

MOSIER 23-12F

HISTORIC RELEASE

API #: 05-123-16330

Facility #: 248532

Spill/Release Point ID #: 448998

SITE ASSESSMENT AND EXCAVATION SUMMARY REPORT

March 22, 2017



Image: Google

PREPARED ON BEHALF OF

Noble Energy, Inc.
1600 Broadway
Denver, CO 80202



PREPARED BY

Tasman Geosciences, Inc.
6899 Pecos Street, Unit C
Denver, CO 80221



March 22, 2017

Mr. Jacob Evans
Noble Energy Inc.
1600 Broadway
Denver, CO 80202

Subject: **Site Assessment and Excavation Summary Report**
Mosier 23-12F Historic Release
API # 05-123-16330
Spill/Release Point ID #: 448998
Weld County, Colorado

Dear Mr. Evans:

Below please find a copy of the above referenced Site Assessment and Excavation Summary Report for the Mosier 23-12F tank battery site (Site) located in Weld County, Colorado. The text below details environmental assessment, excavation, and sampling activities conducted at the Site as part of a site assessment (Assessment) on January 19, 2017 and for excavation activities (Excavation) completed at the Site between February 21 and March 8, 2017 (Excavation).

INTRODUCTION

On January 20, 2017, a historic release was discovered below one of the production tanks at the Site. The release was described in the Form 19 Spill/Release Report submitted to the Colorado Oil and Gas Conservation Commission (COGCC) on January 20, 2017 (Document Number 401190270). The COGCC subsequently issued Spill/Release Point ID Number 448998 for the release.

FACILITY BACKGROUND

The Site is located approximately 1.5 miles northeast of the town of Gilcrest in Weld County, Colorado (Figure 1). The Site is surrounded by crop land with a legal description of NW ¼ of the SW ¼ of Section 23, Township 4 North, Range 66 West in the sixth meridian. The approximate coordinates of the release are 40.125995, -104.549506. After a review of Colorado Division of Water Resources data, it was determined that there are three water wells and no surface water receptors within ¼ mile of the Site. The closest occupied building is located approximately ¼ mile north of the Site.

FIELD ACTIVITIES

Site Assessment

On January 19, 2017, Tasman was retained by Noble Energy (Noble) to assess soil and groundwater impacts at the Site as a result of an oil production tank release. Twelve (12) boreholes (BH01 – BH12) were installed using direct push drilling techniques and five of these borings were converted to temporary groundwater monitoring wells (BH01, BH02, BH04, BH07, and BH09). Boring and monitoring well locations are illustrated on Figure 2. During boring operations, soil samples were collected and field screened for the presence of volatile organic compounds (VOC) using a photoionization detector (PID) and standard headspace sampling techniques. Soil samples were collected from each boring (including borings converted into groundwater monitoring wells) and submitted to Summit Scientific Laboratories in Golden, Colorado (Summit) for analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX), naphthalene, and total petroleum hydrocarbons-gasoline range organics (TPH-GRO) using United States Environmental Protection Agency (USEPA) Method 8260B, as well as total petroleum hydrocarbons-diesel range organics (TPH-DRO) using USEPA Method 8015. Soil analytical results from the Assessment are summarized in Table 1 and illustrated on Figure 2. Laboratory analytical results are detailed in the laboratory report provided as Attachment A. Laboratory analytical results indicated elevated petroleum hydrocarbon concentrations were present in soil across the Site as a result of the release from the production tank.

Each of the five groundwater monitoring wells were developed. Groundwater samples were not collected based on the presence of light non-aqueous phase liquid (LNAPL). LNAPL was detected in each of the wells throughout well development. Groundwater was encountered at depths ranging from 11.36 feet below ground surface (bgs) in well BH09 to 15.53 feet bgs in well BH04.

Excavation Activities

Based on the results from the Assessment, it was determined that excavation and disposal of impacted material would be completed to address subsurface impacts. Impacted soil was transported to Waste Management Ault and Buffalo Ridge landfills for disposal. Impacted groundwater was hauled to the NGL Water Solutions facility located in Platteville, Colorado. In total, approximately 4,030 cubic yards (cy) of impacted soil and 850 barrels of impacted groundwater were transported off Site under signed waste manifests for disposal. As part of the excavation activities, thirty two (32) confirmation soil samples (SS01 through SS32) were collected from the sidewalls of the excavation area and field screened for volatile organic compound (VOC) concentrations using a photoionization detector (Figure 3). Twenty seven (27) of these samples were submitted to Summit Scientific Laboratory (Summit) in Golden, Colorado for laboratory analysis of benzene, toluene, ethylbenzene, total xylenes (BTEX), naphthalene, total petroleum hydrocarbons – gasoline range organics (TPH-GRO), and TPH – diesel range organics (TPH-DRO) using the same EPA methods as used for the samples submitted from the Assessment.

Sidewall samples were collected on average at approximately 7 ft. below ground surface (bgs). Base samples were not collected in the excavation due to the presence of groundwater. Groundwater samples were not collected and submitted for laboratory analysis based on the presence of LNAPL. During the excavation activities, 330 pounds of granular activated carbon were applied to impacted groundwater in various locations throughout the excavation area. The carbon was allowed to react with the groundwater before the areas were backfilled. The excavation area was backfilled using clean, imported fill material. Backfill material was compacted in 1-foot lifts using an excavator compaction-wheel attachment and the excavation area was re-graded to match the pre-excavation surface conditions.

RESULTS

Laboratory analytical results indicate that BTEX, naphthalene, TPH-GRO, and TPH-DRO concentrations detected during the Assessment and encountered in the final extent of the Excavation are below applicable COGCC Table 910-1 soil standards. As summarized in Table 1 and illustrated on Figure 3, soil samples SS03@7', SS05@7', SS06@7', SS09@7', SS10@7', and SS27@7' exhibited petroleum hydrocarbon concentrations above the COGCC Table 910-1 soil standards and the areas in the excavation where these samples were collected was subsequently over-excavated. Figure 3 illustrates the final extent of the excavation and includes all the soil sample locations, including the additional sample locations in the areas of samples SS03@7', SS05@7', SS06@7', SS09@7', SS10@7', and SS27@7' that met the COGCC Table 910-1 soil standards. The complete laboratory analytical report is provided in Appendix A.

CONCLUSIONS AND RECOMMENDATIONS

Based on laboratory analytical results collected as part of the Excavation, soil impacts detected during the Assessment and Excavation have been removed from the Site. Groundwater impacts are still present at the Site. Groundwater monitoring wells will need to be installed at the site to further assess groundwater impacts and gauge LNAPL thickness across the Site. Once the monitoring wells are installed, quarterly groundwater monitoring events will be initiated.

REMARKS

The discussion and conclusions contained in this report represent the professional opinions of Tasman Geosciences, Inc. These opinions are based on currently available information and are arrived at in accordance with currently accepted geologic and engineering practices.

Please contact me at (720) 431-1190 if you require additional information.

Sincerely,
Tasman Geosciences, Inc.



