

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

July 07, 2015

Carter Peace
Tasman Geosciences
6899 Pecos Street
Denver, CO 80221
RE: Sooner 28-6-1

Enclosed are the results of analyses for samples received by Summit Scientific on 06/26/15 17:10. 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: Sooner 28-6-1

Project Number: [none]
Project Manager: Carter Peace

Reported:
07/07/15 08:17

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS01@6'	1506269-01	Soil	06/26/15 00:00	06/26/15 17:10
SS02@5'	1506269-02	Soil	06/26/15 00:00	06/26/15 17:10
SS03@5'	1506269-03	Soil	06/26/15 00:00	06/26/15 17:10
SS04@5'	1506269-04	Soil	06/26/15 00:00	06/26/15 17:10
SS05@5'	1506269-05	Soil	06/26/15 00:00	06/26/15 17:10

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Sooner 28-6-1

Project Number: [none]
Project Manager: Carter Peace

Reported:
07/07/15 08:17

Summit Scientific

1506269

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303-277-9310 • 303-374-5933 Fax

Page 1 of 1

Client: TASMAN / FOUNDATION (INVOICE) Project Manager: C. PEACE

Address: _____ E-Mail: _____

City/State/Zip: _____ Project Name: SOONER 28-6-1

Phone: _____ Fax: _____ Project Number: _____

Sampler Name: CSO

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)	
SS01 @ 6'	6/26/15					X			X			
SS02 @ 5'						X			X			
SS03 @ 5'						X			X			
SS04 @ 5'						X			X			
SS05 @ 5'						X			X			
Relinquished by: _____ Date/Time: _____				Received by: _____ Date/Time: _____				Turn Around Time (Check)				Notes: an ice
Relinquished by: _____ Date/Time: _____				Received by: _____ Date/Time: _____				Same Day <input type="checkbox"/> 72 Hours <input type="checkbox"/>				
Relinquished by: <u>[Signature]</u> Date/Time: <u>6/26/15 1700</u>				Received in Lab by: <u>[Signature]</u> Date/Time: <u>6/26/15</u>				24 Hours <input type="checkbox"/> Standard <input checked="" type="checkbox"/>				
								48 Hours <input type="checkbox"/>				
								Sample Integrity: Temperature Upon Receipt: <u>5.8°C</u>				
								Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Sooner 28-6-1

Project Number: [none]
Project Manager: Carter Peace

Reported:
07/07/15 08:17

SS01@6'
1506269-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/26/15 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	510	50	mg/kg	1	1506354	06/29/15	06/29/15	8015M	

Date Sampled: **06/26/15 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		100 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/26/15 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.10	mg/kg	1	1506355	06/29/15	06/29/15	EPA 8260B	
Toluene	ND	10	"	"	"	"	"	"	
Ethylbenzene	ND	10	"	"	"	"	"	"	
Xylenes (total)	15	10	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	1100	50	"	"	"	"	"	"	

Date Sampled: **06/26/15 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		95.8 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		90.7 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		113 %	21-167		"	"	"	"	

Summit Scientific

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Sooner 28-6-1

Project Number: [none]
Project Manager: Carter Peace

Reported:
07/07/15 08:17

SS02@5'
1506269-02 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/26/15 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	2300	50	mg/kg	1	1506354	06/29/15	06/29/15	8015M	

Date Sampled: **06/26/15 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		34.3 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/26/15 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	9.8	1.0	mg/kg	10	1506355	06/29/15	06/29/15	EPA 8260B	
Toluene	50	10	"	1	"	"	"	"	
Ethylbenzene	ND	10	"	"	"	"	"	"	
Xylenes (total)	110	100	"	10	"	"	"	"	
Gasoline Range Hydrocarbons	3100	500	"	"	"	"	"	"	

Date Sampled: **06/26/15 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		94.5 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		79.3 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		140 %	21-167		"	"	"	"	

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Sooner 28-6-1

Project Number: [none]
Project Manager: Carter Peace

Reported:
07/07/15 08:17

SS03@5'
1506269-03 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/26/15 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	750	50	mg/kg	1	1506354	06/29/15	06/29/15	8015M	

Date Sampled: **06/26/15 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		116 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/26/15 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.10	mg/kg	1	1506355	06/29/15	06/29/15	EPA 8260B	
Toluene	ND	10	"	"	"	"	"	"	
Ethylbenzene	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	370	50	"	"	"	"	"	"	

Date Sampled: **06/26/15 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		99.0 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		96.6 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		100 %	21-167		"	"	"	"	

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Sooner 28-6-1

Project Number: [none]
Project Manager: Carter Peace

Reported:
07/07/15 08:17

SS04@5'
1506269-04 (Soil)

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Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 06/26/15 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1506354	06/29/15	06/29/15	8015M	

