

# Summit Scientific

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4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

December 12, 2022

Paul Henchan  
Fremont Environmental  
PO Box 1289  
Wellington, CO 80549

RE: Noble - Clyncke State B36-25, Baker State B36-11,  
Work Order #2212061

Enclosed are the results of analyses for samples received by Summit Scientific on 12/02/22 16:00. 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 - Clyncke State B36-25, Baker State B36-11,

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
12/12/22 13:59

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B36-25 FL01@4'	2212061-01	Soil	11/28/22 00:00	12/02/22 16:00
B36-12 FL01@4'	2212061-02	Soil	11/28/22 00:00	12/02/22 16:00
B36-11 FL01@4'	2212061-03	Soil	11/28/22 00:00	12/02/22 16:00
B36-11 FL02@6'	2212061-04	Soil	11/30/22 00:00	12/02/22 16:00
SEP FL@5'	2212061-05	Soil	11/30/22 00:00	12/02/22 16:00

Summit Scientific

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

# Summit Scientific

2212061

S<sub>2</sub>

4653 Table Mountain Drive ♦ Golden, Colorado 80403

303-277-9310 ♦ 303-374-5933 (f)

Page 1 of 1

Client: Fremont Environmental

Project Manager: Paul Henehan

Address:

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

City/State/Zip: Choir Lattes

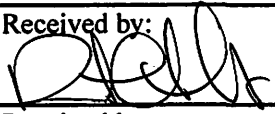
Bill to Noble:

Phone:

Project Name: Clyncke State B36-25

Sampler Name:

Project Number: Baker State B36-11, B36-12

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, TMBS, Naph	PAH (915)	EC, SAR, pH, Boron	Metals (915)	TDS, Chloride, Sulfate	HOLD			
1	B36-25 FL01@4'	11/23/22		2			X			X				X	X	X					
2	B36-12 FL01@4'	↓		2			↓			↓				↓	↓	↓					
3	B36-11 FL01@4'	11/23/22		2			↓			↓				↓	↓	↓					
4	B36-11 FL02@6'	11/30/22		2			↓			↓				↓	↓	↓					
5	SEP FL @ 5'	11/30/22		2			X			X				X	X	X					
6																					
7																					
8																					
9																					
10																					
Relinquished by:		Date/Time:		Received by:		Date/Time:		Turn Around Time		(Check)		Notes: <u>Flowline's</u>									
<u>Chris Lattes</u>		<u>12/2/22 13:00</u>		<u>Sg</u>		<u>12/2/22 13:00</u>		Same Day		72 hours											
<u>SE</u>		<u>12/2/22 1600</u>				<u>12/2/22 1600</u>		24 hours		Standard											
Relinquished by:		Date/Time:		Received by:		Date/Time:		48 hours		Sample Integrity:		Temperature Upon Receipt: <u>7.4</u>									
												Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No									

S<sub>2</sub>

Sample Receipt Checklist

S2 Work Order# 2212061

Client: Fremont Client Project ID: Clyncke State B300-25

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

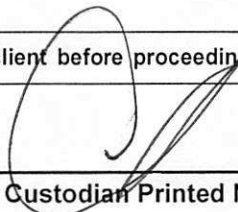
Matrix (Check all that apply) Air  Soil/Solid  Water  Other

Temp (°C)  Thermometer #

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

Additional Comments (if any):

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

  
Custodian Printed Name

12.2.22  
Date/Time



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Clyncke State B36-25, Baker State B36-11,

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
12/12/22 13:59

**B36-25 FL01@4'**  
**2212061-01 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **11/28/22 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BFL0179	12/07/22	12/08/22	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **11/28/22 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0372	93.0 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0438	110 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0440	110 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/28/22 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BFL0181	12/07/22	12/08/22	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **11/28/22 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	10.2	81.3 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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PO Box 1289  
Wellington CO, 80549