Brandon Bruns, PE
Project Manager

Attached:

Table 1 – Soil Analytical Data

Figure 1 – Site Location Map

Figure 2 – Site Assessment Overview, January 19, 2017

Figure 3 – Excavation Overview, February 21 – March 8, 2017

Appendix A – Laboratory Analytical Reports

Tables

TABLE 1
SOIL ANALYTICAL DATA
NOBLE ENERGY, INC. - Mosier 23-12F

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@1-2'	01/19/17	33	300	16	370	9,200	950	1.3
BH02@2-3'	01/19/17	0.55	0.34	0.057	0.56	<50	<50	<0.010
BH02@6-8'	01/19/17	0.76	4.4	1.8	14	99	150	0.34
BH03@2-3'	01/19/17	0.057	0.017	0.0053	0.054	<50	<50	<0.010
BH04@7-8'	01/19/17	5.2	36	3.2	58	2,000	130	<0.010
BH05@7-8'	01/19/17	1.2	19	2.2	42	1,700	120	2.2
BH06@7'	01/19/17	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
BH07@6-7'	01/19/17	0.015	0.013	<0.0050	0.024	<50	<50	<0.010
BH08@3-4'	01/19/17	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
BH09@6-7'	01/19/17	0.33	0.64	0.39	2.8	<50	<50	0.056
BH10@6'	01/19/17	3.4	46	7.0	120	6,600	110	0.64
BH11@5'	01/19/17	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
BH12@3-4'	01/19/17	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS02@7'	02/21/17	0.0061	0.0063	<0.0050	0.024	<50	<50	<0.010
SS03@7'	02/22/17	94	430	36	500	3,200	1,300	0.24
SS05@7'	02/22/17	14	130	11	170	1,300	1,000	1.5
SS06@7'	02/22/17	2.3	22	2.2	36	380	190	0.1
SS09@7'	02/24/17	0.22	0.057	<0.0050	0.056	<50	<50	<0.010
SS10@7'	02/24/17	88	450	35	490	4,500	1,100	2.2
SS11@7'	02/24/17	0.015	0.019	<0.0050	0.019	<50	<50	0.01
SS12@7'	02/27/17	0.005	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS13@7'	02/28/17	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS15@7'	02/28/17	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS16@7'	02/28/17	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS17@7'	03/01/17	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS18@7'	03/01/17	0.010	0.0052	<0.0050	0.016	<50	<50	<0.010
SS19@7'	03/01/17	0.012	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS20@7'	03/01/17	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS21@7'	03/02/17	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS22@7'	03/06/17	0.0052	0.0051	<0.0050	<0.010	<50	<50	<0.010
SS23@7'	03/06/17	<0.0020	0.0050	<0.0050	<0.010	<50	<50	<0.010
SS24@7'	03/06/17	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS25@7'	03/06/17	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS26@7'	03/06/17	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS27@7'	03/06/17	26	240	21	320	2,900	710	0.10

TABLE 1
SOIL ANALYTICAL DATA
NOBLE ENERGY, INC. - Mosier 23-12F

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
SS28@7'	03/07/17	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS29@7'	03/07/17	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS30@7'	03/07/17	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS31@7'	03/07/17	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS32@7'	03/08/17	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<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

