



LEGEND

	FENCE LINE
	CONTAINMENT BERM
	ABOVE GROUND STORAGE TANK
	FORMER FACILITY

Figure 1
SITE MAP

Noble Gunther Alles BB31-9
 Facility ID - 328093
 NE SE Section 31, T5N, R63W - 40.35284°N 104.46986°W
 Weld County, Colorado

API No.
05-123-15536

Prepared by

Drawn by
JMA

Date
9/5/17

Reviewed by

Filename
V147A



Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

August 17, 2017

Paul Henahan
Fremont Environmental
1759 Redwing Lane
Broomfield, CO 80020
RE: Noble - Gunther Alles BB 31-09

Enclosed are the results of analyses for samples received by Summit Scientific on 08/11/17 14:40. 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 line extending to the right.

Ben Shrewsbury
Laboratory Manager



Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Gunther Alles BB 31-09

Project Number: [none]
Project Manager: Paul Henehan

Reported:
08/17/17 17:31

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Northwall 5'	1708105-01	Soil	08/11/17 00:00	08/11/17 14:40
Floor 6'	1708105-02	Soil	08/11/17 00:00	08/11/17 14:40

Summit Scientific

A handwritten signature in black ink, appearing to be 'P. Henehan', written over a horizontal line.

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 - Gunther Alles BB 31-09

Project Number: [none]
Project Manager: Paul Henehan

Reported:
08/17/17 17:31

Summit Scientific

S₂

1708105

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

Client: Fremont Environmental

Address: P.O. Box 1289

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

Phone: 303-956-8714

Sampler Name:

Mark T

Project Manager: Paul Henehan

E-Mail: paulh@fremontenv.com

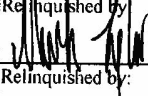
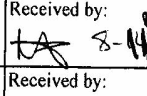
Page 1 of 1

Project Name:

Noble - Gunther Alles BB 31-09

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	GRO/DRO	Napthalene	SAR	EC	Ph	
1	North Hall 5 th Floor 6	8/11/17		1															
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Relinquished by: 	Date/Time: 8/11/17 14:40	Received by: 	Date/Time: 8-11-17 14:40	Turn Around Time (Check) Same Day <input type="checkbox"/> 24 hours <input checked="" type="checkbox"/> 72 hours <input checked="" type="checkbox"/> 48 hours <input type="checkbox"/> Sample Integrity: 0.8 Temperature Upon Receipt: <input checked="" type="checkbox"/> Intact: <input checked="" type="checkbox"/> No <input type="checkbox"/> Notes: ONIC
Relinquished by:	Date/Time:	Received by:	Date/Time:	
Relinquished by:	Date/Time:	Received by:	Date/Time:	

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 - Gunther Alles BB 31-09

Project Number: [none]
Project Manager: Paul Henehan

Reported:
08/17/17 17:31

Sample Receipt Checklist

S2 Work Order: 1708105

Client: Fremont

Client Project ID: Noble - Gunther Alles BB 31-09

Shipped Via: P/U
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Airbill #: _____

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

Cooler ID					
Temp (°C)	<u>10.8</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⁾ ?	<input checked="" type="checkbox"/>			
NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.				
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				
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ?			<input checked="" type="checkbox"/>	
Record the pH in Comments.				
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.				

Paul Henehan
Custodian Printed Name

[Signature]
Signature or Initials of Custodian

8-11-17 1800
Date/Time



Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Gunther Alles BB 31-09
Project Number: [none]
Project Manager: Paul Henehan

Reported:
08/17/17 17:31

Northwall 5'
1708105-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 08/11/17 00:00									
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1708130	08/14/17	08/14/17	8015M	

Date Sampled: 08/11/17 00:00									
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		94.0 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 08/11/17 00:00									
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1708129	08/14/17	08/14/17	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: 08/11/17 00:00									
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		118 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	21-167		"	"	"	"	

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

Date Sampled: 08/11/17 00:00									
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	2220	11.7	mg/kg dry	1	1708126	08/14/17	08/14/17	EPA 6020/Mod. USDA60 6(2, 3A)	

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 - Gunther Alles BB 31-09
Project Number: [none]
Project Manager: Paul Henehan

Reported:
08/17/17 17:31

Northwall 5'
1708105-01 (Soil)

