



COUNTY ROAD 63

LEGEND

	SOIL SAMPLE LOCATION	11/12/18	DATE SAMPLED
	ABOVE GROUND STORAGE TANK	Floor@5'	LOCATION and DEPTH (ft)
	FORMER FACILITY	B	BENZENE (mg/kg)
	FENCE LINE	T	TOLUENE (mg/kg)
	CONTAINMENT BERM	E	ETHYLBENZENE (mg/kg)
	CONTAINMENT WALL	X	TOTAL XYLENES (mg/kg)
		N	NAPHTHALENE (mg/kg)
		G	TPH-GRO (mg/kg)
		D	TPH-DRO (mg/kg)
		EC	EC mmhos/cm
		pH	pH Units
		SAR	SAR Units
		NA	NOT ANALYZED

**Figure 1
SITE PLAN**

Noble Wells Ranch USX 19-15, 16, 23
 Facility ID - 310461
 SESE Sec 19, T6N, R63W ~ 40.46502°N -104.47230°W
 Weld County, Colorado

API No. 05-123-26434	Prepared by TDA	Drawn by TDA	
Date 1/18/19	Reviewed by EB	Filename V348A	

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

November 19, 2018

Paul Henehan

Fremont Environmental

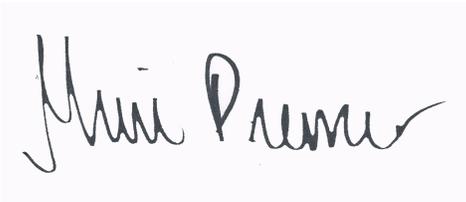
PO Box 1289

Wellington, CO 80549

RE: Noble - Wells Ranch USX AA19-15,16,23

Enclosed are the results of analyses for samples received by Summit Scientific on 11/12/18 15:52. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Muri Premer". The signature is written in a cursive style with a large initial "M" and a long, sweeping underline.

Muri Premer For Ben Shrewsbury

Laboratory Manager



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Wells Ranch USX AA19-15,16,23

Project Number: CO18-186
Project Manager: Paul Henehan

Reported:
11/19/18 09:50

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
North Wall 4ft	1811129-01	Soil	11/12/18 00:00	11/12/18 15:52
Floor 5ft	1811129-02	Soil	11/12/18 00:00	11/12/18 15:52

Summit Scientific

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1811129

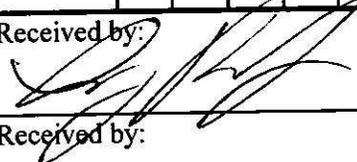
Summit Scientific

S₂

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

Client: Fremont Environmental	Project Manager: Paul Henehan
Address: P.O Box 1289	E-Mail: paulh@fremontenv.com, kenr@fremontenv.com
City/State/Zip: Wellington, CO 80549	Bill to: Howard
Phone: 303-956-8714	Project Name: Noble - Wells Ranch USX AA 19-15, 16, 23
Sampler Name: Black	Project Number: 2016-186

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested						Special Instructions	
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEX	Naphthalene	GRO	DRO	SAR	EC		pH
1	NORTH WALL 4FT	11/12/18		1			X			X				X	X	X	X	X	X	
2	FLOOR 5FT	+		1			X			X				X	X	X	X	X	X	
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

Relinquished by: Ethan Black	Date/Time: 11/12/18 1553	Received by: 	Date/Time: 11.12.18 1532	Turn Around Time (Check)	Notes:
				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"/>	
				Sample Integrity:	
				Temperature Upon Receipt: 1.8	
				Samples Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Sample Receipt Checklist

S2 Work Order 1811129

Client: Fremont Client Project ID: Noble - Wells Ranch USX AA 14-15, 16, 23

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

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

Temp (°C)	<u>1.7</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"/>			
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.

UP
Custodian Printed Name or Initials

[Signature]
Signature of Custodian

11.12.18 1815
Date/Time



Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Wells Ranch USX AA19-15,16,23

Project Number: CO18-186
 Project Manager: Paul Henehan

Reported:
 11/19/18 09:50

**North Wall 4ft
 1811129-01 (Soil)**

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/12/18 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	1811180	11/14/18	11/15/18	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
Naphthalene	ND	0.010		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50		"	"	"	"	"	"	

Date Sampled: **11/12/18 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		84.9 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		97.6 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.1 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/12/18 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	1811182	11/14/18	11/15/18	EPA 8015M	

Date Sampled: **11/12/18 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		99.2 %		30-150		"	"	"	"	

