



LEGEND

	FENCE LINE
	CONTAINMENT BERM
	ABOVE GROUND STORAGE TANK
	FORMER FACILITY

Figure 1
SITE MAP

Noble HSR Kramer 2-27
 Facility ID - 329013
 NW NE Section 27, T5N, R65W
 Weld County, Colorado

API No.
05-123-16748

Prepared by

Drawn by
JMA

Date
4/11/16

Reviewed by

Filename
V018A



Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

March 11, 2016

Paul Henehan
Fremont Environmental
1759 Redwing Lane
Broomfield, CO 80020
RE: Noble - HSR Kramer 2-27

Enclosed are the results of analyses for samples received by Summit Scientific on 03/10/16 14:55. 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 - HSR Kramer 2-27

Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/11/16 10:10

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
N. Wall 3Ft	1603078-01	Soil	03/10/16 00:00	03/10/16 14:55
Floor 6Ft	1603078-02	Soil	03/10/16 00:00	03/10/16 14:55

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 - HSR Kramer 2-27

Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/11/16 10:10

Summit Scientific 1603078

S₂

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

Page 1 of 1

Client: FREMONT/NOBLE Project Manager: HENEHAN
Address: _____ E-Mail: _____
City/State/Zip: _____
Phone: 3039568714 Fax: _____ Project Name: NOBLE - KRAMER
Sampler Name: HENEHAN 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)	BTEX	GR/D	NAPHTH	EC	SAR	PH	
1	N ₂ WALL 3 FT	3/10/16		1															
2	FLOOR 6 FT	"		1															
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Relinquished by: <u>PAH</u>	Date/Time: <u>3/10/16 14:55</u>	Received by: <u>PAH</u>	Date/Time: <u>3-10-16 14:55</u>	Turn Around Time (Check) Same Day <input checked="" type="checkbox"/> 72 hours 24 hours <input type="checkbox"/> Standard 48 hours <input type="checkbox"/>	Notes:
Relinquished by: <u>PAH</u>	Date/Time: <u>3-10-16 18:30</u>	Received by:	Date/Time:	Sample Integrity: <u>FRI AM PLZ</u>	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Temperature Upon Receipt: <u>17.1</u> Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No	

www.s2scientific.com

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 - HSR Kramer 2-27

Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/11/16 10:10

**N. Wall 3Ft
1603078-01 (Soil)**

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 03/10/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1603110	03/10/16	03/10/16	8015M	

Date Sampled: 03/10/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		148 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 03/10/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1603109	03/10/16	03/10/16	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: 03/10/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		132 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	21-167		"	"	"	"	

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

Date Sampled: 03/10/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

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 - HSR Kramer 2-27

Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/11/16 10:10

**N. Wall 3Ft
1603078-01 (Soil)**

Summit Scientific

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

Calcium	5900	12.2 mg/kg dry	1	1603106	03/10/16	03/10/16	EPA 6020/Mod. USDA60 6(2, 3A)	
Magnesium	1970	6.08	"	"	"	"	"	"
Sodium	277	6.08	"	"	"	"	"	"

Date Sampled: 03/10/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.800		units	"	1603112	03/11/16	03/11/16	"	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 03/10/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.474	0.0100	mmhos/cm	1	1603108	03/10/16	03/10/16	SM 2510B	

Date Sampled: 03/10/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.23	0.100	pH Units	"	1603107	03/10/16	03/10/16	EPA 9045	

Date Sampled: 03/10/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	82.2		%	"	1603111	03/11/16	03/11/16	% calculation	

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 - HSR Kramer 2-27

Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/11/16 10:10

Floor 6Ft
1603078-02 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/10/16 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1603110	03/10/16	03/10/16	8015M	

Date Sampled: **03/10/16 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		133 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/10/16 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1603109	03/10/16	03/10/16	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: **03/10/16 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		136 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		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.



Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - HSR Kramer 2-27

Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/11/16 10:10

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 1603110 - EPA 3550A

Blank (1603110-BLK1)

Prepared & Analyzed: 03/10/16

C10-C28 (DRO)	ND	50	mg/kg							
Surrogate: o-Terphenyl	18.9		"	12.5		151	30-150			

LCS (1603110-BS1)

Prepared & Analyzed: 03/10/16

C10-C28 (DRO)	514	50	mg/kg	499		103	73-134			
Surrogate: o-Terphenyl	20.2		"	12.5		161	30-150			

Matrix Spike (1603110-MS1)

Source: 1603078-02

Prepared & Analyzed: 03/10/16

C10-C28 (DRO)	425	50	mg/kg	448	21.6	90.0	50-148			
Surrogate: o-Terphenyl	16.4		"	11.2		146	30-150			

Matrix Spike Dup (1603110-MSD1)

Source: 1603078-02

Prepared & Analyzed: 03/10/16

C10-C28 (DRO)	437	50	mg/kg	461	21.6	90.0	50-148	2.79	13	
Surrogate: o-Terphenyl	16.6		"	11.6		144	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.



Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - HSR Kramer 2-27

Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/11/16 10:10

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 1603109 - EPA 5030 Soil MS

Blank (1603109-BLK1)

Prepared & Analyzed: 03/10/16

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	0.0484		"	0.0400		121	23-173			
Surrogate: Toluene-d8	0.0416		"	0.0400		104	20-170			
Surrogate: 4-Bromofluorobenzene	0.0426		"	0.0400		106	21-167			

LCS (1603109-BS1)

Prepared & Analyzed: 03/10/16

Naphthalene	ND	0.010	mg/kg				66-138			
Benzene	0.0963	0.0020	"	0.100		96.3	58-130			
Toluene	0.0958	0.0050	"	0.100		95.8	61-134			
Ethylbenzene	0.109	0.0050	"	0.0992		109	74-139			
m,p-Xylene	0.227	0.010	"	0.200		114	73-137			
o-Xylene	0.105	0.0050	"	0.0980		107	73-141			
Surrogate: 1,2-Dichloroethane-d4	0.0491		"	0.0400		123	23-173			
Surrogate: Toluene-d8	0.0404		"	0.0400		101	20-170			
Surrogate: 4-Bromofluorobenzene	0.0415		"	0.0400		104	21-167			

Matrix Spike (1603109-MS1)

Source: 1603078-02

Prepared & Analyzed: 03/10/16

Naphthalene	ND	0.010	mg/kg		ND		10-158			
Benzene	0.0951	0.0020	"	0.0998	ND	95.3	30-131			
Toluene	0.0943	0.0050	"	0.0998	ND	94.4	30-134			
Ethylbenzene	0.106	0.0050	"	0.0990	ND	107	22-153			
m,p-Xylene	0.225	0.010	"	0.199	ND	113	10-159			
o-Xylene	0.102	0.0050	"	0.0978	ND	105	31-151			
Surrogate: 1,2-Dichloroethane-d4	0.0516		"	0.0399		129	23-173			
Surrogate: Toluene-d8	0.0405		"	0.0399		101	20-170			
Surrogate: 4-Bromofluorobenzene	0.0410		"	0.0399		103	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.



Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - HSR Kramer 2-27

Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/11/16 10:10

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 1603109 - EPA 5030 Soil MS

Matrix Spike Dup (1603109-MSD1)		Source: 1603078-02			Prepared & Analyzed: 03/10/16					
Naphthalene	ND	0.010	mg/kg		ND		10-158		42	
Benzene	0.0883	0.0020	"	0.0921	ND	95.9	30-131	7.36	34	
Toluene	0.0879	0.0050	"	0.0921	ND	95.5	30-134	6.94	30	
Ethylbenzene	0.0966	0.0050	"	0.0913	ND	106	22-153	9.21	24	
m,p-Xylene	0.204	0.010	"	0.184	ND	111	10-159	9.43	68	
o-Xylene	0.0942	0.0050	"	0.0902	ND	104	31-151	8.25	38	
Surrogate: 1,2-Dichloroethane-d4		0.0493	"	0.0368		134	23-173			
Surrogate: Toluene-d8		0.0387	"	0.0368		105	20-170			
Surrogate: 4-Bromofluorobenzene		0.0395	"	0.0368		107	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.



Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - HSR Kramer 2-27

Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/11/16 10:10

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 1603106 - General Prep

Blank (1603106-BLK1)

Prepared & Analyzed: 03/10/16

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

LCS (1603106-BS1)

Prepared: 03/10/16 Analyzed: 03/11/16

Calcium	513	10.0	mg/kg wet	500	103	82.9-118
Magnesium	521	5.00	"	500	104	77.1-123
Sodium	548	5.00	"	500	110	71-129

Duplicate (1603106-DUP1)

Source: 1603078-01

Prepared: 03/10/16 Analyzed: 03/11/16

Calcium	1780	12.2	mg/kg dry	5900	107	200
Magnesium	822	6.08	"	1970	82.4	200
Sodium	83.3	6.08	"	277	107	200

Matrix Spike (1603106-MS1)

Source: 1603078-01

Prepared: 03/10/16 Analyzed: 03/11/16

Calcium	2220	12.2	mg/kg dry	608	5900	NR	75-125	QM-07
Magnesium	1330	6.08	"	608	1970	NR	75-125	QM-07
Sodium	676	6.08	"	608	277	65.6	75-125	QM-07

Matrix Spike Dup (1603106-MSD1)

Source: 1603078-01

Prepared: 03/10/16 Analyzed: 03/11/16

Calcium	2290	12.2	mg/kg dry	608	5900	NR	75-125	2.81	25	QM-07
Magnesium	1330	6.08	"	608	1970	NR	75-125	0.0783	25	QM-07
Sodium	707	6.08	"	608	277	70.8	75-125	4.54	25	QM-07

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 - HSR Kramer 2-27

Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/11/16 10:10

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 1603107 - General Preparation

LCS (1603107-BS1)

Prepared & Analyzed: 03/10/16

pH	6.03	0.100	pH Units	6.00	100	95-105
----	------	-------	----------	------	-----	--------

Duplicate (1603107-DUP1)

Source: 1603078-01

Prepared & Analyzed: 03/10/16

pH	8.27	0.100	pH Units	8.23	0.485	20
----	------	-------	----------	------	-------	----

Batch 1603108 - General Preparation

Blank (1603108-BLK1)

Prepared & Analyzed: 03/10/16

Specific Conductance (EC)	ND	0.0100	mmhos/cm
---------------------------	----	--------	----------

LCS (1603108-BS1)

Prepared & Analyzed: 03/10/16

Specific Conductance (EC)	0.0978	0.00200	mmhos/cm	0.100	97.8	90-110
---------------------------	--------	---------	----------	-------	------	--------

Duplicate (1603108-DUP1)

Source: 1603078-01

Prepared & Analyzed: 03/10/16

Specific Conductance (EC)	0.514	0.0100	mmhos/cm	0.474	8.29	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 - HSR Kramer 2-27

Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/11/16 10:10

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

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.

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