

TABLE 1
FEDERAL WILDHORSE 7-28 TANK BATTERY
SOIL ANALYTICAL RESULTS - ORGANICS SUMMARY TABLE

Sample ID	Date Sampled	Depth (feet bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	TPH ⁽²⁾ (mg/kg)
COGCC standards for soil (mg/kg) ⁽¹⁾			0.17	85	100	175	500
East @ 1.5'	1/7/2019	1.5	<0.0020	<0.0050	<0.0050	<0.010	6,500
North @ 1.5'	1/7/2019	1.5	<0.0020	<0.0050	<0.0050	<0.010	120
West @ 1.5'	1/7/2019	1.5	<0.0020	<0.0050	<0.0050	<0.010	5,100
South @ 1.5'	1/7/2019	1.5	<0.0020	<0.0050	<0.0050	<0.010	870
Base @ 3.5'	1/7/2019	3.5	0.071	<0.0050	0.025	0.33	124
East @ 12'	4/25/2019	12.0	<0.0020	<0.0050	<0.0050	<0.010	<50
North @ 12'	4/25/2019	12.0	<0.0020	<0.0050	<0.0050	<0.010	<50
West @ 12'	4/25/2019	12.0	<0.0020	<0.0050	<0.0050	<0.010	<50
South @ 12'	4/25/2019	12.0	<0.0020	<0.0050	<0.0050	<0.010	<50
Base @ 14'	4/25/2019	14.0	<0.0020	<0.0050	<0.0050	<0.010	1.5

Notes:

1. Standards for soil are taken from 2 CCR 404-1, Table 910-1, effective May 1, 2018.

2. TPH - Total volatile and extractable petroleum hydrocarbons. Value calculated by adding GRO and DRO concentrations.

COGCC = Colorado Oil and Gas Conservation Commission

(<) = Analytical result is less than the indicated laboratory reporting limit.

GRO = Total volatile petroleum hydrocarbons - gasoline range organics

DRO = Total extractable petroleum hydrocarbons - diesel range organics

mg/kg = Milligrams per kilogram

bgs = Below ground surface

Bold values indicate an exceedance of the COGCC Table 910-1 soil standards for the Site.

TABLE 2
FOUNDATION ENERGY - FEDERAL WILDHORSE 7-28
SOIL ANALYTICAL RESULTS - INORGANICS SUMMARY TABLE

Sample ID	Date Sampled	Depth (feet bgs)	Calcium (mg/kg)	Magnesium (mg/kg)	Sodium (mg/kg)	SAR (units)	EC (mmhos/cm)	pH (units)	% Solids
COGCC standards for soil Table 910-1⁽¹⁾						12	4 mmhos/cm or 2x BG	6-9	
East @ 1.5'	1/7/2019	1.5	425	96.3	249	2.84	1.45	8.01	91.7
North @ 1.5'	1/7/2019	1.5	5,120	506	852	3.04	1.43	8.67	77.3
West @ 1.5'	1/7/2019	1.5	4,020	392	791	3.19	2.05	8.08	80.4
South @ 1.5'	1/7/2019	1.5	2,300	298	299	1.56	0.994	8.04	68.7
Base @ 3.5'	1/7/2019	3.5	5,970	518	1,890	4.58	5.76	7.77	52.8
East @ 3'	4/25/2019	3.0	12,000	708	2,000	4.80	2.47	9.00	81.0
North @ 3'	4/25/2019	3.0	7,620	730	1,270	3.72	2.34	8.14	77.8
West @ 3'	4/25/2019	3.0	5,540	529	1,860	6.40	2.44	8.98	78.6
South @ 3'	4/25/2019	3.0	2,650	413	1,120	5.34	2.41	8.53	80.0

Notes:

1) Standards for Soil are taken from COGCC Table 910-1

mmhos/cm - Millimhos per centimeter

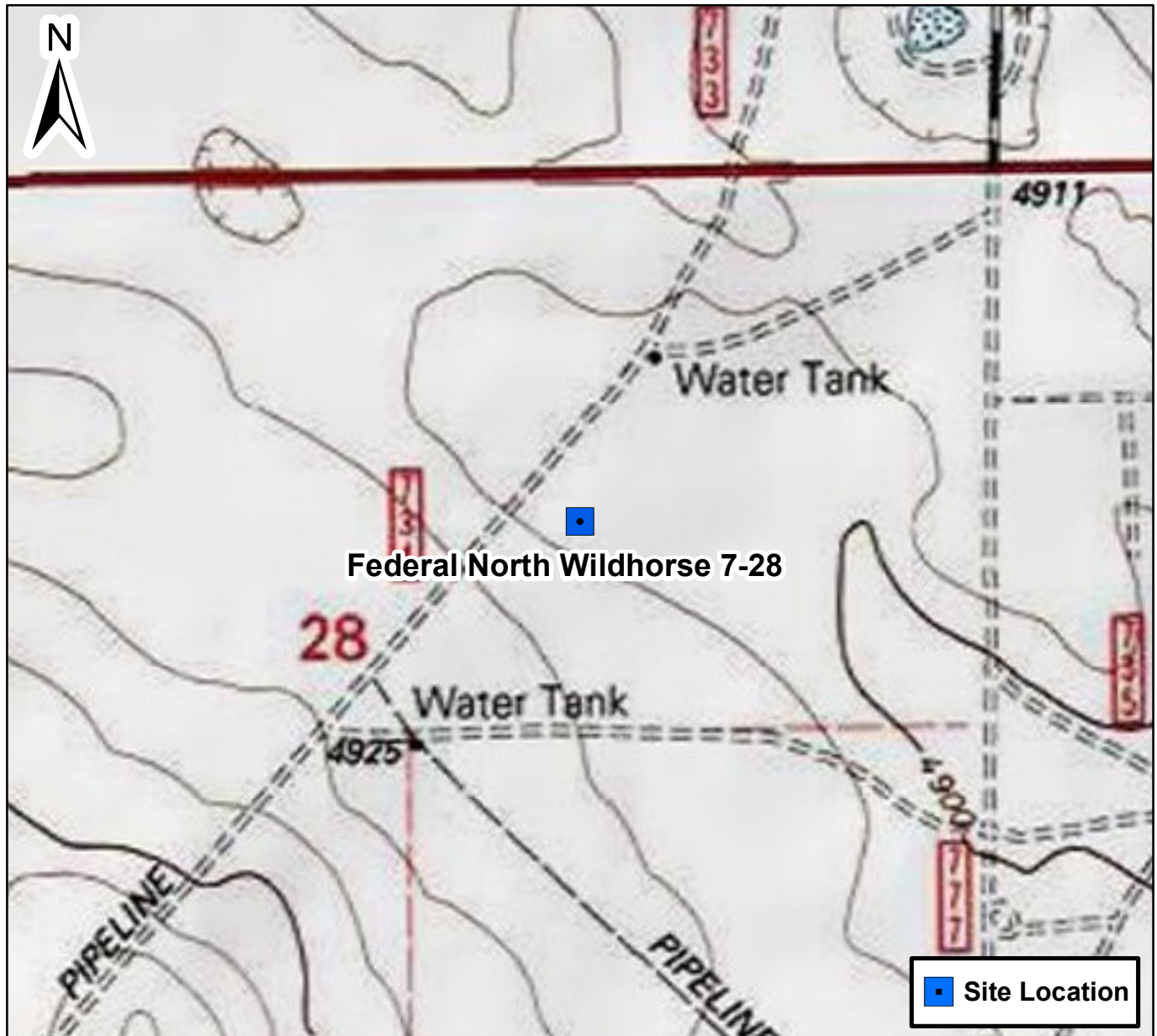
mg/kg - Milligrams per kilogram.