Date Sampled: 06/26/15 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		105 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 06/26/15 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.10	mg/kg	1	1506355	06/29/15	07/06/15	EPA 8260B	
Toluene	ND	10	"	"	"	"	"	"	
Ethylbenzene	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: 06/26/15 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		105 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.5 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.3 %	21-167		"	"	"	"	

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Sooner 28-6-1

Project Number: [none]
Project Manager: Carter Peace

Reported:
07/07/15 08:17

SS05@5'
1506269-05 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 06/26/15 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1506354	06/29/15	06/29/15	8015M	

Date Sampled: 06/26/15 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		104 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 06/26/15 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.10	mg/kg	1	1506355	06/29/15	07/06/15	EPA 8260B	
Toluene	ND	10	"	"	"	"	"	"	
Ethylbenzene	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: 06/26/15 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		108 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.8 %	21-167		"	"	"	"	

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Sooner 28-6-1

Project Number: [none]
Project Manager: Carter Peace

Reported:
07/07/15 08:17

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 1506354 - EPA 3550A

Blank (1506354-BLK1)

Prepared & Analyzed: 06/29/15

C10-C28 (DRO)	ND	50	mg/kg								
<i>Surrogate: o-Terphenyl</i>	<i>11.5</i>		"	<i>12.2</i>		<i>94.6</i>	<i>30-150</i>				

LCS (1506354-BS1)

Prepared & Analyzed: 06/29/15

C10-C28 (DRO)	578	50	mg/kg	501		115	73-134				
<i>Surrogate: o-Terphenyl</i>	<i>12.1</i>		"	<i>12.2</i>		<i>99.5</i>	<i>30-150</i>				

Matrix Spike (1506354-MS1)

Source: 1506268-01

Prepared & Analyzed: 06/29/15

C10-C28 (DRO)	502	50	mg/kg	485	22.9	98.9	50-148				
<i>Surrogate: o-Terphenyl</i>	<i>11.4</i>		"	<i>11.8</i>		<i>96.8</i>	<i>30-150</i>				

Matrix Spike Dup (1506354-MSD1)

Source: 1506268-01

Prepared & Analyzed: 06/29/15

C10-C28 (DRO)	519	50	mg/kg	493	22.9	101	50-148	3.29		13	
<i>Surrogate: o-Terphenyl</i>	<i>11.7</i>		"	<i>12.0</i>		<i>97.1</i>	<i>30-150</i>				

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Sooner 28-6-1

Project Number: [none]
Project Manager: Carter Peace

Reported:
07/07/15 08:17

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 1506355 - EPA 5030 Soil MS

Blank (1506355-BLK1)

Prepared & Analyzed: 06/29/15

Benzene	ND	0.10	mg/kg							
Toluene	ND	10	"							
Ethylbenzene	ND	10	"							
Xylenes (total)	ND	10	"							
Gasoline Range Hydrocarbons	ND	50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0433</i>		<i>"</i>	<i>0.0396</i>		<i>109</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0394</i>		<i>"</i>	<i>0.0400</i>		<i>98.4</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0387</i>		<i>"</i>	<i>0.0400</i>		<i>96.8</i>	<i>21-167</i>			

LCS (1506355-BS1)

Prepared & Analyzed: 06/29/15

Benzene	0.109	0.10	mg/kg	0.100		109	58-130			
Toluene	0.109	10	"	0.100		109	61-134			
Ethylbenzene	0.108	10	"	0.0992		108	74-139			
m,p-Xylene	0.213	10	"	0.200		107	73-137			
o-Xylene	0.113	10	"	0.0984		115	73-141			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0445</i>		<i>"</i>	<i>0.0396</i>		<i>112</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>0.0383</i>		<i>"</i>	<i>0.0400</i>		<i>95.7</i>	<i>21-167</i>			

Matrix Spike (1506355-MS1)

Source: 1506268-01

Prepared & Analyzed: 06/29/15

Benzene	0.103	0.10	mg/kg	0.0958	ND	108	30-131			
Toluene	0.0993	10	"	0.0958	ND	104	30-134			
Ethylbenzene	0.0987	10	"	0.0950	ND	104	22-153			
m,p-Xylene	0.196	10	"	0.191	ND	103	10-159			
o-Xylene	0.106	10	"	0.0943	ND	113	31-151			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0431</i>		<i>"</i>	<i>0.0379</i>		<i>114</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0385</i>		<i>"</i>	<i>0.0383</i>		<i>100</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0376</i>		<i>"</i>	<i>0.0383</i>		<i>98.2</i>	<i>21-167</i>			

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Sooner 28-6-1

Project Number: [none]
Project Manager: Carter Peace

Reported:
07/07/15 08:17

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch 1506355 - EPA 5030 Soil MS