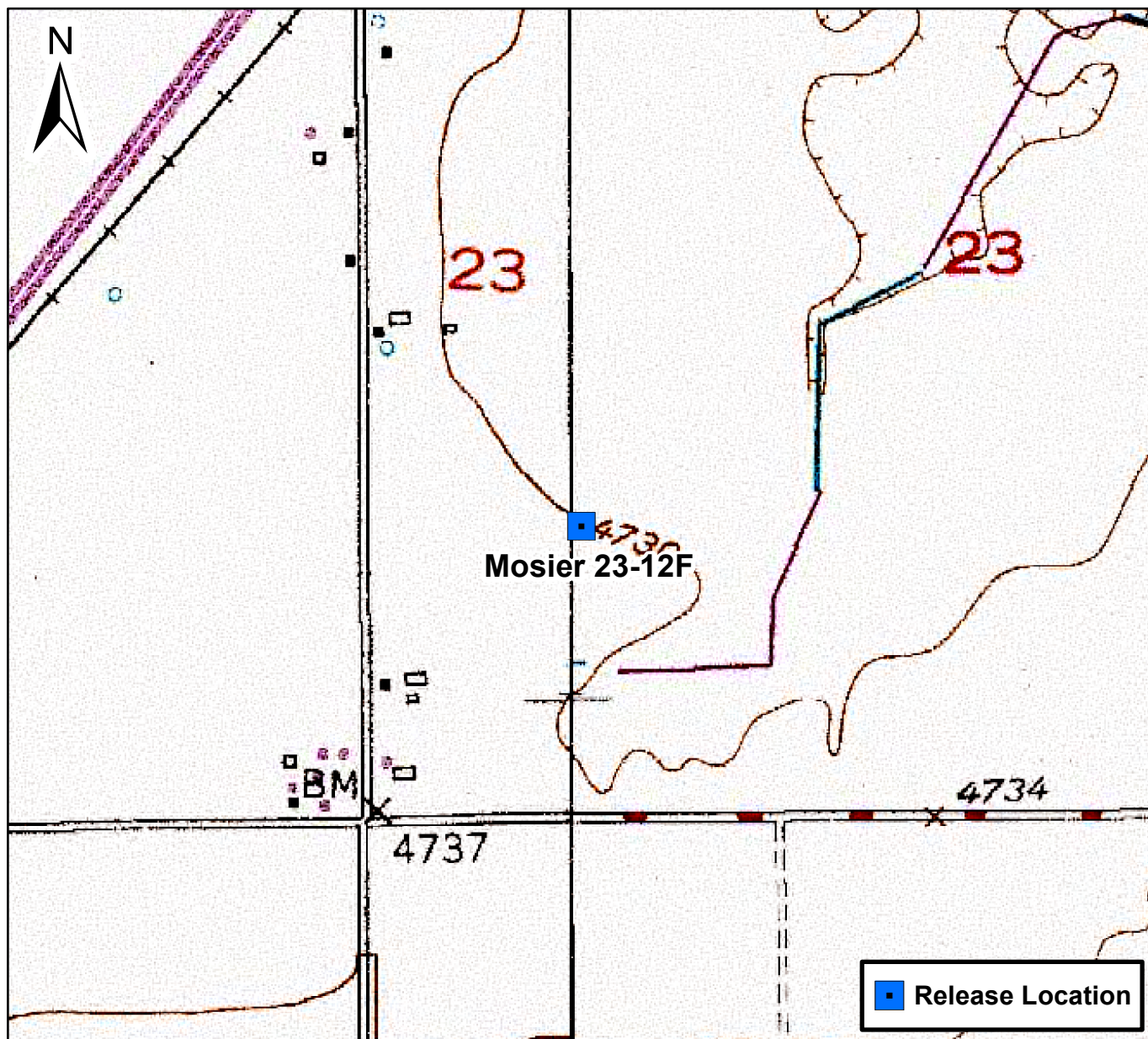
mg/kg = Milligrams per kilogram

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

Soil standards referenced from COGCC Table 910-1

Highlighted results are equal to or exceed the COGCC Table 910-1 standard

Figures

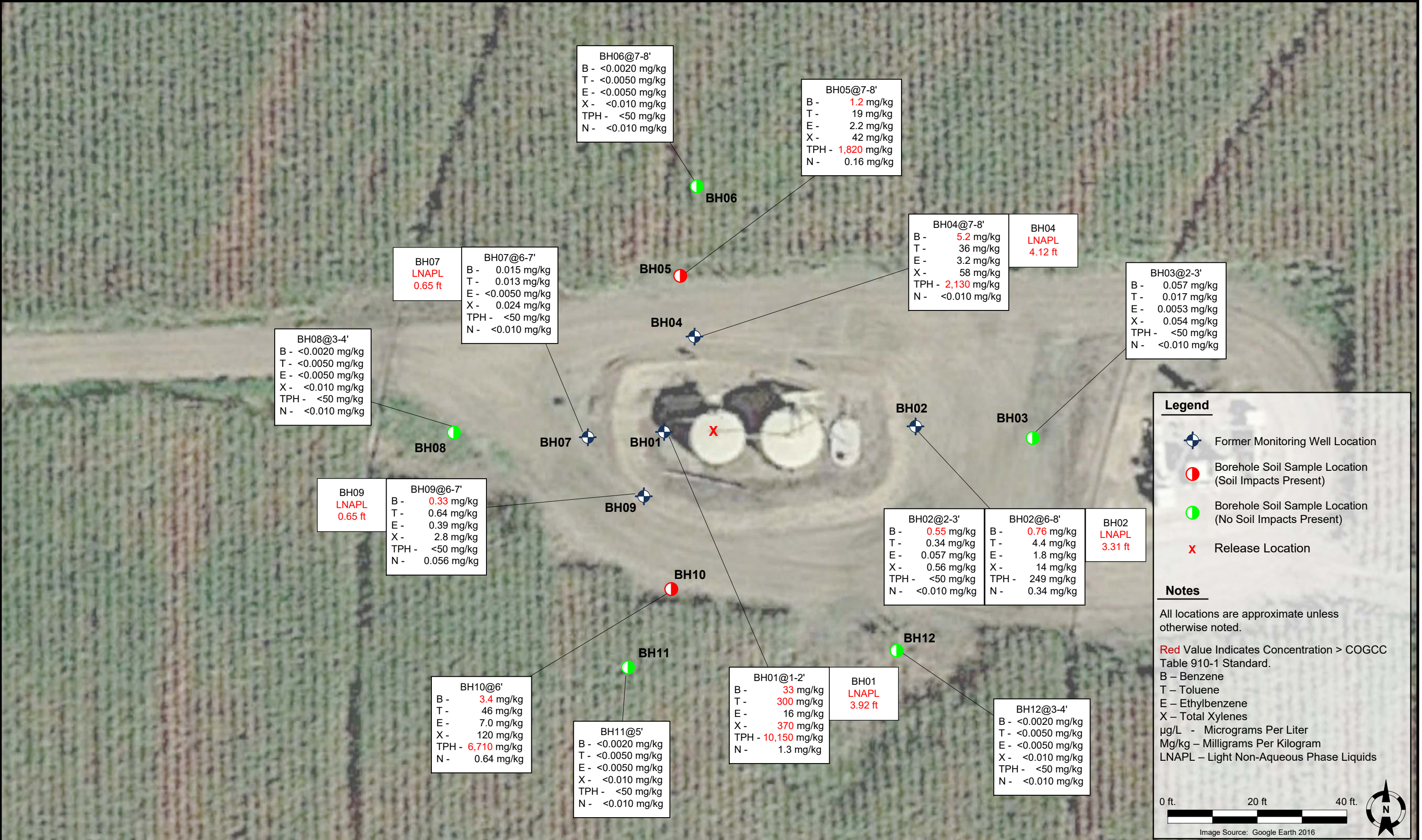


0 750 1,500 Feet

Figure 1

Site Location Map
Mosier 23-12F
NWSW S23 T4N R66W
Weld County, Colorado





DATE:	March 22, 2017
DESIGNED BY:	D. Arnold
DRAWN BY:	D. Arnold



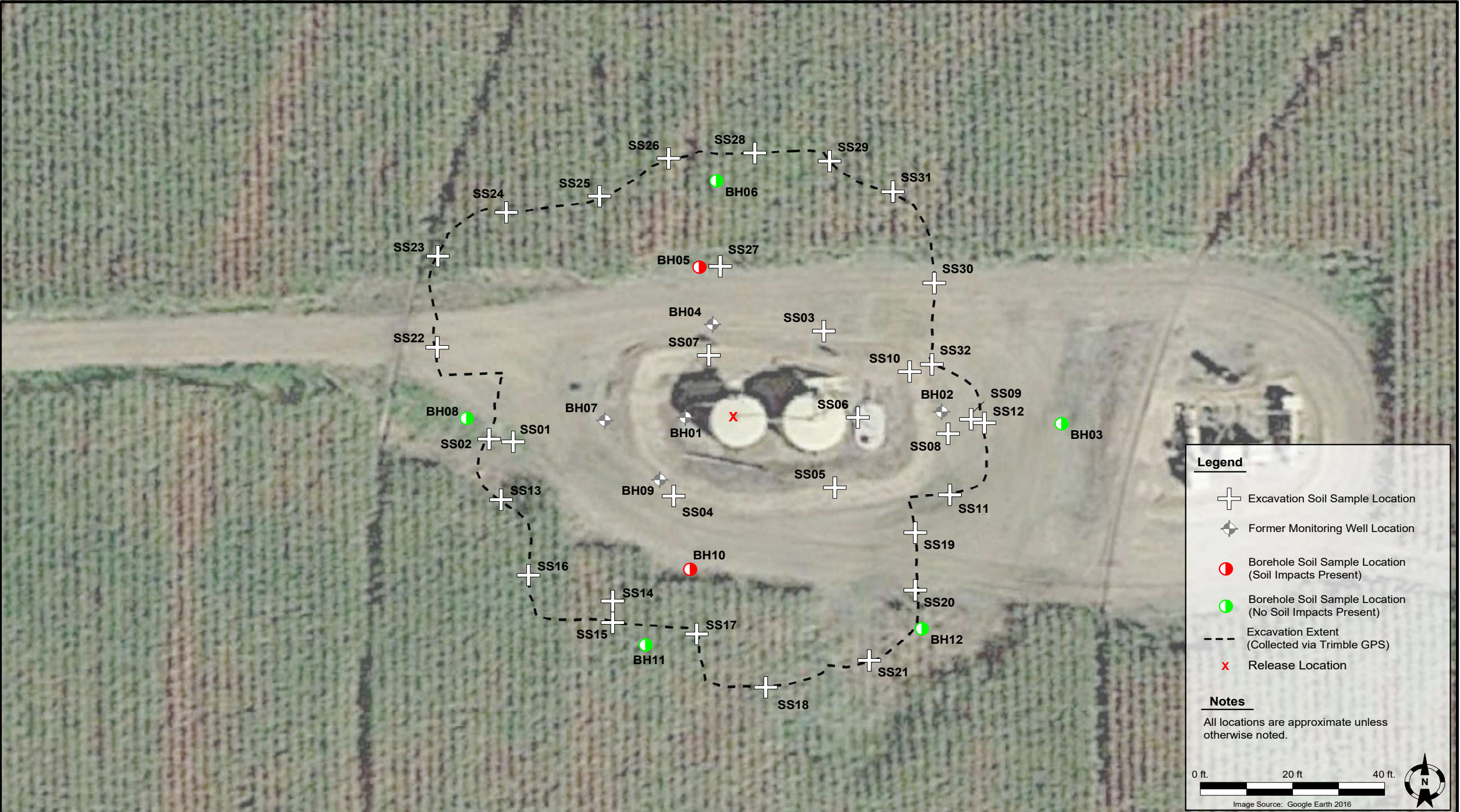
TASMAN
GEOSCIENCES

Tasman Geosciences, Inc.
6899 Pecos St. – Unit C
Denver, CO 80221
(303) 437-1228

**Noble Energy
Mosier 23-12F
Oil Tank Release
Weld County, Colorado**

**Site Assessment Overview
January 19, 2017**

**FIGURE
2**



DATE:	March 22, 2017
DESIGNED BY:	D. Arnold
DRAWN BY:	D. Arnold



TASMAN
GEOSCIENCES

Tasman Geosciences, Inc.
6899 Pecos St. – Unit C
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(303) 437-1228

**Noble Energy
Mosier 23-12F
Oil Tank Release**
Weld County, Colorado

Excavation Overview
February 21 – March 8, 2017

FIGURE
3

Appendix A

Laboratory Analytical Reports

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

March 22, 2017

Brandon Bruns
Tasman Geosciences
6899 Pecos Street
Denver, CO 80221
RE: Mosier 23-12F

Enclosed are the results of analyses for samples received by Summit Scientific on 01/19/17 16:00-03/08/17 17:17. 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: Mosier 23-12F

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01@1-2'	1701129-01	Soil	01/19/17 09:40	01/19/17 16:00
BH02@2-3'	1701129-02	Soil	01/19/17 10:15	01/19/17 16:00
BH02@6-8'	1701129-03	Soil	01/19/17 10:20	01/19/17 16:00
BH03@2-3'	1701129-04	Soil	01/19/17 10:45	01/19/17 16:00
BH04@7-8'	1701129-05	Soil	01/19/17 11:25	01/19/17 16:00
BH05@7-8'	1701129-06	Soil	01/19/17 12:00	01/19/17 16:00
BH06@7'	1701129-07	Soil	01/19/17 12:20	01/19/17 16:00
BH07@6-7'	1701129-08	Soil	01/19/17 12:55	01/19/17 16:00
BH08@3-4'	1701129-09	Soil	01/19/17 13:30	01/19/17 16:00
BH09@6-7'	1701129-10	Soil	01/19/17 13:55	01/19/17 16:00
BH10@6'	1701129-11	Soil	01/19/17 14:20	01/19/17 16:00
BH11@5'	1701129-12	Soil	01/19/17 14:40	01/19/17 16:00
BH12@3-4'	1701129-13	Soil	01/19/17 15:00	01/19/17 16:00
SS02@7'	1702144-01	Soil	02/21/17 14:20	02/21/17 17:45
SS03 @ 7'	1702161-01	Soil	02/22/17 14:00	02/22/17 16:39
SS05 @ 7'	1702161-02	Soil	02/22/17 14:40	02/22/17 16:39
SS06 @ 7'	1702161-03	Soil	02/22/17 14:50	02/22/17 16:39
SS09@7'	1702176-01	Soil	02/24/17 12:50	02/24/17 17:30
SS10@7'	1702176-02	Soil	02/24/17 14:15	02/24/17 17:30
SS11@7'	1702176-03	Soil	02/24/17 14:20	02/24/17 17:30
SS12@7'	1702192-01	Soil	02/27/17 08:30	02/27/17 17:45
SS13@7'	1702204-01	Soil	02/28/17 08:40	02/28/17 17:45
SS15@7'	1702204-02	Soil	02/28/17 13:20	02/28/17 17:45
SS16@7'	1702204-03	Soil	02/28/17 13:30	02/28/17 17:45
SS17@7'	1703003-01	Soil	03/01/17 09:00	03/01/17 17:45
SS18@7'	1703003-02	Soil	03/01/17 14:20	03/01/17 17:45
SS19@7'	1703003-03	Soil	03/01/17 15:30	03/01/17 17:45