Project: Noble - Clyncke State B36-25, Baker State B36-11,

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
12/12/22 13:59

**B36-25 FL01@4'**  
**2212061-01 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/28/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFL0096	12/05/22	12/06/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/28/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0224	67.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0190	56.9 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **11/28/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0807</b>	0.0100	mg/L	1	BFL0144	12/06/22	12/07/22	EPA 6020B	

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

Date Sampled: **11/28/22 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 - Clyncke State B36-25, Baker State B36-11,

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
12/12/22 13:59

**B36-25 FL01@4'**  
**2212061-01 (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	43.6	0.0542	mg/L dry	1	BFL0119	12/05/22	12/07/22	EPA 6020B	
Magnesium	21.5	0.0542	"	"	"	"	"	"	
Sodium	56.6	0.0542	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **11/28/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.75	0.00100	units	1	BFL0185	12/07/22	12/07/22	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **11/28/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	92.2		%	1	BFL0124	12/05/22	12/06/22	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **11/28/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.707	0.0100	mmhos/cm	1	BFL0147	12/06/22	12/06/22	EPA 120.1	

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

Date Sampled: **11/28/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.02		pH Units	1	BFL0145	12/06/22	12/06/22	EPA 9045D	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Clyncke State B36-25, Baker State B36-11,

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
12/12/22 13:59

**B36-12 FL01@4'**  
**2212061-02 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **11/28/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFL0179	12/07/22	12/08/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **11/28/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0380	95.0 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0448	112 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0442	111 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/28/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFL0181	12/07/22	12/08/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/28/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	12.2	97.9 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Clyncke State B36-25, Baker State B36-11,

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
12/12/22 13:59

**B36-12 FL01@4'**  
**2212061-02 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/28/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFL0096	12/05/22	12/06/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/28/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0256	76.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0181	54.4 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **11/28/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.104</b>	0.0100	mg/L	1	BFL0144	12/06/22	12/07/22	EPA 6020B	

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

Date Sampled: **11/28/22 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 - Clyncke State B36-25, Baker State B36-11,

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
12/12/22 13:59

**B36-12 FL01@4'**  
**2212061-02 (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	196	0.0552	mg/L dry	1	BFL0119	12/05/22	12/07/22	EPA 6020B	
Magnesium	90.7	0.0552	"	"	"	"	"	"	
Sodium	90.9	0.0552	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **11/28/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.35	0.00100	units	1	BFL0185	12/07/22	12/07/22	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **11/28/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	90.5		%	1	BFL0124	12/05/22	12/06/22	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **11/28/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.17	0.0100	mmhos/cm	1	BFL0147	12/06/22	12/06/22	EPA 120.1	

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

Date Sampled: **11/28/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.89		pH Units	1	BFL0145	12/06/22	12/06/22	EPA 9045D	

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PO Box 1289  
Wellington CO, 80549

Project: Noble - Clyncke State B36-25, Baker State B36-11,

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
12/12/22 13:59

**B36-11 FL01@4'**  
**2212061-03 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **11/28/22 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BFL0179	12/07/22	12/08/22	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **11/28/22 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0373	93.3 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0451	113 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0448	112 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/28/22 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BFL0181	12/07/22	12/08/22	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **11/28/22 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	10.2	81.3 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Clyncke State B36-25, Baker State B36-11,

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
12/12/22 13:59

**B36-11 FL01@4'**  
**2212061-03 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/28/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFL0096	12/05/22	12/06/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/28/22 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	0.0181	54.4 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **11/28/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0516</b>	0.0100	mg/L	1	BFL0144	12/06/22	12/07/22	EPA 6020B	

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

Date Sampled: **11/28/22 00:00**

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

Project: Noble - Clyncke State B36-25, Baker State B36-11,

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
12/12/22 13:59

**B36-11 FL01@4'**  
**2212061-03 (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	110	0.0542	mg/L dry	1	BFL0119	12/05/22	12/07/22	EPA 6020B	
Magnesium	104	0.0542	"	"	"	"	"	"	
Sodium	25.5	0.0542	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **11/28/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.420	0.00100	units	1	BFL0185	12/07/22	12/07/22	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **11/28/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	92.2		%	1	BFL0124	12/05/22	12/06/22	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **11/28/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.49	0.0100	mmhos/cm	1	BFL0147	12/06/22	12/06/22	EPA 120.1	

