

TABLE 1
SOIL ANALYTICAL DATA
NOBLE ENERGY, INC. - WEBSTER 11-32 WELLHEAD RELEASE

Soil Sample ID	Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	Naphthalene (mg/kg)
COGCC Standard		0.17	85	100	175	500		23
BH01@18-20'	12/09/15	<0.0020	<0.0050	<0.0050	<0.010	<50	91	<0.010
BH02@4-8'	12/09/15	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
BH03@18-20'	12/09/15	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
BH04@18-20'	12/09/15	<0.0020	<0.0050	<0.0050	<0.010	<50	65	<0.010

COGCC = Colorado Oil and Gas Conservation Commission

TPH-GRO = Total petroleum hydrocarbons - gasoline range organics

TPH-DRO = Total petroleum hydrocarbons - diesel range organics

mg/kg = Milligrams per kilogram

< = Analytical result is less than the indicated laboratory reporting limit

Soil standards referenced from COGCC Table 910-1

Highlighted results exceed the COGCC Table 910-1 standard

TABLE 2
GROUNDWATER ANALYTICAL DATA
NOBLE ENERGY, INC. - WEBSTER 11-32 WELLHEAD RELEASE

Monitoring Well ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
COGCC Standard		5	560	700	1,400
BH01	12/11/15	<1.0	<1.0	<1.0	<1.0
BH02	12/11/15	<1.0	<1.0	<1.0	<1.0
BH03	12/11/15	<1.0	<1.0	<1.0	<1.0
BH04	12/11/15	<1.0	<1.0	<1.0	<1.0

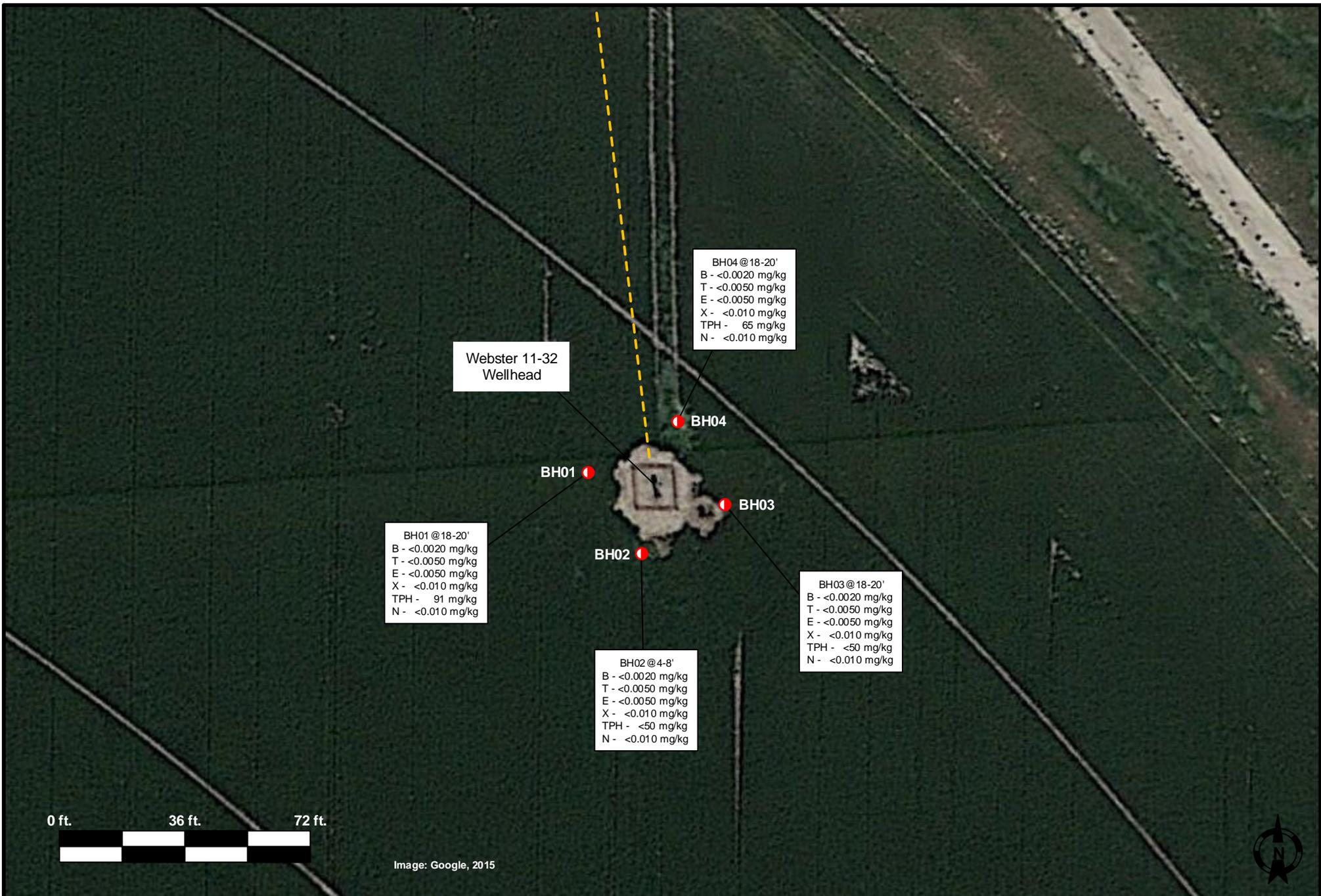
COGCC = Colorado Oil and Gas Conservation Commission