Matrix Spike Dup (1506355-MSD1)	Source: 1506268-01			Prepared & Analyzed: 06/29/15						
Benzene	0.100	0.10	mg/kg	0.0994	ND	101	30-131	3.34	34	
Toluene	0.0931	10	"	0.0994	ND	93.6	30-134	6.49	30	
Ethylbenzene	0.0937	10	"	0.0986	ND	95.0	22-153	5.18	24	
m,p-Xylene	0.185	10	"	0.198	ND	93.3	10-159	5.96	68	
o-Xylene	0.102	10	"	0.0978	ND	104	31-151	4.24	38	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0458</i>		<i>"</i>	<i>0.0394</i>		<i>116</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0405</i>		<i>"</i>	<i>0.0398</i>		<i>102</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0404</i>		<i>"</i>	<i>0.0398</i>		<i>102</i>	<i>21-167</i>			

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Sooner 28-6-1

Project Number: [none]
Project Manager: Carter Peace

Reported:
07/07/15 08:17

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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Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

July 17, 2015

Carter Peace
Tasman Geosciences
6899 Pecos Street
Denver, CO 80221
RE: Sooner 28-6-1

Enclosed are the results of analyses for samples received by Summit Scientific on 07/10/15 17:45. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Paul Shrewsbury
President



Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Sooner 28-6-1

Project Number: [none]
Project Manager: Carter Peace

Reported:
07/17/15 13:32

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS06@8'	1507124-01	Soil	07/10/15 00:00	07/10/15 17:45
SS07@8'	1507124-02	Soil	07/10/15 00:00	07/10/15 17:45
SS08@9'	1507124-03	Soil	07/10/15 00:00	07/10/15 17:45

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Sooner 28-6-1

Project Number: [none]
Project Manager: Carter Peace

Reported:
07/17/15 13:32

1507124

Summit Scientific

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303-277-9310 • 303-374-5933 Fax

Page 1 of 1

Client: TASMAN / FOUNDATION (INVOLVING) Project Manager: C. PEACE
 Address: _____ E-Mail: _____
 City/State/Zip: _____ Project Name: SOONER 28-6-1
 Phone: _____ Fax: _____ Project Number: _____
 Sampler Name: CJP

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)						
5506 @ 8	7/10/15					X						X	8260 GPX				
5507 @ 8						X						X	8015 PRO				
5508 @ 9	↓					X						X					
Relinquished by:	Date/Time:	Received by:	Date/Time:	Turn Around Time (Check)				Notes:									
				Same Day	<input type="checkbox"/>	72 Hours	<input type="checkbox"/>	on ice									
				24 Hours	<input type="checkbox"/>	Standard	<input checked="" type="checkbox"/>										
				48 Hours	<input type="checkbox"/>												
Relinquished by:	Date/Time:	Received by:	Date/Time:	Sample Integrity:													
				Temperature Upon Receipt:	6.0°C												
				Intact:	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No									

WTF 7/10/15 1745
 MA 7/10/15 1815
 R 7/10 1815
 www.szscientific.com



Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Sooner 28-6-1

Project Number: [none]
Project Manager: Carter Peace

Reported:
07/17/15 13:32

SS06@8'
1507124-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 07/10/15 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1507147	07/14/15	07/16/15	8015M	

Date Sampled: 07/10/15 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		108 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 07/10/15 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.10	mg/kg	1	1507163	07/14/15	07/15/15	EPA 8260B	
Toluene	ND	10	"	"	"	"	"	"	
Ethylbenzene	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: 07/10/15 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		104 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.6 %	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.



Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Sooner 28-6-1

Project Number: [none]
Project Manager: Carter Peace

Reported:
07/17/15 13:32

SS07@8'
1507124-02 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/10/15 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1507147	07/14/15	07/16/15	8015M	

Date Sampled: **07/10/15 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		114 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/10/15 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.10	mg/kg	1	1507163	07/14/15	07/16/15	EPA 8260B	
Toluene	ND	10	"	"	"	"	"	"	
Ethylbenzene	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **07/10/15 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		115 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.5 %	21-167		"	"	"	"	

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Sooner 28-6-1

Project Number: [none]
Project Manager: Carter Peace

Reported:
07/17/15 13:32

SS08@9'
1507124-03 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 07/10/15 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1507147	07/14/15	07/16/15	8015M	

Date Sampled: 07/10/15 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		105 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 07/10/15 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.10	mg/kg	1	1507163	07/14/15	07/16/15	EPA 8260B	
Toluene	ND	10	"	"	"	"	"	"	
Ethylbenzene	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: 07/10/15 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		110 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	21-167		"	"	"	"	

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Project: Sooner 28-6-1

Project Number: [none]
Project Manager: Carter Peace

Reported:
07/17/15 13:32

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 1507147 - EPA 3550A

Blank (1507147-BLK1)