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: Mosier 23-12F

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS20@7'	1703003-04	Soil	03/01/17 15:40	03/01/17 17:45
SS21@7'	1703013-01	Soil	03/01/17 08:45	03/02/17 17:45
SS22@7'	1703034-01	Soil	03/06/17 09:20	03/06/17 17:30
SS23@7'	1703034-02	Soil	03/06/17 09:25	03/06/17 17:30
SS24@7'	1703034-03	Soil	03/06/17 09:30	03/06/17 17:30
SS25@7'	1703034-04	Soil	03/06/17 11:25	03/06/17 17:30
SS26@7'	1703034-05	Soil	03/06/17 14:00	03/06/17 17:30
SS27@7'	1703034-06	Soil	03/06/17 15:15	03/06/17 17:30
SS28@7'	1703040-01	Soil	03/07/17 09:00	03/07/17 17:45
SS29@7'	1703040-02	Soil	03/07/17 11:25	03/07/17 17:45
SS30@7'	1703040-03	Soil	03/07/17 14:35	03/07/17 17:45
SS31@7'	1703040-04	Soil	03/07/17 14:45	03/07/17 17:45
SS32 @ 7'	1703047-01	Soil	03/08/17 08:40	03/08/17 17:17

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

Summit Scientific 1701129.1

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

Client: Noble/Tasman Project Manager: Brandon Bruns / Director: Jacob Evans Page 1 of 2
Address: _____ E-Mail: _____
City/State/Zip: _____
Phone: _____ Fax: _____ Project Name: Mosier 23-12 F
Sampler Name: Eric Siegel 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)	8015 DCO	8010 G50XN		
1	BH01e 1-2'	1/19/17	9:40	1			X						X	X		
2	BH02e 2-3'		10:15	1					X							
3	BH02e 6-8'		10:20	1												
4	BH03e 2-3'		10:45	1												
5	BH04e 7-8'		11:25	1												
6	BH05e 7-8'		12:00	1												
7	BH06e 7'		12:20	1												
8	BH07e 6-7'		12:55	1												
9	BH08e 3-4'		13:30	1												
10	BH09e 6-7'	✓	13:55	✓			✓		✓				✓	✓		

Relinquished by: <u>E.A. Siegel</u>	Date/Time: <u>1/19/17 16:00</u>	Received by: <u>JS</u>	Date/Time: <u>1-19-17 16:00</u>	Turn Around Time (Check)	Notes:
Relinquished by: <u>JS</u>	Date/Time: <u>1-19-17 17:45</u>	Received by: <u>JS</u>	Date/Time: <u>1-19-17 17:45</u>	Same Day <input type="checkbox"/> 72 hours <input checked="" type="checkbox"/>	
Relinquished by: _____	Date/Time: _____	Received by: _____	Date/Time: _____	24 hours <input type="checkbox"/> Standard <input type="checkbox"/>	
Relinquished by: _____	Date/Time: _____	Received by: _____	Date/Time: _____	48 hours <input type="checkbox"/>	
Sample Integrity:				Temperature Upon Receipt: <u>4.4</u>	
Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No					

www.s2scientific.com

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

Summit Scientific

1701129.2

S:

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

Client: Noble/Tasman Project Manager: Brandon Bruns / Inquire: Jacob Evans Page 2 of 2
Address: _____ E-Mail: _____
City/State/Zip: _____
Phone: _____ Fax: _____ Project Name: Mosier 23-12F
Sampler Name: Eric Siegel 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)	8015 DCO	8020 BTX		
1	BH102 6'	11/19/17	14:20	1			X						X	X		
2	BH112 5'	↓	14:40	↓			↓						↓	↓		
3	BH122 3-4'	↓	15:00	↓			↓						↓	↓		
4																
5																
6																
7																
8																
9																
10																

Relinquished by: <u>E.A. Siegel</u>	Date/Time: <u>11/19/17 16:00</u>	Received by: <u>[Signature]</u>	Date/Time: <u>1-19-17 16:00</u>	Turn Around Time (Check)	Notes:
Relinquished by: <u>[Signature]</u>	Date/Time: <u>1-19-17 17:45</u>	Received by: <u>[Signature]</u>	Date/Time: <u>1-19-17 17:45</u>	Same Day _____ 72 hours <u>X</u>	
				24 hours _____ Standard _____	
				48 hours _____	
Relinquished by: _____	Date/Time: _____	Received by: _____	Date/Time: _____	Sample Integrity:	
				Temperature Upon Receipt: <u>4.4</u>	
				Intact: <u>Yes</u> No	

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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: Mosier 23-12F

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

Sample Receipt Checklist

S2 Work Order: 170129

Client: Tasman

Client Project ID: Mosier 23-12F

Shipped Via: H.D. on ice
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Airbill #: _____

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

Cooler ID					
Temp (°C)	<u>4.4</u>				

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature just above 0°C to ≤ 6°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
NOTE: If samples are delivered the same day of sampling, this requirement is waived 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.				

Muri P.
Custodian Printed Name

1-19-17
Signature or Initials of Custodian

16:00
Date/Time

Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

1702144

Sample Receipt Checklist

S2 Work Order: _____

Client: Noble/Tasman Client Project ID: Mosier 23-12F

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

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

Cooler ID _____

Temp (°C) 5.3

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature just above 0°C to ≤ 6°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
NOTE: If samples are delivered the same day of sampling, this requirement is waived provided that there is evidence that cooling has begun.				
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Note the type of preservative in the Comments column – HCl, H ₂ SO ₄ , NaOH, HNO ₃ , ect			<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Record the pH in Comments.			<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Additional Comments (if any):				

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

Custodian Printed Name: Muri P Signature or Initials of Custodian: MB 2-21-17 Date/Time: 16:20

Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

1702141

Summit Scientific

741 Corporate Circle Suite I ♦ 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: Eric Siegel

Project Manager: Brandon Bruns, Invoice: Raul Sanchez
E-Mail: _____
Project Name: Mosier 23-12F
Project Number: _____

				Preservative		Matrix		Analyze For:				Special Instructions					
Sample Description	Date Sampled	Time Sampled	Number of Containers	HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)		8260 BTEX	8260B GBTEXN	8015 DRO	pH, EC, SAR	
SS03C7'	2/22/17	1400	1			X			X				X	X			
SS05C7'	2/24/17	1440	1			X			X				X	X			
SS06C7'	2/22/17	1450	1			X			X				X	X			
Relinquished by:				Date/Time:	Received by:		Date/Time:		Turn Around Time (Check)								Notes:
E. A. Hill				2/22/17 10:00	[Signature]		2-22-17 10:00		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"/>								
Relinquished by:				Date/Time:	Received by:		Date/Time:										
Relinquished by:				Date/Time:	Received in Lab by:		Date/Time:		Sample Integrity: Temperature Upon Receipt: 26 Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>								

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

1702161

Sample Receipt Checklist

S2 Work Order: _____

Client: Noble/Tasman

Client Project ID: Mosier 23-12F

Shipped Via: H.D.