SAR - Sodium adsorption rate

EC - Electrical conductivity

BG - Background

Bold values indicate an exceedance of the COGCC Table 910-1 soil standards for the Site.

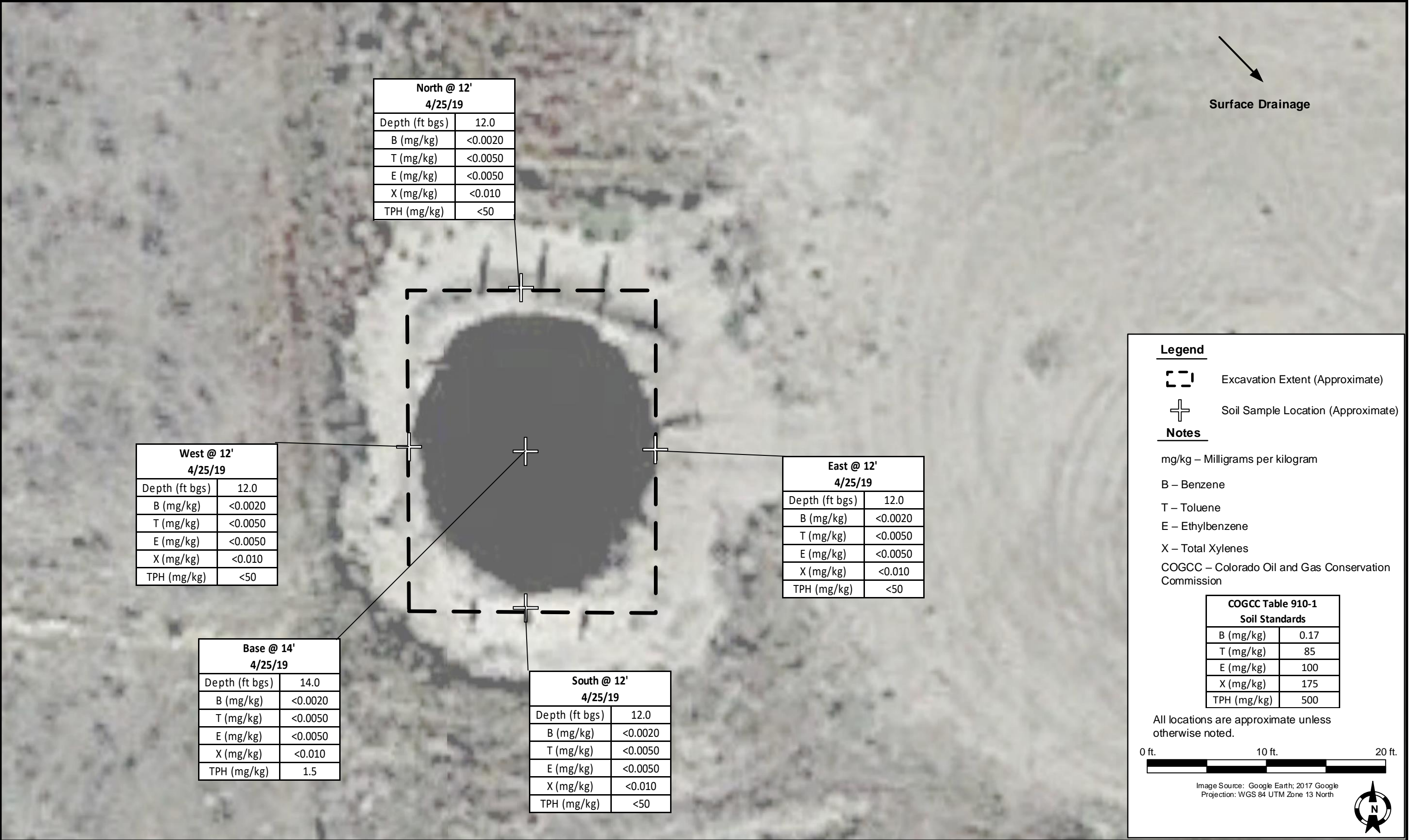


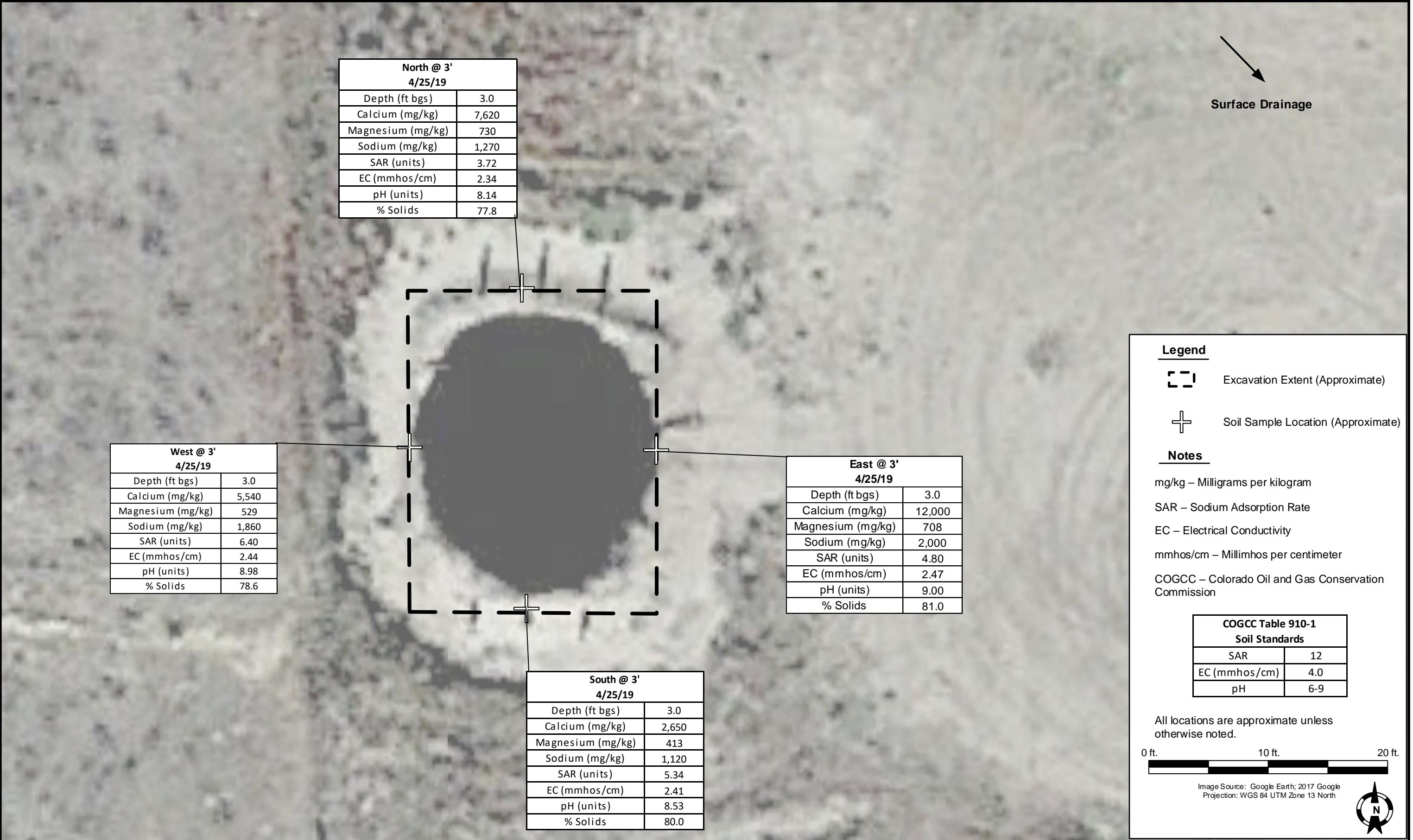
0 750 1,500 Feet

Figure 1

Site Location Map
Federal North Wildhorse 7-28
SWNE Sec. 28-T8N-R60W
Weld County, Colorado