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

Date Sampled: **11/28/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.01		pH Units	1	BFL0145	12/06/22	12/06/22	EPA 9045D	

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Wellington CO, 80549

Project: Noble - Clyncke State B36-25, Baker State B36-11,

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
12/12/22 13:59

**B36-11 FL02@6'**  
**2212061-04 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFL0179	12/07/22	12/08/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0376	94.0 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0446	112 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0447	112 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFL0181	12/07/22	12/08/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	13.0	104 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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PO Box 1289  
Wellington CO, 80549

Project: Noble - Clyncke State B36-25, Baker State B36-11,

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
12/12/22 13:59

**B36-11 FL02@6'**  
**2212061-04 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFL0096	12/05/22	12/06/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0251	75.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0184	55.2 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.101</b>	0.0100	mg/L	1	BFL0144	12/06/22	12/07/22	EPA 6020B	

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

Date Sampled: **11/30/22 00:00**

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

Project: Noble - Clyncke State B36-25, Baker State B36-11,

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
12/12/22 13:59

**B36-11 FL02@6'**  
**2212061-04 (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	60.4	0.0554	mg/L dry	1	BFL0119	12/05/22	12/07/22	EPA 6020B	
Magnesium	26.4	0.0554	"	"	"	"	"	"	
Sodium	132	0.0554	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	3.57	0.00100	units	1	BFL0185	12/07/22	12/07/22	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	90.3		%	1	BFL0124	12/05/22	12/06/22	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.12	0.0100	mmhos/cm	1	BFL0147	12/06/22	12/06/22	EPA 120.1	

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

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.94		pH Units	1	BFL0145	12/06/22	12/06/22	EPA 9045D	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Clyncke State B36-25, Baker State B36-11,

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
12/12/22 13:59

**SEP FL@5'**  
**2212061-05 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BFL0179	12/07/22	12/08/22	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0369	92.3 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0448	112 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0439	110 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BFL0181	12/07/22	12/08/22	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	13.3	106 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Clyncke State B36-25, Baker State B36-11,

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
12/12/22 13:59

**SEP FL@5'**  
**2212061-05 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFL0096	12/05/22	12/06/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0260	78.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0198	59.3 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0322</b>	0.0100	mg/L	1	BFL0144	12/06/22	12/07/22	EPA 6020B	

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

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project: Noble - Clyncke State B36-25, Baker State B36-11,

Project Number: [none]  
 Project Manager: Paul Henchan

**Reported:**  
 12/12/22 13:59

**SEP FL@5'**  
**2212061-05 (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	21.2	0.0536	mg/L dry	1	BFL0119	12/05/22	12/07/22	EPA 6020B	
Magnesium	7.57	0.0536	"	"	"	"	"	"	
Sodium	8.59	0.0536	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.408	0.00100	units	1	BFL0185	12/07/22	12/07/22	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	93.3		%	1	BFL0124	12/05/22	12/06/22	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.213	0.0100	mmhos/cm	1	BFL0147	12/06/22	12/06/22	EPA 120.1	

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

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.23		pH Units	1	BFL0145	12/06/22	12/06/22	EPA 9045D	

Summit Scientific

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Project: Noble - Clyncke State B36-25, Baker State B36-11,