µg/L = Micrograms per liter

< = Analytical result is less than the indicated laboratory reporting limit

Groundwater standards referenced from COGCC Table 910-1

Highlighted results exceed the COGCC Table 910-1 standard



PROJECT NO:
 DRAWN BY: BAM
 DATE: 12/14/15



Facility
 Webster 11-32
 Weld County, CO

LEGEND:

● Borehole Soil Sample

X Approximate Release Location

--- Noble Flow Line

mg/kg Milligrams Per Kilogram

B - Benzene
 T - Toluene
 E - Ethylbenzene
 X - Total Xylenes
 TPH - Total Petroleum Hydrocarbons
 N - Naphthalene

Borehole Analytical
 Results Map
 (12/09/15)
 Figure 2



PROJECT NO:
 DRAWN BY: BAM
 DATE: 12/14/15



Facility
 Webster 11-32
 Weld County, CO

LEGEND:
 Groundwater Monitoring Well
 Approximate Release Location

Noble Flow Line
 µg/L Micrograms Per Liter

B - Benzene
 T - Toluene
 E - Ethylbenzene
 X - Total Xylenes



Groundwater Analytical
 Results Map
 (12/11/15)
 Figure 3

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

December 10, 2015

Brandon Bruns
Tasman Geosciences
6899 Pecos Street
Denver, CO 80221
RE: Webster 11-32

Enclosed are the results of analyses for samples received by Summit Scientific on 12/09/15 17:25. 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', written in a cursive style.

Paul Shrewsbury
President



Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Webster 11-32

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
12/10/15 06:41

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01@18-20'	1512080-01	Soil	12/09/15 09:34	12/09/15 17:25
BH02@4-8'	1512080-02	Soil	12/09/15 10:30	12/09/15 17:25
BH03@18-20'	1512080-03	Soil	12/09/15 13:45	12/09/15 17:25
BH04@18-20'	1512080-04	Soil	12/09/15 14:45	12/09/15 17:25

Summit Scientific

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Webster 11-32

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
12/10/15 06:41

Summit Scientific 1512080

741 Corporate Circle Suite 1 • Golden, Colorado 80401
303-277-9310 • 303-374-5933 Fax

Page 1 of 1

Client: Noble/Tasman
Address: _____
City/State/Zip: _____
Phone: _____ Fax: _____
Sampler Name: Brad Margart

Project Manager: Brandon Bruns, Invoice: Jacob Evans
E-Mail: _____
Project Name: Webster 11-32
Project Number: _____

