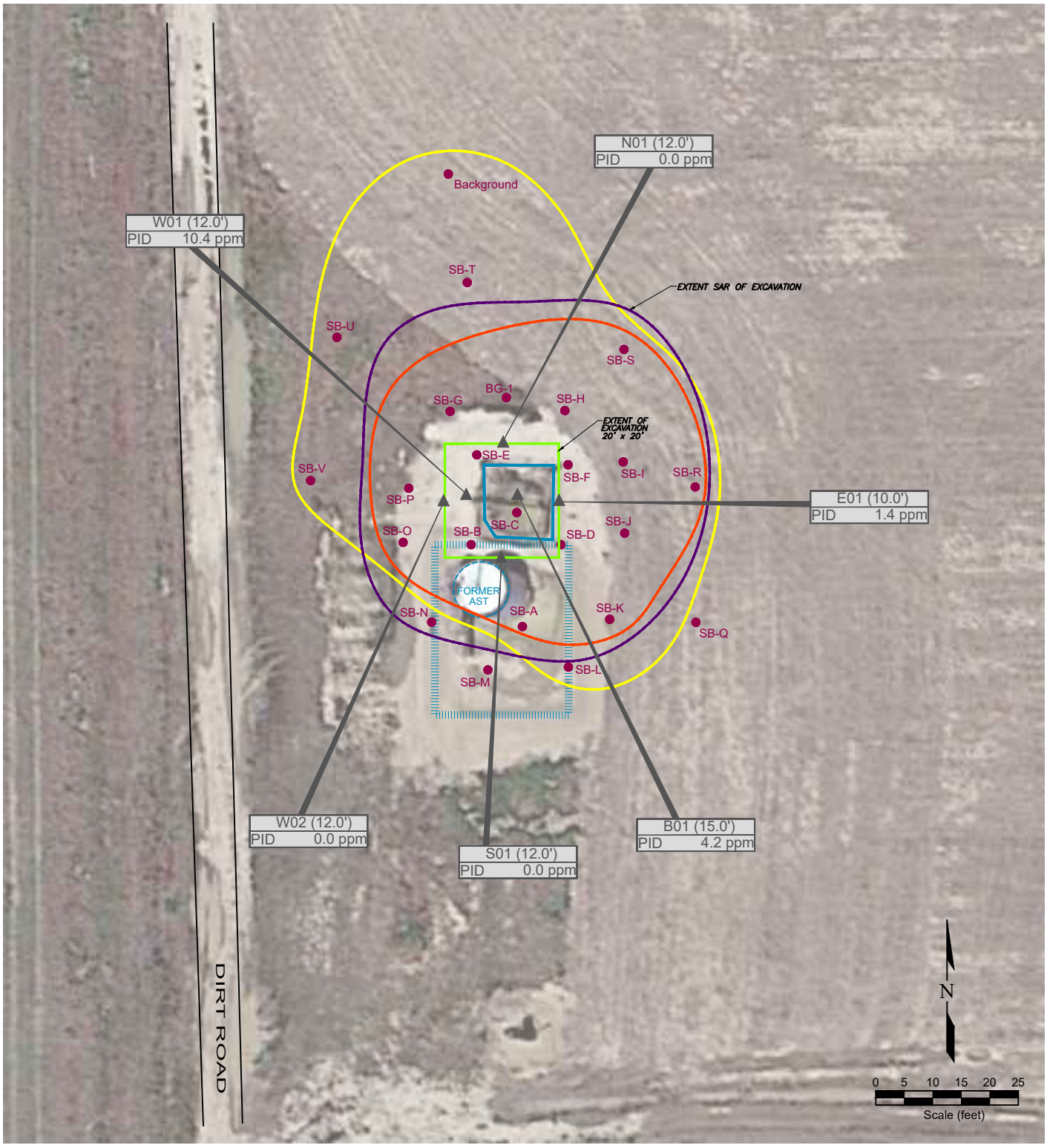
NWNW Sec. 21, T2S, R63W 6th PM

Adams County, Colorado

39.866300°, -104.451350°

Project #	API #	Facility #
C021-028	**05-001-07202**	**104726**
Date	Remediation #	Filename
7/13/22	**9466**	**21028T**

FREMONT ENVIRONMENTAL



LEGEND

- PID READING LOCATION
- GEOPROBE BORING LOCATION
- ABOVE GROUND STORAGE TANK
- FORMER FACILITY
- CONTAINMENT BERM
- CONTAINMENT WALL
- DENOTES SAR IMPACTS AT 8'
- DENOTES SAR IMPACTS AT 1' AND 3'
- EXTENT SAR OF EXCAVATION
- EXTENT OF EXCAVATION

W01 (12.0') PID 10.4 ppm — PID READING LOCATION IDENTIFICATION / PHOTO IONIZATION DETECTION (ppm)

