



LEGEND

- SOIL SAMPLE LOCATION
- FENCE LINE
- CONTAINMENT BERM
- ABOVE GROUND STORAGE TANK
- FORMER WATER VAULT
- FORMER FACILITY

4/4/18		DATE SAMPLED
N. Wall ~ 3'		LOCATION and DEPTH (ft)
B	<0.002	BENZENE (mg/kg)
T	<0.005	TOLUENE (mg/kg)
E	<0.005	ETHYLBENZENE (mg/kg)
X	<0.005	TOTAL XYLENES (mg/kg)
N	<0.010	NAPHTHALENE (mg/kg)
G	<0.50	TPH-GRO (mg/kg)
D	<50	TPH-DRO (mg/kg)
EC	0.300	EC mmhos/cm
pH	8.6	pH Units
SAR	0.130	SAR Units

4/4/18		DATE SAMPLED
Floor ~ 6'		LOCATION and DEPTH (ft)
B	<0.002	BENZENE (mg/kg)
T	<0.005	TOLUENE (mg/kg)
E	<0.005	ETHYLBENZENE (mg/kg)
X	<0.005	TOTAL XYLENES (mg/kg)
N	<0.010	NAPHTHALENE (mg/kg)
G	<50	TPH-GRO (mg/kg)
D	<50	TPH-DRO (mg/kg)

**Figure 1
SITE MAP**

Dinner 14-13, 14, 15 (East Vault)
 Facility ID - 332187
 SENW Sec 14, T6N, R65W - 40.48747°N 104.63483°W
 Weld County, Colorado

API No. 05-123-21947	Prepared by TDA	Drawn by TDA	
Date 5/29/18	Reviewed by PH	Filename V173A	

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

April 17, 2018

Paul Henehan

Fremont Environmental

PO Box 1289

Wellington, CO 80549

RE: Noble - Dinner 14-14, 15 East Vault

Enclosed are the results of analyses for samples received by Summit Scientific on 04/05/18 15:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Paul Shrewsbury For Ben Shrewsbury
President / Laboratory Director



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Dinner 14-14, 15 East Vault

Project Number: RC# 815902570
Project Manager: Paul Henehan

Reported:
04/17/18 08:14

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S. WALL 3 FT	1804061-01	Soil	04/04/18 00:00	04/05/18 15:00
FLOOR 6FT	1804061-02	Soil	04/04/18 00:00	04/05/18 15:00

Summit Scientific

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Summit Scientific

S₂

1804061

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

BILL TO HOWARD

Address: P.O. Box 1289

E-Mail: paulh@fremontenv.com

City/State/Zip: PO Box 1829 Wellington, CO 80549

Phone: 303-956-8714

Fax:

Project Name: *NOBLE - DINNER 14-14, 15 (EAST VAULT)*

Sampler Name: *HENEHAN*

Project Number: *RC# 815902570*

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	<i>SWALL 3 FT</i>	<i>4/4/18</i>		<i>1</i>			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>						
2	<i>FLOOR 6 FT</i>	<i>"</i>		<i>1</i>			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>						
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

Relinquished by: <i>PA/FE</i>	Date/Time: <i>4/5/18 1500</i>	Received by: <i>MP</i>	Date/Time: <i>4/5/18 1500</i>	Turn Around Time (Check) 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: <i>5.7°C</i> Intact: Yes No	Notes: <i>on ice</i>
Relinquished by:	Date/Time:	Received by:	Date/Time:		
Relinquished by:	Date/Time:	Received by:	Date/Time:		

Sample Receipt Checklist

S2 Work Order: 1804061

Client: Fremont Env. Client Project ID: Noble - Dinner 14-14, 15 (East Vault)

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

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

Cooler ID					
Temp (°C)	5.7				

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ?	✓			
<small>NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.</small>				
Were all samples received intact ⁽¹⁾ ?	✓			
Was adequate sample volume provided ⁽¹⁾ ?	✓			
If custody seals are present, are they intact ⁽¹⁾ ?			✓	
Are short holding time analytes or samples with HTs due within 48 hours present?			✓	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	✓			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	✓			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	✓			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	✓			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			✓	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ?			✓	
<small>Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect</small>				
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ?			✓	
<small>Record the pH in Comments.</small>				
If dissolved metals are requested, were samples field filtered?			✓	
Additional Comments (if any):				

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.

