

FREMONT ENVIRONMENTAL INC.

July 10, 2023

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

Subject: **Flowline Closure Data Submittal**
Borys C 22-20 Flowline
API # 05-123-25498
SENW Sec. 22, T4N, R64W
Weld County, Colorado
Fremont Project No. C023-113
Remediation #27645

Dear Mr. Peterson:

As requested, Fremont Environmental Inc. (Fremont) personnel conducted flowline abandonment activities at the Noble Energy Inc. (Noble) Borys C 22-20 Flowline. Soil samples FL09@4', FL13@4' and FL15@4' were reported with elevated concentrations/values of EC and/or SAR. Details of the flowline abandonment activities are documented in the attached Closure Report. Groundwater was not encountered during decommissioning activities.

Please contact me at (970) 213-7488 if you require any additional information. Fremont appreciates the opportunity to provide this service.

Sincerely,

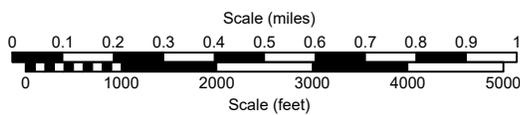
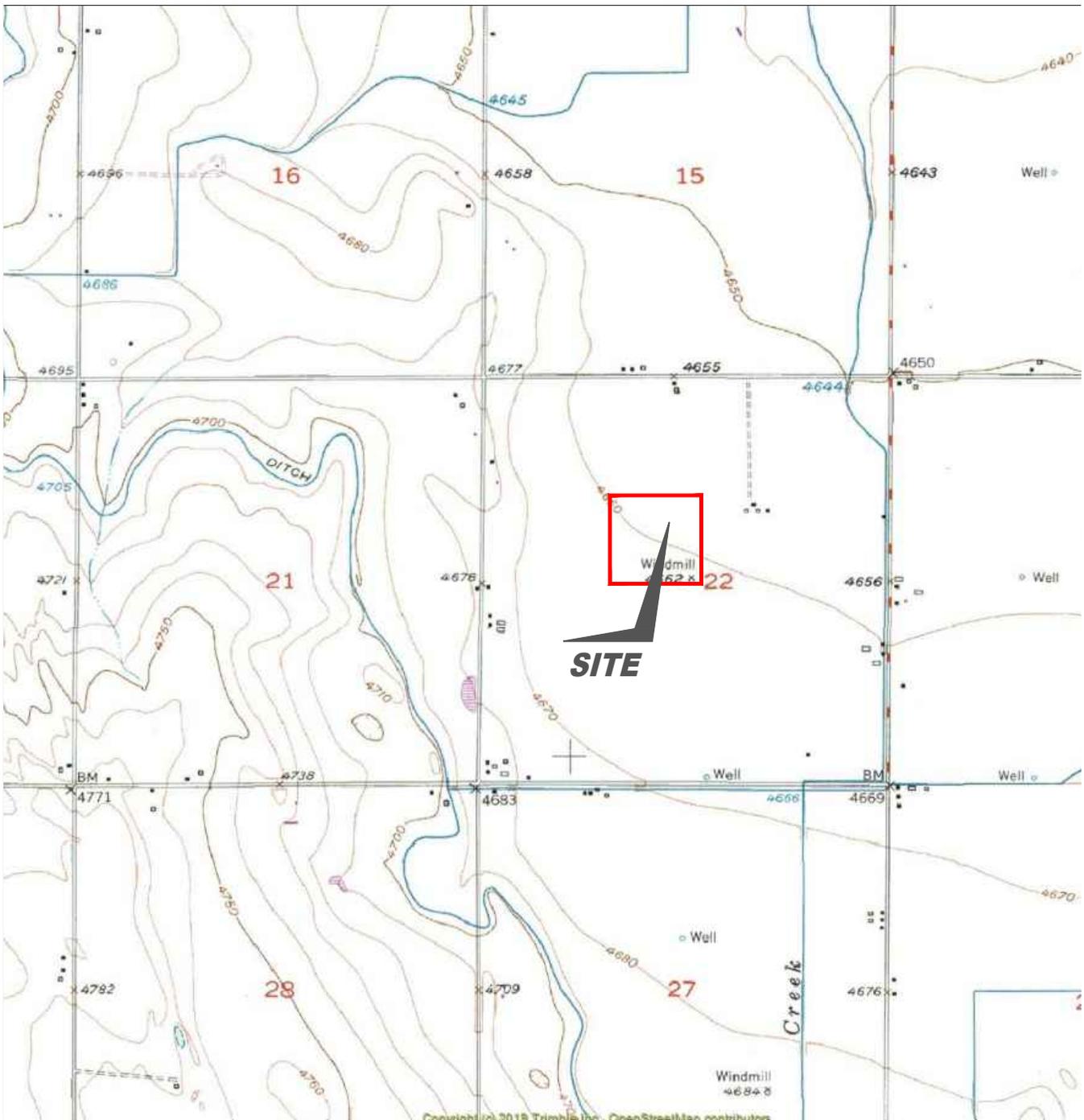
FREMONT ENVIRONMENTAL INC.



Chris Lattes
Consultant

Attachments:

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



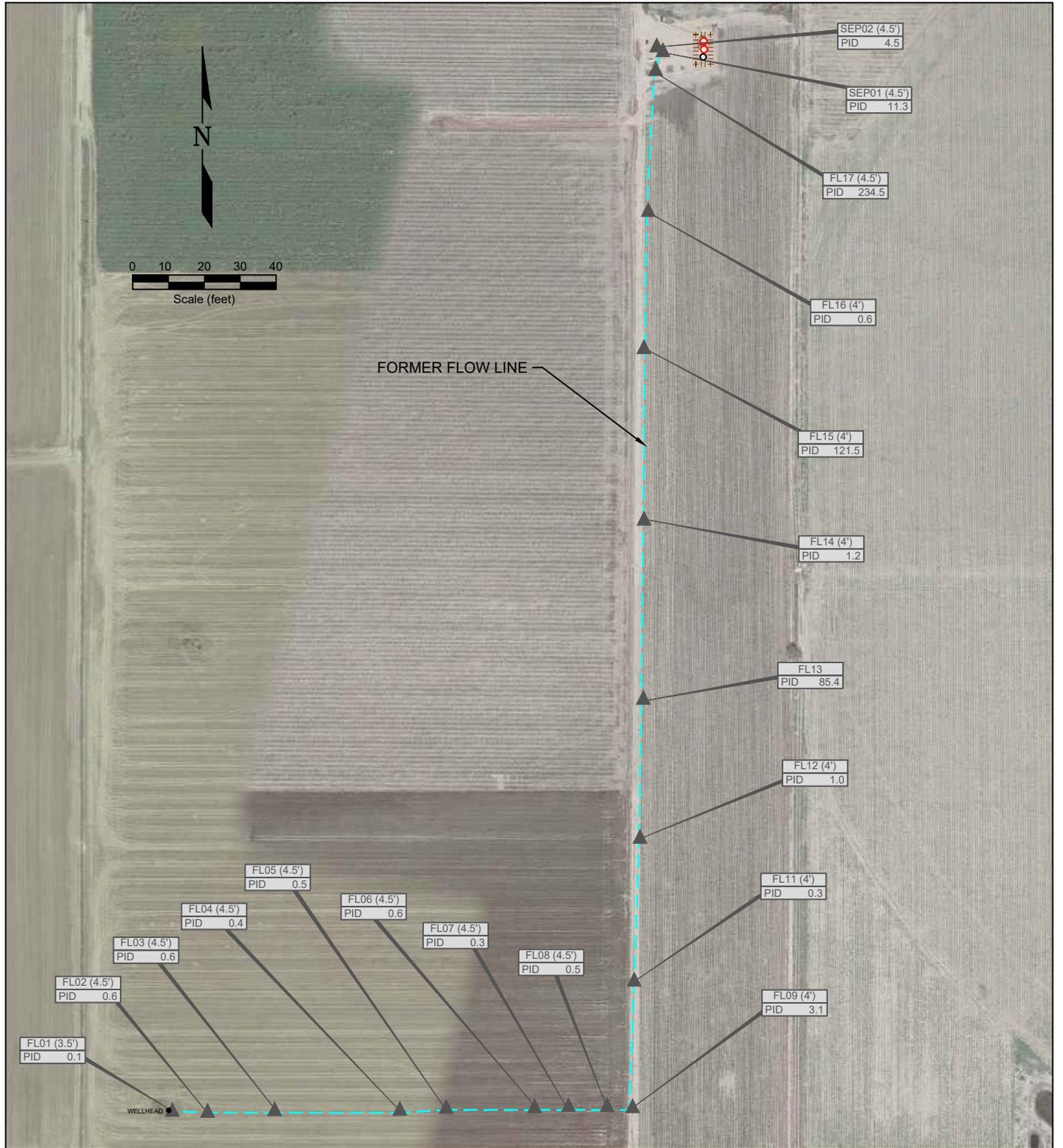
USGS 7.5 MINUTE SERIES (TOPOGRAPHIC)

Figure 1
SITE LOCATION MAP

NOBLE ENERGY INC - Borys C 22-20
 SENW Sec. 22, T4N, R64W, 6th PM
 Weld County, Colorado
 40.298370°, -104.540976°

Project # CO23-113	API # 05-123-25498	Facility #
Date 08/21/2023	Remediation # 27645	Filename 23113T_B_C22-20





LEGEND

- WELLHEAD LOCATION
- ▲ PID READING LOCATION
- ABOVE GROUND STORAGE TANK
- FORMER FACILITY
- FORMER FLOW LINE
- CONTAINMENT BERM

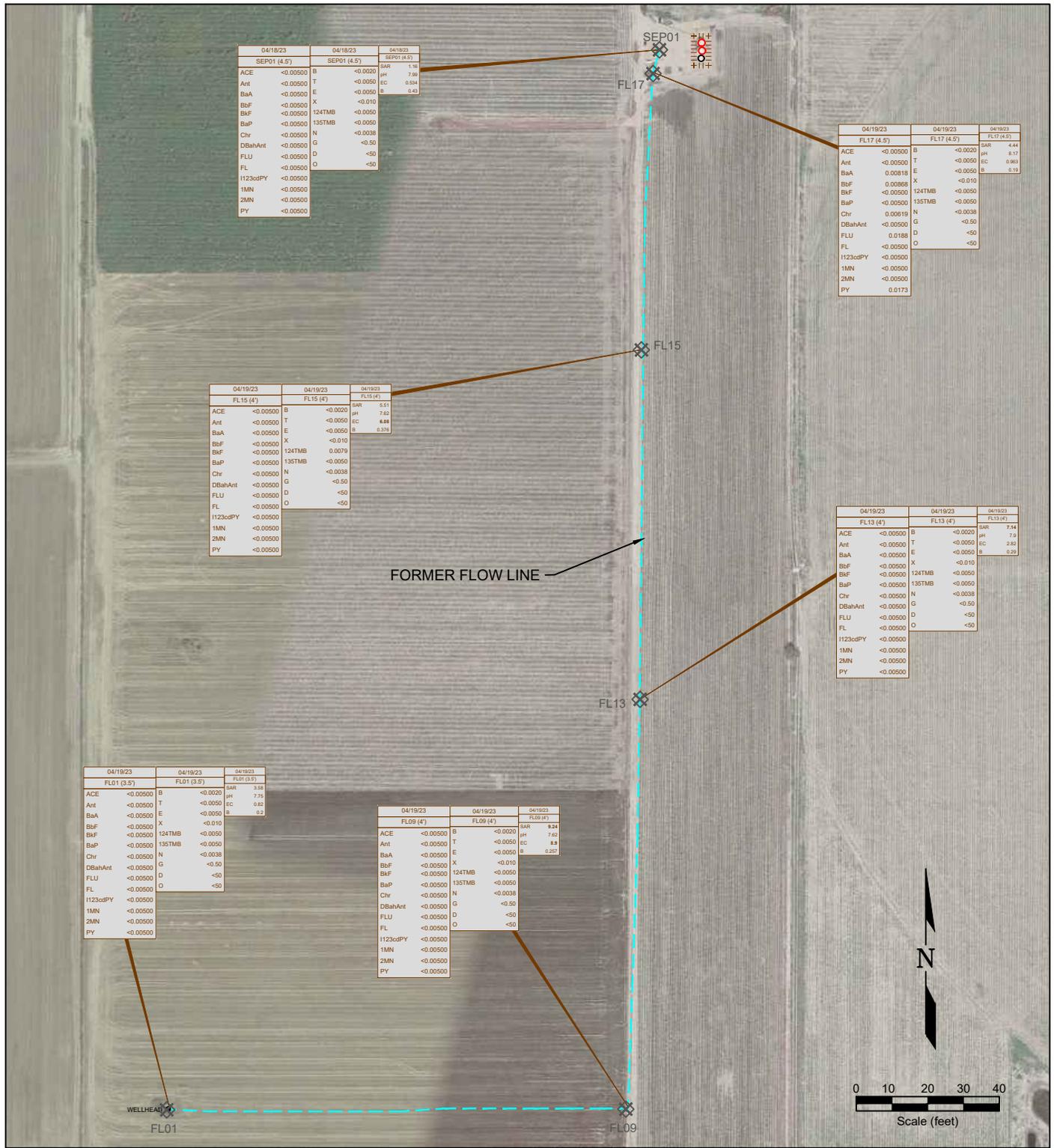
FL01 PID READING LOCATION IDENTIFICATION
 PID 0.1 PHOTO IONIZATION DETECTION (ppm)