DATE:	May 3, 2019
DESIGNED BY:	B. Everett
DRAWN BY:	B. Everett



TASMAN
GEOSCIENCES

Tasman Geosciences, Inc.
6899 Pecos Street – Unit C
Denver, CO 80221

Foundation Energy
Federal Wildhorse 7-28 Tank Battery
SWNE, Section 28, Township 8 North, Range 60 West
Weld County, Colorado

SOIL ANALYTICAL RESULTS
MAP - INORGANICS
(4/25/19)

FIGURE
3

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

January 15, 2019

Alyssa Beard

Foundation Energy

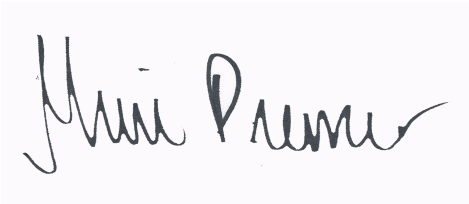
1801 Broadway, Suite 1500

Denver, CO 80202

RE: Federal Wildhorse 7-28

Enclosed are the results of analyses for samples received by Summit Scientific on 01/07/19 16:50. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink on a light blue background. The signature is written in a cursive style and reads "Muri Premier".

Muri Premier For Ben Shrewsbury

Laboratory Manager



Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal Wildhorse 7-28

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
01/15/19 12:57

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EAST@1.5'	1901080-01	Soil	01/07/19 11:00	01/07/19 16:50
NORTH@1.5'	1901080-02	Soil	01/07/19 11:10	01/07/19 16:50
WEST@1.5'	1901080-03	Soil	01/07/19 11:20	01/07/19 16:50
SOUTH@1.5'	1901080-04	Soil	01/07/19 11:30	01/07/19 16:50
BASE@3.5'	1901080-05	Soil	01/07/19 11:45	01/07/19 16:50

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

Page 1 of 1

Project Manager:	Alyssa Beard
E-Mail:	abeard@foundationenergy.com
Project Name:	FEDERAL WILPHORSE 7-28
Project Number:	

www.s2scientific.com

Sample Receipt Checklist

S2 Work Order 1901080

Client: FOUNDATION

Client Project ID: FEDERAL WILDHORSE 7-28

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

Matrix (check all that apply): Air ☒ Soil/Solid Water Other: _____
(Describe)

Temp (°C)	<u>5.4</u>
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Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	<input checked="" type="checkbox"/>			
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
If custody seals are present, are they intact ⁽¹⁾ ?			<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?			<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect			<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.			<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?			<input checked="" type="checkbox"/>	

Additional Comments (if any):

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

Muri
Custodian Printed Name or Initials

[Signature]
Signature of Custodian

1-7-19 17:10
Date/Time



Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal Wildhorse 7-28

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
01/15/19 12:57

EAST@1.5'
1901080-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/07/19 11:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1901157	01/14/19	01/14/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **01/07/19 11:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		116 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.3 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		111 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/07/19 11:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	6500	50	mg/kg	1	1901156	01/14/19	01/14/19	EPA 8015M	

Date Sampled: **01/07/19 11:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		96.4 %	30-150		"	"	"	"	

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis

Date Sampled: **01/07/19 11:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	425	10.9	mg/kg dry	1	1901150	01/11/19	01/11/19	EPA 6020B	
Magnesium	96.3	5.45	"	"	"	"	"	"	

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.



Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal Wildhorse 7-28

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
01/15/19 12:57

EAST@1.5'
1901080-01 (Soil)

Summit Scientific

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis

Sodium	249	5.45	mg/kg dry	1	1901150	01/11/19	01/11/19	EPA 6020B
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Calculated Analysis

Date Sampled: **01/07/19 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.84	0.100	units	1	1901160	01/14/19	01/14/19	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/07/19 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	91.7		%	1	1901133	01/11/19	01/11/19	Calculation	
pH	8.01		pH Units	"	1901135	01/11/19	01/11/19	EPA 9045D	

Specific Conductance by EPA Method 120.1

Date Sampled: **01/07/19 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.45	0.0100	mmhos/cm	1	1901134	01/11/19	01/11/19	EPA 120.1	

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Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal Wildhorse 7-28

Project Number: [none]

Project Manager: Alyssa Beard

Reported:
01/15/19 12:57

NORTH@1.5'
1901080-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/07/19 11:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1901157	01/14/19	01/14/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **01/07/19 11:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		110 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		95.7 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		107 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/07/19 11:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	120	50	mg/kg	1	1901156	01/14/19	01/15/19	EPA 8015M	

Date Sampled: **01/07/19 11:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		96.3 %	30-150		"	"	"	"	

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis

Date Sampled: **01/07/19 11:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	5130	12.9	mg/kg dry	1	1901150	01/11/19	01/11/19	EPA 6020B	
Magnesium	506	6.47	"	"	"	"	"	"	
Sodium	852	6.47	"	"	"	"	"	"	

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Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal Wildhorse 7-28

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
01/15/19 12:57

NORTH@1.5'
1901080-02 (Soil)

Summit Scientific

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis

Calculated Analysis

Date Sampled: **01/07/19 11:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	3.04	0.100	units	1	1901160	01/14/19	01/14/19	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/07/19 11:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	77.3		%	1	1901133	01/11/19	01/11/19	Calculation	
pH	8.67		pH Units	"	1901135	01/11/19	01/11/19	EPA 9045D	

Specific Conductance by EPA Method 120.1

Date Sampled: **01/07/19 11:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.43	0.0100	mmhos/cm	1	1901134	01/11/19	01/11/19	EPA 120.1	

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Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal Wildhorse 7-28

Project Number: [none]

Project Manager: Alyssa Beard

Reported:
01/15/19 12:57

WEST@1.5'
1901080-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/07/19 11:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	1901157	01/14/19	01/14/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **01/07/19 11:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		112 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		94.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/07/19 11:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	5100	50	mg/kg	1	1901156	01/14/19	01/14/19	EPA 8015M	

Date Sampled: **01/07/19 11:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		103 %	30-150		"	"	"	"	

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis

Date Sampled: **01/07/19 11:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	4020	12.4	mg/kg dry	1	1901150	01/11/19	01/11/19	EPA 6020B	
Magnesium	392	6.22	"	"	"	"	"	"	
Sodium	791	6.22	"	"	"	"	"	"	