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
12/12/22 13:59

### 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 BFL0179 - EPA 5030 Soil MS

##### Blank (BFL0179-BLK1)

Prepared & Analyzed: 12/07/22

Benzene	ND	0.0020	mg/kg								
Toluene	ND	0.0050	"								
Ethylbenzene	ND	0.0050	"								
Xylenes (total)	ND	0.010	"								
1,2,4-Trimethylbenzene	ND	0.0050	"								
1,3,5-Trimethylbenzene	ND	0.0050	"								
Naphthalene	ND	0.0038	"								
Gasoline Range Hydrocarbons	ND	0.50	"								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0364</i>		<i>"</i>	<i>0.0400</i>		<i>91.0</i>	<i>50-150</i>				
<i>Surrogate: Toluene-d8</i>	<i>0.0436</i>		<i>"</i>	<i>0.0400</i>		<i>109</i>	<i>50-150</i>				
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0448</i>		<i>"</i>	<i>0.0400</i>		<i>112</i>	<i>50-150</i>				

##### LCS (BFL0179-BS1)

Prepared & Analyzed: 12/07/22

Benzene	0.122	0.0020	mg/kg	0.125		97.2	70-130				
Toluene	0.147	0.0050	"	0.125		118	70-130				
Ethylbenzene	0.150	0.0050	"	0.125		120	70-130				
m,p-Xylene	0.299	0.010	"	0.250		120	70-130				
o-Xylene	0.138	0.0050	"	0.125		111	70-130				
1,2,4-Trimethylbenzene	0.148	0.0050	"	0.125		119	70-130				
1,3,5-Trimethylbenzene	0.152	0.0050	"	0.125		122	70-130				
Naphthalene	0.110	0.0038	"	0.125		87.8	70-130				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0360</i>		<i>"</i>	<i>0.0400</i>		<i>90.0</i>	<i>50-150</i>				
<i>Surrogate: Toluene-d8</i>	<i>0.0451</i>		<i>"</i>	<i>0.0400</i>		<i>113</i>	<i>50-150</i>				
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0422</i>		<i>"</i>	<i>0.0400</i>		<i>106</i>	<i>50-150</i>				

##### Matrix Spike (BFL0179-MS1)

Source: 2212054-02

Prepared & Analyzed: 12/07/22

Benzene	0.144	0.0020	mg/kg	0.125	ND	116	70-130				
Toluene	0.141	0.0050	"	0.125	ND	113	70-130				
Ethylbenzene	0.142	0.0050	"	0.125	ND	114	70-130				
m,p-Xylene	0.283	0.010	"	0.250	ND	113	70-130				
o-Xylene	0.132	0.0050	"	0.125	ND	106	70-130				
1,2,4-Trimethylbenzene	0.139	0.0050	"	0.125	ND	111	70-130				
1,3,5-Trimethylbenzene	0.143	0.0050	"	0.125	ND	114	70-130				
Naphthalene	0.115	0.0038	"	0.125	ND	91.8	70-130				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0387</i>		<i>"</i>	<i>0.0400</i>		<i>96.8</i>	<i>50-150</i>				
<i>Surrogate: Toluene-d8</i>	<i>0.0458</i>		<i>"</i>	<i>0.0400</i>		<i>114</i>	<i>50-150</i>				
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0415</i>		<i>"</i>	<i>0.0400</i>		<i>104</i>	<i>50-150</i>				

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Fremont Environmental  
 PO Box 1289  
 Wellington CO, 80549

Project: Noble - Clyncke State B36-25, Baker State B36-11,

Project Number: [none]  
 Project Manager: Paul Henchan

**Reported:**  
 12/12/22 13:59

**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 BFL0179 - EPA 5030 Soil MS**

<b>Matrix Spike Dup (BFL0179-MSD1)</b>	<b>Source: 2212054-02</b>			<b>Prepared &amp; Analyzed: 12/07/22</b>						
Benzene	0.147	0.0020	mg/kg	0.125	ND	118	70-130	1.93	30	
Toluene	0.145	0.0050	"	0.125	ND	116	70-130	2.44	30	
Ethylbenzene	0.146	0.0050	"	0.125	ND	117	70-130	3.08	30	
m,p-Xylene	0.290	0.010	"	0.250	ND	116	70-130	2.46	30	
o-Xylene	0.135	0.0050	"	0.125	ND	108	70-130	2.16	30	
1,2,4-Trimethylbenzene	0.145	0.0050	"	0.125	ND	116	70-130	3.76	30	
1,3,5-Trimethylbenzene	0.146	0.0050	"	0.125	ND	117	70-130	1.93	30	
Naphthalene	0.118	0.0038	"	0.125	ND	94.4	70-130	2.86	30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0362</i>		<i>"</i>	<i>0.0400</i>		<i>90.4</i>	<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0455</i>		<i>"</i>	<i>0.0400</i>		<i>114</i>	<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0416</i>		<i>"</i>	<i>0.0400</i>		<i>104</i>	<i>50-150</i>			