**Figure 2
SITE MAP**

NOBLE ENERGY INC - Borys C 22-20
 SENW Sec. 22, T4N, R64W, 6th PM
 Weld County, Colorado
 40.298370°, -104.540976°

Project # CO23-113	API # 05-123-25498	Facility #
Date 08/22/2023	Remediation # 27645	Filename 23113T_B_C22-20





LEGEND

- WELLHEAD LOCATION
- ABOVE GROUND STORAGE TANK
- ◻ FORMER FACILITY
- FORMER FLOW LINE
- ||||| CONTAINMENT BERM

12/16/2022	DATE SAMPLED	12/16/2022	DATE SAMPLED	12/16/2022	DATE SAMPLED
FL01 (4)	SAMPLE ID and DEPTH (ft)	FL01 (4)	SAMPLE ID and DEPTH (ft)	FL01 (4)	SAMPLE ID and DEPTH (ft)
ACE	<0.00500	B	<0.0020	SAR	0.992
Ant	<0.00500	T	<0.00500	pH	6.94
BaA	<0.00500	E	<0.00500	EC	0.385
BbF	<0.00500	X	<0.010	B	0.275
BkF	<0.00500	124TMB	<0.00500		
BaP	<0.00500	135TMB	<0.00500		
Chr	<0.00500	N	<0.0038		
DBahAnt	<0.00500	G	<0.50		
FLU	<0.00500	D	<50		
FL	<0.00500	O	<50		
I123cdPY	<0.00500				
1MN	<0.00500				
2MN	<0.00500				
PY	<0.00500				

12/16/2022	DATE SAMPLED	12/16/2022	DATE SAMPLED	12/16/2022	DATE SAMPLED
FL01 (4)	SAMPLE ID and DEPTH (ft)	FL01 (4)	SAMPLE ID and DEPTH (ft)	FL01 (4)	SAMPLE ID and DEPTH (ft)
ACE	<0.00500	B	<0.0020	SAR	0.992
Ant	<0.00500	T	<0.00500	pH	6.94
BaA	<0.00500	E	<0.00500	EC	0.385
BbF	<0.00500	X	<0.010	B	0.275
BkF	<0.00500	124TMB	<0.00500		
BaP	<0.00500	135TMB	<0.00500		
Chr	<0.00500	N	<0.0038		
DBahAnt	<0.00500	G	<0.50		
FLU	<0.00500	D	<50		
FL	<0.00500	O	<50		
I123cdPY	<0.00500				
1MN	<0.00500				
2MN	<0.00500				
PY	<0.00500				

Figure 3

SOIL CHEMISTRY MAP

NOBLE ENERGY INC - Borys C 22-20
 SENW Sec. 22, T4N, R64W, 6th PM
 Weld County, Colorado
 40.298370°, -104.540976°

Project # CO23-113	API # 05-123-25498	Facility #
Date 08/22/2023	Remediation # 27645	Filename 23113T_B_C22-20

REMONT ENVIRONMENTAL

TABLE 1
SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA
NOBLE ENERGY INC
BORYS C22-20, WELD COUNTY, COLORADO
FREMONT PROJECT C023-113

Sample ID	Sample Date	Depth (ft)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Xylenes (mg/kg)	1,2,4-Trimethyl-Benzene (mg/kg)	1,3,5-Trimethyl-Benzene (mg/kg)	Naphthalene (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)
COGCC Table 915-1 Limits (Residential SSL)			1.2	490	5.8	58	30	27	2	500**		
COGCC Table 915-1 Limits (Protection of Groundwater SSL)			0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	500**		
FL01@3.5'	04/19/2023	3.5'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
FL09@4'	04/19/2023	4'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
FL13@4'	04/19/2023	4'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
FL15@4'	04/19/2023	4'	<0.0020	<0.0050	<0.0050	<0.010	0.0079	<0.0050	<0.0038	<0.50	<50	<50
FL17@4.5'	04/19/2023	4.5'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
SEP01@4.5'	04/18/2023	4.5'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50

Bold faced values exceed the COGCC Table 915-1 concentrations

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

* Indicates laboratory minimum detection limit in excess of SSL

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

NA - Not analyzed

TABLE 2
SUMMARY OF POLYCYCLIC AROMATIC HYDROCARBON SOIL CHEMISTRY DATA
NOBLE ENERGY INC
BORYS C22-20, WELD COUNTY, COLORADO
FREMONT PROJECT C023-113

Sample ID	Sample Date	Depth (ft)	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo (a) Anthracene (mg/kg)	Benzo (a) Pyrene (mg/kg)	Benzo (b) Fluoranthene (mg/kg)	Benzo (k) Fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) Anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) Pyrene (mg/kg)	Pyrene (mg/kg)	1-Methyl - Naphthalene (mg/kg)	2-Methyl - Naphthalene (mg/kg)
COGCC Table 915-1 Limits (Residential SSL)			360	1800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	180	18	24
COGCC Table 915-1 Limits (Protection of Groundwater SSL)			0.55	5.8	0.011	0.24	0.3	2.9	9	0.096	8.9	0.54	0.98	1.3	0.006	0.019
FL01@3.5'	04/19/2023	3.5'	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
FL09@4'	04/19/2023	4'	<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
FL13@4'	04/19/2023	4'	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
FL15@4'	04/19/2023	4'	<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
FL17@4.5'	04/19/2023	4.5'	<0.00500	<0.00500	0.00818	<0.00500	0.00868	<0.00500	0.00619	<0.00500	0.0188	<0.00500	<0.00500	0.0173	<0.00500	<0.00500
SEP01@4.5'	04/18/2023	4.5'	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500

Bold faced values exceed the COGCC Table 915-1 concentrations

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

* Indicates laboratory minimum detection limit in excess of SSL

NA - Not analyzed

TABLE 3
SUMMARY OF SOIL SUITABILITY FOR RECLAMATION
NOBLE ENERGY INC
BORYS C22-20, WELD COUNTY, COLORADO
FREMONT PROJECT C023-113

Sample ID	Sample Date	Depth (ft)	pH	EC (mmhos/cm)	SAR	Boron (mg/L)
COGCC Table 915-1 Soil Suitability Limits			6 - 8.3	<4	<6	2
FL01@3.5'	04/19/2023	3.5'	7.75	0.82	3.58	0.2
FL09@4'	04/19/2023	4'	7.62	8.9	9.24	0.257
FL13@4'	04/19/2023	4'	7.9	2.82	7.14	0.29
FL15@4'	04/19/2023	4'	7.62	6.08	5.51	0.376
FL17@4.5'	04/19/2023	4.5'	8.17	0.963	4.44	0.19
SEP01@4.5'	04/18/2023	4.5'	7.99	0.534	1.16	0.43

Bold faced values exceed the COGCC Table 915-1 concentrations

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

NA - Not analyzed

TABLE 4
SUMMARY OF POTHOLE FIELD OBSERVATIONS
NOBLE ENERGY INC
BORYS C22-20, WELD COUNTY, COLORADO
FREMONT PROJECT C023-113

Location	Latitude	Longitude	PID Reading	Field Observations
FL01@3.5'	40.29835	-104.540972	0.1	No suspected impacts
FL02@4.5'	40.298346	-104.54074	0.6	No suspected impacts
FL03@4.5'	40.298358	-104.540301	0.6	No suspected impacts
FL04@4.5'	40.298359	-104.539463	0.4	No suspected impacts
FL05@4.5'	40.29836	-104.539152	0.5	No suspected impacts
FL06@4.5'	40.298369	-104.538559	0.6	No suspected impacts
FL07@4.5'	40.298371	-104.538327	0.3	No suspected impacts
FL08@4.5'	40.298375	-104.53808	0.5	No suspected impacts
FL09@4'	40.298373	-104.537918	3.1	No suspected impacts
FL11@4'	40.299006	-104.537886	0.3	No suspected impacts
FL12@4'	40.299731	-104.537856	1.0	No suspected impacts
FL13@4'	40.300438	-104.537846	85.4	Elevated PID measured.
FL14@4'	40.301359	-104.537826	1.2	No suspected impacts
FL15@4'	40.302231	-104.537821	121.5	Elevated PID measured.
FL16@4'	40.302924	-104.537815	0.6	No suspected impacts
FL17@4.5'	40.303631	-104.537753	234.5	Elevated PID measured.
SEP01@4.5'	40.303746	-104.537735	11.3	No suspected impacts
SEP02@4.5'	40.303738	-104.537696	4.5	No suspected impacts

TABLE 5
SUMMARY OF FLOW LINE CONDITION
NOBLE ENERGY INC
BORYS C22-20, WELD COUNTY, COLORADO
FREMONT PROJECT C023-113

START	STOP	FOOTAGE	PIPE TYPE AND CONDITION
FL01@3.5'	FL02@4.5'	65	2" TGF Coated, No ACM, good condition.
FL02@4.5'	FL03@4.5'	119	2" TGF Coated, No ACM, good condition.
FL03@4.5'	FL04@4.5'	233	2" TGF Coated, No ACM, good condition.
FL04@4.5'	FL05@4.5'	86	2" TGF Coated, No ACM, good condition.
FL05@4.5'	FL06@4.5'	164	2" TGF Coated, No ACM, good condition.
FL06@4.5'	FL07@4.5'	64	2" TGF Coated, No ACM, good condition.
FL07@4.5'	FL08@4.5'	67	2" TGF Coated, No ACM, good condition.
FL08@4.5'	FL09@4'	44	2" TGF Coated, No ACM, good condition.
FL09@4'	FL11@4'	231	2" TGF Coated, No ACM, good condition.
FL11@4'	FL12@4'	264	2" TGF Coated, No ACM, good condition.
FL12@4'	FL13@4'	260	2" TGF Coated, No ACM, good condition.
FL13@4'	FL14@4'	331	2" TGF Coated, No ACM, good condition.
FL14@4'	FL15@4'	317	2" TGF Coated, No ACM, good condition.
FL15@4'	FL16@4'	254	2" TGF Coated, No ACM, good condition.
FL16@4'	FL17@4.5'	257	2" TGF Coated, No ACM, good condition.
FL17@4.5'	SEP01@4.5'	42	2" TGF Coated, No ACM, good condition.