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

Date Sampled: **11/12/18 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	1850	11.5		mg/kg dry	1	1811170	11/13/18	11/13/18	EPA 6020B	

Summit Scientific

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Project: Noble - Wells Ranch USX AA19-15,16,23

Project Number: CO18-186
 Project Manager: Paul Henehan

Reported:
 11/19/18 09:50

**North Wall 4ft
 1811129-01 (Soil)**

Summit Scientific

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Magnesium	405	5.73	mg/kg dry	1	1811170	11/13/18	11/13/18	EPA 6020B	
Sodium	80.4	5.73	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **11/12/18 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.440	0.100	units	1	1811236	11/19/18	11/19/18	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **11/12/18 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.2		%	1	1811174	11/14/18	11/14/18	Calculation	
pH	8.26		pH Units	"	1811176	11/14/18	11/14/18	EPA 9045D	

Specific Conductance by EPA Method 120.1

Date Sampled: **11/12/18 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.676	0.0100	mmhos/cm	1	1811175	11/14/18	11/15/18	EPA 120.1	

Summit Scientific

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 Wellington CO, 80549

Project: Noble - Wells Ranch USX AA19-15,16,23

Project Number: CO18-186
 Project Manager: Paul Henehan

Reported:
 11/19/18 09:50

Floor 5ft
1811129-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/12/18 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1811180	11/14/18	11/15/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **11/12/18 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		83.3 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.8 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/12/18 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1811182	11/14/18	11/15/18	EPA 8015M	

Date Sampled: **11/12/18 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		99.5 %	30-150		"	"	"	"	

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Project: Noble - Wells Ranch USX AA19-15,16,23

Project Number: CO18-186
 Project Manager: Paul Henehan

Reported:
 11/19/18 09:50

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 1811180 - EPA 5030 Soil MS

Blank (1811180-BLK1)

Prepared: 11/14/18 Analyzed: 11/15/18

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Naphthalene	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0326		"	0.0396		82.2	23-173			
Surrogate: Toluene-d8	0.0385		"	0.0400		96.3	20-170			
Surrogate: 4-Bromofluorobenzene	0.0388		"	0.0400		97.1	21-167			

LCS (1811180-BS1)

Prepared: 11/14/18 Analyzed: 11/15/18

Benzene	0.0989	0.0020	mg/kg	0.100		98.9	70-130			
Toluene	0.102	0.0050	"	0.100		102	70-130			
Ethylbenzene	0.103	0.0050	"	0.100		103	70-130			
m,p-Xylene	0.207	0.010	"	0.200		104	70-130			
o-Xylene	0.102	0.0050	"	0.100		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0328		"	0.0396		82.8	23-173			
Surrogate: Toluene-d8	0.0395		"	0.0400		98.7	20-170			
Surrogate: 4-Bromofluorobenzene	0.0389		"	0.0400		97.2	21-167			

Matrix Spike (1811180-MS1)

Source: 1811128-01

Prepared: 11/14/18 Analyzed: 11/15/18

Benzene	0.101	0.0020	mg/kg	0.100	ND	101	70-130			
Toluene	0.103	0.0050	"	0.100	ND	103	70-130			
Ethylbenzene	0.104	0.0050	"	0.100	ND	104	70-130			
m,p-Xylene	0.210	0.010	"	0.200	ND	105	70-130			
o-Xylene	0.103	0.0050	"	0.100	ND	103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0330		"	0.0396		83.3	23-173			
Surrogate: Toluene-d8	0.0400		"	0.0400		100	20-170			
Surrogate: 4-Bromofluorobenzene	0.0388		"	0.0400		97.0	21-167			

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Project: Noble - Wells Ranch USX AA19-15,16,23

Project Number: CO18-186
 Project Manager: Paul Henehan

Reported:
 11/19/18 09:50

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch 1811180 - EPA 5030 Soil MS

Matrix Spike Dup (1811180-MSD1)

Source: 1811128-01

Prepared: 11/14/18 Analyzed: 11/15/18

Benzene	0.0878	0.0020	mg/kg	0.100	ND	87.8	70-130	13.9	30	
Toluene	0.0905	0.0050	"	0.100	ND	90.5	70-130	13.0	30	
Ethylbenzene	0.0922	0.0050	"	0.100	ND	92.2	70-130	12.5	30	
m,p-Xylene	0.184	0.010	"	0.200	ND	92.0	70-130	13.4	30	
o-Xylene	0.0911	0.0050	"	0.100	ND	91.1	70-130	12.2	30	
Surrogate: 1,2-Dichloroethane-d4	0.0322		"	0.0396		81.4	23-173			
Surrogate: Toluene-d8	0.0400		"	0.0400		99.9	20-170			
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400		97.9	21-167			