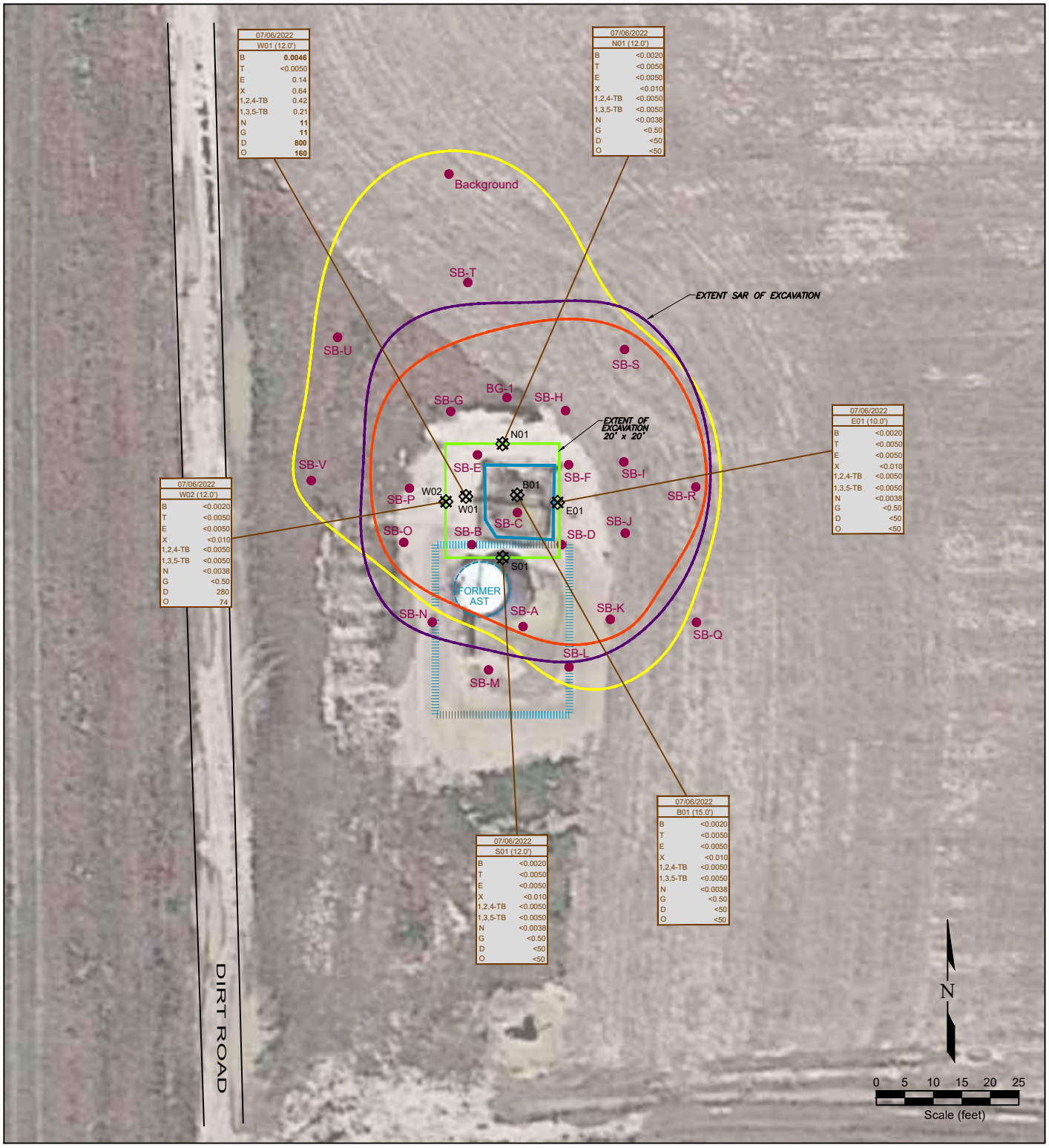
NOTES: THE APPROXIMATE SQUARE FOOTAGE THAT IS PROPOSED FOR EXCAVATION IS ABOUT 3,500 FT2. A DEEPER EXCAVATION (~10') WOULD BE CONDUCTED AT THE FORMER WATER PIT AND A SHALLOWER EXCAVATION (TO 3') WOULD BE PERFORMED AROUND THE FORMER WATER PIT.

Figure 2
SITE MAP

PDC Energy ~ Champlin 67F
NWNW Sec. 21, T2S, R63W 6th PM
Adams County, Colorado
39.866300°, -104.451350°

Project No.	API #	Facility #
C021-028	**05-001-07202**	**104726**
Date	Remediation #	Filename
7/13/22	**9466**	**21028QSBQ**

FREMONT ENVIRONMENTAL



LEGEND

GEOPROBE BORING
SOIL SAMPLE
ABOVE GROUND STORAGE TANK
FORMER FACILITY
CONTAINMENT BERM
CONTAINMENT WALL
SAR IMPACT AT 8'
SAR IMPACTS AT 1' & 3'
SAR EXTENT OF EXCAVATION
EXTENT OF EXCAVATION