2798 Total linear feet of flow line

Flowline Closure Checklist

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

<i>Additional Attachments:</i>		Tank Battery Closure		Wellhead Closure		Pit Closure		Partially Buried Vault Closure
<i>Site Name & COGCC Facility Number:</i> BORYS C 22-20		<i>Date:</i> 4/19/2023			<i>Remediation Project #:</i> 27645			
<i>Associated Wells:</i> 05-123-25498		<i>Age of Site:</i> Unknown			<i>Number of Photos Attached:</i>			
<i>Starting point: (GPS coordinates and descriptions)</i> 40.298350, -104.540972								
<i>End point: (GPS coordinates and descriptions)</i> 40.303746, -104.537735								
<i>USCS Soil Type:</i> Sandy Silt to Clayey Silt (ML)					<i>Estimated Depth to Groundwater:</i> Unknown			
<i>Hydrocarbon Impacted Soils / Spills: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)</i> No observed hydrocarbon impacted soil or spills.								
<i>Salt Crusted Soils or Impacted Vegetation: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)</i> No observed salt crusted soil or impacted vegetation.								
Flowlines								
<i>Flowline type</i>	Wellhead Line							
<i>Depth</i>	3.5' to 4.5'							
<i>Age</i>	Unknown							
<i>Length</i>	2,798'							
<i>Construction Material</i>	2" Steel TGF Coat							
<i>Were flowlines pulled?</i>	Yes							
<i>Visual Integrity of lines</i>	Good condition							
<i>Visual impacts if trenched</i>	None observed							
<i>PID Readings if trenched</i>	0.1 to 234.5 ppm							
<i>Sample taken? Location/Sample ID#</i>	See attached figure							
<i>Photo Number(s)</i>	See attached							
<i>Other observations regarding on location flowlines:</i> Grey soil was present in a number of the flowline bell holes, however it appeared to be consistent with the native soil.								
Summary								
<i>Was impacted soil identified?</i> <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - less than 10 cubic yards <input type="checkbox"/> Yes - more than 10 cubic yards								
<i>Total number of samples field screened:</i> 18					<i>Total number of samples collected:</i> 18			
<i>Highest PID Reading:</i> 234.5 ppm					<i>Total number of samples submitted to lab for analysis:</i> 6			
<i>If more than 10 cubic yards of impacted soil were observed:</i> N/A								
<i>Vertical extent:</i>					<i>Estimated spill volume:</i>			
<i>Lateral extent:</i>					<i>Volume of soil removed:</i>			
<i>Is additional investigation required?</i>								
<i>Was groundwater encountered during the investigation?</i> <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - not impacted or in contact with impacted soils <input type="checkbox"/> Yes - groundwater impacted and/or in contact with impacted soils								
<i>Measured depth to groundwater:</i>					<i>Was remedial groundwater removal conducted?</i> Yes <input type="checkbox"/> No <input type="checkbox"/>			
<i>Date Groundwater was encountered:</i>					<i>Commencement date of removal:</i>			
<i>Sheen on groundwater?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No					<i>Volume of groundwater removed prior to sampling:</i>			
<i>Free product observed?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No					<i>Volume of groundwater removed post sampling:</i>			
<i>Total number of samples collected:</i>					<i>Total Volume of groundwater removed:</i>			
<i>Total number of samples submitted to lab for analysis:</i>								

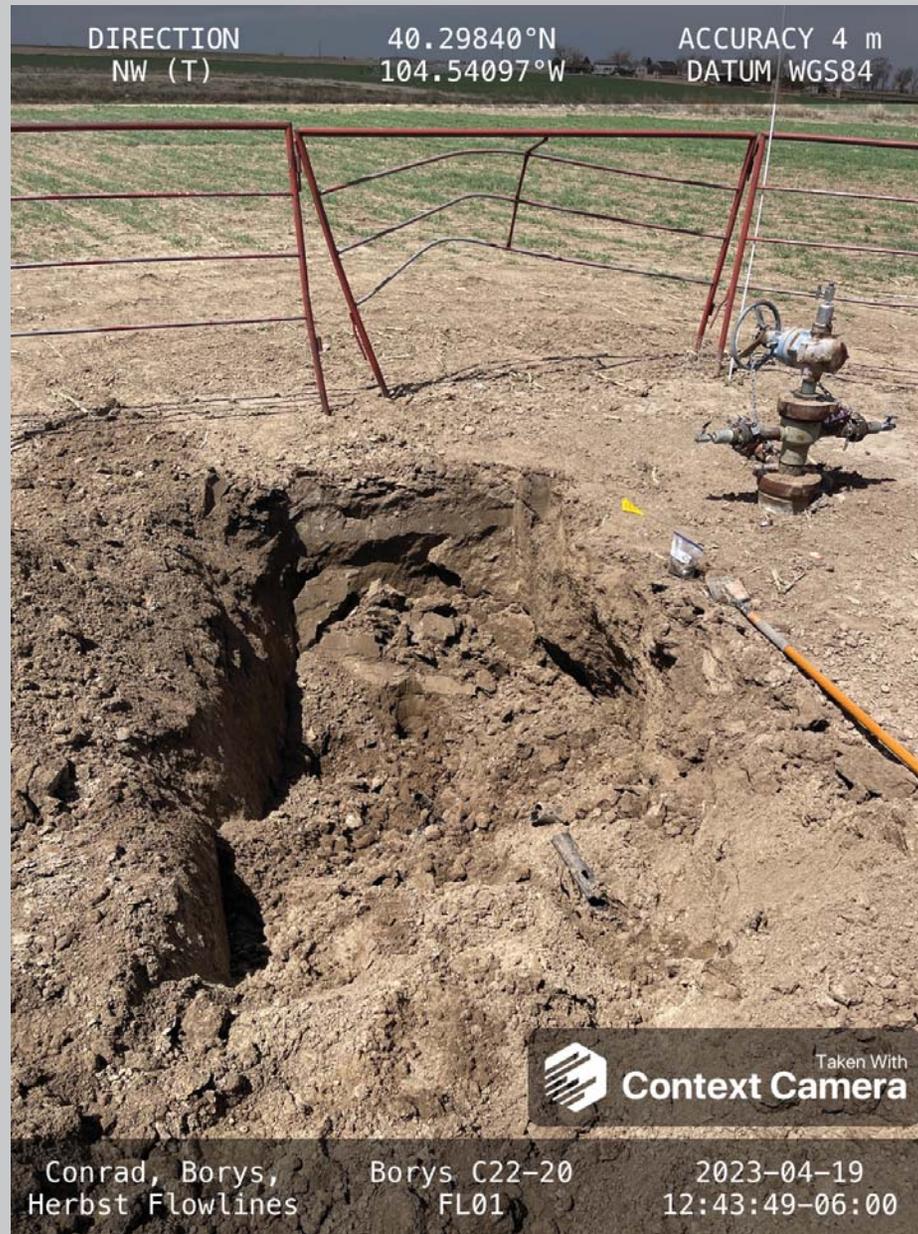
Photo Log



Description:

Borys C22-20 Wellhead Placard

Photo Log



Description:

Borys C22-20 FL01@3.5'

Photo Log

DIRECTION
W (T)

40.29838°N
104.54072°W

ACCURACY 4 m
DATUM WGS84



Taken With
 Context Camera

Conrad, Borys,
Herbst Flowlines

Borys C22-20
FL02

2023-04-19
12:44:47-06:00

Description:

Borys C22-20 FL02@4.5'

Photo Log



Description:

Borys C22-20 FL03@4.5'

Photo Log

DIRECTION
W (T)

40.29847°N
104.53942°W

ACCURACY 4 m
DATUM WGS84



Taken With
 Context Camera

Conrad, Borys,
Herbst Flowlines

Borys C22-20
FL04

2023-04-19
12:49:47-06:00

Description:

Borys C22-20 FL04@4.5'

Photo Log

DIRECTION E (T)	40.29841°N 104.53918°W	ACCURACY 4 m DATUM WGS84
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Conrad, Borys,
Herbst Flowlines

Borys C22-20
FL05

2023-04-19
12:51:57-06:00

Taken With
Context Camera

Description:

Borys C22-20 FL05@4.5'

Photo Log



Description:

Borys C22-20 FL06@4.5'

Photo Log



Description:

Borys C22-20 FL07@4.5'

Photo Log

DIRECTION
E (T)

40.29843°N
104.53813°W

ACCURACY 5 m
DATUM WGS84



Taken With
 Context Camera

Conrad, Borys,
Herbst Flowlines

Borys C22-20
FL08

2023-04-19
13:04:49-06:00

Description:

Borys C22-20 FL08@4.5'

Photo Log



Description:

Borys C22-20 FL09@4'

Photo Log



Description:

Borys C22-20 FL11@4'

Photo Log



Description:

Borys C22-20 FL12@4'

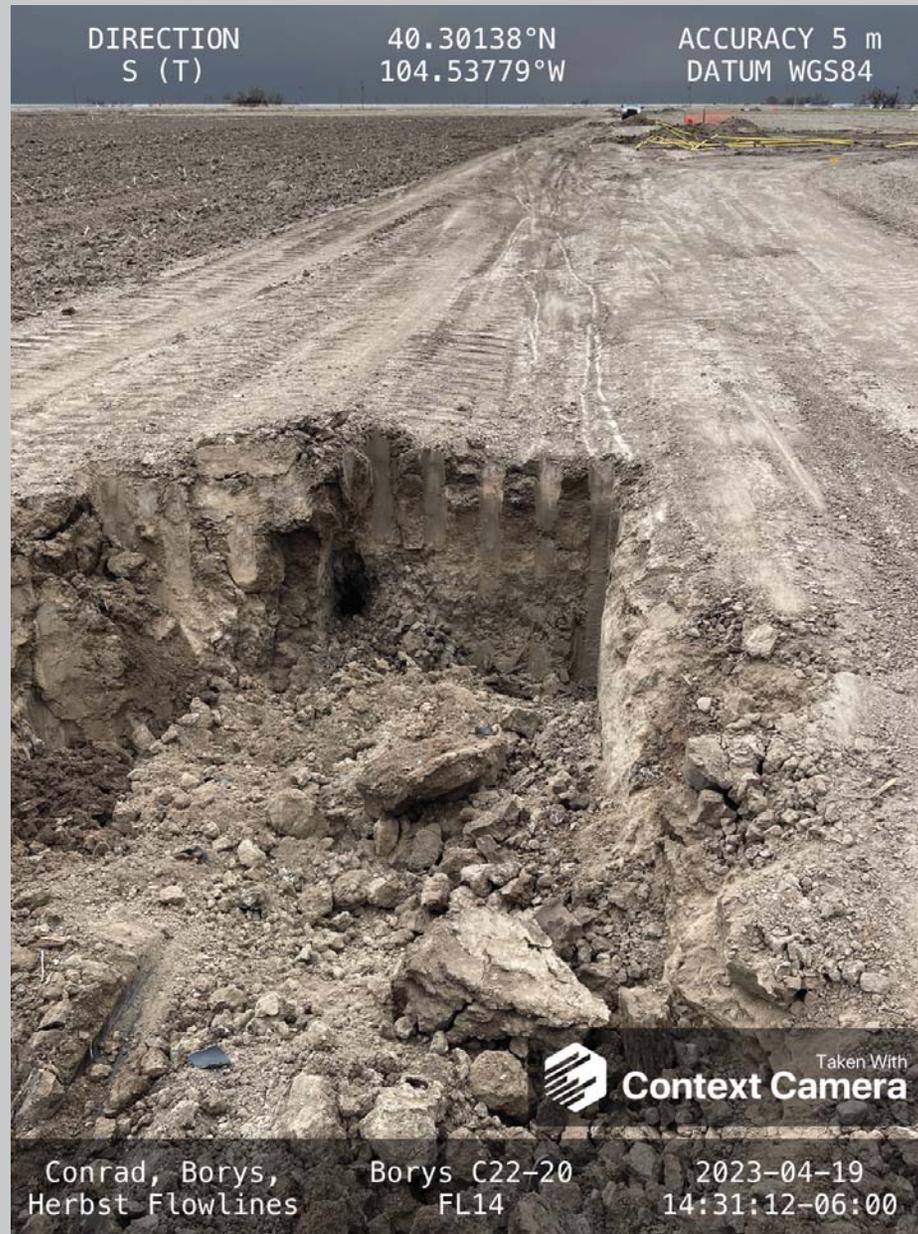
Photo Log



Description:

Borys C22-20 FL13@4'

Photo Log



Description:

Borys C22-20 FL14@4'

