



LEGEND

	FENCE LINE
	CONTAINMENT BERM
	ABOVE GROUND STORAGE TANK
	FORMER FACILITY

Figure 1
SITE MAP

Noble Watkins 18-1, 18-11
Facility IDs - 322932 & 329701
NW SW Section 18, T4N, R63W
Weld County, Colorado

API No.
05-123-12284
05-123-17731

Date
7/28/16

Prepared by

Reviewed by

Drawn by
JMA

Filename
V041A



Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

July 21, 2016

Paul Henehan
Fremont Environmental
1759 Redwing Lane
Broomfield, CO 80020
RE: Noble - Watkins 1

Enclosed are the results of analyses for samples received by Summit Scientific on 07/20/16 17:45. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Shrewsbury', with a stylized, cursive script.

Paul Shrewsbury
President



Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Watkins 1

Project Number: [none]
Project Manager: Paul Henehan

Reported:
07/21/16 06:36

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-10	1607133-01	Soil	07/20/16 09:30	07/20/16 17:45
E-3	1607133-02	Soil	07/20/16 09:40	07/20/16 17:45

Summit Scientific

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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Watkins 1

Project Number: [none]
Project Manager: Paul Henehan

Reported:
07/21/16 06:36

Summit Scientific 1607133

S₂

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

Client: Fremont Env Project Manager: Paul Henehan Page 1 of 1
Address: _____ E-Mail: _____
City/State/Zip: _____
Phone: 303 956 8714 Fax: _____ Project Name: Watkins 1 - Noble
Sampler Name: Mike Greisler 970 231 2792 Project Number: _____

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix		Analysis Requested						Special Instructions	
					HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air-Canister #	Other (Specify)	BTEN	DRD	GRD	SMA EC		PH
1	B-10	7/20/16	0930	1						X								
2	E-3		0940	1														
3	N-3		0935	1														
4	S-3		0943	1														
5	W-3		0932	1														
6																		
7																		
8																		
9																		
10																		

Relinquished by: <u>[Signature]</u>	Date/Time: <u>7/20/16 13:00</u>	Received by: <u>[Signature]</u>	Date/Time: <u>7-20-16 18:00</u>	Turn Around Time (Check) Same Day <u>—</u> 72 hours <u>—</u> 24 hours <u>X</u> Standard <u>—</u> 48 hours <u>—</u>	Notes: <u>Results tomorrow AM</u>
Relinquished by: <u>[Signature]</u>	Date/Time: <u>7-20-16 17:50</u>	Received by:	Date/Time:	Sample Integrity:	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Temperature Upon Receipt: <u>15.6</u> Intact: <u>(Yes)</u> No	

www.s2scientific.com

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[Signature]



Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Watkins 1

Project Number: [none]
Project Manager: Paul Henehan

Reported:
07/21/16 06:36

Sample Receipt Checklist

S2 Work Order: 1667133

Client: Fremont

Client Project ID: Watkins 1 - Noble

Shipped Via: H.D. on ice
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Airbill #: _____

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

Cooler ID					
Temp (°C)	<u>15.6</u>				

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature just above 0°C to ≤ 6°C ⁽¹⁾ ?			X	
NOTE: If samples are delivered the same day of sampling, this requirement is waived provided that there is evidence that cooling has begun.				
Were all samples received intact ⁽¹⁾ ?	X			
Was adequate sample volume provided ⁽¹⁾ ?	X			
If custody seals are present, are they intact ⁽¹⁾ ?			X	
Are short holding time analytes or samples with HTs due within 48 hours present?	X			
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	X			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	X			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	X			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	X			
For volatiles in water – is there headspace present? if yes, contact client and note in narrative.			X	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ?			X	
Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect				
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ?			X	
Record the pH in Comments.				
If dissolved metals are requested, were samples field filtered?			X	
Additional Comments (if any):				
⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.				

