



LEGEND

-  FENCE LINE
-  CONTAINMENT BERM
-  ABOVE GROUND STORAGE TANK
-  FORMER FACILITY

**Figure 1
SITE MAP**

Noble Dinner K 13-2
 Facility ID - 328933
 NW NE Section 13, T4N, R66W
 Weld County, Colorado

API No. 05-123-16641	Prepared by	Drawn by JMA
Date 4/14/16	Reviewed by	Filename V019A



Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

March 22, 2016

Paul Henehan
Fremont Environmental
1759 Redwing Lane
Broomfield, CO 80020
RE: Noble - Dinner K 13-2

Enclosed are the results of analyses for samples received by Summit Scientific on 03/21/16 17:40. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Paul Shrewsbury
President



Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Dinner K 13-2

Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/22/16 06:59

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Floor 5'	1603143-01	Soil	03/21/16 00:00	03/21/16 17:40
N. Wall 3'	1603143-02	Soil	03/21/16 00:00	03/21/16 17:40

Summit Scientific

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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Dinner K 13-2

Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/22/16 06:59

Summit Scientific 1603143

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: 303 956 8714 Fax: _____ Project Name: NOBLE - DINNER K 13-2
Sampler Name: HENEHAN 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	GLD/DRO	MPPTD	SAR	EC	PH	
1	FLOOR 5 FT	3/21/16		1			✓			✓				✓	✓	✓	✓	✓	
2	HL WALK 3 FT	"		1			✓		✓					✓	✓	✓	✓	✓	
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
Relinquished by: <u>[Signature]</u>		Date/Time: <u>3/21/16 12:28</u>		Received by: <u>[Signature]</u>		Date/Time: <u>3-21-16 14:45</u>		Turn Around Time (Check)		Notes:									
								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"/>		TUES. AM PLE									
								Sample Integrity:		Temperature Upon Receipt: <u>23.2</u>									
								Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No											

www.s2scientific.com



Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Dinner K 13-2

Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/22/16 06:59

Floor 5'
1603143-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/21/16 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1603214	03/21/16	03/21/16	8015M	

Date Sampled: **03/21/16 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		112 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/21/16 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1603213	03/21/16	03/21/16	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: **03/21/16 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		93.7 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.7 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	21-167		"	"	"	"	

Summit Scientific

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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Dinner K 13-2

Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/22/16 06:59

N. Wall 3'
1603143-02 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/21/16 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1603214	03/21/16	03/21/16	8015M	

Date Sampled: **03/21/16 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		110 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/21/16 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1603213	03/21/16	03/21/16	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: **03/21/16 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		99.5 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		100 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.3 %	21-167		"	"	"	"	

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

Date Sampled: **03/21/16 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Dinner K 13-2

Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/22/16 06:59

N. Wall 3'
1603143-02 (Soil)

Summit Scientific

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	1090	10.7	mg/kg dry	1	1603217	03/21/16	03/21/16	EPA 6020/Mod. USDA60 6(2, 3A)	
Magnesium	155	5.36	"	"	"	"	"	"	
Sodium	58.3	5.36	"	"	"	"	"	"	

Date Sampled: 03/21/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.440		units	"	1603221	03/22/16	03/22/16	"	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 03/21/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.612	0.0100	mmhos/cm	1	1603216	03/21/16	03/21/16	SM 2510B	

Date Sampled: 03/21/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.59	0.100	pH Units	"	1603215	03/21/16	03/21/16	EPA 9045	

Date Sampled: 03/21/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	93.2		%	"	1603220	03/22/16	03/22/16	% calculation	

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1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Dinner K 13-2

Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/22/16 06:59

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 1603214 - EPA 3550A

Blank (1603214-BLK1)

Prepared & Analyzed: 03/21/16

C10-C28 (DRO)	ND	50	mg/kg							
<i>Surrogate: o-Terphenyl</i>	15.1		"	12.5		121	30-150			

LCS (1603214-BS1)

Prepared & Analyzed: 03/21/16

C10-C28 (DRO)	518	50	mg/kg	499		104	73-134			
<i>Surrogate: o-Terphenyl</i>	14.6		"	12.5		117	30-150			

Matrix Spike (1603214-MS1)

Source: 1603143-01

Prepared & Analyzed: 03/21/16

C10-C28 (DRO)	446	50	mg/kg	461	14.2	93.7	50-148			
<i>Surrogate: o-Terphenyl</i>	13.3		"	11.6		115	30-150			

Matrix Spike Dup (1603214-MSD1)

Source: 1603143-01

Prepared & Analyzed: 03/21/16

C10-C28 (DRO)	461	50	mg/kg	441	14.2	101	50-148	3.34	13	
<i>Surrogate: o-Terphenyl</i>	13.6		"	11.0		124	30-150			

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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Dinner K 13-2

Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/22/16 06:59

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 1603213 - EPA 5030 Soil MS

Blank (1603213-BLK1)

Prepared & Analyzed: 03/21/16

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	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0370</i>		<i>"</i>	<i>0.0400</i>		<i>92.6</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0386</i>		<i>"</i>	<i>0.0400</i>		<i>96.6</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0394</i>		<i>"</i>	<i>0.0400</i>		<i>98.6</i>	<i>21-167</i>			

LCS (1603213-BS1)