Summit Scientific

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

Magnesium	533	5.84 mg/kg dry	1	1708126	08/14/17	08/14/17	EPA 6020/Mod. USDA60 6(2, 3A)
Sodium	86.3	5.84 "	"	"	"	"	"
Sodium Adsorption Ratio	0.427	units	"	1708140	08/15/17	08/15/17	"

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/11/17 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	8.26	0.100	pH Units	1	1708146	08/16/17	08/16/17	EPA 9045	
Specific Conductance (EC)	0.731	0.0100	mmhos/cm	"	1708147	08/16/17	08/17/17	SM 2510B	
% Solids	85.6		%	"	1708125	08/14/17	08/15/17	% 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 - Gunther Alles BB 31-09
Project Number: [none]
Project Manager: Paul Henehan

Reported:
08/17/17 17:31

Floor 6'
1708105-02 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/11/17 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1708130	08/14/17	08/14/17	8015M	

Date Sampled: **08/11/17 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		94.6 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/11/17 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1708129	08/14/17	08/14/17	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: **08/11/17 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		117 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		100 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	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 - Gunther Alles BB 31-09

Project Number: [none]
Project Manager: Paul Henehan

Reported:
08/17/17 17:31

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 1708130 - EPA 3550A

Blank (1708130-BLK1)

Prepared & Analyzed: 08/14/17

C10-C28 (DRO) ND 50 mg/kg

Surrogate: o-Terphenyl 12.7 " 12.5 101 30-150

LCS (1708130-BS1)

Prepared & Analyzed: 08/14/17

C10-C28 (DRO) 602 50 mg/kg 499 121 73-134

Surrogate: o-Terphenyl 13.2 " 12.5 106 30-150

Matrix Spike (1708130-MS1)

Source: 1708105-01

Prepared & Analyzed: 08/14/17

C10-C28 (DRO) 482 50 mg/kg 499 42.8 88.1 50-148

Surrogate: o-Terphenyl 11.9 " 12.5 95.5 30-150

Matrix Spike Dup (1708130-MSD1)

Source: 1708105-01

Prepared & Analyzed: 08/14/17

C10-C28 (DRO) 481 50 mg/kg 499 42.8 87.7 50-148 0.336 20

Surrogate: o-Terphenyl 11.9 " 12.5 95.1 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 - Gunther Alles BB 31-09
Project Number: [none]
Project Manager: Paul Henehan

Reported:
08/17/17 17:31

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 1708129 - EPA 5030 Soil MS

Blank (1708129-BLK1)

Prepared & Analyzed: 08/14/17

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	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0457</i>		<i>"</i>	<i>0.0400</i>		<i>114</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0401</i>		<i>"</i>	<i>0.0400</i>		<i>100</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0405</i>		<i>"</i>	<i>0.0400</i>		<i>101</i>	<i>21-167</i>			

LCS (1708129-BS1)

Prepared & Analyzed: 08/14/17

Naphthalene	ND	0.010	mg/kg				66-138			
Benzene	0.0794	0.0020	"	0.100		79.4	58-130			
Toluene	0.0902	0.0050	"	0.100		90.2	61-134			
Ethylbenzene	0.0902	0.0050	"	0.0992		91.0	74-139			
m,p-Xylene	0.166	0.010	"	0.200		83.1	73-137			
o-Xylene	0.0842	0.0050	"	0.0980		85.9	73-141			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0419</i>		<i>"</i>	<i>0.0400</i>		<i>105</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0471</i>		<i>"</i>	<i>0.0400</i>		<i>118</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0394</i>		<i>"</i>	<i>0.0400</i>		<i>98.4</i>	<i>21-167</i>			

Matrix Spike (1708129-MS1)

Source: 1708105-01

Prepared & Analyzed: 08/14/17

Naphthalene	ND	0.010	mg/kg		ND		10-158			
Benzene	0.0890	0.0020	"	0.100	ND	89.0	30-131			
Toluene	0.103	0.0050	"	0.100	ND	103	30-134			
Ethylbenzene	0.110	0.0050	"	0.0992	ND	110	22-153			
m,p-Xylene	0.204	0.010	"	0.200	ND	102	10-159			
o-Xylene	0.102	0.0050	"	0.0980	ND	104	31-151			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0459</i>		<i>"</i>	<i>0.0400</i>		<i>115</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0444</i>		<i>"</i>	<i>0.0400</i>		<i>111</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0406</i>		<i>"</i>	<i>0.0400</i>		<i>102</i>	<i>21-167</i>			