[NA] NOT ANALYZED

07/06/2022	
E01 (10.0')	DATE SAMPLED / SAMPLE ID and DEPTH (ft)
B <0.0020	BENZENE (mg/kg)
T <0.0050	TOLUENE (mg/kg)
E <0.0050	ETHYLBENZENE (mg/kg)
X <0.010	TOTAL XYLENES (mg/kg)
1,2,4-TB <0.0050	1,2,4-TRIMETHYLBENZENE (mg/kg)
1,3,5-TB <0.0050	1,3,5-TRIMETHYLBENZENE (mg/kg)
N <0.0038	NAPHTHALENE (mg/kg)
G <0.50	TPH-GRO (mg/kg)
D <50	TPH-DRO (mg/kg)
O <50	TPH-ORO (mg/kg)

NOTES: THE APPROXIMATE SQUARE FOOTAGE THAT IS PROPOSED FOR EXCAVATION IS ABOUT 3,500 FT2. A DEEPER EXCAVATION (~10') WOULD BE CONDUCTED AT THE FORMER WATER PIT AND A SHALLOWER EXCAVATION (TO 3') WOULD BE PERFORMED AROUND THE FORMER WATER PIT.

Figure 3

SOIL CHEMISTRY MAP

July 6, 2022

PDC Energy ~ Champlin 67F

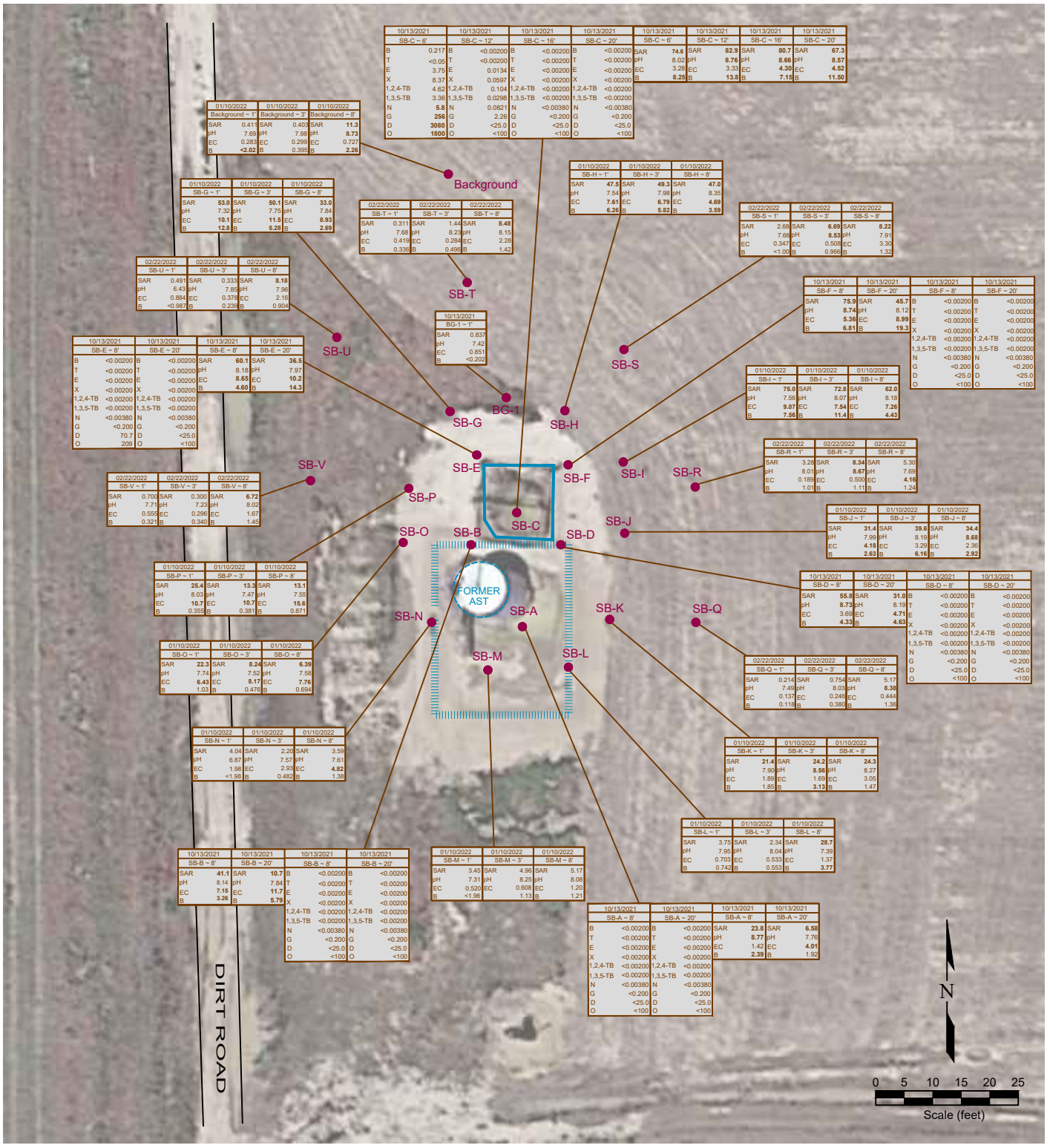
NWNW Sec. 21, T2S, R63W 6th PM

Adams County, Colorado

39.866300°, -104.451350°

Project No.	API #	Facility #
C021-028	**05-001-07202**	**104726**
Date	Remediation #	Filename
7/13/22	**9466**	**21028QSBE**