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative			Matrix			Analyze For:				Special Instructions	
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	8280 BTEX	8280B GBTEXN		8015 DRO
BH01@18-20'	12/9/15	0934	1			X									
BH02@4-8'	12/9/15	1030	1			X						X	X		
BH03@18-20'	12/9/15	1345	1			X						X	X		
BH04@18-20'	12/9/15	1445	1			X						X	X		
Relinquished by: <u>[Signature]</u>	Date/Time: <u>12/9/15</u>	Received by: <u>[Signature]</u>	Date/Time: <u>12/9/15 1700</u>	Turn Around Time (Check)				Notes:							
				Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/>				on ice							
				24 Hours <input type="checkbox"/> Standard <input type="checkbox"/>											
				48 Hours <input type="checkbox"/>											
Relinquished by: <u>[Signature]</u>	Date/Time: <u>12/9/15 1725</u>	Received by: <u>[Signature]</u>	Date/Time: <u>12/9 1725</u>	Sample Integrity: <u>55°C</u>											
				Temperature Upon Receipt: _____											
				Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No											

www.s2scientific.com



Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Webster 11-32

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
12/10/15 06:41

BH01@18-20'
1512080-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 12/09/15 09:34

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	91	50	mg/kg	1	1512090	12/09/15	12/09/15	8015M	

Date Sampled: 12/09/15 09:34

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		94.0 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/09/15 09:34

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1512089	12/09/15	12/09/15	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: 12/09/15 09:34

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		79.6 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		95.3 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		109 %	21-167		"	"	"	"	

Summit Scientific

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Webster 11-32

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
12/10/15 06:41

BH02@4-8'
1512080-02 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 12/09/15 10:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1512090	12/09/15	12/10/15	8015M	

Date Sampled: 12/09/15 10:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		98.2 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/09/15 10:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1512089	12/09/15	12/09/15	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: 12/09/15 10:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		80.7 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		89.5 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		90.6 %	21-167		"	"	"	"	

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Webster 11-32

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
12/10/15 06:41

BH03@18-20'
1512080-03 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 12/09/15 13:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1512090	12/09/15	12/10/15	8015M	

Date Sampled: 12/09/15 13:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		94.0 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/09/15 13:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1512089	12/09/15	12/09/15	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: 12/09/15 13:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		88.1 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		91.0 %	21-167		"	"	"	"	

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Webster 11-32

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
12/10/15 06:41

BH04@18-20'
1512080-04 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 12/09/15 14:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	65	50	mg/kg	1	1512090	12/09/15	12/10/15	8015M	

Date Sampled: 12/09/15 14:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		92.9 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/09/15 14:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1512089	12/09/15	12/09/15	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: 12/09/15 14:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		82.0 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		93.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		90.1 %	21-167		"	"	"	"	

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Webster 11-32

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
12/10/15 06:41

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 1512090 - EPA 3550A

Blank (1512090-BLK1)

Prepared & Analyzed: 12/09/15

C10-C28 (DRO)	ND	50	mg/kg								
<i>Surrogate: o-Terphenyl</i>	11.8		"	12.5		94.0	30-150				

LCS (1512090-BS1)

Prepared & Analyzed: 12/09/15

C10-C28 (DRO)	485	50	mg/kg	499		97.3	73-134				
<i>Surrogate: o-Terphenyl</i>	11.8		"	12.5		94.7	30-150				

Matrix Spike (1512090-MS1)

Source: 1512078-01

Prepared & Analyzed: 12/09/15

C10-C28 (DRO)	509	50	mg/kg	459	24.1	106	50-148				
<i>Surrogate: o-Terphenyl</i>	11.7		"	11.5		102	30-150				

Matrix Spike Dup (1512090-MSD1)

Source: 1512078-01

Prepared & Analyzed: 12/09/15

C10-C28 (DRO)	484	50	mg/kg	470	24.1	97.9	50-148	5.10	13		
<i>Surrogate: o-Terphenyl</i>	11.2		"	11.8		95.3	30-150				

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Webster 11-32

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
12/10/15 06:41

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 1512089 - EPA 5030 Soil MS

Blank (1512089-BLK1)

Prepared & Analyzed: 12/09/15

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>0.0394</i>		<i>"</i>	<i>0.0400</i>		<i>98.6</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0398</i>		<i>"</i>	<i>0.0400</i>		<i>99.6</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0400</i>		<i>"</i>	<i>0.0400</i>		<i>99.9</i>	<i>21-167</i>			