Prepared & Analyzed: 03/21/16

Naphthalene	ND	0.010	mg/kg				66-138			
Benzene	0.0847	0.0020	"	0.100		84.7	58-130			
Toluene	0.0957	0.0050	"	0.100		95.7	61-134			
Ethylbenzene	0.105	0.0050	"	0.0992		106	74-139			
m,p-Xylene	0.197	0.010	"	0.200		98.8	73-137			
o-Xylene	0.0980	0.0050	"	0.0980		100	73-141			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0355</i>		<i>"</i>	<i>0.0400</i>		<i>88.7</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0412</i>		<i>"</i>	<i>0.0400</i>		<i>103</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0402</i>		<i>"</i>	<i>0.0400</i>		<i>101</i>	<i>21-167</i>			

Matrix Spike (1603213-MS1)

Source: 1603143-01

Prepared & Analyzed: 03/21/16

Naphthalene	ND	0.010	mg/kg		ND		10-158			
Benzene	0.0888	0.0020	"	0.0956	ND	92.9	30-131			
Toluene	0.101	0.0050	"	0.0956	ND	106	30-134			
Ethylbenzene	0.111	0.0050	"	0.0948	ND	117	22-153			
m,p-Xylene	0.209	0.010	"	0.191	ND	109	10-159			
o-Xylene	0.104	0.0050	"	0.0937	ND	111	31-151			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0349</i>		<i>"</i>	<i>0.0382</i>		<i>91.3</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0384</i>		<i>"</i>	<i>0.0382</i>		<i>100</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0380</i>		<i>"</i>	<i>0.0382</i>		<i>99.4</i>	<i>21-167</i>			

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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Dinner K 13-2

Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/22/16 06:59

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 1603213 - EPA 5030 Soil MS

Matrix Spike Dup (1603213-MSD1)	Source: 1603143-01			Prepared & Analyzed: 03/21/16						
Naphthalene	ND	0.010	mg/kg	ND	ND	93.3	10-158		42	
Benzene	0.0926	0.0020	"	0.0992	ND	93.3	30-131	4.15	34	
Toluene	0.107	0.0050	"	0.0992	ND	108	30-134	5.10	30	
Ethylbenzene	0.124	0.0050	"	0.0984	ND	126	22-153	10.7	24	
m,p-Xylene	0.231	0.010	"	0.198	ND	117	10-159	10.2	68	
o-Xylene	0.115	0.0050	"	0.0972	ND	119	31-151	10.5	38	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0370</i>		<i>"</i>	<i>0.0397</i>		<i>93.3</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0391</i>		<i>"</i>	<i>0.0397</i>		<i>98.6</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0407</i>		<i>"</i>	<i>0.0397</i>		<i>103</i>	<i>21-167</i>			

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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Dinner K 13-2

Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/22/16 06:59

Soluble Nutrients by EPA 6020/Mod. 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 1603217 - General Preparation

Blank (1603217-BLK1)

Prepared & Analyzed: 03/21/16

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

LCS (1603217-BS1)

Prepared & Analyzed: 03/21/16

Calcium	559	10.0	mg/kg wet	500	112	82.9-118				
Magnesium	508	5.00	"	500	102	77.1-123				
Sodium	544	5.00	"	500	109	71-129				

Duplicate (1603217-DUP1)

Source: 1603143-02

Prepared & Analyzed: 03/21/16

Calcium	1030	10.7	mg/kg dry	1090			4.78	200		
Magnesium	155	5.36	"	155			0.605	200		
Sodium	56.8	5.36	"	58.3			2.62	200		

Matrix Spike (1603217-MS1)

Source: 1603143-02

Prepared & Analyzed: 03/21/16

Calcium	1530	10.7	mg/kg dry	536	1090	83.6	75-125			
Magnesium	740	5.36	"	536	155	109	75-125			
Sodium	654	5.36	"	536	58.3	111	75-125			

Matrix Spike Dup (1603217-MSD1)

Source: 1603143-02

Prepared & Analyzed: 03/21/16

Calcium	1520	10.7	mg/kg dry	536	1090	81.6	75-125	0.708	25	
Magnesium	729	5.36	"	536	155	107	75-125	1.44	25	
Sodium	661	5.36	"	536	58.3	112	75-125	1.09	25	

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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Dinner K 13-2

Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/22/16 06:59

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

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

Batch 1603215 - General Preparation

LCS (1603215-BS1)					Prepared & Analyzed: 03/21/16					
pH	6.09	0.100	pH Units	6.00	102	95-105				
Duplicate (1603215-DUP1)					Source: 1603143-02 Prepared & Analyzed: 03/21/16					
pH	7.63	0.100	pH Units	7.59	0.526	20				

Batch 1603216 - General Preparation

Blank (1603216-BLK1)					Prepared & Analyzed: 03/21/16					
Specific Conductance (EC)	ND	0.0100	mmhos/cm							
LCS (1603216-BS1)					Prepared & Analyzed: 03/21/16					
Specific Conductance (EC)	0.0985	0.00200	mmhos/cm	0.100	98.5	90-110				
Duplicate (1603216-DUP1)					Source: 1603143-02 Prepared & Analyzed: 03/21/16					
Specific Conductance (EC)	0.612	0.0100	mmhos/cm	0.612	0.0817	20				

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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Dinner K 13-2

Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/22/16 06:59

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

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