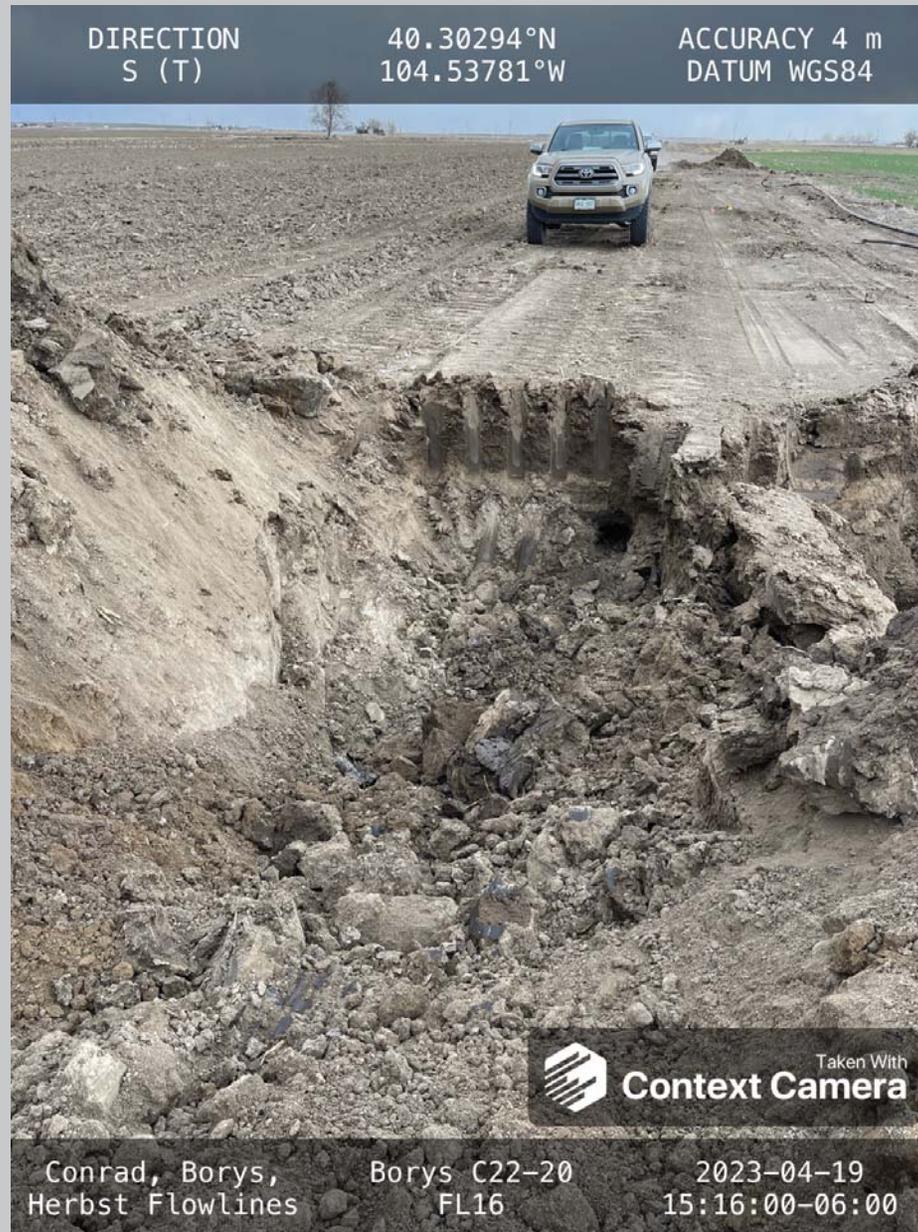
Photo Log



Description:

Borys C22-20 FL15@4'

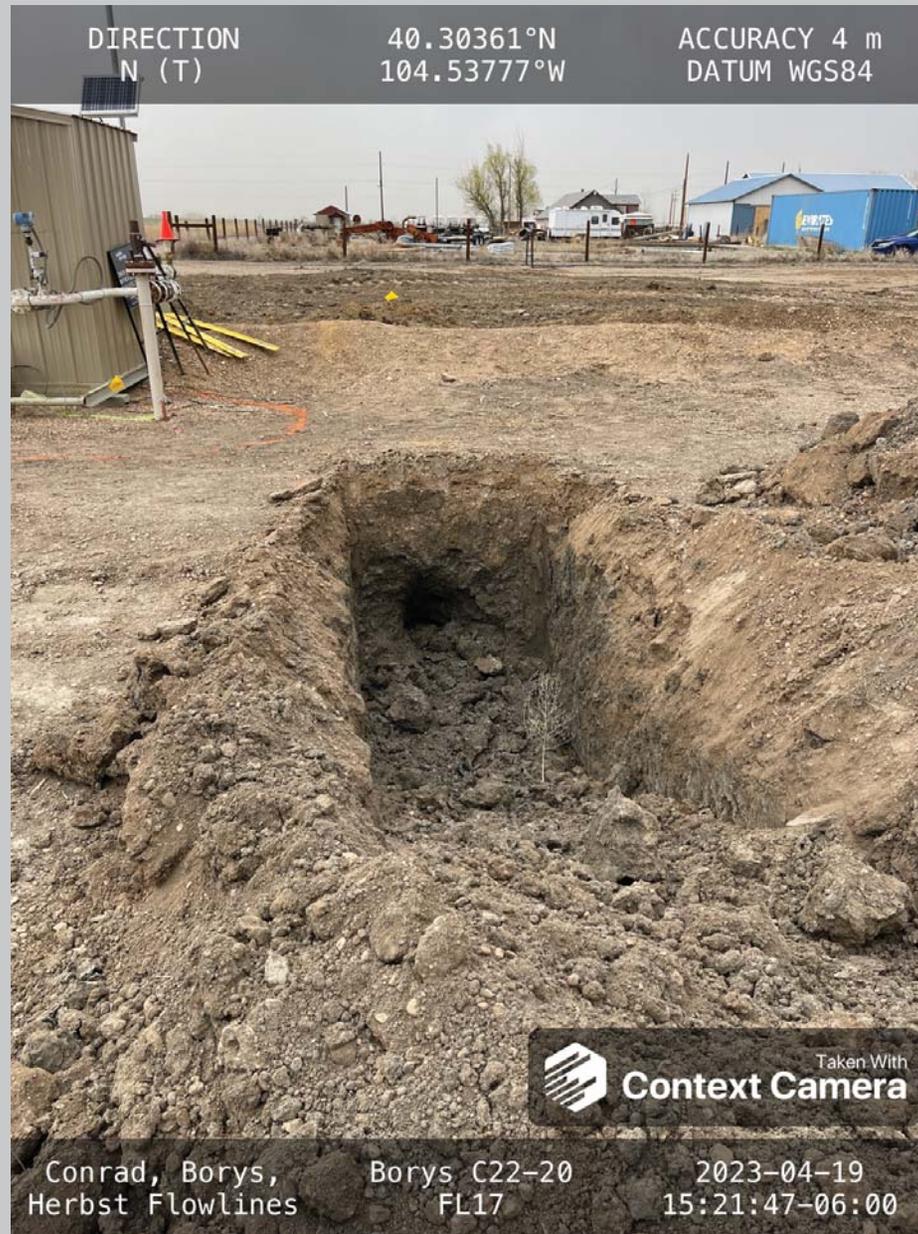
Photo Log



Description:

Borys C22-20 FL16@4'

Photo Log



Description:

Borys C22-20 FL17@4.5'

Photo Log

DIRECTION
NE (T)

40.30318°N
104.53903°W

ACCURACY 17 m
DATUM WGS84



Conrad, Borys,
Herbst Flowlines

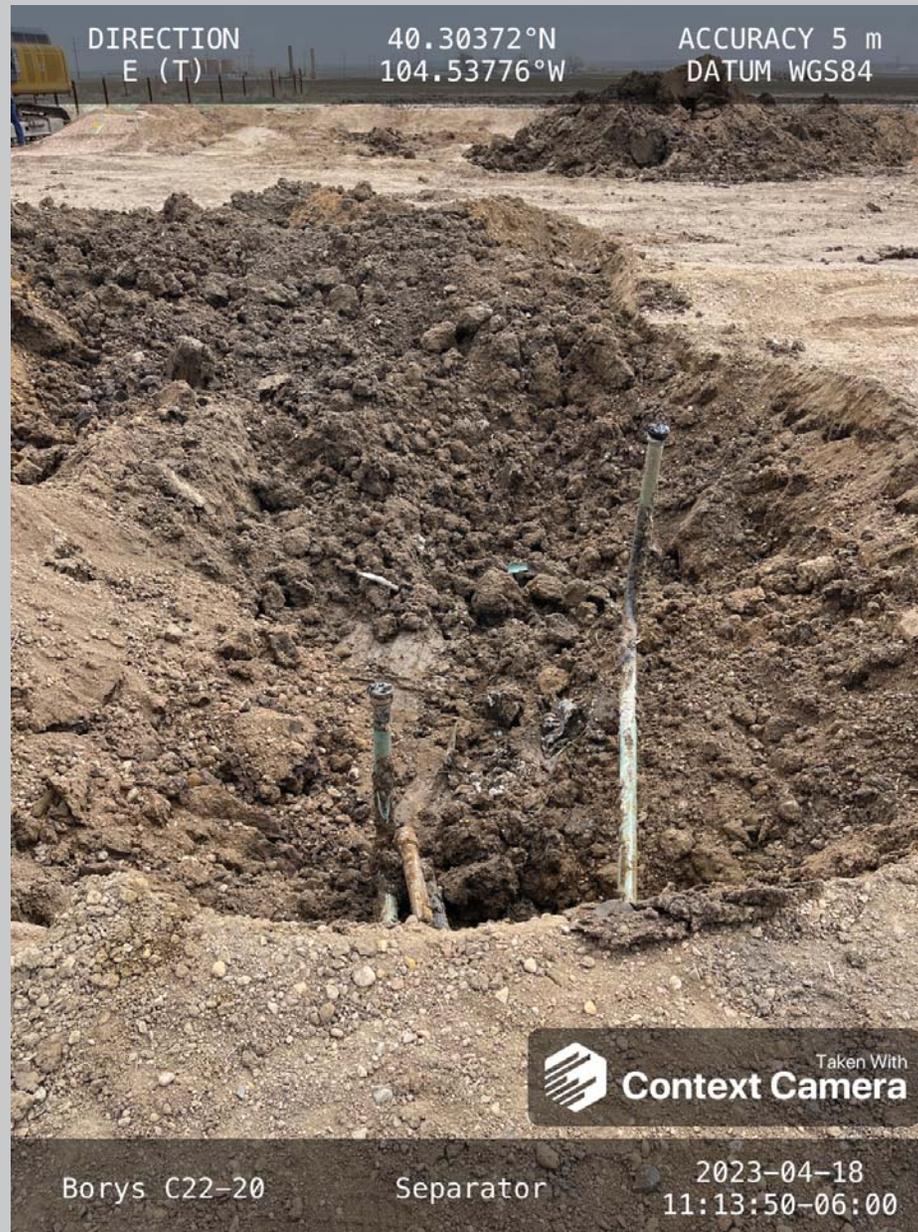
Conrad 1

2023-04-19
15:30:07-06:00

Description:

Conrad 1 Wellhead Placard

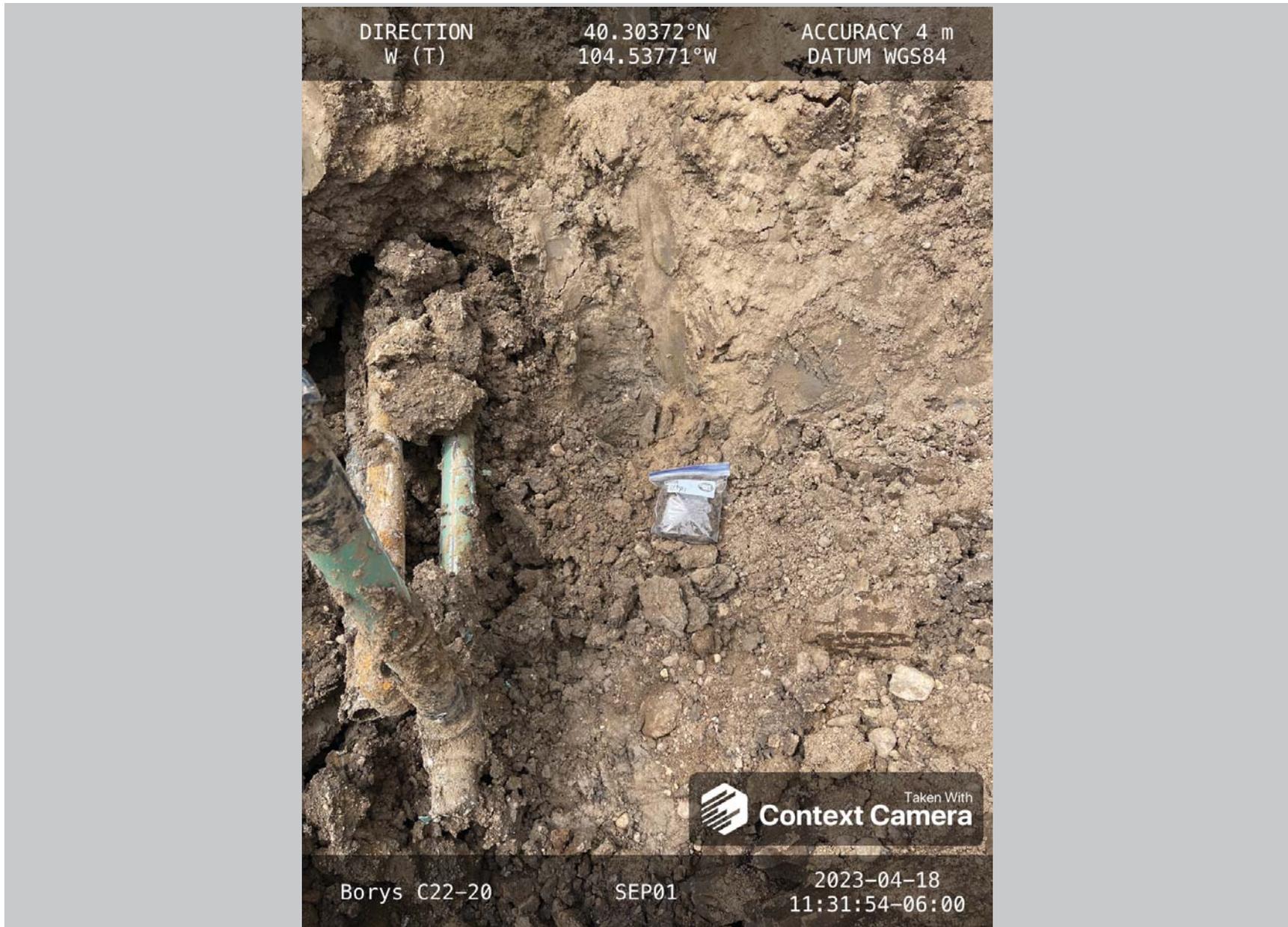
Photo Log



Description:

Lang C22-29D Tank (Conrad/Borys/Herbst) Separator Excavation Facing E

Photo Log



Description:

Lang C22-29D Tank (Conrad/Borys/Herbst) SEP01@4.5'

Photo Log



Description:

Lang C22-29D Tank (Conrad/Borys/Herbst) SEP02@

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

May 09, 2023

Paul Henchan
Fremont Environmental
PO Box 1289
Wellington, CO 80549
RE: Noble - Borys C 22-20
Work Order #2304461

Enclosed are the results of analyses for samples received by Summit Scientific on 04/20/23 16:30. 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 - Borys C 22-20

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/09/23 07:30

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL01@3.5'	2304461-01	Soil	04/19/23 00:00	04/20/23 16:30
FL09@4'	2304461-02	Soil	04/19/23 00:00	04/20/23 16:30
FL13@4'	2304461-03	Soil	04/19/23 00:00	04/20/23 16:30
FL15@4'	2304461-04	Soil	04/19/23 00:00	04/20/23 16:30
FL17@4.5'	2304461-05	Soil	04/19/23 00:00	04/20/23 16:30

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.

230461

Summit Scientific

S₂

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

Page | of |

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

Phone:

Project Name: Borgys C 22-20

Sampler Name: Chris Lattes

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	TPH, BTEX, TMS, Naph.	PAH (915)	EC, SAR, pH, Boron	Metals (915)	TDS, Chloride, Sulfate	HOLD				
1	FL 11 @ 3.5'	4/19/23		2			X			X				X	X	X						
2	FL 09 @ 4'	↓		↓										↓	↓	↓						
3	FL 13 @ 4'	↓		↓										↓	↓	↓						
4	FL 15 @ 4'	↓		↓										↓	↓	↓						
5	FL 17 @ 4.5'	4/19/23		2			X			X				X	X	X						
6																						
7																						
8																						
9																						
10																						

Relinquished by: <u>Chris Lattes</u>	Date/Time: <u>4/20/23 13:00</u>	Received by: <u>SL</u>	Date/Time: <u>4/20/23 13:00</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"/> Sample Integrity: Temperature Upon Receipt: <u>9.1</u> Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No	Notes: <u>FL</u>
Relinquished by: <u>SL</u>	Date/Time: <u>4/20/23 1630</u>	Received by: <u>Jeff</u>	Date/Time: <u>4/20/23 1630</u>		
Relinquished by:	Date/Time:	Received by:	Date/Time:		

S₂

Sample Receipt Checklist

S2 Work Order# 2304461

Client: Fremont Client Project ID: Barrys C 22-20

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other [] Airbill #: []

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

Temp (°C) 9.1 Thermometer # 1

Table with 5 columns: Question, Yes, No, N/A, Comments (if any). Rows include questions about cooling, custody seals, sample due dates, water samples, COC forms, and sample integrity.

AS
Custodian Printed Name

4/20/23
Date/Time



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Borys C 22-20

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/09/23 07:30

FL01@3.5'
2304461-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGD0841	04/25/23	04/26/23	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: **04/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0426	107 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0430	107 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0436	109 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGD0842	04/25/23	04/26/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	9.52	76.1 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Borys C 22-20

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/09/23 07:30

FL01@3.5'
2304461-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGD0705	04/21/23	04/22/23	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: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0316	94.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0260	78.1 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.200	0.0100	mg/L	1	BGD0823	04/25/23	05/01/23	EPA 6020B	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Borys C 22-20

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/09/23 07:30

FL01@3.5'
2304461-01 (Soil)

Summit Scientific

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	929	0.0570	mg/L dry	1	BGD0895	04/26/23	05/02/23	EPA 6020B	
Magnesium	158	0.0570	"	"	"	"	"	"	
Sodium	449	0.0570	"	"	"	"	05/02/23	"	

Calculated Analysis

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	3.58	0.00100	units	1	BGE0060	05/02/23	05/02/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.7		%	1	BGD0775	04/24/23	04/24/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.820	0.0100	mmhos/cm	1	BGD0922	04/27/23	04/30/23	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.75		pH Units	1	BGD0923	04/27/23	04/30/23	EPA 9045D	

Summit Scientific

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Borys C 22-20

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 05/09/23 07:30

FL09@4'
2304461-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BGD0841	04/25/23	04/26/23	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: **04/19/23 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	0.0402	100 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0424	106 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BGD0842	04/25/23	04/26/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	9.23	73.8 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Borys C 22-20

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/09/23 07:30

FL09@4'
2304461-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGD0705	04/21/23	04/22/23	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: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0257	77.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0238	71.3 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.257	0.0100	mg/L	1	BGD0823	04/25/23	05/01/23	EPA 6020B	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Borys C 22-20

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 05/09/23 07:30

FL09@4'
2304461-02 (Soil)

Summit Scientific

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	605	0.0610	mg/L dry	1	BGD0895	04/26/23	05/02/23	EPA 6020B	
Magnesium	164	0.0610	"	"	"	"	"	"	
Sodium	993	0.0610	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	9.24	0.00100	units	1	BGE0060	05/02/23	05/02/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	81.9		%	1	BGD0775	04/24/23	04/24/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	8.90	0.0100	mmhos/cm	1	BGD0922	04/27/23	04/30/23	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.62		pH Units	1	BGD0923	04/27/23	04/30/23	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Borys C 22-20

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/09/23 07:30

FL13@4'
2304461-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BGD0841	04/25/23	04/26/23	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: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0399	99.7 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0393	98.3 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0407	102 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BGD0842	04/25/23	04/26/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	8.66	69.3 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Borys C 22-20

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/09/23 07:30

FL13@4'
2304461-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGD0705	04/21/23	04/22/23	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: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0301	90.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0271	81.3 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.290	0.0100	mg/L	1	BGD0823	04/25/23	05/01/23	EPA 6020B	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Borys C 22-20

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 05/09/23 07:30

FL13@4'
2304461-03 (Soil)

Summit Scientific

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	97.3	0.0553	mg/L dry	1	BGD0895	04/26/23	05/02/23	EPA 6020B	
Magnesium	26.5	0.0553	"	"	"	"	"	"	
Sodium	308	0.0553	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	7.14	0.00100	units	1	BGE0060	05/02/23	05/02/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	90.4		%	1	BGD0775	04/24/23	04/24/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.82	0.0100	mmhos/cm	1	BGD0922	04/27/23	04/30/23	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.90		pH Units	1	BGD0923	04/27/23	04/30/23	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Borys C 22-20

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/09/23 07:30

FL15@4'
2304461-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGD0841	04/25/23	04/26/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	0.0079	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0416	104 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0404	101 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0402	100 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGD0842	04/25/23	04/26/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	9.66	77.2 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Borys C 22-20

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/09/23 07:30

FL15@4'
2304461-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGD0705	04/21/23	04/22/23	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: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0234	70.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0270	80.9 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.376	0.0100	mg/L	1	BGD0823	04/25/23	05/01/23	EPA 6020B	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Fremont Environmental
 PO Box 1289
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Project: Noble - Borys C 22-20

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 05/09/23 07:30

FL15@4'
2304461-04 (Soil)

Summit Scientific

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	587	0.0636	mg/L dry	1	BGD0895	04/26/23	05/02/23	EPA 6020B	
Magnesium	106	0.0636	"	"	"	"	"	"	
Sodium	552	0.0636	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	5.51	0.00100	units	1	BGE0060	05/02/23	05/02/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	78.7		%	1	BGD0775	04/24/23	04/24/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	6.08	0.0100	mmhos/cm	1	BGD0922	04/27/23	04/30/23	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.62		pH Units	1	BGD0923	04/27/23	04/30/23	EPA 9045D	

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Project: Noble - Borys C 22-20

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/09/23 07:30

FL17@4.5'
2304461-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGD0841	04/25/23	04/26/23	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: **04/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0460	115 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0383	95.8 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0448	112 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGD0842	04/25/23	04/26/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	8.27	66.1 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Borys C 22-20

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/09/23 07:30

FL17@4.5'
2304461-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGD0705	04/21/23	04/22/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	0.00818	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	0.00868	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	0.00619	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	0.0188	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	0.0173	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0213	64.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0221	66.2 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.190	0.0100	mg/L	1	BGD0823	04/25/23	05/01/23	EPA 6020B	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Borys C 22-20

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/09/23 07:30

FL17@4.5'
2304461-05 (Soil)

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Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	32.7	0.0589	mg/L dry	1	BGD0895	04/26/23	05/02/23	EPA 6020B	
Magnesium	9.49	0.0589	"	"	"	"	"	"	
Sodium	112	0.0589	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	4.44	0.00100	units	1	BGE0060	05/02/23	05/02/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	85.0		%	1	BGD0775	04/24/23	04/24/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.963	0.0100	mmhos/cm	1	BGD0922	04/27/23	04/30/23	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **04/19/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.17		pH Units	1	BGD0923	04/27/23	04/30/23	EPA 9045D	

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Project: Noble - Borys C 22-20

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/09/23 07:30

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BGD0841 - EPA 5030 Soil MS

Blank (BGD0841-BLK1)