Summit Scientific

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Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal Wildhorse 7-28

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
01/15/19 12:57

WEST@1.5'
1901080-03 (Soil)

Summit Scientific

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis

Calculated Analysis

Date Sampled: **01/07/19 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	3.19	0.100	units	1	1901160	01/14/19	01/14/19	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/07/19 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	80.4		%	1	1901133	01/11/19	01/11/19	Calculation	
pH	8.08		pH Units	"	1901135	01/11/19	01/11/19	EPA 9045D	

Specific Conductance by EPA Method 120.1

Date Sampled: **01/07/19 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.05	0.0100	mmhos/cm	1	1901134	01/11/19	01/11/19	EPA 120.1	

Summit Scientific

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Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal Wildhorse 7-28

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
01/15/19 12:57

SOUTH@1.5'
1901080-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/07/19 11:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1901157	01/14/19	01/14/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **01/07/19 11:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		108 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/07/19 11:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	870	50	mg/kg	1	1901156	01/14/19	01/15/19	EPA 8015M	

Date Sampled: **01/07/19 11:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		105 %	30-150		"	"	"	"	

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis

Date Sampled: **01/07/19 11:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	2300	14.6	mg/kg dry	1	1901150	01/11/19	01/11/19	EPA 6020B	
Magnesium	298	7.28	"	"	"	"	"	"	
Sodium	299	7.28	"	"	"	"	"	"	

Summit Scientific

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Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal Wildhorse 7-28

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
01/15/19 12:57

SOUTH@1.5'
1901080-04 (Soil)

Summit Scientific

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis

Calculated Analysis

Date Sampled: **01/07/19 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.56	0.100	units	1	1901160	01/14/19	01/14/19	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/07/19 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	68.7		%	1	1901133	01/11/19	01/11/19	Calculation	
pH	8.04		pH Units	"	1901135	01/11/19	01/11/19	EPA 9045D	

Specific Conductance by EPA Method 120.1

Date Sampled: **01/07/19 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.994	0.0100	mmhos/cm	1	1901134	01/11/19	01/11/19	EPA 120.1	

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.



Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal Wildhorse 7-28

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
01/15/19 12:57

BASE@3.5'
1901080-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/07/19 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.071	0.0020	mg/kg	1	1901071	01/08/19	01/10/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.025	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.33	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	46	0.50	"	"	"	"	"	"	

Date Sampled: **01/07/19 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		204 %	23-173		"	"	"	"	S-02
Surrogate: Toluene-d8		74.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		224 %	21-167		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/07/19 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	78	50	mg/kg	1	1901072	01/08/19	01/09/19	EPA 8015M	

Date Sampled: **01/07/19 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		95.0 %	30-150		"	"	"	"	

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis

Date Sampled: **01/07/19 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	5970	18.9	mg/kg dry	1	1901080	01/08/19	01/08/19	EPA 6020B	
Magnesium	518	9.47	"	"	"	"	"	"	
Sodium	1890	9.47	"	"	"	"	"	"	

Summit Scientific

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Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal Wildhorse 7-28

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
01/15/19 12:57

BASE@3.5'
1901080-05 (Soil)

Summit Scientific

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis

Calculated Analysis

Date Sampled: **01/07/19 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	4.58	0.100	units	1	1901091	01/09/19	01/09/19	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/07/19 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	52.8		%	1	1901092	01/09/19	01/09/19	Calculation	
pH	7.77		pH Units	"	1901094	01/09/19	01/09/19	EPA 9045D	

Specific Conductance by EPA Method 120.1

Date Sampled: **01/07/19 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	5.76	0.0100	mmhos/cm	1	1901093	01/09/19	01/09/19	EPA 120.1	

Summit Scientific

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Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal Wildhorse 7-28

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
01/15/19 12:57

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 1901071 - EPA 5030 Soil MS

Blank (1901071-BLK1)

Prepared: 01/08/19 Analyzed: 01/10/19

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0389		"	0.0400		97.4	23-173			
Surrogate: Toluene-d8	0.0406		"	0.0400		101	20-170			
Surrogate: 4-Bromofluorobenzene	0.0398		"	0.0400		99.5	21-167			

LCS (1901071-BS1)

Prepared: 01/08/19 Analyzed: 01/10/19

Benzene	0.125	0.0020	mg/kg	0.100		125	70-130			
Toluene	0.122	0.0050	"	0.100		122	70-130			
Ethylbenzene	0.103	0.0050	"	0.100		103	70-130			
m,p-Xylene	0.242	0.010	"	0.200		121	70-130			
o-Xylene	0.115	0.0050	"	0.100		115	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0388		"	0.0400		96.9	23-173			
Surrogate: Toluene-d8	0.0416		"	0.0400		104	20-170			
Surrogate: 4-Bromofluorobenzene	0.0382		"	0.0400		95.5	21-167			

Matrix Spike (1901071-MS1)

Source: 1901074-01

Prepared: 01/08/19 Analyzed: 01/10/19

Benzene	0.112	0.0020	mg/kg	0.100	ND	112	70-130			
Toluene	0.109	0.0050	"	0.100	ND	109	70-130			
Ethylbenzene	0.119	0.0050	"	0.100	ND	119	70-130			
m,p-Xylene	0.214	0.010	"	0.200	ND	107	70-130			
o-Xylene	0.106	0.0050	"	0.100	ND	106	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0378		"	0.0400		94.4	23-173			
Surrogate: Toluene-d8	0.0398		"	0.0400		99.6	20-170			
Surrogate: 4-Bromofluorobenzene	0.0398		"	0.0400		99.4	21-167			

Summit Scientific

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Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal Wildhorse 7-28

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
01/15/19 12:57

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

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

Batch 1901071 - EPA 5030 Soil MS

Matrix Spike Dup (1901071-MSD1)			Source: 1901074-01		Prepared: 01/08/19 Analyzed: 01/10/19					
Benzene	0.0984	0.0020	mg/kg	0.100	ND	98.4	70-130	13.2	30	
Toluene	0.0942	0.0050	"	0.100	ND	94.2	70-130	14.9	30	
Ethylbenzene	0.0998	0.0050	"	0.100	ND	99.8	70-130	17.7	30	
m,p-Xylene	0.180	0.010	"	0.200	ND	90.1	70-130	17.3	30	
o-Xylene	0.0875	0.0050	"	0.100	ND	87.5	70-130	18.9	30	
Surrogate: 1,2-Dichloroethane-d4	0.0368		"	0.0400		92.0	23-173			
Surrogate: Toluene-d8	0.0399		"	0.0400		99.7	20-170			
Surrogate: 4-Bromofluorobenzene	0.0398		"	0.0400		99.6	21-167			

Batch 1901157 - EPA 5030 Soil MS

Blank (1901157-BLK1)			Prepared & Analyzed: 01/14/19							
Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0391		"	0.0400		97.8	23-173			
Surrogate: Toluene-d8	0.0379		"	0.0400		94.7	20-170			
Surrogate: 4-Bromofluorobenzene	0.0438		"	0.0400		110	21-167			

LCS (1901157-BS1)			Prepared & Analyzed: 01/14/19							
Benzene	0.129	0.0020	mg/kg	0.100		129	70-130			
Toluene	0.124	0.0050	"	0.100		124	70-130			
Ethylbenzene	0.107	0.0050	"	0.100		107	70-130			
m,p-Xylene	0.253	0.010	"	0.200		126	70-130			
o-Xylene	0.119	0.0050	"	0.100		119	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0383		"	0.0400		95.8	23-173			
Surrogate: Toluene-d8	0.0392		"	0.0400		98.1	20-170			
Surrogate: 4-Bromofluorobenzene	0.0388		"	0.0400		96.9	21-167			

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.



Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal Wildhorse 7-28

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
01/15/19 12:57

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

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

Batch 1901157 - EPA 5030 Soil MS

Matrix Spike (1901157-MS1)		Source: 1901080-01			Prepared & Analyzed: 01/14/19					
Benzene	0.0923	0.0020	mg/kg	0.100	ND	92.3	70-130			
Toluene	0.0775	0.0050	"	0.100	ND	77.5	70-130			
Ethylbenzene	0.0746	0.0050	"	0.100	ND	74.6	70-130			
m,p-Xylene	0.229	0.010	"	0.200	ND	114	70-130			
o-Xylene	0.0947	0.0050	"	0.100	ND	94.7	70-130			
Surrogate: 1,2-Dichloroethane-d4		0.0438	"	0.0400		110	23-173			
Surrogate: Toluene-d8		0.0400	"	0.0400		100	20-170			
Surrogate: 4-Bromofluorobenzene		0.0398	"	0.0400		99.4	21-167			
Matrix Spike Dup (1901157-MSD1)		Source: 1901080-01			Prepared & Analyzed: 01/14/19					
Benzene	0.0842	0.0020	mg/kg	0.100	ND	84.2	70-130	9.18	30	
Toluene	0.0975	0.0050	"	0.100	ND	97.5	70-130	22.9	30	
Ethylbenzene	0.0957	0.0050	"	0.100	ND	95.7	70-130	24.7	30	
m,p-Xylene	0.216	0.010	"	0.200	ND	108	70-130	5.88	30	
o-Xylene	0.0876	0.0050	"	0.100	ND	87.6	70-130	7.87	30	
Surrogate: 1,2-Dichloroethane-d4		0.0419	"	0.0400		105	23-173			
Surrogate: Toluene-d8		0.0389	"	0.0400		97.4	20-170			
Surrogate: 4-Bromofluorobenzene		0.0406	"	0.0400		102	21-167			

Summit Scientific

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Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal Wildhorse 7-28

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
01/15/19 12:57

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 1901072 - EPA 3550A

Blank (1901072-BLK1)

Prepared: 01/08/19 Analyzed: 01/09/19

C10-C28 (DRO) ND 50 mg/kg

LCS (1901072-BS1)

Prepared: 01/08/19 Analyzed: 01/09/19

C10-C28 (DRO) 557 50 mg/kg 500 111 70-130

Matrix Spike (1901072-MS1)

Source: 1901074-01

Prepared: 01/08/19 Analyzed: 01/09/19

C10-C28 (DRO) 569 50 mg/kg 500 11.0 112 70-130

Matrix Spike Dup (1901072-MSD1)

Source: 1901074-01

Prepared: 01/08/19 Analyzed: 01/09/19

C10-C28 (DRO) 554 50 mg/kg 500 11.0 109 70-130 2.64 20

Batch 1901156 - EPA 3550A

Blank (1901156-BLK1)

Prepared & Analyzed: 01/14/19

C10-C28 (DRO) ND 50 mg/kg

LCS (1901156-BS1)

Prepared & Analyzed: 01/14/19

C10-C28 (DRO) 596 50 mg/kg 500 119 70-130

Matrix Spike (1901156-MS1)

Source: 1901080-01

Prepared & Analyzed: 01/14/19

C10-C28 (DRO) 4460 50 mg/kg 500 6470 NR 70-130 QM-07

Matrix Spike Dup (1901156-MSD1)

Source: 1901080-01

Prepared & Analyzed: 01/14/19

C10-C28 (DRO) 6070 50 mg/kg 500 6470 NR 70-130 30.7 20 QM-07

Summit Scientific

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Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal Wildhorse 7-28

Project Number: [none]

Project Manager: Alyssa Beard

Reported:
01/15/19 12:57

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis - Quality Control

Summit Scientific

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

Batch 1901080 - General Preparation

Blank (1901080-BLK1)

Prepared & Analyzed: 01/08/19

Calcium	ND	10.0	mg/kg wet
Magnesium	ND	5.00	"
Sodium	ND	5.00	"

LCS (1901080-BS1)

Prepared & Analyzed: 01/08/19

Calcium	835	10.0	mg/kg wet	800	104	70-130
Magnesium	875	5.00	"	800	109	70-130
Sodium	862	5.00	"	800	108	70-130

Duplicate (1901080-DUP1)

Source: 1901046-01

Prepared & Analyzed: 01/08/19

Calcium	4440	11.3	mg/kg dry	4490	1.23	20
Magnesium	551	5.64	"	568	3.07	20
Sodium	32.4	5.64	"	34.9	7.52	20

Matrix Spike (1901080-MS1)

Source: 1901046-01

Prepared & Analyzed: 01/08/19

Calcium	5460	11.3	mg/kg dry	903	4490	107	70-130
Magnesium	1470	5.64	"	903	568	100	70-130
Sodium	937	5.64	"	903	34.9	99.9	70-130

Matrix Spike Dup (1901080-MSD1)

Source: 1901046-01

Prepared & Analyzed: 01/08/19

Calcium	5450	11.3	mg/kg dry	903	4490	106	70-130	0.183	25
Magnesium	1520	5.64	"	903	568	105	70-130	3.04	25
Sodium	974	5.64	"	903	34.9	104	70-130	3.96	25

Batch 1901150 - General Preparation

Blank (1901150-BLK1)

Prepared & Analyzed: 01/11/19

Calcium	ND	10.0	mg/kg wet
Magnesium	ND	5.00	"
Sodium	ND	5.00	"

Summit Scientific

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Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal Wildhorse 7-28

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
01/15/19 12:57

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis - Quality Control

Summit Scientific

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

Batch 1901150 - General Preparation

LCS (1901150-BS1)

Prepared & Analyzed: 01/11/19

Calcium	540	10.0	mg/kg wet	500		108	70-130
Magnesium	549	5.00	"	500		110	70-130
Sodium	554	5.00	"	500		111	70-130

Duplicate (1901150-DUP1)

Source: 1901080-01

Prepared & Analyzed: 01/11/19

Calcium	430	10.9	mg/kg dry		425			1.18	20
Magnesium	100	5.45	"		96.3			4.01	20
Sodium	237	5.45	"		249			4.78	20

Matrix Spike (1901150-MS1)

Source: 1901080-01

Prepared & Analyzed: 01/11/19

Calcium	967	10.9	mg/kg dry	545	425	99.5	70-130
Magnesium	694	5.45	"	545	96.3	110	70-130
Sodium	834	5.45	"	545	249	107	70-130

Matrix Spike Dup (1901150-MSD1)

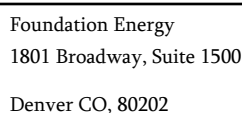
Source: 1901080-01

Prepared & Analyzed: 01/11/19

Calcium	912	10.9	mg/kg dry	545	425	89.4	70-130	5.84	25
Magnesium	685	5.45	"	545	96.3	108	70-130	1.41	25
Sodium	822	5.45	"	545	249	105	70-130	1.49	25