(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Airbill #: _____

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

Cooler ID					
Temp (°C)	2.6				

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature just above 0°C to ≤ 6°C ⁽¹⁾ ?				
NOTE: If samples are delivered the same day of sampling, this requirement is waived provided that there is evidence that cooling has begun.	X			
Were all samples received intact ⁽¹⁾ ?	X			
Was adequate sample volume provided ⁽¹⁾ ?	X			
If custody seals are present, are they intact ⁽¹⁾ ?			X	
Are short holding time analytes or samples with HTs due within 48 hours present?	X			
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	X			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	X			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	X			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	X			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			X	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ?			X	
Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect			X	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ?			X	
Record the pH in Comments.			X	
If dissolved metals are requested, were samples field filtered?			X	
Additional Comments (if any):				

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

Murphy
Custodian Printed Name

BA 2-22-17
Signature or Initials of Custodian

17:50
Date/Time



Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

170 2176

Sample Receipt Checklist

S2 Work Order: _____

Client: Noble / Tasman Client Project ID: Mosier 23-12F

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

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

Cooler ID					
Temp (°C)	5.5				

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature just above 0°C to ≤ 6°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
NOTE: If samples are delivered the same day of sampling, this requirement is waived 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.				

Muri P.
Custodian Printed Name

MB 2-24-17
Signature or Initials of Custodian

17:38
Date/Time



Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

1702192

Sample Receipt Checklist

S2 Work Order: _____

Client: Noble/Tasman

Client Project ID: Mosier 23-12F

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)	2.6				

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature just above 0°C to ≤ 6°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
NOTE: If samples are delivered the same day of sampling, this requirement is waived 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.				

Muri P.
Custodian Printed Name

MB 2-27-17
Signature or initials of Custodian

17:45
Date/Time

Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

Summit Scientific 1702264

741 Corporate Circle Suite I ♦ 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: Eric Siegel

Project Manager: Brandon Bruns, Invoice: Raul Sanchez
E-Mail:
Project Name: Mosier 23-12F
Project Number:

[illegible]

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Summit Scientific

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

Sample Receipt Checklist

S2 Work Order: 1702204

Client: Noble/Tasman

Client Project ID: Mosier 23-12F

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>4.1</u>				

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature just above 0°C to ≤ 6°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
NOTE: If samples are delivered the same day of sampling, this requirement is waived 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, H ₂ SO ₄ , NaOH, HNO ₃ , ect			<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ?			<input checked="" type="checkbox"/>	
Record the pH in Comments.			<input checked="" type="checkbox"/>	
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.				

Nakita
Custodian Printed Name

[Signature]
Signature or Initials of Custodian

2/28/17 1730
Date/Time



Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

Summit Scientific 1703003

741 Corporate Circle Suite I ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-374-5933 Fax

Page 1 of 1

Client: Noble/Tasman

Address: -

City/State/Zip: -

Phone: 303-487-1228 Fax: -

Sampler Name: ES

Project Manager: Brandon Bruns, Invoice: Raul Sanchez

E-Mail: ABrun5@tasman-geo.com

Project Name: Mosier 23-12F

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)	8260 BTEX	8260B GBTEXN	8015 DRO		pH, EC, SAR
SS 17 @ 7'	3/1/17	900	1			X		X				X	X			
SS 18 @ 7'	↓	1420	1			X		X				X	X			
SS 19 @ 7'	↓	1530	1			X		X				X	X			
SS 20 @ 7'	↓	1540	1			X		X				X	X			
A wavy line is drawn across the grid, starting from the left margin, dipping down, and then rising back up towards the right margin.																
Relinquished by: E. A. Hill				Date/Time: 3/1/17 1700		Received by: MB		Date/Time: 3/1/17 1700		Turn Around Time (Check)				Notes: on ice		
										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"/>						
Relinquished by: MB				Date/Time: 3/1/17 1740		Received by: DS		Date/Time: 3-1-17 1740		Sample Integrity:						
Relinquished by:				Date/Time:		Received in Lab by:		Date/Time:		Temperature Upon Receipt: 5.7°C						
										Intact: (Yes) <input checked="" type="checkbox"/> No <input type="checkbox"/>						

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

Sample Receipt Checklist

S2 Work Order: 1703003
Client: Noble/Tasman Client Project ID: Mosier 23-12F
Shipped Via: P/U Airbill #: _____
(UPS, FedEx, Hand Delivered, Pick-up, etc.)
Matrix (check all that apply): ☐ Air ☒ Soil/Solid ☐ Water ☐ Other: _____ (Describe)

Cooler ID					
Temp (°C)	<u>5.7</u>				

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature just above 0°C to ≤ 6°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
NOTE: If samples are delivered the same day of sampling, this requirement is waived 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			<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ?			<input checked="" type="checkbox"/>	
Record the pH in Comments.			<input checked="" type="checkbox"/>	
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.				

Nakita
Custodian Printed Name

[Signature]
Signature or Initials of Custodian

3/1/17 1240
Date/Time



Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

Summit Scientific 1703013

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

Client: Noble/Tasman

Page 1 of 1

Address:

City/State/Zip:

Phone:

Fax:

Sampler Name: Eric Siegel

Project Manager: Brandon Bruns, Invoice: Raul Sanchez

E-Mail:

Project Name: Mosier 23-12F

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)	8260 BTEX	8260B GBTEXN	8015 DRO		pH, EC, SAR	
SS21e7	3/2/17	8:45	1			X			X				X	X			
Relinquished by: E. A. Siegel Date/Time: 3/2/17 1735 Received by: [Signature] Date/Time: 1735 Turn Around Time (Check) 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"/> Notes: on ice																	
Relinquished by: [Signature] Date/Time: 3/2/17 1730 Received by: [Signature] Date/Time: 3-2-17 1730 Sample Integrity: Temperature Upon Receipt: 4.9°C Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																	
Relinquished by: [Signature] Date/Time: [Blank] Received in Lab by: [Blank] Date/Time: [Blank]																	

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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: Mosier 23-12F

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

Sample Receipt Checklist

S2 Work Order: 1703013

Client: Noble/Tasman

Client Project ID: Mosier 23-12F

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>4.9</u>				

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature just above 0°C to ≤ 6°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
NOTE: If samples are delivered the same day of sampling, this requirement is waived 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			<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ?			<input checked="" type="checkbox"/>	
Record the pH in Comments.			<input checked="" type="checkbox"/>	
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.

Noble
Custodian Printed Name

[Signature]
Signature of Initials of Custodian

3/21/17 1730
Date/Time



Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

Summit Scientific 1703034

741 Corporate Circle Suite I ♦ 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: Eric Siegel

Project Manager: Brandon Bruns, Invoice: Raul Sanchez
E-Mail: _____
Project Name: Mosier 23-12F
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)	8260 BTEX	8260B GBTEXN	8015 DRO	pH, EC, SAR	
SS22e7	3/6/17	9:20	1													
SS23e7		9:25	1			X							X	X		
SS24e7		9:30	1			X							X	X		
SS25e7		11:25	1			X							X	X		
SS26e7		14:00	1			X							X	X		
SS27e7		15:15	1			X							X	X		
Relinquished by: <u>E. A. Heil</u> 1630 Date/Time: <u>3/6/17</u>				Received by: <u>MB</u> Date/Time: <u>3/6/17 1630</u>				Turn Around Time (Check)				Notes: <u>on ice</u>				
Relinquished by: <u>MB</u> 3/6/17 1735 Date/Time: _____				Received by: _____ Date/Time: _____				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"/>								
Relinquished by: _____ Date/Time: _____				Received in Lab by: _____ Date/Time: _____				Sample Integrity: Temperature Upon Receipt: <u>1.8°C</u> Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No								

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

Sample Receipt Checklist

S2 Work Order: 1703034

Client: Noble/Tasman

Client Project ID: Mosier 23-12F

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)	1.8				

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature just above 0°C to ≤ 6°C ⁽¹⁾ ?	✓			
NOTE: If samples are delivered the same day of sampling, this requirement is waived provided that there is evidence that cooling has begun.				
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⁾ ?			✓	
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⁾ ?			✓	
Record the pH in Comments.			✓	
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

MB
Signature or Initials of Custodian

3/6/17 1740
Date/Time

Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

Summit Scientific 1703040

741 Corporate Circle Suite I ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-374-5933 Fax

Page 1 of 1

Client: Noble/Tasman

Address: _____

City/State/Zip: _____

Phone: 720-616-8383 Fax: -

Sampler Name: Jacob I. Ibristenov

Project Manager: Brandon Bruns, Invoice: Jacon Evans

E-Mail: BBruns@tasman-geo.com

Project Name: Mesier 23-17F

Project Number:

[illegible]

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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: Mosier 23-12F

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

Sample Receipt Checklist

S2 Work Order: 1703040

Client: Noble Tasman

Client Project ID: Mosier 23-12F

Shipped Via: P/U

Airbill #: _____

(UPS, FedEx, Hand Delivered, Pick-up, etc.)