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Project: Noble - Clyncke State B36-25, Baker State B36-11,

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
12/12/22 13:59

**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 BFL0181 - EPA 3550A**

**Blank (BFL0181-BLK1)**

Prepared & Analyzed: 12/07/22

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	14.0		"	12.5	112	30-150					

**LCS (BFL0181-BS1)**

Prepared & Analyzed: 12/07/22

C10-C28 (DRO)	390	50	mg/kg	500	78.1	70-130					
Surrogate: <i>o</i> -Terphenyl	13.5		"	12.5	108	30-150					

**Matrix Spike (BFL0181-MS1)**

Source: 2212054-02

Prepared & Analyzed: 12/07/22

C10-C28 (DRO)	382	50	mg/kg	500	8.37	74.8	70-130				
Surrogate: <i>o</i> -Terphenyl	12.3		"	12.5	98.4	30-150					

**Matrix Spike Dup (BFL0181-MSD1)**

Source: 2212054-02

Prepared & Analyzed: 12/07/22

C10-C28 (DRO)	406	50	mg/kg	500	8.37	79.5	70-130	5.96	20		
Surrogate: <i>o</i> -Terphenyl	11.2		"	12.5	90.0	30-150					

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Project: Noble - Clyncke State B36-25, Baker State B36-11,

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
12/12/22 13:59

**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 BFL0096 - EPA 5030 Soil MS**

**Blank (BFL0096-BLK1)**

Prepared & Analyzed: 12/05/22

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0358		"	0.0333	107	40-150				
Surrogate: Fluoranthene-d10	0.0277		"	0.0333	83.1	40-150				

**LCS (BFL0096-BS1)**

Prepared & Analyzed: 12/05/22

Acenaphthene	0.0365	0.00500	mg/kg	0.0333	110	31-137				
Anthracene	0.0331	0.00500	"	0.0333	99.4	30-120				
Benzo (a) anthracene	0.0286	0.00500	"	0.0333	85.8	30-120				
Benzo (a) pyrene	0.0294	0.00500	"	0.0333	88.2	30-120				
Benzo (b) fluoranthene	0.0314	0.00500	"	0.0333	94.2	30-120				
Benzo (k) fluoranthene	0.0380	0.00500	"	0.0333	114	30-120				
Chrysene	0.0319	0.00500	"	0.0333	95.7	30-120				
Dibenz (a,h) anthracene	0.0297	0.00500	"	0.0333	89.0	30-120				
Fluoranthene	0.0347	0.00500	"	0.0333	104	30-120				
Fluorene	0.0336	0.00500	"	0.0333	101	30-120				
Indeno (1,2,3-cd) pyrene	0.0267	0.00500	"	0.0333	80.1	30-120				
Pyrene	0.0326	0.00500	"	0.0333	97.7	35-142				
1-Methylnaphthalene	0.0311	0.00500	"	0.0333	93.2	35-142				
2-Methylnaphthalene	0.0320	0.00500	"	0.0333	96.2	35-142				
Surrogate: 2-Methylnaphthalene-d10	0.0331		"	0.0333	99.2	40-150				
Surrogate: Fluoranthene-d10	0.0349		"	0.0333	105	40-150				