Summit Scientific

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Project Number: [none]
Project Manager: Alyssa Beard

Reported:
01/15/19 12:57

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

Duplicate (1901092-DUP1)	Source: 1901046-01	Prepared & Analyzed: 01/09/19		
% Solids	88.3	%	88.6	0.339 20

LCS (1901094-BS1)		Prepared & Analyzed: 01/09/19	
pH	9.25	pH Units	9.23
			100
			95-105

pH	8.21	pH Units	8.23	0.243	20
----	------	----------	------	-------	----

Duplicate (1901133-DUP1)	Source: 1901119-01	Prepared & Analyzed: 01/11/19		
% Solids	91.1	%	90.7	0.436 20

LCS (1901135-BS1)		Prepared & Analyzed: 01/11/19	
pH	9.26	pH Units	9.23
			100
			95-105

pH	8.05	pH Units	8.01	0.498	20
----	------	----------	------	-------	----

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.

Mini Primer



Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal Wildhorse 7-28

Project Number: [none]

Project Manager: Alyssa Beard

Reported:
01/15/19 12:57

Specific Conductance by EPA Method 120.1 - Quality Control
Summit Scientific

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

Batch 1901093 - General Preparation

Blank (1901093-BLK1)

Prepared & Analyzed: 01/09/19

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (1901093-BS1)

Prepared & Analyzed: 01/09/19

Specific Conductance (EC) 0.794 0.0100 mmhos/cm 0.750 106 90-110

Duplicate (1901093-DUP1)

Source: 1901051-01

Prepared & Analyzed: 01/09/19

Specific Conductance (EC) 5.16 0.0100 mmhos/cm 5.14 0.291 20

Batch 1901134 - General Preparation

Blank (1901134-BLK1)

Prepared & Analyzed: 01/11/19

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (1901134-BS1)

Prepared & Analyzed: 01/11/19

Specific Conductance (EC) 0.782 0.0100 mmhos/cm 0.750 104 90-110

Duplicate (1901134-DUP1)

Source: 1901080-01

Prepared & Analyzed: 01/11/19

Specific Conductance (EC) 1.44 0.0100 mmhos/cm 1.45 0.416 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.



Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal Wildhorse 7-28

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
01/15/19 12:57

Notes and Definitions

S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.

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

April 26, 2019

Alyssa Beard

Foundation Energy

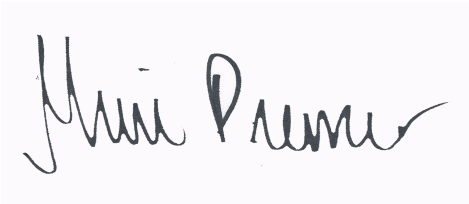
1801 Broadway, Suite 1500

Denver, CO 80202

RE: Federal North Wildhorse 7-28

Enclosed are the results of analyses for samples received by Summit Scientific on 04/25/19 18:10. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink on a light blue background. The signature is cursive and reads "Muri Premier".

Muri Premier For Ben Shrewsbury

Laboratory Manager



Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal North Wildhorse 7-28

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
04/26/19 11:50

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Base@14'	1904347-01	Soil	04/25/19 09:25	04/25/19 18:10
North@12'	1904347-02	Soil	04/25/19 10:20	04/25/19 18:10
West@12'	1904347-03	Soil	04/25/19 10:35	04/25/19 18:10
South@12'	1904347-04	Soil	04/25/19 11:45	04/25/19 18:10
East@12'	1904347-05	Soil	04/25/19 12:00	04/25/19 18:10

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

1904347

741 Corporate Circle Suite I ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-374-5933 Fax

Page 1 of 1

Client: Foundation Energy
Address: _____
City/State/Zip: _____
Phone: _____ Fax: _____
Sampler Name: Kevin Chritz

Project Manager: Alyssa Beard
E-Mail: abeard@foundationenergy.com
Project Name: Federal North Wildhorse 7-28
Project Number: _____

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix				Analyze For:										Special Instructions			
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	GBTEX (8260)	TPH - DRO												
Base @ 14'	4/25/2019	9:25	1			X			X				X	X											
North @ 12'	4/25/2019	10:20	1			X			X				X	X											
West @ 12'	4/25/2019	10:35	1			X			X				X	X											
South @ 12'	4/25/2019	11:45	1			X			X				X	X											
East @ 12'	4/25/2019	12:00	1			X			X				X	X											
Relinquished by: <u>[Signature]</u> Date/Time: <u>4/25/19 14:30</u>				Received by: <u>Tasman Box</u> Date/Time: <u>4/25/19 14:30</u>				Turn Around Time (Check)										Sample Integrity: <u>4.2</u>							
Relinquished by: <u>Tasman Box</u> Date/Time: <u>4/25/19 1810</u>				Received by: <u>[Signature]</u> Date/Time: <u>4.25.19 1810</u>				Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input type="checkbox"/> 48 Hours <input type="checkbox"/>																	
Relinquished by: _____ Date/Time: _____				Received in Lab by: _____ Date/Time: _____				Temperature Upon Receipt: <u>4.2</u> Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																	

Sample Receipt Checklist

S2 Work Order 1904347

Client: Foundation Energy Client Project ID: Federal North Wildhorse 7-28

Shipped Via: ☐ H.D. ☐ P.U. ☐ FedEx ☐ UPS ☐ USPS ☒ Other P.U. Airbill #: _____

Matrix (check all that apply): ☐ Air ☒ Soil/Solid ☐ Water ☐ Other: _____
(Describe)

Temp (°C)	<u>4.2</u>
-----------	------------

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>RUSH</u>
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

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

WP
Custodian Printed Name or Initials

[Signature]
Signature of Custodian

4.25.19 1850
Date/Time



Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal North Wildhorse 7-28

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
04/26/19 11:50

Base@14'
1904347-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/25/19 09:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	1904414	04/25/19	04/26/19	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	1.5	0.50		"	"	"	"	"	"	

Date Sampled: **04/25/19 09:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		125 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		97.4 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.7 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/25/19 09:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	1904413	04/25/19	04/26/19	EPA 8015M	

Date Sampled: **04/25/19 09:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		107 %		30-150		"	"	"	"	

Summit Scientific

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



Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal North Wildhorse 7-28

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
04/26/19 11:50

North@12'
1904347-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/25/19 10:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	1904414	04/25/19	04/26/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **04/25/19 10:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		133 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/25/19 10:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	1904413	04/25/19	04/26/19	EPA 8015M	

Date Sampled: **04/25/19 10:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		111 %	30-150		"	"	"	"	

Summit Scientific

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



Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal North Wildhorse 7-28

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
04/26/19 11:50

West@12'
1904347-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/25/19 10:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	1904414	04/25/19	04/26/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **04/25/19 10:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		124 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.3 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.8 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/25/19 10:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	1904413	04/25/19	04/26/19	EPA 8015M	

Date Sampled: **04/25/19 10:35**

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

Summit Scientific

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



Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal North Wildhorse 7-28

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
04/26/19 11:50

South@12'
1904347-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/25/19 11:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	1904414	04/25/19	04/26/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **04/25/19 11:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		124 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/25/19 11:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	1904413	04/25/19	04/26/19	EPA 8015M	