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Project: Noble - Wells Ranch USX AA19-15,16,23

Project Number: CO18-186
 Project Manager: Paul Henehan

Reported:
 11/19/18 09:50

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 1811182 - EPA 3550A

Blank (1811182-BLK1)

Prepared & Analyzed: 11/14/18

C10-C28 (DRO) ND 50 mg/kg

LCS (1811182-BS1)

Prepared & Analyzed: 11/14/18

C10-C28 (DRO) 476 50 mg/kg 500 95.2 70-130

Matrix Spike (1811182-MS1)

Source: 1811128-01

Prepared & Analyzed: 11/14/18

C10-C28 (DRO) 457 50 mg/kg 500 32.0 85.0 70-130

Matrix Spike Dup (1811182-MSD1)

Source: 1811128-01

Prepared & Analyzed: 11/14/18

C10-C28 (DRO) 444 50 mg/kg 500 32.0 82.3 70-130 2.97 20

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Project: Noble - Wells Ranch USX AA19-15,16,23

Project Number: CO18-186
Project Manager: Paul Henehan

Reported:
11/19/18 09:50

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

Summit Scientific

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

Batch 1811170 - General Preparation

Blank (1811170-BLK1)

Prepared & Analyzed: 11/13/18

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

LCS (1811170-BS1)

Prepared & Analyzed: 11/13/18

Calcium	560	10.0	mg/kg wet	500	112	70-130			
Magnesium	554	5.00	"	500	111	70-130			
Sodium	543	5.00	"	500	109	70-130			

Duplicate (1811170-DUP1)

Source: 1811128-01

Prepared & Analyzed: 11/13/18

Calcium	2380	11.3	mg/kg dry	2440			2.51	20	
Magnesium	607	5.67	"	644			5.92	20	
Sodium	59.1	5.67	"	58.4			1.15	20	

Matrix Spike (1811170-MS1)

Source: 1811128-01

Prepared & Analyzed: 11/13/18

Calcium	3050	11.3	mg/kg dry	567	2440	107	70-130		
Magnesium	1180	5.67	"	567	644	94.3	70-130		
Sodium	642	5.67	"	567	58.4	103	70-130		

Matrix Spike Dup (1811170-MSD1)

Source: 1811128-01

Prepared & Analyzed: 11/13/18

Calcium	2970	11.3	mg/kg dry	567	2440	94.4	70-130	2.45	25
Magnesium	1150	5.67	"	567	644	90.0	70-130	2.10	25
Sodium	629	5.67	"	567	58.4	101	70-130	2.00	25

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 Wellington CO, 80549

Project: Noble - Wells Ranch USX AA19-15,16,23

Project Number: CO18-186
 Project Manager: Paul Henehan

Reported:
 11/19/18 09:50

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 1811174 - General Preparation

Duplicate (1811174-DUP1)		Source: 1811128-01			Prepared & Analyzed: 11/14/18			
% Solids	88.2		%		88.3		0.113	20

Batch 1811176 - General Preparation

LCS (1811176-BS1)					Prepared & Analyzed: 11/14/18		
pH	9.1		pH Units	9.18		99.0	95-105
Duplicate (1811176-DUP1)		Source: 1809418-01			Prepared & Analyzed: 11/14/18		
pH	7.5		pH Units	7.6		1.07	20

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Project: Noble - Wells Ranch USX AA19-15,16,23

Project Number: CO18-186
 Project Manager: Paul Henehan

Reported:
 11/19/18 09:50

Specific Conductance by EPA Method 120.1 - Quality Control
Summit Scientific

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

Batch 1811175 - General Preparation

Blank (1811175-BLK1)

Prepared & Analyzed: 11/14/18

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (1811175-BS1)

Prepared & Analyzed: 11/14/18

Specific Conductance (EC) 0.757 0.0100 mmhos/cm 0.750 101 90-110

Duplicate (1811175-DUP1)

Source: 1809418-01

Prepared & Analyzed: 11/14/18

Specific Conductance (EC) 4.88 0.0100 mmhos/cm 4.64 4.92 20

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Project: Noble - Wells Ranch USX AA19-15,16,23

Project Number: CO18-186
Project Manager: Paul Henehan

Reported:
11/19/18 09:50

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