



LEGEND

	FENCE LINE
	CONTAINMENT BERM
	ABOVE GROUND STORAGE TANK
	FORMER FACILITY

Figure 1
SITE MAP

Noble Wells Ranch USX BB05-10
 Facility ID - 310299
 NW NE Section 5, T5N, R63W
 Weld County, Colorado

API No. 05-123-26196	Prepared by	Drawn by JMA	
Date 8/9/17	Reviewed by	Filename V140A	

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

July 22, 2017

Paul Henehan

Fremont Environmental

1759 Redwing Lane

Broomfield, CO 80020

RE: Noble - Wells Ranch USX BB5-10

Enclosed are the results of analyses for samples received by Summit Scientific on 07/14/17 17:20. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ben Shrewsbury', with a long, sweeping horizontal stroke extending to the right.

Ben Shrewsbury

Laboratory Manager



Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Wells Ranch USX BB5-10

Project Number: [none]
Project Manager: Paul Henehan

Reported:
07/22/17 18:24

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
W Wall 3 Ft	1707102-01	Soil	07/14/17 00:00	07/14/17 17:20
Floor 4 Ft	1707102-02	Soil	07/14/17 00:00	07/14/17 17:20

Summit Scientific

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



Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Wells Ranch USX BB5-10

Project Number: [none]
Project Manager: Paul Henehan

Reported:
07/22/17 18:24

Summit Scientific 1707102

741 Corporate Circle, Suite J • Golden, Colorado 80401
303-277-9310 • 303-374-5933

Page 1 of 1

Client: Fremont Environmental Project Manager: Paul Henehan
Address: P.O. Box 1289 E-Mail: paulh@fremontenv.com *BILL TO: JACOB*
City/State/Zip: PO Box 1829 Wellington, CO 80549
Phone: 303-956-8714 Fax: Project Name: *NOBLE - WELLS RANCH USX BB5-10*
Sampler Name: Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested								Special Instructions
					HCl	HNO3	None	Other (Specify)	Groundwater	Soil	Air-Canister #	Other (Specify)	BTEX	GRO/DRO	Naphthalene	SAR	EC	pH			
1	W. WALL 3 FT	7/14/17		1			✓			✓			✓	✓	✓	✓	✓				
2	FLOOR 4 FT			1			✓		✓				✓	✓	✓						
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					

Relinquished by: <i>PAH/KE</i>	Date/Time: 7/14/17 17:20	Received by: <i>PAH</i>	Date/Time: 7-14-17 17:20	Turn Around Time (Check) Same Day <input type="checkbox"/> 24 hours <input type="checkbox"/> 48 hours <input checked="" type="checkbox"/> 72 hours Standard Sample Integrity: Temperature Upon Receipt: Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Notes: <i>ONIC</i>
Relinquished by: <i>PAH</i>	Date/Time: 7-14-17 18:30	Received by:	Date/Time:		
Relinquished by:	Date/Time:	Received by:	Date/Time:		

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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Wells Ranch USX BB5-10

Project Number: [none]
Project Manager: Paul Henehan

Reported:
07/22/17 18:24

Sample Receipt Checklist

S2 Work Order: 1707102

Client: FREMONT Client Project ID: NOBLE - WELLS RANCH USX BB5-10

Shipped Via: P.O. Airbill #: _____
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

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

Cooler ID					
Temp (°C)	<u>15.7</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 short holding time analytes or samples with HTs 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⁾ ?			<input checked="" type="checkbox"/>	
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⁾ ?			<input checked="" type="checkbox"/>	
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.				

Murphy
Custodian Printed Name

LA 7-14-17
Signature or Initials of Custodian

18:25
Date/Time



Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Wells Ranch USX BB5-10
Project Number: [none]
Project Manager: Paul Henehan

Reported:
07/22/17 18:24

W Wall 3 Ft
1707102-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/14/17 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1707129	07/17/17	07/17/17	8015M	

Date Sampled: **07/14/17 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		108 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/14/17 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1707127	07/17/17	07/19/17	EPA 8260B	
Benzene	ND	0.0020	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **07/14/17 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		97.7 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.3 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.0 %	21-167		"	"	"	"	

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

Date Sampled: **07/14/17 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	234	10.6	mg/kg dry	1	1707123	07/17/17	07/17/17	EPA 6020/Mod. USDA60 6(2, 3A)	

Summit Scientific

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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Wells Ranch USX BB5-10
Project Number: [none]
Project Manager: Paul Henehan

Reported:
07/22/17 18:24

W Wall 3 Ft
1707102-01 (Soil)