Nakita
Custodian Printed Name

[Signature]
Signature or Initials of Custodian

4/5/18 1500
Date/Time



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Dinner 14-14, 15 East Vault

Project Number: RC# 815902570
Project Manager: Paul Henehan

Reported:
04/17/18 08:14

**S. WALL 3 FT
1804061-01 (Soil)**

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/04/18 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	1804034	04/06/18	04/06/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Naphthalene	0.0051	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **04/04/18 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		86.0 %	70-130		"	"	"	"	
Surrogate: Toluene-d8		104 %	70-130		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		85.3 %	70-130		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/04/18 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1804037	04/06/18	04/06/18	EPA 8015M	

Date Sampled: **04/04/18 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		104 %	80-124		"	"	"	"	

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

Date Sampled: **04/04/18 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	3260	2.50	mg/kg dry	1	1804061	04/13/18	04/16/18	EPA 6020B	

Summit Scientific

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Reported:
 04/17/18 08:14

**S. WALL 3 FT
 1804061-01 (Soil)**

Summit Scientific

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

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Magnesium	463	1.00	mg/kg dry	1	1804061	04/13/18	04/16/18	EPA 6020B
Sodium	346	5.00	"	"	"	"	"	"

Calculated Analysis

Date Sampled: **04/04/18 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.45	0.100	units	1	1804077	04/14/18	04/14/18	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/04/18 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.646	0.0100	mmhos/cm	1	1804068	04/13/18	04/13/18	EPA 120.1	
% Solids	93.0		%	"	1804111	04/16/18	04/16/18	Calculation	
pH	8.5		pH Units	"	1804076	04/06/18	04/14/18	EPA 9045D	

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Project: Noble - Dinner 14-14, 15 East Vault

Project Number: RC# 815902570
Project Manager: Paul Henehan

Reported:
04/17/18 08:14

FLOOR 6FT
1804061-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/04/18 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	1804034	04/06/18	04/06/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **04/04/18 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		87.7 %	70-130		"	"	"	"	
Surrogate: Toluene-d8		105 %	70-130		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		84.3 %	70-130		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/04/18 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1804037	04/06/18	04/06/18	EPA 8015M	

Date Sampled: **04/04/18 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		107 %	80-124		"	"	"	"	

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Project Manager: Paul Henehan

Reported:
04/17/18 08:14

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 1804034 - EPA 5030 Soil MS

Blank (1804034-BLK1)

Prepared & Analyzed: 04/05/18

Benzene	ND	0.0050	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Naphthalene	ND	0.0050	"							
Gasoline Range Hydrocarbons	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0338		"	0.0396		85.5	70-130			
Surrogate: Toluene-d8	0.0418		"	0.0400		105	70-130			
Surrogate: 4-Bromofluorobenzene	0.0337		"	0.0400		84.2	70-130			

LCS (1804034-BS1)

Prepared & Analyzed: 04/05/18

Benzene	0.0734	0.0050	mg/kg	0.100		73.4	86-121			
Toluene	0.0764	0.0050	"	0.100		76.4	76-137			
Surrogate: 1,2-Dichloroethane-d4	0.0312		"	0.0396		78.8	70-130			
Surrogate: Toluene-d8	0.0420		"	0.0400		105	70-130			
Surrogate: 4-Bromofluorobenzene	0.0326		"	0.0400		81.5	70-130			

Matrix Spike (1804034-MS1)

Source: 1804061-01

Prepared & Analyzed: 04/05/18

Benzene	0.0808	0.0050	mg/kg	0.100	ND	80.8	86-121			
Toluene	0.0824	0.0050	"	0.100	ND	82.4	76-137			
Surrogate: 1,2-Dichloroethane-d4	0.0341		"	0.0396		86.1	70-130			
Surrogate: Toluene-d8	0.0423		"	0.0400		106	70-130			
Surrogate: 4-Bromofluorobenzene	0.0323		"	0.0400		80.8	70-130			

Matrix Spike Dup (1804034-MSD1)