FREMONT ENVIRONMENTAL



LEGEND

- GEOPROBE BORING LOCATION
- ABOVE GROUND STORAGE TANK
- FORMER FACILITY
- CONTAINMENT BERM
- CONTAINMENT WALL

10/13/2021	
SB-A ~ 8'	
B	<0.00200
T	<0.00200
E	<0.00200
X	<0.00200
1,2,4-TB	<0.00200
1,3,5-TB	<0.00200
N	<0.00380
G	<0.200
D	<25.0
O	<100

DATE SAMPLED
SAMPLE ID and DEPTH (ft)
BENZENE (mg/kg)
TOLUENE (mg/kg)
ETHYLBENZENE (mg/kg)
TOTAL XYLENES (mg/kg)
1,2,4-TRIMETHYLBENZENE (mg/kg)
1,3,5-TRIMETHYLBENZENE (mg/kg)
NAPHTHALENE (mg/kg)
TPH-GRO (mg/kg)
TPH-DRO (mg/kg)
TPH-ORO (mg/kg)

10/13/2021	
SB-A ~ 8'	
SAR	23.8
pH	8.77
EC	1.42
B	2.39

DATE SAMPLED
SAMPLE ID & DEPTH (ft)
SAR (units)
pH (pH units)
EC (mmhos/cm)
BORON (mg/L)

Figure 4

BORE SOIL CHEMISTRY MAP

October 13, 2021; January 10, 2022; February 22, 2022

PDC Energy

Champlin 67F

NWNW Sec. 21, T2S, R63W, 6th PM

Adams County, Colorado

Project No.	API #	Facility #
C021-028	**05-001-07202**	**104726**
Date	Remediation #	Filename
5/3/22	**9466**	**21028QSB2**

FREMONT ENVIRONMENTAL

Photos

#1A – Champlin 67F – Excavation Overview – Facing SE – Outer 3ft SAR Exceedance Excavation – Inner 15ft Petroleum Exceedance Excavation

#2A – Champlin 67F – Excavation Overview – Facing NW – Outer 3ft SAR Exceedance Excavation – Inner 15ft Petroleum Exceedance Excavation

#3A – Champlin 67F – Inner Petroleum Exceedance Excavation – Former Produced Water Pit – Base of Excavation – B01@15.0’ – PID 4.2ppm – Sample Submitted for Lab Analysis

#4A – Champlin 67F – Inner Petroleum Exceedance Excavation – Former Produced Water Pit – Northern Sidewall of Excavation – N01@12.0’ – PID 0.0ppm – Sample Submitted for Lab Analysis

#5A – Champlin 67F – Inner Petroleum Exceedance Excavation – Former Produced Water Pit – Southern Sidewall of Excavation – S01@12.0’ – PID 0.0ppm – Sample Submitted for Lab Analysis

#6A – Champlin 67F – Inner Petroleum Exceedance Excavation – Former Produced Water Pit – Eastern Sidewall of Excavation – E01@10.0’ – PID 1.4ppm – Sample Submitted for Lab Analysis

#7A – Champlin 67F – Inner Petroleum Exceedance Excavation – Former Produced Water Pit – First Sample of Western Sidewall – W01@12.0’ – PID 10.4ppm – Sample Submitted for Lab Analysis

#8A – Champlin 67F – Inner Petroleum Exceedance Excavation – Former Produced Water Pit – Second Sample of Western Sidewall – W02@12.0’ – PID 0.0ppm – Sample Submitted for Lab Analysis

APPENDIX A
LABORATORY DOCUMENTATION

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

July 07, 2022

Paul Henehan
Fremont Environmental
PO Box 1289
Wellington, CO 80549

RE: PDC - Champlin 67F
Work Order #2207032

Enclosed are the results of analyses for samples received by Summit Scientific on 07/06/22 16:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

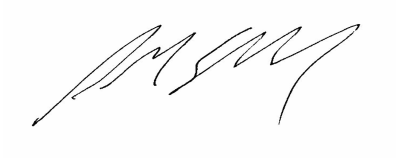
Paul Shrewsbury
President

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: PDC - Champlin 67F Project Number: [none] Project Manager: Paul Henehan	**Reported:** 07/07/22 06:53

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B01@15.0'	2207032-01	Soil	07/06/22 00:00	07/06/22 16:00
N01@12.0'	2207032-02	Soil	07/06/22 00:00	07/06/22 16:00
S01@12.0'	2207032-03	Soil	07/06/22 00:00	07/06/22 16:00
W01@12.0'	2207032-04	Soil	07/06/22 00:00	07/06/22 16:00
E01@10.0'	2207032-05	Soil	07/05/22 00:00	07/06/22 16:00

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.