LCS (1512089-BS1)

Prepared & Analyzed: 12/09/15

Naphthalene	ND	0.010	mg/kg				66-138			
Benzene	0.0783	0.0020	"	0.100		78.3	58-130			
Toluene	0.0827	0.0050	"	0.100		82.7	61-134			
Ethylbenzene	0.0988	0.0050	"	0.0992		99.6	74-139			
m,p-Xylene	0.190	0.010	"	0.200		95.4	73-137			
o-Xylene	0.0911	0.0050	"	0.0984		92.6	73-141			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0397</i>		<i>"</i>	<i>0.0400</i>		<i>99.2</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0396</i>		<i>"</i>	<i>0.0400</i>		<i>99.1</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0396</i>		<i>"</i>	<i>0.0400</i>		<i>98.9</i>	<i>21-167</i>			

Matrix Spike (1512089-MS1)

Source: 1512078-01

Prepared & Analyzed: 12/09/15

Naphthalene	ND	0.010	mg/kg		ND		10-158			
Benzene	0.0767	0.0020	"	0.0977	ND	78.5	30-131			
Toluene	0.0816	0.0050	"	0.0977	ND	83.6	30-134			
Ethylbenzene	0.0961	0.0050	"	0.0969	ND	99.2	22-153			
m,p-Xylene	0.185	0.010	"	0.195	ND	94.8	10-159			
o-Xylene	0.0887	0.0050	"	0.0961	ND	92.3	31-151			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0394</i>		<i>"</i>	<i>0.0391</i>		<i>101</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0387</i>		<i>"</i>	<i>0.0391</i>		<i>99.2</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0386</i>		<i>"</i>	<i>0.0391</i>		<i>98.8</i>	<i>21-167</i>			

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Webster 11-32

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
12/10/15 06:41

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 1512089 - EPA 5030 Soil MS

Matrix Spike Dup (1512089-MSD1)	Source: 1512078-01			Prepared & Analyzed: 12/09/15						
Naphthalene	ND	0.010	mg/kg	ND	ND		10-158			42
Benzene	0.0755	0.0020	"	0.0982	ND	76.9	30-131	1.57		34
Toluene	0.0810	0.0050	"	0.0982	ND	82.4	30-134	0.822		30
Ethylbenzene	0.0953	0.0050	"	0.0974	ND	97.8	22-153	0.855		24
m,p-Xylene	0.183	0.010	"	0.196	ND	93.4	10-159	0.898		68
o-Xylene	0.0890	0.0050	"	0.0967	ND	92.1	31-151	0.290		38
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0393</i>		<i>"</i>	<i>0.0393</i>		<i>99.9</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0383</i>		<i>"</i>	<i>0.0393</i>		<i>97.3</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0379</i>		<i>"</i>	<i>0.0393</i>		<i>96.5</i>	<i>21-167</i>			

Summit Scientific

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Webster 11-32

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
12/10/15 06:41

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

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

December 13, 2015

Brandon Bruns
Tasman Geosciences
6899 Pecos Street
Denver, CO 80221
RE: Webster 11-32

Enclosed are the results of analyses for samples received by Summit Scientific on 12/11/15 17:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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

Paul Shrewsbury
President



Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Webster 11-32

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
12/13/15 20:15

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01	1512100-01	Water	12/11/15 12:20	12/11/15 17:00
BH02	1512100-02	Water	12/11/15 12:30	12/11/15 17:00
BH03	1512100-03	Water	12/11/15 12:35	12/11/15 17:00
BH04	1512100-04	Water	12/11/15 12:41	12/11/15 17:00

Summit Scientific

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Webster 11-32

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
12/13/15 20:15

BH01
1512100-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/11/15 12:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1512115	12/12/15	12/12/15	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: 12/11/15 12:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		96.9 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		97.9 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	45-146		"	"	"	"	

Summit Scientific

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Webster 11-32

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
12/13/15 20:15

BH02
1512100-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/11/15 12:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1512115	12/12/15	12/12/15	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: 12/11/15 12:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		99.2 %	37-154		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		98.6 %	45-149		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		98.2 %	45-146		"	"	"	"	