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

Cooler ID					
Temp (°C)	10.0				

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature just above 0°C to ≤ 6°C ⁽¹⁾ ?	✓			
NOTE: If samples are delivered the same day of sampling, this requirement is waived provided that there is evidence that cooling has begun.				
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⁾ ?			✓	
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⁾ ?			✓	
Record the pH in Comments.				
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

3/21/17 17:55
Date/Time

Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

Summit Scientific 1763047

741 Corporate Circle Suite I ♦ 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: Eric Siegel

Project Manager: Brandon Bruns, Invoice: Raul Sanchez
E-Mail: _____
Project Name: Mosier 23-12F
Project Number: _____

[illegible]

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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: Mosier 23-12F

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

Sample Receipt Checklist

S2 Work Order: 1763047

Client: Noble / Tasman

Client Project ID: Mosier 23-12F

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>4.8</u>				

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature just above 0°C to ≤ 6°C ⁽¹⁾ ?				
NOTE: If samples are delivered the same day of sampling, this requirement is waived provided that there is evidence that cooling has begun.	<input checked="" type="checkbox"/>			
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			<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ?			<input checked="" type="checkbox"/>	
Record the pH in Comments.			<input checked="" type="checkbox"/>	
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.

Nakita
Custodian Printed Name

[Signature]
Signature or Initials of Custodian

3/8/17 1730
Date/Time



Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/22/17 13:50

BH01@1-2'
1701129-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/19/17 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	950	50	mg/kg	1	1701188	01/20/17	01/21/17	8015M	

Date Sampled: **01/19/17 09:40**

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

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/19/17 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	1.3	1.0	mg/kg	100	1701192	01/20/17	01/22/17	EPA 8260B	
Benzene	33	0.20	"	"	"	"	"	"	
Toluene	300	5.0	"	1000	"	"	"	"	
Ethylbenzene	16	0.50	"	100	"	"	"	"	
Xylenes (total)	370	10	"	1000	"	"	"	"	
Gasoline Range Hydrocarbons	9200	5000	"	100	"	"	"	"	

Date Sampled: **01/19/17 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96.9 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		95.7 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		124 %	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: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/22/17 13:50

BH02@2-3'
1701129-02 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/19/17 10:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1701188	01/20/17	01/21/17	8015M	

Date Sampled: **01/19/17 10:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		90.1 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/19/17 10:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1701192	01/20/17	01/22/17	EPA 8260B	
Benzene	0.55	0.0020	"	"	"	"	"	"	
Toluene	0.34	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.057	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.56	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **01/19/17 10:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		90.1 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		100 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.0 %	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: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

BH02@6-8'
1701129-03 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/19/17 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	150	50	mg/kg	1	1701188	01/20/17	01/21/17	8015M	

Date Sampled: **01/19/17 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		87.0 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/19/17 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	0.34	0.10	mg/kg	10	1701192	01/20/17	01/22/17	EPA 8260B	
Benzene	0.76	0.020	"	"	"	"	"	"	
Toluene	4.4	0.50	"	100	"	"	"	"	
Ethylbenzene	1.8	0.050	"	10	"	"	"	"	
Xylenes (total)	14	1.0	"	100	"	"	"	"	
Gasoline Range Hydrocarbons	99	50	"	1	"	"	"	"	

Date Sampled: **01/19/17 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		91.5 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		93.8 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		133 %	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: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/22/17 13:50

BH03@2-3'
1701129-04 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/19/17 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1701188	01/20/17	01/21/17	8015M	

Date Sampled: **01/19/17 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		85.5 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/19/17 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1701192	01/20/17	01/22/17	EPA 8260B	
Benzene	0.057	0.0020	"	"	"	"	"	"	
Toluene	0.017	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.0053	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.054	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **01/19/17 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		86.7 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.3 %	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: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/22/17 13:50

BH04@7-8'
1701129-05 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/19/17 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	130	50	mg/kg	1	1701188	01/20/17	01/21/17	8015M	

Date Sampled: **01/19/17 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		90.9 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/19/17 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	1.0	mg/kg	100	1701192	01/20/17	01/22/17	EPA 8260B	
Benzene	5.2	0.20	"	"	"	"	"	"	
Toluene	36	0.50	"	"	"	"	"	"	
Ethylbenzene	3.2	0.50	"	"	"	"	"	"	
Xylenes (total)	58	1.0	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	2000	500	"	10	"	"	"	"	

Date Sampled: **01/19/17 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		89.8 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		94.6 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		100 %	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: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

BH05@7-8'
1701129-06 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/19/17 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	120	50	mg/kg	1	1701188	01/20/17	01/21/17	8015M	

Date Sampled: **01/19/17 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		89.1 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/19/17 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	0.16	0.010	mg/kg	1	1701192	01/20/17	01/22/17	EPA 8260B	
Benzene	1.2	0.20	"	100	"	"	"	"	
Toluene	19	0.50	"	"	"	"	"	"	
Ethylbenzene	2.2	0.50	"	"	"	"	"	"	
Xylenes (total)	42	1.0	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	1700	500	"	10	"	"	"	"	

Date Sampled: **01/19/17 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		88.7 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		99.2 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		99.8 %	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: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/22/17 13:50

BH06@7'
1701129-07 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/19/17 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1701188	01/20/17	01/21/17	8015M	

Date Sampled: **01/19/17 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		81.0 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/19/17 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1701192	01/20/17	01/22/17	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: **01/19/17 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		88.0 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		95.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		91.7 %	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: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/22/17 13:50

BH07@6-7'
1701129-08 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/19/17 12:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1701188	01/20/17	01/21/17	8015M	

Date Sampled: **01/19/17 12:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		82.9 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/19/17 12:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1701192	01/20/17	01/22/17	EPA 8260B	
Benzene	0.015	0.0020	"	"	"	"	"	"	
Toluene	0.013	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.024	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **01/19/17 12:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		90.5 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.5 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.8 %	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: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/22/17 13:50

BH08@3-4'
1701129-09 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/19/17 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1701188	01/20/17	01/21/17	8015M	

Date Sampled: **01/19/17 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		91.1 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/19/17 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1701192	01/20/17	01/22/17	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: **01/19/17 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		85.7 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.6 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.2 %	21-167		"	"	"	"	

Summit Scientific

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/22/17 13:50

BH09@6-7'
1701129-10 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/19/17 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1701188	01/20/17	01/21/17	8015M	

Date Sampled: **01/19/17 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		91.9 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/19/17 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	0.056	0.010	mg/kg	1	1701192	01/20/17	01/22/17	EPA 8260B	
Benzene	0.33	0.0020	"	"	"	"	"	"	
Toluene	0.64	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.39	0.0050	"	"	"	"	"	"	
Xylenes (total)	2.8	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **01/19/17 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		96.8 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		93.9 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		156 %	21-167		"	"	"	"	

Summit Scientific

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/22/17 13:50

BH10@6'
1701129-11 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/19/17 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	110	50	mg/kg	1	1701188	01/20/17	01/21/17	8015M	

Date Sampled: **01/19/17 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		70.5 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/19/17 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	0.64	0.010	mg/kg	1	1701192	01/20/17	01/22/17	EPA 8260B	
Benzene	3.4	0.20	"	100	"	"	"	"	
Toluene	46	0.50	"	"	"	"	"	"	
Ethylbenzene	7.0	0.50	"	"	"	"	"	"	
Xylenes (total)	120	1.0	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	6600	5000	"	"	"	"	"	"	