Prepared: 07/14/15 Analyzed: 07/15/15

C10-C28 (DRO)	ND	50	mg/kg								
<i>Surrogate: o-Terphenyl</i>	13.6		"	12.2		112	30-150				

LCS (1507147-BS1)

Prepared: 07/14/15 Analyzed: 07/15/15

C10-C28 (DRO)	468	50	mg/kg	501		93.5	73-134				
<i>Surrogate: o-Terphenyl</i>	13.0		"	12.2		107	30-150				

Matrix Spike (1507147-MS1)

Source: 1507143-01

Prepared: 07/14/15 Analyzed: 07/15/15

C10-C28 (DRO)	567	50	mg/kg	485	106	95.2	50-148				
<i>Surrogate: o-Terphenyl</i>	12.8		"	11.8		108	30-150				

Matrix Spike Dup (1507147-MSD1)

Source: 1507143-01

Prepared: 07/14/15 Analyzed: 07/15/15

C10-C28 (DRO)	665	50	mg/kg	481	106	116	50-148	15.9		13	
<i>Surrogate: o-Terphenyl</i>	12.2		"	11.7		104	30-150				

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6899 Pecos Street
Denver CO, 80221

Project: Sooner 28-6-1

Project Number: [none]
Project Manager: Carter Peace

Reported:
07/17/15 13:32

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 1507163 - EPA 5030 Soil MS

Blank (1507163-BLK1)

Prepared: 07/14/15 Analyzed: 07/15/15

Benzene	ND	0.10	mg/kg							
Toluene	ND	10	"							
Ethylbenzene	ND	10	"							
Xylenes (total)	ND	10	"							
Gasoline Range Hydrocarbons	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0382		"	0.0396		96.4	23-173			
Surrogate: Toluene-d8	0.0382		"	0.0400		95.4	20-170			
Surrogate: 4-Bromofluorobenzene	0.0391		"	0.0400		97.7	21-167			

LCS (1507163-BS1)

Prepared: 07/14/15 Analyzed: 07/15/15

Benzene	0.106	0.10	mg/kg	0.100		106	58-130			
Toluene	0.115	10	"	0.100		115	61-134			
Ethylbenzene	0.138	10	"	0.0992		139	74-139			
m,p-Xylene	0.284	10	"	0.200		142	73-150			
o-Xylene	0.139	10	"	0.0984		142	73-150			
Surrogate: 1,2-Dichloroethane-d4	0.0391		"	0.0396		98.6	23-173			
Surrogate: Toluene-d8	0.0403		"	0.0400		101	20-170			
Surrogate: 4-Bromofluorobenzene	0.0390		"	0.0400		97.6	21-167			

Matrix Spike (1507163-MS1)

Source: 1507124-01

Prepared: 07/14/15 Analyzed: 07/15/15

Benzene	0.104	0.10	mg/kg	0.0980	ND	106	30-131			
Toluene	0.114	10	"	0.0980	ND	117	30-134			
Ethylbenzene	0.138	10	"	0.0973	ND	142	22-153			
m,p-Xylene	0.279	10	"	0.196	ND	142	10-159			
o-Xylene	0.142	10	"	0.0965	ND	147	31-151			
Surrogate: 1,2-Dichloroethane-d4	0.0404		"	0.0388		104	23-173			
Surrogate: Toluene-d8	0.0385		"	0.0392		98.1	20-170			
Surrogate: 4-Bromofluorobenzene	0.0384		"	0.0392		97.9	21-167			

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Sooner 28-6-1

Project Number: [none]
Project Manager: Carter Peace

Reported:
07/17/15 13:32

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch 1507163 - EPA 5030 Soil MS

Matrix Spike Dup (1507163-MSD1)	Source: 1507124-01			Prepared: 07/14/15		Analyzed: 07/15/15			
Benzene	0.0962	0.10	mg/kg	0.0928	ND	104	30-131	8.07	34
Toluene	0.107	10	"	0.0928	ND	115	30-134	6.90	30
Ethylbenzene	0.128	10	"	0.0920	ND	139	22-153	7.27	24
m,p-Xylene	0.259	10	"	0.185	ND	140	10-159	7.30	68
o-Xylene	0.131	10	"	0.0913	ND	143	31-151	7.82	38
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0384</i>		<i>"</i>	<i>0.0367</i>		<i>105</i>	<i>23-173</i>		
<i>Surrogate: Toluene-d8</i>	<i>0.0366</i>		<i>"</i>	<i>0.0371</i>		<i>98.6</i>	<i>20-170</i>		
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0367</i>		<i>"</i>	<i>0.0371</i>		<i>98.8</i>	<i>21-167</i>		

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6899 Pecos Street
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Project: Sooner 28-6-1

Project Number: [none]
Project Manager: Carter Peace

Reported:
07/17/15 13:32

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

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