Summit Scientific

2207032

S2

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310

Client: Fremont Env
Address:
City/State/Zip:
Phone:
Sampler Name: JG

Project Manager: Paul Henehan
E-Mail: Paulh@fremontenv.com ethanb@fremontenv.com jeffg@fremontenv.com
Project Name: Champlin 67F
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 ___	BTEX+N	TMBs (9151)	GRO, DRO, ORO						
1	B01@15.0'	07/06/22		2			X			X			X	X	X						
2	N01@12.0'	↓		↓			↓			↓			↓	↓	↓						
3	S01@12.0'																				
4	W01@12.0'	↓																			
5	E01@10.0'	07/05/22		↓			↓			↓			↓	↓	↓						
6																					
7																					
8																					
9																					
10																					

Relinquished by: Date/Time: 07/06/22 1600
Received by: Sheree Barlan Date/Time: 7/6/22 16:00

Relinquished by: Date/Time:
Received by: Date/Time:

Temperature Upon Receipt: 26.2
IR gun correction:
Corrected Temperature
IR gun #:
HNO3 lot #

Turn Around Time (Check)
Same Day X
24 hours
48 hours
72 hours
Standard

Sample Integrity:
Samples Intact: (Yes) No

Notes:
Client's Great Western

S2

S2 Work Order# 2207032

Sample Receipt Checklist

Client: Fremont Env Client Project ID: Champlin 67F

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other_____ Airbill #:_____

✓				

Matrix (Check all that apply) Air [ ] Soil/Solid [✓] Water [ ] Other [ ]

Temp (°C) [26.2] Thermometer # [2]

	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.	✓		✓ SB	NON ice
Were all samples received intact [(1)]?	✓			
Was adequate sample volume provided [(1)]?	✓			
If custody seals are present, are they intact [(1)]?			✓	
Are samples due within 48 hours present?	✓			Same day
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			✓	
Is a chain-of-custody (COC) form present and filled out completely [(1)]?	✓			
Does the COC agree with the number and type of sample bottles received [(1)]?	✓			
Do the sample IDs on the bottle labels match the COC [(1)]?	✓			
Is the COC properly relinquished by the client w/ date and time recorded [(1)]?	✓			
For volatiles in water – is there headspace present? **If yes, contact client and note in narrative.**			✓	
Are samples preserved that require preservation **(excluding cooling)** [(1)]? Note the type of preservative in the comments column – HCl, H_2SO_4, NaOH, HNO_3, etc.			✓	
If samples are acid preserved for metals, is the pH ≤ 2[(1)]? Record the pH in Comments.			✓	
If dissolved metals are requested, were samples field filtered?			✓	
Additional Comments (if any):				

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

SB — **Custodian Printed Name**

7/6/22 16:00 — **Date/Time**

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: PDC - Champlin 67F Project Number: [none] Project Manager: Paul Henehan	**Reported:** 07/07/22 06:53

B01@15.0'

2207032-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFG0098	07/06/22	07/06/22	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: **07/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0460	*115 %*	*50-150*		"	"	"	"	
Surrogate: Toluene-d8	0.0416	*104 %*	*50-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0418	*105 %*	*50-150*		"	"	"	"	

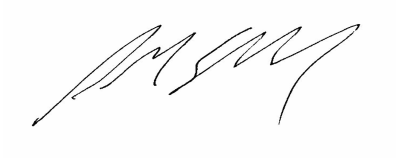
Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFG0099	07/06/22	07/06/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	6.40	*51.2 %*	*30-150*		"	"	"	"	



Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: PDC - Champlin 67F Project Number: [none] Project Manager: Paul Henehan	**Reported:** 07/07/22 06:53

N01@12.0'

2207032-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFG0098	07/06/22	07/06/22	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: **07/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0466	*117 %*	*50-150*		"	"	"	"	
Surrogate: Toluene-d8	0.0419	*105 %*	*50-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0422	*106 %*	*50-150*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFG0099	07/06/22	07/06/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	7.24	*57.9 %*	*30-150*		"	"	"	"	

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: PDC - Champlin 67F Project Number: [none] Project Manager: Paul Henehan	**Reported:** 07/07/22 06:53

S01@12.0'

2207032-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFG0098	07/06/22	07/06/22	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: **07/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0486	*121 %*	*50-150*		"	"	"	"	
Surrogate: Toluene-d8	0.0422	*105 %*	*50-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0422	*106 %*	*50-150*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFG0099	07/06/22	07/06/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	7.02	*56.2 %*	*30-150*		"	"	"	"	

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: PDC - Champlin 67F Project Number: [none] Project Manager: Paul Henehan	**Reported:** 07/07/22 06:53

W01@12.0'

2207032-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	**0.0046**	0.0020	mg/kg	1	BFG0098	07/06/22	07/06/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	**0.14**	0.0050	"	"	"	"	"	"	
Xylenes (total)	**0.64**	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	**0.42**	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	**0.13**	0.0050	"	"	"	"	"	"	
Naphthalene	**0.21**	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	**11**	0.50	"	"	"	"	"	"	