Source: 1804061-01

Prepared & Analyzed: 04/05/18

Benzene	0.0713	0.0050	mg/kg	0.100	ND	71.3	86-121	12.5	20	
Toluene	0.0722	0.0050	"	0.100	ND	72.2	76-137	13.2	20	
Surrogate: 1,2-Dichloroethane-d4	0.0328		"	0.0396		82.7	70-130			
Surrogate: Toluene-d8	0.0420		"	0.0400		105	70-130			
Surrogate: 4-Bromofluorobenzene	0.0329		"	0.0400		82.2	70-130			

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 04/17/18 08:14

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 1804037 - EPA 3550A

Blank (1804037-BLK1)				Prepared & Analyzed: 04/05/18						
C10-C28 (DRO)	ND	50	mg/kg							
LCS (1804037-BS1)				Prepared & Analyzed: 04/05/18						
C10-C28 (DRO)	530	50	mg/kg	500	106	81.4-129				
Matrix Spike (1804037-MS1)				Source: 1804061-01		Prepared & Analyzed: 04/05/18				
C10-C28 (DRO)	470	50	mg/kg	500	14.9	91.0	77.8-133			
Matrix Spike Dup (1804037-MSD1)				Source: 1804061-01		Prepared & Analyzed: 04/05/18				
C10-C28 (DRO)	508	50	mg/kg	500	14.9	98.5	77.8-133	7.76	8.48	

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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 1804061 - General Preparation

Blank (1804061-BLK1)

Prepared: 04/13/18 Analyzed: 04/14/18

Calcium	ND	2.50	mg/kg wet							
Magnesium	ND	1.00	"							
Sodium	ND	5.00	"							

LCS (1804061-BS1)

Prepared: 04/13/18 Analyzed: 04/14/18

Calcium	1070	2.50	mg/kg wet	1000	107	70-130				
Magnesium	1130	1.00	"	1000	113	70-130				
Sodium	1120	5.00	"	1000	112	70-130				

Duplicate (1804061-DUP1)

Source: 1804067-01

Prepared: 04/13/18 Analyzed: 04/14/18

Calcium	1030	2.50	mg/kg dry	1050			2.27	20		
Magnesium	885	1.00	"	905			2.21	20		
Sodium	499	5.00	"	482			3.33	20		

Matrix Spike (1804061-MS1)

Source: 1804067-01

Prepared: 04/13/18 Analyzed: 04/14/18

Calcium	1950	2.50	mg/kg dry	1080	1050	83.3	70-130			
Magnesium	1870	1.00	"	1080	905	89.8	70-130			
Sodium	1330	5.00	"	1080	482	78.9	70-130			

Matrix Spike Dup (1804061-MSD1)

Source: 1804067-01

Prepared: 04/13/18 Analyzed: 04/14/18

Calcium	1920	2.50	mg/kg dry	1080	1050	80.4	70-130	1.59	25	
Magnesium	1860	1.00	"	1080	905	89.1	70-130	0.377	25	
Sodium	1290	5.00	"	1080	482	75.2	70-130	3.09	25	

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Reported:
 04/17/18 08:14

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 1804068 - General Preparation

Blank (1804068-BLK1)		Prepared & Analyzed: 04/13/18									
Specific Conductance (EC)	ND	0.0100	mmhos/cm								
LCS (1804068-BS1)		Prepared & Analyzed: 04/13/18									
Specific Conductance (EC)	0.786	0.0100	mmhos/cm				80-120				
Duplicate (1804068-DUP1)		Source: 1804004-02		Prepared & Analyzed: 04/13/18							
Specific Conductance (EC)	0.446	0.0100	mmhos/cm		0.410			8.33	20		

Batch 1804076 - General Preparation

Duplicate (1804076-DUP1)		Source: 1804004-02		Prepared: 04/06/18 Analyzed: 04/14/18							
pH	8.3		pH Units		8.2			0.484	20		

Batch 1804111 - General Preparation

Duplicate (1804111-DUP1)		Source: 1804061-01		Prepared & Analyzed: 04/16/18							
% Solids	93.4		%		93.0			0.429	20		

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Project: Noble - Dinner 14-14, 15 East Vault

Project Number: RC# 815902570
Project Manager: Paul Henehan

Reported:
04/17/18 08:14

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