Date Sampled: **04/25/19 11:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		103 %	30-150		"	"	"	"	

Summit Scientific

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



Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal North Wildhorse 7-28

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
04/26/19 11:50

East@12'
1904347-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/25/19 12:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	1904414	04/25/19	04/26/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **04/25/19 12:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		137 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/25/19 12:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	1904413	04/25/19	04/26/19	EPA 8015M	

Date Sampled: **04/25/19 12:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		107 %	30-150		"	"	"	"	

Summit Scientific

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



Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal North Wildhorse 7-28

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
04/26/19 11:50

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch 1904414 - EPA 5030 Soil MS

Blank (1904414-BLK1)

Prepared: 04/25/19 Analyzed: 04/26/19

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0478		"	0.0400		120	23-173			
Surrogate: Toluene-d8	0.0387		"	0.0400		96.7	20-170			
Surrogate: 4-Bromofluorobenzene	0.0407		"	0.0400		102	21-167			

LCS (1904414-BS1)

Prepared: 04/25/19 Analyzed: 04/26/19

Benzene	0.0805	0.0020	mg/kg	0.100		80.5	70-130			
Toluene	0.0919	0.0050	"	0.100		91.9	70-130			
Ethylbenzene	0.105	0.0050	"	0.100		105	70-130			
m,p-Xylene	0.200	0.010	"	0.200		99.9	70-130			
o-Xylene	0.0974	0.0050	"	0.100		97.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0496		"	0.0400		124	23-173			
Surrogate: Toluene-d8	0.0393		"	0.0400		98.2	20-170			
Surrogate: 4-Bromofluorobenzene	0.0403		"	0.0400		101	21-167			

Matrix Spike (1904414-MS1)

Source: 1904343-02

Prepared: 04/25/19 Analyzed: 04/26/19

Benzene	0.0798	0.0020	mg/kg	0.100	ND	79.8	70-130			
Toluene	0.0920	0.0050	"	0.100	ND	92.0	70-130			
Ethylbenzene	0.106	0.0050	"	0.100	ND	106	70-130			
m,p-Xylene	0.200	0.010	"	0.200	ND	99.8	70-130			
o-Xylene	0.0965	0.0050	"	0.100	ND	96.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0481		"	0.0400		120	23-173			
Surrogate: Toluene-d8	0.0391		"	0.0400		97.6	20-170			
Surrogate: 4-Bromofluorobenzene	0.0400		"	0.0400		100	21-167			

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.



Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal North Wildhorse 7-28

Project Number: [none]

Project Manager: Alyssa Beard

Reported:

04/26/19 11:50

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch 1904414 - EPA 5030 Soil MS

Matrix Spike Dup (1904414-MSD1)

Source: 1904343-02

Prepared: 04/25/19 Analyzed: 04/26/19

Benzene	0.0784	0.0020	mg/kg	0.100	ND	78.4	70-130	1.75	30	
Toluene	0.0916	0.0050	"	0.100	ND	91.6	70-130	0.392	30	
Ethylbenzene	0.107	0.0050	"	0.100	ND	107	70-130	1.16	30	
m,p-Xylene	0.203	0.010	"	0.200	ND	101	70-130	1.60	30	
o-Xylene	0.0983	0.0050	"	0.100	ND	98.3	70-130	1.85	30	
Surrogate: 1,2-Dichloroethane-d4	0.0470		"	0.0400		118	23-173			
Surrogate: Toluene-d8	0.0384		"	0.0400		95.9	20-170			
Surrogate: 4-Bromofluorobenzene	0.0406		"	0.0400		102	21-167			

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.



Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal North Wildhorse 7-28

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
04/26/19 11:50

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 1904413 - EPA 3550A

Blank (1904413-BLK1)

Prepared & Analyzed: 04/25/19

C10-C28 (DRO) ND 50 mg/kg

LCS (1904413-BS1)

Prepared & Analyzed: 04/25/19

C10-C28 (DRO) 525 50 mg/kg 500 105 70-130

Matrix Spike (1904413-MS1)

Source: 1904343-02

Prepared & Analyzed: 04/25/19

C10-C28 (DRO) 567 50 mg/kg 500 39.9 105 70-130

Matrix Spike Dup (1904413-MSD1)

Source: 1904343-02

Prepared & Analyzed: 04/25/19

C10-C28 (DRO) 551 50 mg/kg 500 39.9 102 70-130 2.81 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.



Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal North Wildhorse 7-28

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
04/26/19 11:50

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

April 30, 2019

Alyssa Beard

Foundation Energy

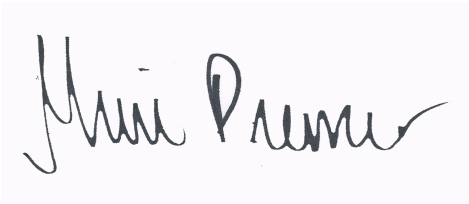
1801 Broadway, Suite 1500

Denver, CO 80202

RE: Federal North Wildhorse 7-28

Enclosed are the results of analyses for samples received by Summit Scientific on 04/25/19 18:10. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink on a light blue background. The signature is cursive and reads "Muri Premier".

Muri Premier For Ben Shrewsbury

Laboratory Manager



Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal North Wildhorse 7-28

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
04/30/19 12:55

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
North@3'	1904356-01	Soil	04/25/19 10:15	04/25/19 18:10
West@3'	1904356-02	Soil	04/25/19 10:30	04/25/19 18:10
South@3'	1904356-03	Soil	04/25/19 11:40	04/25/19 18:10
East@3'	1904356-04	Soil	04/25/19 11:50	04/25/19 18:10

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

1904356

741 Corporate Circle Suite I ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-374-5933 Fax

Page 1 of 1

Client: Foundation Energy
Address: _____
City/State/Zip: _____
Phone: _____ Fax: _____
Sampler Name: Kevin Chritz

Project Manager: Alyssa Beard
E-Mail: abeard@foundationenergy.com
Project Name: Federal North Wildhorse 7-28
Project Number: _____

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix				Analyze For:										Special Instructions			
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	EC/pH	SAR												
North @ 3'	4/25/2019	10:15	1			X		X				X	X												
West @ 3'	4/25/2019	10:30	1			X		X				X	X												
South @ 3'	4/25/2019	11:40	1			X		X				X	X												
East @ 3'	4/25/2019	11:50	1			X		X				X	X												
Relinquished by: <u>[Signature]</u> Date/Time: <u>4/25/19 14:30</u>				Received by: <u>Tasman Box</u> Date/Time: <u>4/25/19 14:30</u>				Turn Around Time (Check)										Sample Integrity:							
Relinquished by: <u>Tasman Box 4/25/19</u> Date/Time: <u>4.25.19 1810</u>				Received by: <u>[Signature]</u> Date/Time: <u>4.25.19 1810</u>				Same Day <input type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input checked="" type="checkbox"/> 48 Hours <input type="checkbox"/>																	
Relinquished by: _____ Date/Time: _____				Received in Lab by: _____ Date/Time: _____				Temperature Upon Receipt: <u>4.2</u> Intact: Yes <input type="checkbox"/> No <input type="checkbox"/>																	