Prepared & Analyzed: 04/25/23

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	"								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0446		"	0.0400		111	50-150				
<i>Surrogate: Toluene-d8</i>	0.0392		"	0.0400		98.0	50-150				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0398		"	0.0400		99.4	50-150				

LCS (BGD0841-BS1)

Prepared & Analyzed: 04/25/23

Benzene	0.0712	0.0020	mg/kg	0.0750		94.9	70-130				
Toluene	0.0664	0.0050	"	0.0750		88.5	70-130				
Ethylbenzene	0.0952	0.0050	"	0.0750		127	70-130				
m,p-Xylene	0.189	0.010	"	0.150		126	70-130				
o-Xylene	0.0976	0.0050	"	0.0750		130	70-130				
1,2,4-Trimethylbenzene	0.0957	0.0050	"	0.0750		128	70-130				
1,3,5-Trimethylbenzene	0.0920	0.0050	"	0.0750		123	70-130				
Naphthalene	0.0833	0.0038	"	0.0750		111	70-130				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0311		"	0.0400		77.8	50-150				
<i>Surrogate: Toluene-d8</i>	0.0305		"	0.0400		76.2	50-150				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0394		"	0.0400		98.5	50-150				

Matrix Spike (BGD0841-MS1)

Source: 2304456-01

Prepared & Analyzed: 04/25/23

Benzene	0.0750	0.0020	mg/kg	0.0750	ND	100	70-130				
Toluene	0.0824	0.0050	"	0.0750	ND	110	70-130				
Ethylbenzene	0.0936	0.0050	"	0.0750	ND	125	70-130				
m,p-Xylene	0.187	0.010	"	0.150	ND	125	70-130				
o-Xylene	0.0861	0.0050	"	0.0750	ND	115	70-130				
1,2,4-Trimethylbenzene	0.0920	0.0050	"	0.0750	ND	123	70-130				
1,3,5-Trimethylbenzene	0.0960	0.0050	"	0.0750	ND	128	70-130				
Naphthalene	0.0806	0.0038	"	0.0750	ND	107	70-130				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0332		"	0.0400		83.0	50-150				
<i>Surrogate: Toluene-d8</i>	0.0351		"	0.0400		87.8	50-150				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0333		"	0.0400		83.3	50-150				

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Project: Noble - Borys C 22-20

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 05/09/23 07:30

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BGD0841 - EPA 5030 Soil MS

Matrix Spike Dup (BGD0841-MSD1)	Source: 2304456-01			Prepared & Analyzed: 04/25/23						
Benzene	0.0819	0.0020	mg/kg	0.0750	ND	109	70-130	8.76	30	
Toluene	0.0855	0.0050	"	0.0750	ND	114	70-130	3.79	30	
Ethylbenzene	0.0909	0.0050	"	0.0750	ND	121	70-130	2.93	30	
m,p-Xylene	0.187	0.010	"	0.150	ND	124	70-130	0.417	30	
o-Xylene	0.0902	0.0050	"	0.0750	ND	120	70-130	4.63	30	
1,2,4-Trimethylbenzene	0.0896	0.0050	"	0.0750	ND	120	70-130	2.58	30	
1,3,5-Trimethylbenzene	0.0908	0.0050	"	0.0750	ND	121	70-130	5.59	30	
Naphthalene	0.0774	0.0038	"	0.0750	ND	103	70-130	4.10	30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0338</i>		<i>"</i>	<i>0.0400</i>		<i>84.6</i>	<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0370</i>		<i>"</i>	<i>0.0400</i>		<i>92.6</i>	<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0317</i>		<i>"</i>	<i>0.0400</i>		<i>79.4</i>	<i>50-150</i>			

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Borys C 22-20

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 05/09/23 07:30

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BGD0842 - EPA 3550A

Blank (BGD0842-BLK1)

Prepared & Analyzed: 04/25/23

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	10.7		"	12.5		85.3		30-150			

LCS (BGD0842-BS1)

Prepared & Analyzed: 04/25/23

C10-C28 (DRO)	549	50	mg/kg	500		110		70-130			
Surrogate: <i>o</i> -Terphenyl	10.7		"	12.5		85.6		30-150			

Matrix Spike (BGD0842-MS1)

Source: 2304456-01

Prepared & Analyzed: 04/25/23

C10-C28 (DRO)	378	50	mg/kg	500	17.7	72.0		70-130			
Surrogate: <i>o</i> -Terphenyl	8.20		"	12.5		65.6		30-150			

Matrix Spike Dup (BGD0842-MSD1)

Source: 2304456-01

Prepared & Analyzed: 04/25/23

C10-C28 (DRO)	423	50	mg/kg	500	17.7	81.1		70-130	11.3	20	
Surrogate: <i>o</i> -Terphenyl	8.67		"	12.5		69.4		30-150			

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Borys C 22-20

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/09/23 07:30

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BGD0705 - EPA 5030 Soil MS

Blank (BGD0705-BLK1)

Prepared: 04/21/23 Analyzed: 04/22/23

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	0.0366		"	0.0333		110	40-150			
Surrogate: Fluoranthene-d10	0.0380		"	0.0333		114	40-150			

LCS (BGD0705-BS1)

Prepared: 04/21/23 Analyzed: 04/22/23

Acenaphthene	0.0291	0.00500	mg/kg	0.0333		87.2	31-137			
Anthracene	0.0328	0.00500	"	0.0333		98.4	30-120			
Benzo (a) anthracene	0.0323	0.00500	"	0.0333		97.0	30-120			
Benzo (a) pyrene	0.0275	0.00500	"	0.0333		82.6	30-120			
Benzo (b) fluoranthene	0.0363	0.00500	"	0.0333		109	30-120			
Benzo (k) fluoranthene	0.0372	0.00500	"	0.0333		112	30-120			
Chrysene	0.0323	0.00500	"	0.0333		96.9	30-120			
Dibenz (a,h) anthracene	0.0142	0.00500	"	0.0333		42.5	30-120			
Fluoranthene	0.0328	0.00500	"	0.0333		98.4	30-120			
Fluorene	0.0288	0.00500	"	0.0333		86.3	30-120			
Indeno (1,2,3-cd) pyrene	0.0192	0.00500	"	0.0333		57.6	30-120			
Pyrene	0.0337	0.00500	"	0.0333		101	35-142			
1-Methylnaphthalene	0.0332	0.00500	"	0.0333		99.6	35-142			
2-Methylnaphthalene	0.0384	0.00500	"	0.0333		115	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0341		"	0.0333		102	40-150			
Surrogate: Fluoranthene-d10	0.0340		"	0.0333		102	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 - Borys C 22-20

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/09/23 07:30

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BGD0705 - EPA 5030 Soil MS

Matrix Spike (BGD0705-MS1)	Source: 2304398-01			Prepared: 04/21/23 Analyzed: 04/22/23						
Acenaphthene	0.0213	0.00500	mg/kg	0.0333	ND	64.0	31-137			
Anthracene	0.0239	0.00500	"	0.0333	ND	71.6	30-120			
Benzo (a) anthracene	0.0252	0.00500	"	0.0333	ND	75.5	30-120			
Benzo (a) pyrene	0.0194	0.00500	"	0.0333	ND	58.1	30-120			
Benzo (b) fluoranthene	0.0247	0.00500	"	0.0333	ND	74.2	30-120			
Benzo (k) fluoranthene	0.0244	0.00500	"	0.0333	ND	73.2	30-120			
Chrysene	0.0220	0.00500	"	0.0333	ND	66.1	30-120			
Dibenz (a,h) anthracene	0.0159	0.00500	"	0.0333	ND	47.8	30-120			
Fluoranthene	0.0242	0.00500	"	0.0333	ND	72.5	30-120			
Fluorene	0.0201	0.00500	"	0.0333	ND	60.3	30-120			
Indeno (1,2,3-cd) pyrene	0.0140	0.00500	"	0.0333	ND	41.9	30-120			
Pyrene	0.0280	0.00500	"	0.0333	ND	83.9	35-142			
1-Methylnaphthalene	0.0211	0.00500	"	0.0333	ND	63.4	15-130			
2-Methylnaphthalene	0.0177	0.00500	"	0.0333	ND	53.0	15-130			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0231</i>		<i>"</i>	<i>0.0333</i>		<i>69.2</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0264</i>		<i>"</i>	<i>0.0333</i>		<i>79.2</i>	<i>40-150</i>			

Matrix Spike Dup (BGD0705-MSD1)	Source: 2304398-01			Prepared: 04/21/23 Analyzed: 04/22/23						
Acenaphthene	0.0196	0.00500	mg/kg	0.0333	ND	58.7	31-137	8.69	30	
Anthracene	0.0204	0.00500	"	0.0333	ND	61.1	30-120	15.8	30	
Benzo (a) anthracene	0.0219	0.00500	"	0.0333	ND	65.6	30-120	14.0	30	
Benzo (a) pyrene	0.0208	0.00500	"	0.0333	ND	62.3	30-120	6.98	30	
Benzo (b) fluoranthene	0.0220	0.00500	"	0.0333	ND	65.9	30-120	11.9	30	
Benzo (k) fluoranthene	0.0219	0.00500	"	0.0333	ND	65.8	30-120	10.7	30	
Chrysene	0.0192	0.00500	"	0.0333	ND	57.6	30-120	13.7	30	
Dibenz (a,h) anthracene	0.0134	0.00500	"	0.0333	ND	40.1	30-120	17.4	30	
Fluoranthene	0.0211	0.00500	"	0.0333	ND	63.3	30-120	13.5	30	
Fluorene	0.0172	0.00500	"	0.0333	ND	51.6	30-120	15.7	30	
Indeno (1,2,3-cd) pyrene	0.0148	0.00500	"	0.0333	ND	44.5	30-120	6.03	30	
Pyrene	0.0254	0.00500	"	0.0333	ND	76.1	35-142	9.64	30	
1-Methylnaphthalene	0.0200	0.00500	"	0.0333	ND	60.1	15-130	5.32	50	
2-Methylnaphthalene	0.0202	0.00500	"	0.0333	ND	60.7	15-130	13.6	50	
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0208</i>		<i>"</i>	<i>0.0333</i>		<i>62.4</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0232</i>		<i>"</i>	<i>0.0333</i>		<i>69.5</i>	<i>40-150</i>			

Summit Scientific

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Borys C 22-20

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 05/09/23 07:30

Total Metals by EPA 6020B Hot Water Soluble Extraction - Quality Control
Summit Scientific

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

Batch BGD0823 - EPA 3050B

Blank (BGD0823-BLK1)

Prepared: 04/25/23 Analyzed: 05/01/23

Boron ND 0.0100 mg/L

LCS (BGD0823-BS1)

Prepared: 04/25/23 Analyzed: 05/01/23

Boron 4.68 0.0100 mg/L 5.00 93.5 80-120

Duplicate (BGD0823-DUP1)

Source: 2304460-01

Prepared: 04/25/23 Analyzed: 05/01/23

Boron 0.396 0.0100 mg/L 0.451 12.9 20

Matrix Spike (BGD0823-MS1)

Source: 2304460-01

Prepared: 04/25/23 Analyzed: 05/01/23

Boron 5.20 0.0100 mg/L 5.00 0.451 95.0 75-125

Matrix Spike Dup (BGD0823-MSD1)

Source: 2304460-01

Prepared: 04/25/23 Analyzed: 05/01/23

Boron 4.69 0.0100 mg/L 5.00 0.451 84.8 75-125 10.4 25

Summit Scientific

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Borys C 22-20

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 05/09/23 07:30

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction - Quality Control

Summit Scientific

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

Batch BGD0895 - General Preparation

Blank (BGD0895-BLK1)

Prepared: 04/26/23 Analyzed: 05/02/23

Calcium	ND	0.0500	mg/L wet							
Magnesium	ND	0.0500	"							
Sodium	ND	0.0500	"							

LCS (BGD0895-BS1)

Prepared: 04/26/23 Analyzed: 05/02/23

Calcium	6.08	0.0500	mg/L wet	5.00		122	70-130			
Magnesium	5.31	0.0500	"	5.00		106	70-130			
Sodium	5.50	0.0500	"	5.00		110	70-130			