Muri P.
Custodian Printed Name

PA 7-20-16
Signature or Initials of Custodian

16:58
Date/Time



Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Watkins 1

Project Number: [none]
Project Manager: Paul Henehan

Reported:
07/21/16 06:36

B-10
1607133-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 07/20/16 09:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	65	50	mg/kg	1	1607197	07/20/16	07/20/16	8015M	

Date Sampled: 07/20/16 09:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		74.6 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 07/20/16 09:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1607196	07/20/16	07/20/16	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: 07/20/16 09:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		94.9 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		85.7 %	21-167		"	"	"	"	

Summit Scientific

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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Watkins 1
Project Number: [none]
Project Manager: Paul Henehan

Reported:
07/21/16 06:36

E-3
1607133-02 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 07/20/16 09:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1607197	07/20/16	07/20/16	8015M	

Date Sampled: 07/20/16 09:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		79.8 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 07/20/16 09:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1607196	07/20/16	07/20/16	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: 07/20/16 09:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		92.9 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.9 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.2 %	21-167		"	"	"	"	

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

Date Sampled: 07/20/16 09:40

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

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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Watkins 1

Project Number: [none]
Project Manager: Paul Henehan

Reported:
07/21/16 06:36

E-3
1607133-02 (Soil)

Summit Scientific

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

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	452	11.1	mg/kg dry	1	1607186	07/20/16	07/20/16	EPA 6020/Mod. USDA60 6(2, 3A)	
Magnesium	204	5.56	"	"	"	"	"	"	
Sodium	39.6	5.56	"	"	"	"	"	"	

Date Sampled: 07/20/16 09:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.390		units	"	1607199	07/21/16	07/21/16	"	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 07/20/16 09:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.327	0.0100	mmhos/cm	1	1607195	07/20/16	07/20/16	SM 2510B	

Date Sampled: 07/20/16 09:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.10	0.100	pH Units	"	1607194	07/20/16	07/20/16	EPA 9045	

Date Sampled: 07/20/16 09:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	89.9		%	"	1607198	07/20/16	07/21/16	% calculation	

Summit Scientific

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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Watkins 1

Project Number: [none]
Project Manager: Paul Henehan

Reported:
07/21/16 06:36

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 1607197 - EPA 3550A

Blank (1607197-BLK1)

Prepared & Analyzed: 07/20/16

C10-C28 (DRO) ND 50 mg/kg

Surrogate: o-Terphenyl 11.2 " 12.5 89.4 30-150

LCS (1607197-BS1)

Prepared & Analyzed: 07/20/16

C10-C28 (DRO) 615 50 mg/kg 499 123 73-134

Surrogate: o-Terphenyl 11.0 " 12.5 88.3 30-150

Matrix Spike (1607197-MS1)

Source: 1607134-01

Prepared & Analyzed: 07/20/16

C10-C28 (DRO) 457 50 mg/kg 486 17.8 90.2 50-148

Surrogate: o-Terphenyl 9.12 " 12.2 74.8 30-150

Matrix Spike Dup (1607197-MSD1)

Source: 1607134-01

Prepared & Analyzed: 07/20/16

C10-C28 (DRO) 487 50 mg/kg 482 17.8 97.5 50-148 6.48 20

Surrogate: o-Terphenyl 9.64 " 12.1 79.9 30-150

Summit Scientific

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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Watkins 1
Project Number: [none]
Project Manager: Paul Henehan

Reported:
07/21/16 06:36

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 1607196 - EPA 5030 Soil MS

Blank (1607196-BLK1)

Prepared & Analyzed: 07/20/16

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	0.0368		"	0.0400		91.9	23-173			
Surrogate: Toluene-d8	0.0392		"	0.0400		97.9	20-170			
Surrogate: 4-Bromofluorobenzene	0.0396		"	0.0400		98.9	21-167			

LCS (1607196-BS1)

Prepared & Analyzed: 07/20/16

Naphthalene	ND	0.010	mg/kg				66-138			
Benzene	0.0967	0.0020	"	0.100		96.7	58-130			
Toluene	0.110	0.0050	"	0.100		110	61-134			
Ethylbenzene	0.117	0.0050	"	0.0992		118	74-139			
m,p-Xylene	0.222	0.010	"	0.200		111	73-137			
o-Xylene	0.111	0.0050	"	0.0980		113	73-141			
Surrogate: 1,2-Dichloroethane-d4	0.0376		"	0.0400		94.1	23-173			
Surrogate: Toluene-d8	0.0394		"	0.0400		98.6	20-170			
Surrogate: 4-Bromofluorobenzene	0.0381		"	0.0400		95.2	21-167			

Matrix Spike (1607196-MS1)