Date Sampled: **01/19/17 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		83.4 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		94.2 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		118 %	21-167		"	"	"	"	

Summit Scientific

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/22/17 13:50

BH11@5'
1701129-12 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/19/17 14:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1701188	01/20/17	01/21/17	8015M	

Date Sampled: **01/19/17 14:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		88.6 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/19/17 14:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1701192	01/20/17	01/22/17	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: **01/19/17 14:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		87.3 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.0 %	21-167		"	"	"	"	

Summit Scientific

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/22/17 13:50

BH12@3-4'
1701129-13 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/19/17 15:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1701188	01/20/17	01/21/17	8015M	

Date Sampled: **01/19/17 15:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		90.4 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/19/17 15:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1701192	01/20/17	01/22/17	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: **01/19/17 15:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		92.8 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.0 %	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: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/22/17 13:50

SS02@7'
1702144-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/21/17 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1702214	02/21/17	02/21/17	8015M	

Date Sampled: **02/21/17 14:20**

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

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/21/17 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1702213	02/21/17	02/21/17	EPA 8260B	
Benzene	0.0061	0.0020	"	"	"	"	"	"	
Toluene	0.0063	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.024	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **02/21/17 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		105 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	21-167		"	"	"	"	

Summit Scientific

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

SS03 @ 7'
1702161-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/22/17 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	1300	50	mg/kg	1	1702231	02/22/17	02/22/17	8015M	

Date Sampled: **02/22/17 14:00**

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

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/22/17 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	0.24	0.010	mg/kg	1	1702230	02/22/17	02/22/17	EPA 8260B	
Benzene	94	0.20	"	100	"	"	"	"	E
Toluene	430	0.50	"	"	"	"	"	"	E
Ethylbenzene	36	0.50	"	"	"	"	"	"	
Xylenes (total)	500	1.0	"	"	"	"	"	"	E
Gasoline Range Hydrocarbons	3200	50	"	"	"	"	"	"	

Date Sampled: **02/22/17 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		145 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		93.6 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		165 %	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: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/22/17 13:50

SS05 @ 7'
1702161-02 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/22/17 14:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	1000	50	mg/kg	1	1702231	02/22/17	02/22/17	8015M	

Date Sampled: **02/22/17 14:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		107 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/22/17 14:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	1.5	1.0	mg/kg	100	1702230	02/22/17	02/22/17	EPA 8260B	
Benzene	14	0.20	"	"	"	"	"	"	
Toluene	130	0.50	"	"	"	"	"	"	E
Ethylbenzene	11	0.50	"	"	"	"	"	"	
Xylenes (total)	170	1.0	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	1300	50	"	"	"	"	"	"	

Date Sampled: **02/22/17 14:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		113 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		96.9 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		131 %	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: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/22/17 13:50

SS06 @ 7'
1702161-03 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/22/17 14:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	190	50	mg/kg	1	1702231	02/22/17	02/22/17	8015M	

Date Sampled: **02/22/17 14:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		107 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/22/17 14:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	0.10	0.010	mg/kg	1	1702230	02/22/17	02/22/17	EPA 8260B	
Benzene	2.3	0.20	"	100	"	"	"	"	
Toluene	22	0.50	"	"	"	"	"	"	
Ethylbenzene	2.2	0.50	"	"	"	"	"	"	
Xylenes (total)	36	1.0	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	380	50	"	"	"	"	"	"	

Date Sampled: **02/22/17 14:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		109 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		102 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		105 %	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: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/22/17 13:50

SS09@7'
1702176-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/24/17 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1702255	02/24/17	02/24/17	8015M	

Date Sampled: **02/24/17 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		98.0 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/24/17 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1702264	02/24/17	02/25/17	EPA 8260B	
Benzene	0.22	0.0020	"	"	"	"	"	"	
Toluene	0.057	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.056	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **02/24/17 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		107 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.8 %	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: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

SS10@7'
1702176-02 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/24/17 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	1100	50	mg/kg	1	1702255	02/24/17	02/24/17	8015M	

Date Sampled: **02/24/17 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		98.1 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/24/17 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	2.2	1.0	mg/kg	100	1702264	02/24/17	02/25/17	EPA 8260B	
Benzene	88	0.20	"	"	"	"	"	"	
Toluene	450	0.50	"	"	"	"	"	"	E
Ethylbenzene	35	0.50	"	"	"	"	"	"	
Xylenes (total)	490	1.0	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	4500	500	"	10	"	"	"	"	

Date Sampled: **02/24/17 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		138 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		98.3 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		170 %	21-167		"	"	"	"	S-02

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: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/22/17 13:50

SS11@7'
1702176-03 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/24/17 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1702255	02/24/17	02/24/17	8015M	

Date Sampled: **02/24/17 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		94.9 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/24/17 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	0.010	0.010	mg/kg	1	1702264	02/24/17	02/25/17	EPA 8260B	
Benzene	0.015	0.0020	"	"	"	"	"	"	
Toluene	0.019	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.019	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **02/24/17 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		105 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.5 %	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: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

SS12@7'
1702192-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/27/17 08:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1702282	02/27/17	02/27/17	8015M	

Date Sampled: **02/27/17 08:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		97.0 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/27/17 08:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1702281	02/27/17	02/27/17	EPA 8260B	
Benzene	0.0050	0.0020	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **02/27/17 08:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		99.8 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.4 %	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: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/22/17 13:50

SS13@7'
1702204-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/28/17 08:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1702305	02/28/17	02/28/17	8015M	

Date Sampled: **02/28/17 08:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		93.9 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/28/17 08:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1702304	02/28/17	02/28/17	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: **02/28/17 08:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		101 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.9 %	21-167		"	"	"	"	

Summit Scientific

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/22/17 13:50

SS15@7'
1702204-02 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/28/17 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1702305	02/28/17	02/28/17	8015M	

Date Sampled: **02/28/17 13:20**

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: **02/28/17 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1702304	02/28/17	02/28/17	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: **02/28/17 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		101 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.2 %	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.



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6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/22/17 13:50

SS16@7'
1702204-03 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/28/17 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1702305	02/28/17	02/28/17	8015M	

Date Sampled: **02/28/17 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		96.6 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/28/17 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1702304	02/28/17	02/28/17	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: **02/28/17 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		102 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.5 %	21-167		"	"	"	"	

Summit Scientific

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6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/22/17 13:50

SS17@7'
1703003-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/01/17 09:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1703016	03/01/17	03/01/17	8015M	

Date Sampled: **03/01/17 09:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		95.6 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/01/17 09:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1703015	03/01/17	03/01/17	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: **03/01/17 09:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		102 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.6 %	21-167		"	"	"	"	

Summit Scientific

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/22/17 13:50

SS18@7'
1703003-02 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 03/01/17 14:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1703016	03/01/17	03/01/17	8015M	

Date Sampled: 03/01/17 14:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		99.5 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 03/01/17 14:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1703015	03/01/17	03/01/17	EPA 8260B	
Benzene	0.010	0.0020	"	"	"	"	"	"	
Toluene	0.0052	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.016	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: 03/01/17 14:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		96.5 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		100 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.7 %	21-167		"	"	"	"	

Summit Scientific

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

SS19@7'
1703003-03 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/01/17 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1703016	03/01/17	03/01/17	8015M	

Date Sampled: **03/01/17 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		93.2 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/01/17 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1703015	03/01/17	03/01/17	EPA 8260B	
Benzene	0.012	0.0020	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/01/17 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		99.4 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.9 %	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: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/22/17 13:50

SS20@7'
1703003-04 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/01/17 15:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1703016	03/01/17	03/01/17	8015M	

Date Sampled: **03/01/17 15:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		89.8 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/01/17 15:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1703015	03/01/17	03/01/17	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: **03/01/17 15:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		97.2 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.1 %	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: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/22/17 13:50

SS21@7'
1703013-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/01/17 08:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1703032	03/02/17	03/02/17	8015M	

Date Sampled: **03/01/17 08:45**

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: **03/01/17 08:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1703031	03/02/17	03/02/17	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: **03/01/17 08:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		114 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		91.3 %	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: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/22/17 13:50