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 - Borys C 22-20

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 05/09/23 07:30

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control

Summit Scientific

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

Batch BGD0775 - General Preparation

Duplicate (BGD0775-DUP1)

Source: 2304441-05

Prepared & Analyzed: 04/24/23

% Solids	93.2		%		93.1			0.0668		20	
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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 - Borys C 22-20

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 05/09/23 07:30

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction - Quality Control

Summit Scientific

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

Batch BGD0922 - General Preparation

Blank (BGD0922-BLK1)

Prepared: 04/27/23 Analyzed: 04/30/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BGD0922-BS1)

Prepared: 04/27/23 Analyzed: 04/30/23

Specific Conductance (EC) 0.152 0.0100 mmhos/cm 0.150 101 95-105

Duplicate (BGD0922-DUP1)

Source: 2304451-01

Prepared: 04/27/23 Analyzed: 04/30/23

Specific Conductance (EC) 0.235 0.0100 mmhos/cm 0.238 1.52 20

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 - Borys C 22-20

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 05/09/23 07:30

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction - Quality Control

Summit Scientific

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

Batch BGD0923 - General Preparation

LCS (BGD0923-BS1)

Prepared: 04/27/23 Analyzed: 04/30/23

pH	8.87	pH Units	9.18	96.6	95-105
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Duplicate (BGD0923-DUP1)

Source: 2304451-01

Prepared: 04/27/23 Analyzed: 04/30/23

pH	7.05	pH Units	7.04	0.142	20
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Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Borys C 22-20

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/09/23 07:30

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

May 03, 2023

Paul Henchan
Fremont Environmental
PO Box 1289
Wellington, CO 80549

RE: Noble - Lang C22-29D Tank
Work Order #2304462

Enclosed are the results of analyses for samples received by Summit Scientific on 04/20/23 16:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Scott Sheely For Paul Shrewsbury
President



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lang C22-29D Tank

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/03/23 12:12

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SEP01@4.5'	2304462-01	Soil	04/18/23 00:00	04/20/23 16:30
AST01@6"	2304462-02	Soil	04/18/23 00:00	04/20/23 16:30
AST02@6"	2304462-03	Soil	04/18/23 00:00	04/20/23 16:30
PWVN01@4'	2304462-04	Soil	04/18/23 00:00	04/20/23 16:30
PWVB01@6'	2304462-05	Soil	04/18/23 00:00	04/20/23 16:30

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.

2304462

Summit Scientific

S₂

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

Page | of |

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

Phone:

Project Name: Lang C22-22D Tank

Sampler Name: Chris Lattes

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	TPH, BTEX, TMS, Naph.	PAH (915)	EC, SAR, pH, Boron	Metals (915)	TDS, Chloride, Sulfate	HOLD			
1	SEPD1 @ 4.5'	4/18/23		2			X			X				X	X	X					
2	AST01 @ 6"	↓		1																	
3	AST02 @ 6"																				
4	PWVND1 @ 4'	↓		2			X														
5	PWVBD1 @ 6'		4/18/23		2			X			X				X	X	X				
6																					
7																					
8																					
9																					
10																					

Relinquished by:	Date/Time:	Received by:	Date/Time:	Turn Around Time	(Check)	Notes: Conrad, Herbst, Borys TB -Borys on sample jars
Chris Lattes	4/20/23 13:00	59	4/20/23 13:00	Same Day	72 hours	
82	4/20/23 1630	[Signature]	4/20/23 1630	24 hours	Standard	
Relinquished by:	Date/Time:	Received by:	Date/Time:	48 hours		
Relinquished by:	Date/Time:	Received by:	Date/Time:	Sample Integrity:		
				Temperature Upon Receipt:	9.1	
				Samples Intact:	Yes No	

S₂

Sample Receipt Checklist

S2 Work Order# 23044102

Client: Fremont Client Project ID: Lang C22-290 TANK

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

Grid of boxes for shipping method selection

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

Temp (°C) 9.1 Thermometer # 1

Table with 5 columns: Yes, No, N/A, Comments (if any). Rows include questions about cooling, custody seals, sample volume, and preservation.

Custodian Printed Name AS

Date/Time 4/20/23



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lang C22-29D Tank

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/03/23 12:12

SEP01@4.5'
2304462-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGD0877	04/26/23	04/27/23	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: **04/18/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0400	99.9 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0379	94.8 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0402	101 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGD0880	04/26/23	04/26/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	17.1	137 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lang C22-29D Tank

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/03/23 12:12

SEP01@4.5'
2304462-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGD0754	04/24/23	04/25/23	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: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0146	43.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0146	43.9 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.430	0.0100	mg/L	1	BGD0872	04/26/23	05/02/23	EPA 6020B	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Lang C22-29D Tank

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 05/03/23 12:12

SEP01@4.5'
2304462-01 (Soil)

Summit Scientific

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	39.6	0.0639	mg/L dry	1	BGD0896	04/26/23	05/02/23	EPA 6020B	
Magnesium	10.2	0.0639	"	"	"	"	"	"	
Sodium	31.6	0.0639	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.16	0.00100	units	1	BGE0089	05/03/23	05/03/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	78.3		%	1	BGD0775	04/24/23	04/24/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.534	0.0100	mmhos/cm	1	BGD0921	04/27/23	04/27/23	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.99		pH Units	1	BGD0920	04/27/23	04/27/23	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lang C22-29D Tank

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/03/23 12:12

AST01@6''
2304462-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGD0877	04/26/23	04/27/23	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: **04/18/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0395	98.7 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0405	101 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0459	115 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGD0880	04/26/23	04/26/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	16.6	133 %		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 - Lang C22-29D Tank

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/03/23 12:12

**AST01@6''
2304462-02 (Soil)**

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGD0754	04/24/23	04/25/23	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: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0218	65.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0191	57.3 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.319	0.0100	mg/L	1	BGD0872	04/26/23	05/02/23	EPA 6020B	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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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 - Lang C22-29D Tank

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/03/23 12:12

**AST01@6''
2304462-02 (Soil)**

Summit Scientific

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	446	0.0598	mg/L dry	1	BGD0896	04/26/23	05/02/23	EPA 6020B	
Magnesium	106	0.0598	"	"	"	"	"	"	
Sodium	11.2	0.0598	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.124	0.00100	units	1	BGE0089	05/03/23	05/03/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	83.6		%	1	BGD0775	04/24/23	04/24/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.292	0.0100	mmhos/cm	1	BGD0921	04/27/23	04/27/23	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.82		pH Units	1	BGD0920	04/27/23	04/27/23	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lang C22-29D Tank

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/03/23 12:12

AST02@6''
2304462-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGD0877	04/26/23	04/27/23	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: **04/18/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0473	118 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0301	75.2 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0394	98.6 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGD0880	04/26/23	04/26/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	17.3	138 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lang C22-29D Tank

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/03/23 12:12

**AST02@6''
2304462-03 (Soil)**

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGD0754	04/24/23	04/25/23	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: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0146	43.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0173	51.9 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.490	0.0100	mg/L	1	BGD0872	04/26/23	05/02/23	EPA 6020B	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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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 - Lang C22-29D Tank

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/03/23 12:12

**AST02@6''
2304462-03 (Soil)**

Summit Scientific

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	512	0.0581	mg/L dry	1	BGD0896	04/26/23	05/02/23	EPA 6020B	
Magnesium	107	0.0581	"	"	"	"	"	"	
Sodium	39.2	0.0581	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.411	0.00100	units	1	BGE0089	05/03/23	05/03/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	86.1		%	1	BGD0775	04/24/23	04/24/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.339	0.0100	mmhos/cm	1	BGD0921	04/27/23	04/27/23	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.18		pH Units	1	BGD0920	04/27/23	04/27/23	EPA 9045D	

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 - Lang C22-29D Tank

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/03/23 12:12

PWVN01@4'
2304462-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGD0877	04/26/23	04/27/23	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: **04/18/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0359	89.7 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0392	97.9 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0527	132 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGD0880	04/26/23	04/26/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	16.1	129 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lang C22-29D Tank

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/03/23 12:12

PWVN01@4'
2304462-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGD0754	04/24/23	04/25/23	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: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0238	71.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0221	66.4 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.256	0.0100	mg/L	1	BGD0872	04/26/23	05/02/23	EPA 6020B	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Lang C22-29D Tank

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 05/03/23 12:12

PWVN01@4'
2304462-04 (Soil)

Summit Scientific

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	29.6	0.0612	mg/L dry	1	BGD0896	04/26/23	05/02/23	EPA 6020B	
Magnesium	6.29	0.0612	"	"	"	"	"	"	
Sodium	14.5	0.0612	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.632	0.00100	units	1	BGE0089	05/03/23	05/03/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	81.7		%	1	BGD0775	04/24/23	04/24/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.329	0.0100	mmhos/cm	1	BGD0921	04/27/23	04/27/23	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.81		pH Units	1	BGD0920	04/27/23	04/27/23	EPA 9045D	

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 - Lang C22-29D Tank

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/03/23 12:12

PWVB01@6'
2304462-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BGD0877	04/26/23	04/27/23	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: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0389	97.4 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0382	95.5 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0385	96.2 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BGD0880	04/26/23	04/27/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	14.0	112 %	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 - Lang C22-29D Tank

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/03/23 12:12

PWVB01@6'
2304462-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGD0754	04/24/23	04/25/23	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: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0253	75.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0238	71.5 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.784	0.0100	mg/L	1	BGD0872	04/26/23	05/02/23	EPA 6020B	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Lang C22-29D Tank

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 05/03/23 12:12

PWVB01@6'
2304462-05 (Soil)

Summit Scientific

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	66.6	0.0698	mg/L dry	1	BGD0896	04/26/23	05/02/23	EPA 6020B	
Magnesium	7.19	0.0698	"	"	"	"	"	"	
Sodium	5.65	0.0698	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.176	0.00100	units	1	BGE0089	05/03/23	05/03/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	71.7		%	1	BGD0775	04/24/23	04/24/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.285	0.0100	mmhos/cm	1	BGD0921	04/27/23	04/27/23	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **04/18/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.87		pH Units	1	BGD0920	04/27/23	04/27/23	EPA 9045D	

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lang C22-29D Tank

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/03/23 12:12

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BGD0877 - EPA 5030 Soil MS

Blank (BGD0877-BLK1)

Prepared & Analyzed: 04/26/23

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	0.0390		"	0.0400		97.5	50-150			
Surrogate: Toluene-d8	0.0407		"	0.0400		102	50-150			
Surrogate: 4-Bromofluorobenzene	0.0430		"	0.0400		107	50-150			

LCS (BGD0877-BS1)

Prepared & Analyzed: 04/26/23

Benzene	0.0773	0.0020	mg/kg	0.100		77.3	70-130			
Toluene	0.0891	0.0050	"	0.100		89.1	70-130			
Ethylbenzene	0.103	0.0050	"	0.100		103	70-130			
m,p-Xylene	0.213	0.010	"	0.200		107	70-130			
o-Xylene	0.105	0.0050	"	0.100		105	70-130			
1,2,4-Trimethylbenzene	0.111	0.0050	"	0.100		111	70-130			
1,3,5-Trimethylbenzene	0.111	0.0050	"	0.100		111	70-130			
Naphthalene	0.0831	0.0038	"	0.100		83.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0325		"	0.0400		81.2	50-150			
Surrogate: Toluene-d8	0.0360		"	0.0400		89.9	50-150			
Surrogate: 4-Bromofluorobenzene	0.0382		"	0.0400		95.6	50-150			

Matrix Spike (BGD0877-MS1)