Date Sampled: **07/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0461	*115 %*	*50-150*		"	"	"	"	
Surrogate: Toluene-d8	0.0394	*98.5 %*	*50-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0468	*117 %*	*50-150*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	**800**	50	mg/kg	1	BFG0099	07/06/22	07/06/22	EPA 8015M	
C28-C36 (ORO)	**160**	50	"	"	"	"	"	"	

Date Sampled: **07/06/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	6.32	*50.5 %*	*30-150*		"	"	"	"	

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: PDC - Champlin 67F Project Number: [none] Project Manager: Paul Henehan	**Reported:** 07/07/22 06:53

E01@10.0'

2207032-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/05/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFG0098	07/06/22	07/06/22	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: **07/05/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0468	*117 %*	*50-150*		"	"	"	"	
Surrogate: Toluene-d8	0.0418	*105 %*	*50-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0431	*108 %*	*50-150*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/05/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFG0099	07/06/22	07/06/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/05/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	7.11	*56.9 %*	*30-150*		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFG0098 - EPA 5030 Soil MS										
Blank (BFG0098-BLK1)				Prepared: 07/06/22 Analyzed: 07/07/22						
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	*0.0369*		*"*	*0.0400*		*92.2*	*50-150*			
Surrogate: Toluene-d8	*0.0327*		*"*	*0.0400*		*81.8*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0398*		*"*	*0.0400*		*99.5*	*50-150*			
LCS (BFG0098-BS1)				Prepared: 07/06/22 Analyzed: 07/07/22						
Benzene	0.115	0.0020	mg/kg	0.100		115	70-130			
Toluene	0.105	0.0050	"	0.100		105	70-130			
Ethylbenzene	0.102	0.0050	"	0.100		102	70-130			
m,p-Xylene	0.204	0.010	"	0.200		102	70-130			
o-Xylene	0.0943	0.0050	"	0.100		94.3	70-130			
1,2,4-Trimethylbenzene	0.106	0.0050	"	0.100		106	70-130			
1,3,5-Trimethylbenzene	0.103	0.0050	"	0.100		103	70-130			
Naphthalene	0.105	0.0038	"	0.100		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0396*		*"*	*0.0400*		*99.1*	*50-150*			
Surrogate: Toluene-d8	*0.0334*		*"*	*0.0400*		*83.6*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0391*		*"*	*0.0400*		*97.6*	*50-150*			
Matrix Spike (BFG0098-MS1)	**Source: 2207032-01**			Prepared: 07/06/22 Analyzed: 07/07/22						
Benzene	0.0909	0.0020	mg/kg	0.100	ND	90.9	70-130			
Toluene	0.0935	0.0050	"	0.100	ND	93.5	70-130			
Ethylbenzene	0.100	0.0050	"	0.100	ND	100	70-130			
m,p-Xylene	0.210	0.010	"	0.200	ND	105	70-130			
o-Xylene	0.0934	0.0050	"	0.100	ND	93.4	70-130			
1,2,4-Trimethylbenzene	0.0976	0.0050	"	0.100	ND	97.6	70-130			
1,3,5-Trimethylbenzene	0.101	0.0050	"	0.100	ND	101	70-130			
Naphthalene	0.103	0.0038	"	0.100	ND	103	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0369*		*"*	*0.0400*		*92.2*	*50-150*			
Surrogate: Toluene-d8	*0.0346*		*"*	*0.0400*		*86.5*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0405*		*"*	*0.0400*		*101*	*50-150*			

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: PDC - Champlin 67F Project Number: [none] Project Manager: Paul Henehan	**Reported:** 07/07/22 06:53

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFG0098 - EPA 5030 Soil MS										
Matrix Spike Dup (BFG0098-MSD1)	**Source: 2207032-01**			Prepared: 07/06/22 Analyzed: 07/07/22						
Benzene	0.0897	0.0020	mg/kg	0.100	ND	89.7	70-130	1.30	30	
Toluene	0.0939	0.0050	"	0.100	ND	93.9	70-130	0.448	30	
Ethylbenzene	0.0977	0.0050	"	0.100	ND	97.7	70-130	2.46	30	
m,p-Xylene	0.209	0.010	"	0.200	ND	104	70-130	0.616	30	
o-Xylene	0.0923	0.0050	"	0.100	ND	92.3	70-130	1.10	30	
1,2,4-Trimethylbenzene	0.0958	0.0050	"	0.100	ND	95.8	70-130	1.92	30	
1,3,5-Trimethylbenzene	0.0944	0.0050	"	0.100	ND	94.4	70-130	6.49	30	
Naphthalene	0.102	0.0038	"	0.100	ND	102	70-130	0.876	30	
Surrogate: 1,2-Dichloroethane-d4	*0.0347*		*"*	*0.0400*		*86.8*	*50-150*			
Surrogate: Toluene-d8	*0.0331*		*"*	*0.0400*		*82.6*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0397*		*"*	*0.0400*		*99.3*	*50-150*			

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: PDC - Champlin 67F Project Number: [none] Project Manager: Paul Henehan	**Reported:** 07/07/22 06:53