Summit Scientific

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

Magnesium	255	5.31	mg/kg dry	1	1707123	07/17/17	07/17/17	EPA 6020/Mod. USDA60 6(2, 3A)
Sodium	32.7	5.31	"	"	"	"	"	"
Sodium Adsorption Ratio	0.352		units	"	1707140	07/18/17	07/18/17	"

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **07/14/17 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.30	0.100	pH Units	1	1707166	07/19/17	07/19/17	EPA 9045	
Specific Conductance (EC)	0.0541	0.0100	mmhos/cm	"	1707164	07/19/17	07/19/17	SM 2510B	
% Solids	94.2		%	"	1707133	07/17/17	07/18/17	% calculation	

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1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Wells Ranch USX BB5-10

Project Number: [none]
Project Manager: Paul Henehan

Reported:
07/22/17 18:24

Floor 4 Ft
1707102-02 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/14/17 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1707129	07/17/17	07/17/17	8015M	

Date Sampled: **07/14/17 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		113 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/14/17 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1707127	07/17/17	07/19/17	EPA 8260B	
Benzene	ND	0.0020	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **07/14/17 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		95.5 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.5 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.4 %	21-167		"	"	"	"	

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Broomfield CO, 80020

Project: Noble - Wells Ranch USX BB5-10
Project Number: [none]
Project Manager: Paul Henehan

Reported:
07/22/17 18:24

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 1707129 - EPA 3550A

Blank (1707129-BLK1)

Prepared & Analyzed: 07/17/17

C10-C28 (DRO)	ND	50	mg/kg							
Surrogate: o-Terphenyl	13.6		"	12.5		109	30-150			

LCS (1707129-BS1)

Prepared & Analyzed: 07/17/17

C10-C28 (DRO)	520	50	mg/kg	499		104	73-134			
Surrogate: o-Terphenyl	17.0		"	12.5		136	30-150			

Matrix Spike (1707129-MS1)

Source: 1707102-01

Prepared & Analyzed: 07/17/17

C10-C28 (DRO)	517	50	mg/kg	499	18.5	99.9	50-148			
Surrogate: o-Terphenyl	14.9		"	12.5		119	30-150			

Matrix Spike Dup (1707129-MSD1)

Source: 1707102-01

Prepared & Analyzed: 07/17/17

C10-C28 (DRO)	514	50	mg/kg	499	18.5	99.4	50-148	0.512	20	
Surrogate: o-Terphenyl	14.0		"	12.5		112	30-150			

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1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Wells Ranch USX BB5-10
Project Number: [none]
Project Manager: Paul Henehan

Reported:
07/22/17 18:24

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 1707127 - EPA 5030 Soil MS

Blank (1707127-BLK1)

Prepared: 07/17/17 Analyzed: 07/19/17

Naphthalene	ND	0.010	mg/kg
Benzene	ND	0.0020	"
Toluene	ND	0.0050	"
Ethylbenzene	ND	0.0050	"
Xylenes (total)	ND	0.010	"
Gasoline Range Hydrocarbons	ND	50	"

Surrogate: 1,2-Dichloroethane-d4	0.0411	"	0.0400	103	23-173
Surrogate: Toluene-d8	0.0398	"	0.0400	99.4	20-170
Surrogate: 4-Bromofluorobenzene	0.0387	"	0.0400	96.8	21-167

LCS (1707127-BS1)

Prepared: 07/17/17 Analyzed: 07/19/17

Naphthalene	ND	0.010	mg/kg			66-138
Benzene	0.0767	0.0020	"	0.100	76.7	58-130
Toluene	0.0812	0.0050	"	0.100	81.2	61-134
Ethylbenzene	0.0806	0.0050	"	0.0992	81.2	74-139
m,p-Xylene	0.163	0.010	"	0.200	81.7	73-137
o-Xylene	0.0873	0.0050	"	0.0980	89.1	73-141

Surrogate: 1,2-Dichloroethane-d4	0.0386	"	0.0400	96.4	23-173
Surrogate: Toluene-d8	0.0393	"	0.0400	98.2	20-170
Surrogate: 4-Bromofluorobenzene	0.0391	"	0.0400	97.6	21-167

Matrix Spike (1707127-MS1)

Source: 1707102-01

Prepared: 07/17/17 Analyzed: 07/19/17

Naphthalene	ND	0.010	mg/kg	ND		10-158
Benzene	0.0727	0.0020	"	0.100	72.7	30-131
Toluene	0.0766	0.0050	"	0.100	76.6	30-134
Ethylbenzene	0.0776	0.0050	"	0.0992	78.2	22-153
m,p-Xylene	0.152	0.010	"	0.200	76.3	10-159
o-Xylene	0.0805	0.0050	"	0.0980	82.2	31-151