Sample Receipt Checklist

S2 Work Order 1904356

Client: Foundation Energy Client Project ID: Federal North Wildhorse 7-28

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

Matrix (check all that apply): ☐ Air ☒ Soil/Solid ☐ Water ☐ Other: _____
(Describe)

Temp (°C)	<u>4.2</u>
-----------	------------

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

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

CP
Custodian Printed Name or Initials

[Signature]
Signature of Custodian

4.28.19 1840
Date/Time



Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal North Wildhorse 7-28

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
04/30/19 12:55

North@3'
1904356-01 (Soil)

Summit Scientific

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis

Date Sampled: **04/25/19 10:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	7620	12.9	mg/kg dry	1	1904430	04/26/19	04/26/19	EPA 6020B	
Magnesium	730	6.43	"	"	"	"	"	"	
Sodium	1270	6.43	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/25/19 10:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	3.72	0.100	units	1	1904442	04/29/19	04/29/19	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/25/19 10:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	77.8		%	1	1904415	04/26/19	04/26/19	Calculation	
pH	8.14		pH Units	"	1904416	04/26/19	04/26/19	EPA 9045D	

Specific Conductance by EPA Method 120.1

Date Sampled: **04/25/19 10:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Specific Conductance (EC)	2.34	0.0100	mmhos/cm	1	1904417	04/26/19	04/26/19	EPA 120.1	

Summit Scientific

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Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal North Wildhorse 7-28

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
04/30/19 12:55

West@3'
1904356-02 (Soil)

Summit Scientific

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis

Date Sampled: **04/25/19 10:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	5540	12.7	mg/kg dry	1	1904430	04/26/19	04/26/19	EPA 6020B	
Magnesium	529	6.36	"	"	"	"	"	"	
Sodium	1860	6.36	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/25/19 10:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	6.40	0.100	units	1	1904442	04/29/19	04/29/19	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/25/19 10:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	78.6		%	1	1904415	04/26/19	04/26/19	Calculation	
pH	8.98		pH Units	"	1904416	04/26/19	04/26/19	EPA 9045D	

Specific Conductance by EPA Method 120.1

Date Sampled: **04/25/19 10:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Specific Conductance (EC)	2.44	0.0100	mmhos/cm	1	1904417	04/26/19	04/26/19	EPA 120.1	

Summit Scientific

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Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal North Wildhorse 7-28

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
04/30/19 12:55

South@3'
1904356-03 (Soil)

Summit Scientific

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis

Date Sampled: **04/25/19 11:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	2650	12.5	mg/kg dry	1	1904430	04/26/19	04/26/19	EPA 6020B	
Magnesium	413	6.25	"	"	"	"	"	"	
Sodium	1120	6.25	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/25/19 11:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	5.34	0.100	units	1	1904442	04/29/19	04/29/19	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/25/19 11:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	80.0		%	1	1904415	04/26/19	04/26/19	Calculation	
pH	8.53		pH Units	"	1904416	04/26/19	04/26/19	EPA 9045D	

Specific Conductance by EPA Method 120.1

Date Sampled: **04/25/19 11:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Specific Conductance (EC)	2.41	0.0100	mmhos/cm	1	1904417	04/26/19	04/26/19	EPA 120.1	

Summit Scientific

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Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal North Wildhorse 7-28

Project Number: [none]

Project Manager: Alyssa Beard

Reported:
04/30/19 12:55

East@3'
1904356-04 (Soil)

Summit Scientific

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis

Date Sampled: **04/25/19 11:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	12000	12.3	mg/kg dry	1	1904430	04/26/19	04/26/19	EPA 6020B	
Magnesium	708	6.17	"	"	"	"	"	"	
Sodium	2000	6.17	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/25/19 11:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	4.80	0.100	units	1	1904442	04/29/19	04/29/19	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/25/19 11:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	81.0		%	1	1904415	04/26/19	04/26/19	Calculation	
pH	9.00		pH Units	"	1904416	04/26/19	04/26/19	EPA 9045D	

Specific Conductance by EPA Method 120.1

Date Sampled: **04/25/19 11:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Specific Conductance (EC)	2.47	0.0100	mmhos/cm	1	1904417	04/26/19	04/26/19	EPA 120.1	

Summit Scientific

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Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal North Wildhorse 7-28

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
04/30/19 12:55

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis - Quality Control

Summit Scientific

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

Batch 1904430 - General Preparation

Blank (1904430-BLK1)

Prepared & Analyzed: 04/26/19

Calcium	ND	10.0	mg/kg wet
Magnesium	ND	5.00	"
Sodium	ND	5.00	"

LCS (1904430-BS1)

Prepared & Analyzed: 04/26/19

Calcium	497	10.0	mg/kg wet	500	99.3	70-130
Magnesium	528	5.00	"	500	106	70-130
Sodium	523	5.00	"	500	105	70-130

Duplicate (1904430-DUP1)

Source: 1904322-01

Prepared & Analyzed: 04/26/19

Calcium	754	11.9	mg/kg dry	763	1.13	20
Magnesium	535	5.95	"	645	18.8	20
Sodium	93.4	5.95	"	90.8	2.87	20

Matrix Spike (1904430-MS1)

Source: 1904322-01

Prepared & Analyzed: 04/26/19

Calcium	1230	11.9	mg/kg dry	595	763	79.4	70-130
Magnesium	1170	5.95	"	595	645	88.6	70-130
Sodium	646	5.95	"	595	90.8	93.4	70-130

Matrix Spike Dup (1904430-MSD1)

Source: 1904322-01

Prepared & Analyzed: 04/26/19

Calcium	1190	11.9	mg/kg dry	595	763	72.1	70-130	3.57	25
Magnesium	1180	5.95	"	595	645	89.9	70-130	0.671	25
Sodium	659	5.95	"	595	90.8	95.6	70-130	2.00	25

Summit Scientific

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Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal North Wildhorse 7-28

Project Number: [none]

Project Manager: Alyssa Beard

Reported:
04/30/19 12:55

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

Summit Scientific

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

Batch 1904415 - General Preparation

Duplicate (1904415-DUP1)

Source: 1904181-04

Prepared & Analyzed: 04/26/19

% Solids	76.1	%		76.4		0.392	20
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Batch 1904416 - General Preparation

LCS (1904416-BS1)

Prepared & Analyzed: 04/26/19

pH	9.39	pH Units		9.23		102	95-105
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Duplicate (1904416-DUP1)

Source: 1904356-01

Prepared & Analyzed: 04/26/19

pH	8.19	pH Units		8.14		0.612	20
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Summit Scientific

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Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal North Wildhorse 7-28

Project Number: [none]

Project Manager: Alyssa Beard

Reported:
04/30/19 12:55

Specific Conductance by EPA Method 120.1 - Quality Control

Summit Scientific

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

Batch 1904417 - General Preparation

Blank (1904417-BLK1)

Prepared & Analyzed: 04/26/19

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (1904417-BS1)

Prepared & Analyzed: 04/26/19

Specific Conductance (EC) 0.740 0.0100 mmhos/cm 0.750 98.6 90-110

Duplicate (1904417-DUP1)

Source: 1904356-01

Prepared & Analyzed: 04/26/19

Specific Conductance (EC) 2.32 0.0100 mmhos/cm 2.34 0.923 20

Summit Scientific

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Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Federal North Wildhorse 7-28

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
04/30/19 12:55

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