Source: 2304462-01

Prepared: 04/26/23 Analyzed: 04/27/23

Benzene	0.0834	0.0020	mg/kg	0.100	ND	83.4	70-130			
Toluene	0.0905	0.0050	"	0.100	ND	90.5	70-130			
Ethylbenzene	0.109	0.0050	"	0.100	ND	109	70-130			
m,p-Xylene	0.217	0.010	"	0.200	ND	108	70-130			
o-Xylene	0.102	0.0050	"	0.100	ND	102	70-130			
1,2,4-Trimethylbenzene	0.106	0.0050	"	0.100	ND	106	70-130			
1,3,5-Trimethylbenzene	0.108	0.0050	"	0.100	ND	108	70-130			
Naphthalene	0.0759	0.0038	"	0.100	ND	75.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0358		"	0.0400		89.4	50-150			
Surrogate: Toluene-d8	0.0384		"	0.0400		96.0	50-150			
Surrogate: 4-Bromofluorobenzene	0.0433		"	0.0400		108	50-150			

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Lang C22-29D Tank

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 05/03/23 12:12

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BGD0877 - EPA 5030 Soil MS

Matrix Spike Dup (BGD0877-MSD1)	Source: 2304462-01			Prepared: 04/26/23 Analyzed: 04/27/23						
Benzene	0.0929	0.0020	mg/kg	0.100	ND	92.9	70-130	10.9	30	
Toluene	0.112	0.0050	"	0.100	ND	112	70-130	21.5	30	
Ethylbenzene	0.0952	0.0050	"	0.100	ND	95.2	70-130	13.5	30	
m,p-Xylene	0.196	0.010	"	0.200	ND	98.1	70-130	10.1	30	
o-Xylene	0.0934	0.0050	"	0.100	ND	93.4	70-130	8.58	30	
1,2,4-Trimethylbenzene	0.0797	0.0050	"	0.100	ND	79.7	70-130	27.9	30	
1,3,5-Trimethylbenzene	0.0832	0.0050	"	0.100	ND	83.2	70-130	26.2	30	
Naphthalene	0.0914	0.0038	"	0.100	ND	91.4	70-130	18.4	30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0394</i>		<i>"</i>	<i>0.0400</i>		<i>98.6</i>	<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0472</i>		<i>"</i>	<i>0.0400</i>		<i>118</i>	<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0316</i>		<i>"</i>	<i>0.0400</i>		<i>79.0</i>	<i>50-150</i>			

Summit Scientific

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Lang C22-29D Tank

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 05/03/23 12:12

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BGD0880 - EPA 3550A

Blank (BGD0880-BLK1)

Prepared & Analyzed: 04/26/23

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	17.8		"	12.5		142		30-150			

LCS (BGD0880-BS1)

Prepared & Analyzed: 04/26/23

C10-C28 (DRO)	556	50	mg/kg	500		111		70-130			
Surrogate: <i>o</i> -Terphenyl	15.1		"	12.5		121		30-150			

Matrix Spike (BGD0880-MS1)

Source: 2304462-01

Prepared & Analyzed: 04/26/23

C10-C28 (DRO)	546	50	mg/kg	500	8.65	107		70-130			
Surrogate: <i>o</i> -Terphenyl	17.6		"	12.5		141		30-150			

Matrix Spike Dup (BGD0880-MSD1)

Source: 2304462-01

Prepared & Analyzed: 04/26/23

C10-C28 (DRO)	597	50	mg/kg	500	8.65	118		70-130	9.00	20	
Surrogate: <i>o</i> -Terphenyl	17.7		"	12.5		142		30-150			

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lang C22-29D Tank

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/03/23 12:12

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BGD0754 - EPA 5030 Soil MS

Blank (BGD0754-BLK1)

Prepared & Analyzed: 04/24/23

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	"							
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0300</i>		<i>"</i>	<i>0.0333</i>		<i>89.9</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0316</i>		<i>"</i>	<i>0.0333</i>		<i>94.8</i>	<i>40-150</i>			

LCS (BGD0754-BS1)

Prepared & Analyzed: 04/24/23

Acenaphthene	0.0303	0.00500	mg/kg	0.0333		91.0	31-137			
Anthracene	0.0306	0.00500	"	0.0333		91.8	30-120			
Benzo (a) anthracene	0.0279	0.00500	"	0.0333		83.8	30-120			
Benzo (a) pyrene	0.0282	0.00500	"	0.0333		84.6	30-120			
Benzo (b) fluoranthene	0.0271	0.00500	"	0.0333		81.4	30-120			
Benzo (k) fluoranthene	0.0302	0.00500	"	0.0333		90.7	30-120			
Chrysene	0.0290	0.00500	"	0.0333		87.1	30-120			
Dibenz (a,h) anthracene	0.0248	0.00500	"	0.0333		74.5	30-120			
Fluoranthene	0.0308	0.00500	"	0.0333		92.5	30-120			
Fluorene	0.0305	0.00500	"	0.0333		91.5	30-120			
Indeno (1,2,3-cd) pyrene	0.0246	0.00500	"	0.0333		73.7	30-120			
Pyrene	0.0290	0.00500	"	0.0333		87.1	35-142			
1-Methylnaphthalene	0.0339	0.00500	"	0.0333		102	35-142			
2-Methylnaphthalene	0.0331	0.00500	"	0.0333		99.2	35-142			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0338</i>		<i>"</i>	<i>0.0333</i>		<i>101</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0313</i>		<i>"</i>	<i>0.0333</i>		<i>94.0</i>	<i>40-150</i>			

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lang C22-29D Tank

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/03/23 12:12

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BGD0754 - EPA 5030 Soil MS

Matrix Spike (BGD0754-MS1)	Source: 2304462-01			Prepared & Analyzed: 04/24/23						
Acenaphthene	0.0148	0.00500	mg/kg	0.0333	ND	44.3	31-137			
Anthracene	0.0140	0.00500	"	0.0333	ND	41.9	30-120			
Benzo (a) anthracene	0.0137	0.00500	"	0.0333	ND	41.2	30-120			
Benzo (a) pyrene	0.0151	0.00500	"	0.0333	ND	45.4	30-120			
Benzo (b) fluoranthene	0.0147	0.00500	"	0.0333	ND	44.0	30-120			
Benzo (k) fluoranthene	0.0148	0.00500	"	0.0333	ND	44.3	30-120			
Chrysene	0.0145	0.00500	"	0.0333	ND	43.4	30-120			
Dibenz (a,h) anthracene	0.0147	0.00500	"	0.0333	ND	44.1	30-120			
Fluoranthene	0.0167	0.00500	"	0.0333	ND	50.0	30-120			
Fluorene	0.0174	0.00500	"	0.0333	ND	52.3	30-120			
Indeno (1,2,3-cd) pyrene	0.0156	0.00500	"	0.0333	ND	46.7	30-120			
Pyrene	0.0159	0.00500	"	0.0333	ND	47.8	35-142			
1-Methylnaphthalene	0.0172	0.00500	"	0.0333	ND	51.7	15-130			
2-Methylnaphthalene	0.0180	0.00500	"	0.0333	ND	53.9	15-130			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0172</i>		<i>"</i>	<i>0.0333</i>		<i>51.6</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0141</i>		<i>"</i>	<i>0.0333</i>		<i>42.2</i>	<i>40-150</i>			

Matrix Spike Dup (BGD0754-MSD1)	Source: 2304462-01			Prepared & Analyzed: 04/24/23						
Acenaphthene	0.0174	0.00500	mg/kg	0.0333	ND	52.2	31-137	16.3	30	
Anthracene	0.0167	0.00500	"	0.0333	ND	50.2	30-120	18.0	30	
Benzo (a) anthracene	0.0149	0.00500	"	0.0333	ND	44.6	30-120	8.12	30	
Benzo (a) pyrene	0.0144	0.00500	"	0.0333	ND	43.3	30-120	4.73	30	
Benzo (b) fluoranthene	0.0167	0.00500	"	0.0333	ND	50.1	30-120	13.0	30	
Benzo (k) fluoranthene	0.0160	0.00500	"	0.0333	ND	48.1	30-120	8.10	30	
Chrysene	0.0155	0.00500	"	0.0333	ND	46.4	30-120	6.54	30	
Dibenz (a,h) anthracene	0.0156	0.00500	"	0.0333	ND	46.9	30-120	6.15	30	
Fluoranthene	0.0137	0.00500	"	0.0333	ND	41.1	30-120	19.5	30	
Fluorene	0.0186	0.00500	"	0.0333	ND	55.7	30-120	6.43	30	
Indeno (1,2,3-cd) pyrene	0.0145	0.00500	"	0.0333	ND	43.5	30-120	7.15	30	
Pyrene	0.0133	0.00500	"	0.0333	ND	40.0	35-142	17.7	30	
1-Methylnaphthalene	0.0160	0.00500	"	0.0333	ND	47.9	15-130	7.66	50	
2-Methylnaphthalene	0.0217	0.00500	"	0.0333	ND	65.0	15-130	18.6	50	
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0159</i>		<i>"</i>	<i>0.0333</i>		<i>47.8</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0171</i>		<i>"</i>	<i>0.0333</i>		<i>51.2</i>	<i>40-150</i>			

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Lang C22-29D Tank

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 05/03/23 12:12

Total Metals by EPA 6020B Hot Water Soluble Extraction - Quality Control
Summit Scientific

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

Batch BGD0872 - EPA 3050B

Blank (BGD0872-BLK1)

Prepared: 04/26/23 Analyzed: 05/02/23

Boron ND 0.0100 mg/L

LCS (BGD0872-BS1)

Prepared: 04/26/23 Analyzed: 05/02/23

Boron 4.38 0.0100 mg/L 5.00 87.5 80-120

Duplicate (BGD0872-DUP1)

Source: 2304302-05

Prepared: 04/26/23 Analyzed: 05/02/23

Boron 0.213 0.0100 mg/L 0.207 2.96 20

Matrix Spike (BGD0872-MS1)

Source: 2304302-05

Prepared: 04/26/23 Analyzed: 05/02/23

Boron 4.79 0.0100 mg/L 5.00 0.207 91.6 75-125

Matrix Spike Dup (BGD0872-MSD1)

Source: 2304302-05

Prepared: 04/26/23 Analyzed: 05/02/23

Boron 4.45 0.0100 mg/L 5.00 0.207 84.8 75-125 7.33 25

Summit Scientific

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Lang C22-29D Tank

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 05/03/23 12:12

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction - Quality Control

Summit Scientific

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

Batch BGD0896 - General Preparation

Blank (BGD0896-BLK1)

Prepared: 04/26/23 Analyzed: 05/02/23

Calcium	ND	0.0500	mg/L wet							
Magnesium	ND	0.0500	"							
Sodium	ND	0.0500	"							

LCS (BGD0896-BS1)

Prepared: 04/26/23 Analyzed: 05/02/23

Calcium	4.39	0.0500	mg/L wet	5.00	87.9	70-130				
Magnesium	5.98	0.0500	"	5.00	120	70-130				
Sodium	6.02	0.0500	"	5.00	120	70-130				

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 - Lang C22-29D Tank

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 05/03/23 12:12

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control

Summit Scientific

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

Batch BGD0775 - General Preparation

Duplicate (BGD0775-DUP1)

Source: 2304441-05

Prepared & Analyzed: 04/24/23

% Solids	93.2		%		93.1			0.0668		20	
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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 - Lang C22-29D Tank

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 05/03/23 12:12

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction - Quality Control

Summit Scientific

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

Batch BGD0921 - General Preparation

Blank (BGD0921-BLK1)

Prepared & Analyzed: 04/27/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BGD0921-BS1)

Prepared & Analyzed: 04/27/23

Specific Conductance (EC) 0.152 0.0100 mmhos/cm 0.150 101 95-105

Duplicate (BGD0921-DUP1)

Source: 2304462-01

Prepared & Analyzed: 04/27/23

Specific Conductance (EC) 0.526 0.0100 mmhos/cm 0.534 1.64 20

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 - Lang C22-29D Tank

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 05/03/23 12:12

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction - Quality Control

Summit Scientific

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

Batch BGD0920 - General Preparation

LCS (BGD0920-BS1)

Prepared & Analyzed: 04/27/23

pH	8.87	pH Units	9.18	96.6	95-105
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Duplicate (BGD0920-DUP1)

Source: 2304462-01

Prepared & Analyzed: 04/27/23

pH	7.86	pH Units	7.99	1.64	20
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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 - Lang C22-29D Tank

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/03/23 12:12

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