Extractable Petroleum Hydrocarbons by 8015 - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFG0099 - EPA 3550A										
Blank (BFG0099-BLK1)				Prepared: 07/06/22 Analyzed: 07/07/22						
C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
LCS (BFG0099-BS1)				Prepared: 07/06/22 Analyzed: 07/07/22						
C10-C28 (DRO)	539	50	mg/kg	500		108	70-130			
Matrix Spike (BFG0099-MS1)	**Source: 2207032-01**			Prepared: 07/06/22 Analyzed: 07/07/22						
C10-C28 (DRO)	487	50	mg/kg	500	16.1	94.2	70-130			
Matrix Spike Dup (BFG0099-MSD1)	**Source: 2207032-01**			Prepared: 07/06/22 Analyzed: 07/07/22						
C10-C28 (DRO)	501	50	mg/kg	500	16.1	97.0	70-130	2.84	20	

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: PDC - Champlin 67F Project Number: [none] Project Manager: Paul Henehan	**Reported:** 07/07/22 06:53

Notes and Definitions

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

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

July 08, 2022

Paul Henehan
Fremont Environmental
PO Box 1289
Wellington, CO 80549

RE: PDC - Champlin 67F
Work Order #2207050

Enclosed are the results of analyses for samples received by Summit Scientific on 07/07/22 15:43. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Paul Shrewsbury
President

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: PDC - Champlin 67F Project Number: [none] Project Manager: Paul Henehan	**Reported:** 07/08/22 05:45

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
W02@12.0'	2207050-01	Soil	07/07/22 00:00	07/07/22 15:43

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.

Summit Scientific 2207050

S2

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310

Client: Fremont Env
Address:
City/State/Zip:
Phone:
Sampler Name: JG

Project Manager: Paul Henehan
E-Mail: paulh@fremontenv.com ethanb@fremontenv.com jeffg@fremontenv.com
Project Name: Champlin 67F
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	BTEX+N	TMBs (915)	DRO, ORO GRO						
1	W02@12.0'	07/07/22		2			X			X			X	X	X						
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					

Relinquished by: Date/Time: 07/07/22/1543
Received by: Sheree Bach Date/Time: 7/7/22 16:43

Relinquished by: Date/Time:
Received by: Date/Time:

Temperature Upon Receipt: 24.0
IR gun correction:

Corrected Temperature
IR gun #:

HNO3 lot #

Turn Around Time (Check)
Same Day X
24 hours
48 hours
72 hours
Standard

Sample Integrity:
Samples Intact: (Yes) No

Notes:
Client: Great Western

S2

S2 Work Order# 2207050

Sample Receipt Checklist

Client: Fremont ENV Client Project ID: Champlin 67F

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other_____ Airbill #:_____

✓				

Matrix (Check all that apply) Air [ ] Soil/Solid [✓] Water [ ] Other [ ]

Temp (°C) 24.4 Thermometer # 2

	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.	✓			on ice
Were all samples received intact [(1)]?	✓			
Was adequate sample volume provided [(1)]?	✓			
If custody seals are present, are they intact [(1)]?			✓	
Are samples due within 48 hours present?	✓			24 hour
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			✓	
Is a chain-of-custody (COC) form present and filled out completely [(1)]?	✓			
Does the COC agree with the number and type of sample bottles received [(1)]?	✓			
Do the sample IDs on the bottle labels match the COC [(1)]?	✓			
Is the COC properly relinquished by the client w/ date and time recorded [(1)]?	✓			
For volatiles in water – is there headspace present? **If yes, contact client and note in narrative.**			✓	
Are samples preserved that require preservation **(excluding cooling)** [(1)]? Note the type of preservative in the comments column – HCl, H_2SO_4, NaOH, HNO_3, etc.			✓	
If samples are acid preserved for metals, is the pH ≤ 2[(1)]? Record the pH in Comments.			✓	
If dissolved metals are requested, were samples field filtered?			✓	
Additional Comments (if any):				
[(1)] **If NO, then contact the client before proceeding with analysis and note in case narrative.**				

SB
Custodian Printed Name

7/7/22 15:43
Date/Time

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: PDC - Champlin 67F Project Number: [none] Project Manager: Paul Henehan	**Reported:** 07/08/22 05:45

W02@12.0'

2207050-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/07/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFG0123	07/07/22	07/07/22	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: **07/07/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0474	*118 %*	*50-150*		"	"	"	"	
Surrogate: Toluene-d8	0.0422	*105 %*	*50-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0422	*106 %*	*50-150*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/07/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	**280**	50	mg/kg	1	BFG0124	07/07/22	07/07/22	EPA 8015M	D-09
C28-C36 (ORO)	**74**	50	"	"	"	"	"	"	

Date Sampled: **07/07/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	7.25	*58.0 %*	*30-150*		"	"	"	"	

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.