Source: 1607134-01

Prepared & Analyzed: 07/20/16

Naphthalene	ND	0.010	mg/kg		ND		10-158			
Benzene	0.0897	0.0020	"	0.0949	ND	94.6	30-131			
Toluene	0.101	0.0050	"	0.0949	ND	106	30-134			
Ethylbenzene	0.108	0.0050	"	0.0941	ND	115	22-153			
m,p-Xylene	0.210	0.010	"	0.189	ND	111	10-159			
o-Xylene	0.104	0.0050	"	0.0930	ND	112	31-151			
Surrogate: 1,2-Dichloroethane-d4	0.0369		"	0.0380		97.1	23-173			
Surrogate: Toluene-d8	0.0372		"	0.0380		98.1	20-170			
Surrogate: 4-Bromofluorobenzene	0.0372		"	0.0380		98.0	21-167			

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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Watkins 1

Project Number: [none]
Project Manager: Paul Henehan

Reported:
07/21/16 06:36

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 1607196 - EPA 5030 Soil MS

Matrix Spike Dup (1607196-MSD1)		Source: 1607134-01			Prepared & Analyzed: 07/20/16					
Naphthalene	ND	0.010	mg/kg		ND		10-158		42	
Benzene	0.0913	0.0020	"	0.0951	ND	96.0	30-131	1.70	34	
Toluene	0.103	0.0050	"	0.0951	ND	109	30-134	2.50	30	
Ethylbenzene	0.109	0.0050	"	0.0943	ND	115	22-153	0.216	24	
m,p-Xylene	0.210	0.010	"	0.190	ND	111	10-159	0.0677	68	
o-Xylene	0.105	0.0050	"	0.0932	ND	113	31-151	1.31	38	
<hr/>										
Surrogate: 1,2-Dichloroethane-d4	0.0379		"	0.0380		99.7	23-173			
Surrogate: Toluene-d8	0.0374		"	0.0380		98.5	20-170			
Surrogate: 4-Bromofluorobenzene	0.0366		"	0.0380		96.2	21-167			

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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Watkins 1
Project Number: [none]
Project Manager: Paul Henehan

Reported:
07/21/16 06:36

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 1607186 - General Preparation

Blank (1607186-BLK1)

Prepared & Analyzed: 07/20/16

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

LCS (1607186-BS1)

Prepared & Analyzed: 07/20/16

Calcium	475	10.0	mg/kg wet	500	95.0	82.9-118				
Magnesium	509	5.00	"	500	102	77.1-123				
Sodium	523	5.00	"	500	105	71-129				

Duplicate (1607186-DUP1)

Source: 1607090-02

Prepared & Analyzed: 07/20/16

Calcium	1230	10.0	mg/kg wet	1040			17.0	200		
Magnesium	177	5.00	"	145			19.4	200		
Sodium	711	5.00	"	714			0.430	200		

Matrix Spike (1607186-MS1)

Source: 1607090-02

Prepared & Analyzed: 07/20/16

Calcium	1540	10.0	mg/kg wet	500	1040	101	75-125			
Magnesium	625	5.00	"	500	145	96.0	75-125			
Sodium	1060	5.00	"	500	714	68.4	75-125			QM-07

Matrix Spike Dup (1607186-MSD1)

Source: 1607090-02

Prepared & Analyzed: 07/20/16

Calcium	1570	10.0	mg/kg wet	500	1040	107	75-125	1.79	25	
Magnesium	677	5.00	"	500	145	106	75-125	8.01	25	
Sodium	1140	5.00	"	500	714	85.9	75-125	7.99	25	

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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Watkins 1
Project Number: [none]
Project Manager: Paul Henehan

Reported:
07/21/16 06:36

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 1607194 - General Preparation

LCS (1607194-BS1)				Prepared & Analyzed: 07/20/16		
pH	6.03	0.100	pH Units	6.00	100	95-105
Duplicate (1607194-DUP1)				Source: 1607132-04 Prepared & Analyzed: 07/20/16		
pH	8.38	0.100	pH Units	8.44	0.713	20

Batch 1607195 - General Preparation

Blank (1607195-BLK1)				Prepared & Analyzed: 07/20/16			
Specific Conductance (EC)	ND	0.0100	mmhos/cm				
LCS (1607195-BS1)				Prepared & Analyzed: 07/20/16			
Specific Conductance (EC)	100	0.00200	mmhos/cm	100	100	90-110	
Duplicate (1607195-DUP1)				Prepared & Analyzed: 07/20/16			
Specific Conductance (EC)	0.407	0.0100	mmhos/cm	0.403	1.15	20	

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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Watkins 1

Project Number: [none]
Project Manager: Paul Henehan

Reported:
07/21/16 06:36

Notes and Definitions

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

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A handwritten signature in black ink, appearing to be 'MSM'.