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Denver CO, 80221

Project: Webster 11-32

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
12/13/15 20:15

BH03
1512100-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/11/15 12:35

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1512115	12/12/15	12/12/15	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: 12/11/15 12:35

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.0 %	37-154		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		98.3 %	45-149		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		102 %	45-146		"	"	"	"	

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Project: Webster 11-32

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
12/13/15 20:15

BH04
1512100-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/11/15 12:41

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1512115	12/12/15	12/12/15	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: 12/11/15 12:41

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		99.5 %	37-154		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		99.2 %	45-149		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		104 %	45-146		"	"	"	"	

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Project: Webster 11-32

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
12/13/15 20:15

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch 1512115 - EPA 5030 Water MS

Blank (1512115-BLK1)

Prepared & Analyzed: 12/11/15

Benzene	ND	1.0	ug/l								
Toluene	ND	1.0	"								
Ethylbenzene	ND	1.0	"								
Xylenes (total)	ND	1.0	"								
Surrogate: 1,2-Dichloroethane-d4	12.9		"	13.3		96.5	37-154				
Surrogate: Toluene-d8	13.3		"	13.3		99.5	45-149				
Surrogate: 4-Bromofluorobenzene	13.7		"	13.3		103	45-146				

LCS (1512115-BS1)

Prepared & Analyzed: 12/11/15

Benzene	46.3	1.0	ug/l	50.0		92.6	51-132				
Toluene	46.0	1.0	"	50.0		92.1	51-138				
Ethylbenzene	44.3	1.0	"	50.0		88.6	58-146				
m,p-Xylene	87.4	2.0	"	100		87.4	57-144				
o-Xylene	44.6	1.0	"	50.0		89.1	53-146				
Surrogate: 1,2-Dichloroethane-d4	12.6		"	13.3		94.4	37-154				
Surrogate: Toluene-d8	13.3		"	13.3		99.9	45-149				
Surrogate: 4-Bromofluorobenzene	13.5		"	13.3		101	45-146				

Matrix Spike (1512115-MS1)

Source: 1512066-01

Prepared & Analyzed: 12/11/15

Benzene	51.4	1.0	ug/l	50.0	ND	103	34-141				
Toluene	51.4	1.0	"	50.0	ND	103	27-151				
Ethylbenzene	50.6	1.0	"	50.0	ND	101	29-160				
m,p-Xylene	98.2	2.0	"	100	ND	98.2	20-166				
o-Xylene	49.3	1.0	"	50.0	ND	98.5	33-159				
Surrogate: 1,2-Dichloroethane-d4	11.3		"	13.3		85.1	37-154				
Surrogate: Toluene-d8	13.2		"	13.3		99.4	45-149				
Surrogate: 4-Bromofluorobenzene	13.0		"	13.3		97.2	45-146				

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Denver CO, 80221

Project: Webster 11-32

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
12/13/15 20:15

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 1512115 - EPA 5030 Water MS

Matrix Spike Dup (1512115-MSD1)	Source: 1512066-01			Prepared & Analyzed: 12/11/15						
Benzene	52.5	1.0	ug/l	50.0	ND	105	34-141	2.04	32	
Toluene	52.1	1.0	"	50.0	ND	104	27-151	1.49	25	
Ethylbenzene	52.1	1.0	"	50.0	ND	104	29-160	2.94	50	
m,p-Xylene	101	2.0	"	100	ND	101	20-166	2.90	36	
o-Xylene	51.8	1.0	"	50.0	ND	104	33-159	4.99	26	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>11.7</i>		<i>"</i>	<i>13.3</i>		<i>88.1</i>	<i>37-154</i>			
<i>Surrogate: Toluene-d8</i>	<i>13.3</i>		<i>"</i>	<i>13.3</i>		<i>99.8</i>	<i>45-149</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>12.8</i>		<i>"</i>	<i>13.3</i>		<i>95.7</i>	<i>45-146</i>			

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6899 Pecos Street
Denver CO, 80221

Project: Webster 11-32

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
12/13/15 20:15

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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