Surrogate: 1,2-Dichloroethane-d4	0.0387	"	0.0400	96.8	23-173
Surrogate: Toluene-d8	0.0399	"	0.0400	99.7	20-170
Surrogate: 4-Bromofluorobenzene	0.0392	"	0.0400	98.0	21-167

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1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Wells Ranch USX BB5-10
Project Number: [none]
Project Manager: Paul Henehan

Reported:
07/22/17 18:24

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 1707127 - EPA 5030 Soil MS

Matrix Spike Dup (1707127-MSD1)		Source: 1707102-01			Prepared: 07/17/17		Analyzed: 07/19/17			
Naphthalene	ND	0.010	mg/kg		ND		10-158			42
Benzene	0.0787	0.0020	"	0.100	ND	78.7	30-131	8.01		34
Toluene	0.0841	0.0050	"	0.100	ND	84.1	30-134	9.34		30
Ethylbenzene	0.0835	0.0050	"	0.0992	ND	84.2	22-153	7.38		24
m,p-Xylene	0.165	0.010	"	0.200	ND	82.6	10-159	7.94		68
o-Xylene	0.0863	0.0050	"	0.0980	ND	88.1	31-151	6.94		38
Surrogate: 1,2-Dichloroethane-d4	0.0382		"	0.0400		95.6	23-173			
Surrogate: Toluene-d8	0.0410		"	0.0400		102	20-170			
Surrogate: 4-Bromofluorobenzene	0.0393		"	0.0400		98.2	21-167			

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Broomfield CO, 80020

Project: Noble - Wells Ranch USX BB5-10
Project Number: [none]
Project Manager: Paul Henehan

Reported:
07/22/17 18:24

Soluble Nutrients by EPA 6020/Mod. 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 1707123 - General Preparation

Blank (1707123-BLK1)

Prepared & Analyzed: 07/17/17

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

LCS (1707123-BS1)

Prepared & Analyzed: 07/17/17

Calcium	492	10.0	mg/kg wet	500	98.3	82.9-118
Magnesium	492	5.00	"	500	98.5	77.1-123
Sodium	501	5.00	"	500	100	71-129

Duplicate (1707123-DUP1)

Source: 1707071-01

Prepared & Analyzed: 07/17/17

Calcium	2010	11.1	mg/kg dry	2080	3.63	200
Magnesium	240	5.53	"	239	0.581	200
Sodium	332	5.53	"	328	1.19	200

Matrix Spike (1707123-MS1)

Source: 1707071-01

Prepared & Analyzed: 07/17/17

Calcium	2720	11.1	mg/kg dry	553	2080	116	75-125
Magnesium	784	5.53	"	553	239	98.6	75-125
Sodium	894	5.53	"	553	328	102	75-125

Matrix Spike Dup (1707123-MSD1)

Source: 1707071-01

Prepared & Analyzed: 07/17/17

Calcium	2540	11.1	mg/kg dry	553	2080	83.7	75-125	6.88	25
Magnesium	841	5.53	"	553	239	109	75-125	7.00	25
Sodium	968	5.53	"	553	328	116	75-125	7.94	25

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Project: Noble - Wells Ranch USX BB5-10

Project Number: [none]
Project Manager: Paul Henehan

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07/22/17 18:24

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

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

Batch 1707133 - General Preparation

Duplicate (1707133-DUP1) Source: **1707078-03** Prepared: 07/17/17 Analyzed: 07/18/17

% Solids	91.1		%		90.7			0.440	20	
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Batch 1707164 - General Preparation

Blank (1707164-BLK1) Prepared & Analyzed: 07/19/17

Specific Conductance (EC)	ND	0.0100	mmhos/cm							
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LCS (1707164-BS1) Prepared & Analyzed: 07/19/17

Specific Conductance (EC)	0.748	0.0100	mmhos/cm	0.750		99.7	90-110			
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Duplicate (1707164-DUP1) Source: **1707113-01** Prepared & Analyzed: 07/19/17

Specific Conductance (EC)	0.198	0.0100	mmhos/cm		0.209			5.34	20	
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Batch 1707166 - General Preparation

LCS (1707166-BS1) Prepared & Analyzed: 07/19/17

pH	8.03	0.100	pH Units	8.00		100	95-105			
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Duplicate (1707166-DUP1) Source: **1707113-01** Prepared & Analyzed: 07/19/17

pH	6.73	0.100	pH Units		6.81			1.18	20	
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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Wells Ranch USX BB5-10

Project Number: [none]
Project Manager: Paul Henehan

Reported:
07/22/17 18:24

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