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFG0123 - EPA 5030 Soil MS										
Blank (BFG0123-BLK1)				Prepared: 07/07/22 Analyzed: 07/08/22						
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	*0.0443*		*"*	*0.0400*		*111*	*50-150*			
Surrogate: Toluene-d8	*0.0424*		*"*	*0.0400*		*106*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0433*		*"*	*0.0400*		*108*	*50-150*			
LCS (BFG0123-BS1)				Prepared: 07/07/22 Analyzed: 07/08/22						
Benzene	0.107	0.0020	mg/kg	0.100		107	70-130			
Toluene	0.129	0.0050	"	0.100		129	70-130			
Ethylbenzene	0.117	0.0050	"	0.100		117	70-130			
m,p-Xylene	0.208	0.010	"	0.200		104	70-130			
o-Xylene	0.101	0.0050	"	0.100		101	70-130			
1,2,4-Trimethylbenzene	0.108	0.0050	"	0.100		108	70-130			
1,3,5-Trimethylbenzene	0.108	0.0050	"	0.100		108	70-130			
Naphthalene	0.104	0.0038	"	0.100		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0419*		*"*	*0.0400*		*105*	*50-150*			
Surrogate: Toluene-d8	*0.0433*		*"*	*0.0400*		*108*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0418*		*"*	*0.0400*		*105*	*50-150*			
Matrix Spike (BFG0123-MS1)	**Source: 2207050-01**			Prepared: 07/07/22 Analyzed: 07/08/22						
Benzene	0.103	0.0020	mg/kg	0.100	ND	103	70-130			
Toluene	0.0902	0.0050	"	0.100	ND	90.2	70-130			
Ethylbenzene	0.0826	0.0050	"	0.100	ND	82.6	70-130			
m,p-Xylene	0.144	0.010	"	0.200	ND	72.1	70-130			
o-Xylene	0.0695	0.0050	"	0.100	ND	69.5	70-130			QM-07
1,2,4-Trimethylbenzene	0.0642	0.0050	"	0.100	ND	64.2	70-130			QM-07
1,3,5-Trimethylbenzene	0.0625	0.0050	"	0.100	ND	62.5	70-130			QM-07
Naphthalene	0.0813	0.0038	"	0.100	ND	81.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0450*		*"*	*0.0400*		*112*	*50-150*			
Surrogate: Toluene-d8	*0.0434*		*"*	*0.0400*		*109*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0421*		*"*	*0.0400*		*105*	*50-150*			

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: PDC - Champlin 67F Project Number: [none] Project Manager: Paul Henehan	**Reported:** 07/08/22 05:45

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFG0123 - EPA 5030 Soil MS										
Matrix Spike Dup (BFG0123-MSD1)	**Source: 2207050-01**			Prepared: 07/07/22 Analyzed: 07/08/22						
Benzene	0.0955	0.0020	mg/kg	0.100	ND	95.5	70-130	7.47	30	
Toluene	0.0814	0.0050	"	0.100	ND	81.4	70-130	10.2	30	
Ethylbenzene	0.0738	0.0050	"	0.100	ND	73.8	70-130	11.2	30	
m,p-Xylene	0.130	0.010	"	0.200	ND	64.9	70-130	10.6	30	QM-07
o-Xylene	0.0622	0.0050	"	0.100	ND	62.2	70-130	11.1	30	QM-07
1,2,4-Trimethylbenzene	0.0488	0.0050	"	0.100	ND	48.8	70-130	27.3	30	QM-07
1,3,5-Trimethylbenzene	0.0477	0.0050	"	0.100	ND	47.7	70-130	26.9	30	QM-07
Naphthalene	0.0650	0.0038	"	0.100	ND	65.0	70-130	22.4	30	QM-07
Surrogate: 1,2-Dichloroethane-d4	*0.0448*		*"*	*0.0400*		*112*	*50-150*			
Surrogate: Toluene-d8	*0.0426*		*"*	*0.0400*		*106*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0423*		*"*	*0.0400*		*106*	*50-150*			

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: PDC - Champlin 67F Project Number: [none] Project Manager: Paul Henehan	**Reported:** 07/08/22 05:45

Extractable Petroleum Hydrocarbons by 8015 - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFG0124 - EPA 3550A										
Blank (BFG0124-BLK1)				Prepared: 07/07/22 Analyzed: 07/08/22						
C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
LCS (BFG0124-BS1)				Prepared: 07/07/22 Analyzed: 07/08/22						
C10-C28 (DRO)	621	50	mg/kg	500		124	70-130			
Matrix Spike (BFG0124-MS1)	**Source: 2207053-01**			Prepared: 07/07/22 Analyzed: 07/08/22						
C10-C28 (DRO)	589	50	mg/kg	500	ND	118	70-130			
Matrix Spike Dup (BFG0124-MSD1)	**Source: 2207053-01**			Prepared: 07/07/22 Analyzed: 07/08/22						
C10-C28 (DRO)	652	50	mg/kg	500	ND	130	70-130	10.2	20	

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: PDC - Champlin 67F Project Number: [none] Project Manager: Paul Henehan	**Reported:** 07/08/22 05:45

Notes and Definitions

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.
D-09	Results in the diesel organics range are primarily due to overlap from a heavy oil range product.
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