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Wellington CO, 80549

Project: Noble - Clyncke State B36-25, Baker State B36-11,

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
12/12/22 13:59

**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 BFL0096 - EPA 5030 Soil MS**

<b>Matrix Spike (BFL0096-MS1)</b>		<b>Source: 2212039-01</b>			<b>Prepared &amp; Analyzed: 12/05/22</b>						
Acenaphthene	0.0183	0.00500	mg/kg	0.0333	ND	54.9	31-137				
Anthracene	0.0157	0.00500	"	0.0333	ND	47.2	30-120				
Benzo (a) anthracene	0.0159	0.00500	"	0.0333	ND	47.7	30-120				
Benzo (a) pyrene	0.0136	0.00500	"	0.0333	ND	40.8	30-120				
Benzo (b) fluoranthene	0.0139	0.00500	"	0.0333	ND	41.6	30-120				
Benzo (k) fluoranthene	0.0187	0.00500	"	0.0333	ND	56.2	30-120				
Chrysene	0.0172	0.00500	"	0.0333	ND	51.7	30-120				
Dibenz (a,h) anthracene	0.0166	0.00500	"	0.0333	ND	49.9	30-120				
Fluoranthene	0.0174	0.00500	"	0.0333	ND	52.3	30-120				
Fluorene	0.0147	0.00500	"	0.0333	ND	44.1	30-120				
Indeno (1,2,3-cd) pyrene	0.0158	0.00500	"	0.0333	ND	47.5	30-120				
Pyrene	0.0193	0.00500	"	0.0333	ND	57.9	35-142				
1-Methylnaphthalene	0.0169	0.00500	"	0.0333	ND	50.7	15-130				
2-Methylnaphthalene	0.0178	0.00500	"	0.0333	ND	53.5	15-130				
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0175</i>		"	<i>0.0333</i>		<i>52.4</i>	<i>40-150</i>				
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0159</i>		"	<i>0.0333</i>		<i>47.7</i>	<i>40-150</i>				

<b>Matrix Spike Dup (BFL0096-MSD1)</b>		<b>Source: 2212039-01</b>			<b>Prepared &amp; Analyzed: 12/05/22</b>						
Acenaphthene	0.0231	0.00500	mg/kg	0.0333	ND	69.4	31-137	23.4	30		
Anthracene	0.0139	0.00500	"	0.0333	ND	41.6	30-120	12.8	30		
Benzo (a) anthracene	0.0151	0.00500	"	0.0333	ND	45.3	30-120	5.17	30		
Benzo (a) pyrene	0.0150	0.00500	"	0.0333	ND	45.0	30-120	9.77	30		
Benzo (b) fluoranthene	0.0152	0.00500	"	0.0333	ND	45.5	30-120	8.94	30		
Benzo (k) fluoranthene	0.0192	0.00500	"	0.0333	ND	57.7	30-120	2.61	30		
Chrysene	0.0157	0.00500	"	0.0333	ND	47.1	30-120	9.47	30		
Dibenz (a,h) anthracene	0.0180	0.00500	"	0.0333	ND	53.9	30-120	7.83	30		
Fluoranthene	0.0144	0.00500	"	0.0333	ND	43.1	30-120	19.2	30		
Fluorene	0.0208	0.00500	"	0.0333	ND	62.5	30-120	34.5	30		QR-02
Indeno (1,2,3-cd) pyrene	0.0173	0.00500	"	0.0333	ND	51.8	30-120	8.73	30		
Pyrene	0.0174	0.00500	"	0.0333	ND	52.1	35-142	10.5	30		
1-Methylnaphthalene	0.0158	0.00500	"	0.0333	ND	47.4	15-130	6.60	50		
2-Methylnaphthalene	0.0174	0.00500	"	0.0333	ND	52.3	15-130	2.21	50		
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0160</i>		"	<i>0.0333</i>		<i>48.1</i>	<i>40-150</i>				
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0135</i>		"	<i>0.0333</i>		<i>40.5</i>	<i>40-150</i>				

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Fremont Environmental  
 PO Box 1289  
 Wellington CO, 80549