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 - Gunther Alles BB 31-09

Project Number: [none]
Project Manager: Paul Henehan

Reported:
08/17/17 17:31

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 1708129 - EPA 5030 Soil MS

Matrix Spike Dup (1708129-MSD1)		Source: 1708105-01			Prepared & Analyzed: 08/14/17					
Naphthalene	ND	0.010	mg/kg		ND		10-158		42	
Benzene	0.0962	0.0020	"	0.100	ND	96.2	30-131	7.71	34	
Toluene	0.111	0.0050	"	0.100	ND	111	30-134	7.04	30	
Ethylbenzene	0.127	0.0050	"	0.0992	ND	128	22-153	14.8	24	
m,p-Xylene	0.234	0.010	"	0.200	ND	117	10-159	13.6	68	
o-Xylene	0.118	0.0050	"	0.0980	ND	120	31-151	14.5	38	
Surrogate: 1,2-Dichloroethane-d4	0.0465		"	0.0400		116	23-173			
Surrogate: Toluene-d8	0.0415		"	0.0400		104	20-170			
Surrogate: 4-Bromofluorobenzene	0.0405		"	0.0400		101	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 - Gunther Alles BB 31-09
Project Number: [none]
Project Manager: Paul Henehan

Reported:
08/17/17 17:31

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

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

Batch 1708126 - General Preparation

Blank (1708126-BLK1)

Prepared & Analyzed: 08/14/17

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

LCS (1708126-BS1)

Prepared & Analyzed: 08/14/17

Calcium	480	10.0	mg/kg wet	500	96.0	82.9-118
Magnesium	513	5.00	"	500	103	77.1-123
Sodium	468	5.00	"	500	93.6	71-129

Duplicate (1708126-DUP1)

Source: 1708102-09

Prepared & Analyzed: 08/14/17

Calcium	257	11.1	mg/kg dry	249	3.22	200
Magnesium	92.5	5.54	"	95.9	3.67	200
Sodium	5.07	5.54	"	4.94	2.69	200

Matrix Spike (1708126-MS1)

Source: 1708102-09

Prepared & Analyzed: 08/14/17

Calcium	744	11.1	mg/kg dry	554	249	89.5	75-125
Magnesium	681	5.54	"	554	95.9	106	75-125
Sodium	520	5.54	"	554	4.94	93.1	75-125

Matrix Spike Dup (1708126-MSD1)

Source: 1708102-09

Prepared & Analyzed: 08/14/17

Calcium	739	11.1	mg/kg dry	554	249	88.5	75-125	0.718	25
Magnesium	677	5.54	"	554	95.9	105	75-125	0.658	25
Sodium	518	5.54	"	554	4.94	92.7	75-125	0.408	25

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 - Gunther Alles BB 31-09

Project Number: [none]
Project Manager: Paul Henehan

Reported:
08/17/17 17:31

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 1708125 - General Preparation

Duplicate (1708125-DUP1) **Source: 1708102-09** Prepared: 08/14/17 Analyzed: 08/15/17

% Solids	91.3		%		90.3			1.02	20	
----------	------	--	---	--	------	--	--	------	----	--

Batch 1708146 - General Preparation

LCS (1708146-BS1) Prepared & Analyzed: 08/16/17

pH	9.20	0.100	pH Units	9.16	100	95-105				
----	------	-------	----------	------	-----	--------	--	--	--	--

Duplicate (1708146-DUP1) **Source: 1708104-05** Prepared & Analyzed: 08/16/17

pH	8.84	0.100	pH Units	8.87			0.339	20		
----	------	-------	----------	------	--	--	-------	----	--	--

Batch 1708147 - General Preparation

Blank (1708147-BLK1) Prepared: 08/16/17 Analyzed: 08/17/17

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

LCS (1708147-BS1) Prepared: 08/16/17 Analyzed: 08/17/17

Specific Conductance (EC)	0.751	0.0100	mmhos/cm	0.750	100	90-110				
---------------------------	-------	--------	----------	-------	-----	--------	--	--	--	--

Duplicate (1708147-DUP1) **Source: 1708104-05** Prepared: 08/16/17 Analyzed: 08/17/17

Specific Conductance (EC)	1.24	0.0100	mmhos/cm	1.25			0.361	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 - Gunther Alles BB 31-09

Project Number: [none]
Project Manager: Paul Henehan

Reported:
08/17/17 17:31

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