Project: Noble - Clyncke State B36-25, Baker State B36-11,

Project Number: [none]  
 Project Manager: Paul Henchan

**Reported:**  
 12/12/22 13:59

**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 BFL0144 - EPA 3050B**

**Blank (BFL0144-BLK1)**

Prepared: 12/06/22 Analyzed: 12/07/22

Boron ND 0.0100 mg/L

**LCS (BFL0144-BS1)**

Prepared: 12/06/22 Analyzed: 12/07/22

Boron 4.05 0.0100 mg/L 5.00 81.0 80-120

**Duplicate (BFL0144-DUP1)**

Source: 2212060-01

Prepared: 12/06/22 Analyzed: 12/07/22

Boron 0.140 0.0100 mg/L 0.0849 49.0 20 QR-04

**Matrix Spike (BFL0144-MS1)**

Source: 2212060-01

Prepared: 12/06/22 Analyzed: 12/07/22

Boron 4.34 0.0100 mg/L 5.00 0.0849 85.2 75-125

**Matrix Spike Dup (BFL0144-MSD1)**

Source: 2212060-01

Prepared: 12/06/22 Analyzed: 12/07/22

Boron 5.49 0.0100 mg/L 5.00 0.0849 108 75-125 23.4 25

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Project: Noble - Clyncke State B36-25, Baker State B36-11,

Project Number: [none]  
 Project Manager: Paul Henchan

**Reported:**  
 12/12/22 13:59

**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 BFL0119 - General Preparation**

**Blank (BFL0119-BLK1)**

Prepared: 12/05/22 Analyzed: 12/07/22

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

**LCS (BFL0119-BS1)**

Prepared: 12/05/22 Analyzed: 12/07/22

Calcium	3.95	0.0500	mg/L wet	5.00	79.0	70-130				
Magnesium	4.10	0.0500	"	5.00	82.0	70-130				
Sodium	3.91	0.0500	"	5.00	78.2	70-130				

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Project: Noble - Clyncke State B36-25, Baker State B36-11,

Project Number: [none]  
 Project Manager: Paul Henchan

**Reported:**  
 12/12/22 13:59

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

**Summit Scientific**

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

**Batch BFL0124 - General Preparation**

**Duplicate (BFL0124-DUP1)**

Source: 2212055-01

Prepared: 12/05/22 Analyzed: 12/06/22

% Solids	91.5		%		89.8			1.90	20	
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 Wellington CO, 80549

Project: Noble - Clyncke State B36-25, Baker State B36-11,

Project Number: [none]  
 Project Manager: Paul Henchan

**Reported:**  
 12/12/22 13:59

**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 BFL0147 - General Preparation**

**Blank (BFL0147-BLK1)**

Prepared & Analyzed: 12/06/22

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BFL0147-BS1)**

Prepared & Analyzed: 12/06/22

Specific Conductance (EC) 0.144 0.0100 mmhos/cm 0.150 96.0 95-105

**Duplicate (BFL0147-DUP1)**

Source: 2212056-01

Prepared & Analyzed: 12/06/22

Specific Conductance (EC) 0.359 0.0100 mmhos/cm 0.358 0.446 20

Summit Scientific

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 Wellington CO, 80549

Project: Noble - Clyncke State B36-25, Baker State B36-11,

Project Number: [none]  
 Project Manager: Paul Henchan

**Reported:**  
 12/12/22 13:59

**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 BFL0145 - General Preparation**

**LCS (BFL0145-BS1)**

Prepared & Analyzed: 12/06/22

pH 9.17 pH Units 9.18 99.9 95-105

**Duplicate (BFL0145-DUP1)**

Source: 2212055-01

Prepared & Analyzed: 12/06/22

pH 6.38 pH Units 6.16 3.51 20

Summit Scientific

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Project: Noble - Clyncke State B36-25, Baker State B36-11,

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
12/12/22 13:59

### Notes and Definitions

- QR-04 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
- QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
- 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