SS22@7'
1703034-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/06/17 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1703054	03/06/17	03/06/17	8015M	

Date Sampled: **03/06/17 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		79.8 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/06/17 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1703053	"	03/06/17	EPA 8260B	
Benzene	0.0052	0.0020	"	"	"	"	"	"	
Toluene	0.0051	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/06/17 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		114 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	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: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

SS23@7'
1703034-02 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/06/17 09:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1703054	03/06/17	03/06/17	8015M	

Date Sampled: **03/06/17 09:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		79.1 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/06/17 09:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1703053	"	03/06/17	EPA 8260B	
Benzene	ND	0.0020	"	"	"	"	"	"	
Toluene	0.0050	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/06/17 09:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		116 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	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: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/22/17 13:50

SS24@7'
1703034-03 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/06/17 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1703054	03/06/17	03/06/17	8015M	

Date Sampled: **03/06/17 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		80.5 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/06/17 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1703053	"	03/06/17	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: **03/06/17 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		116 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	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: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/22/17 13:50

SS25@7'
1703034-04 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/06/17 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1703054	03/06/17	03/06/17	8015M	

Date Sampled: **03/06/17 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		80.2 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/06/17 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1703053	"	03/06/17	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: **03/06/17 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		117 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	21-167		"	"	"	"	

Summit Scientific

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/22/17 13:50

SS26@7'
1703034-05 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/06/17 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1703054	03/06/17	03/06/17	8015M	

Date Sampled: **03/06/17 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		76.7 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/06/17 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1703053	"	03/06/17	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: **03/06/17 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		114 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	21-167		"	"	"	"	

Summit Scientific

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

SS27@7'
1703034-06 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/06/17 15:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	710	50	mg/kg	1	1703054	03/06/17	03/06/17	8015M	

Date Sampled: **03/06/17 15:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		79.4 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/06/17 15:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	0.10	0.010	mg/kg	1	1703053	"	03/06/17	EPA 8260B	
Benzene	26	0.20	"	100	"	"	"	"	
Toluene	240	0.50	"	"	"	"	"	"	E
Ethylbenzene	21	0.50	"	"	"	"	"	"	
Xylenes (total)	320	1.0	"	"	"	"	"	"	E
Gasoline Range Hydrocarbons	2900	50	"	"	"	"	"	"	

Date Sampled: **03/06/17 15:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		110 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		118 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		133 %	21-167		"	"	"	"	

Summit Scientific

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/22/17 13:50

SS28@7'
1703040-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/07/17 09:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1703060	03/07/17	03/07/17	8015M	

Date Sampled: **03/07/17 09:00**

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

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/07/17 09:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1703059	"	03/07/17	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: **03/07/17 09:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		114 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		91.8 %	21-167		"	"	"	"	

Summit Scientific

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/22/17 13:50

SS29@7'
1703040-02 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 03/07/17 11:25

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1703060	03/07/17	03/07/17	8015M	

Date Sampled: 03/07/17 11:25

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		115 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 03/07/17 11:25

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1703059	"	03/07/17	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: 03/07/17 11:25

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		114 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		91.3 %	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: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/22/17 13:50

SS30@7'
1703040-03 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/07/17 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1703060	03/07/17	03/07/17	8015M	

Date Sampled: **03/07/17 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		109 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/07/17 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1703059	"	03/07/17	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: **03/07/17 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		109 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.7 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.8 %	21-167		"	"	"	"	

Summit Scientific

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/22/17 13:50

SS31@7'
1703040-04 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/07/17 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1703060	03/07/17	03/07/17	8015M	

Date Sampled: **03/07/17 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		111 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/07/17 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1703059	"	03/07/17	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: **03/07/17 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		104 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.3 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		90.4 %	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: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/22/17 13:50

SS32 @ 7'
1703047-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/08/17 08:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1703081	03/08/17	03/08/17	8015M	

Date Sampled: **03/08/17 08:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		111 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/08/17 08:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1703080	03/08/17	03/08/17	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: **03/08/17 08:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		117 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.2 %	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: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

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 1701188 - EPA 3550A

Blank (1701188-BLK1)

Prepared: 01/20/17 Analyzed: 01/21/17

C10-C28 (DRO)	ND	50	mg/kg							
Surrogate: o-Terphenyl	11.2		"	12.5		89.8	30-150			

LCS (1701188-BS1)

Prepared: 01/20/17 Analyzed: 01/21/17

C10-C28 (DRO)	613	50	mg/kg	499		123	73-134			
Surrogate: o-Terphenyl	12.2		"	12.5		97.6	30-150			

Matrix Spike (1701188-MS1)

Source: 1701097-01

Prepared: 01/20/17 Analyzed: 01/21/17

C10-C28 (DRO)	592	50	mg/kg	499	35.1	112	50-148			
Surrogate: o-Terphenyl	11.5		"	12.5		91.9	30-150			

Matrix Spike Dup (1701188-MSD1)

Source: 1701097-01

Prepared: 01/20/17 Analyzed: 01/21/17

C10-C28 (DRO)	602	50	mg/kg	499	35.1	114	50-148	1.67	20	
Surrogate: o-Terphenyl	11.3		"	12.5		90.1	30-150			

Batch 1702214 - EPA 3550A

Blank (1702214-BLK1)

Prepared & Analyzed: 02/21/17

C10-C28 (DRO)	ND	50	mg/kg							
Surrogate: o-Terphenyl	13.1		"	12.5		105	30-150			

LCS (1702214-BS1)

Prepared & Analyzed: 02/21/17

C10-C28 (DRO)	602	50	mg/kg	499		121	73-134			
Surrogate: o-Terphenyl	13.1		"	12.5		105	30-150			

Matrix Spike (1702214-MS1)

Source: 1702143-01

Prepared & Analyzed: 02/21/17

C10-C28 (DRO)	575	50	mg/kg	499	31.4	109	50-148			
Surrogate: o-Terphenyl	13.2		"	12.5		106	30-150			

Summit Scientific

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

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 1702214 - EPA 3550A

Matrix Spike Dup (1702214-MSD1)		Source: 1702143-01			Prepared & Analyzed: 02/21/17					
C10-C28 (DRO)	564	50	mg/kg	499	31.4	107	50-148	2.02	20	
Surrogate: o-Terphenyl	12.9		"	12.5		104	30-150			

Batch 1702231 - EPA 3550A

Blank (1702231-BLK1)		Prepared & Analyzed: 02/22/17								
C10-C28 (DRO)	ND	50	mg/kg							
Surrogate: o-Terphenyl	12.9		"	12.5		103	30-150			

LCS (1702231-BS1)		Prepared & Analyzed: 02/22/17								
C10-C28 (DRO)	628	50	mg/kg	499		126	73-134			
Surrogate: o-Terphenyl	13.2		"	12.5		106	30-150			

Matrix Spike (1702231-MS1)		Source: 1702161-01			Prepared & Analyzed: 02/22/17					
C10-C28 (DRO)	2570	50	mg/kg	499	1260	262	50-148			QM-4X
Surrogate: o-Terphenyl	13.1		"	12.5		105	30-150			

Matrix Spike Dup (1702231-MSD1)		Source: 1702161-01			Prepared & Analyzed: 02/22/17					
C10-C28 (DRO)	2680	50	mg/kg	499	1260	284	50-148	4.15	20	QM-4X
Surrogate: o-Terphenyl	13.2		"	12.5		105	30-150			

Batch 1702255 - EPA 3550A

LCS (1702255-BS1)		Prepared & Analyzed: 02/24/17								
C10-C28 (DRO)	610	50	mg/kg	499		122	73-134			
Surrogate: o-Terphenyl	14.2		"	12.5		114	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.



Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

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 1702255 - EPA 3550A

Matrix Spike (1702255-MS1)

Source: 1702170-01

Prepared & Analyzed: 02/24/17

C10-C28 (DRO)	606	50	mg/kg	499	14.2	119	50-148			
Surrogate: o-Terphenyl	14.0		"	12.5		112	30-150			

Matrix Spike Dup (1702255-MSD1)

Source: 1702170-01

Prepared & Analyzed: 02/24/17

C10-C28 (DRO)	606	50	mg/kg	499	14.2	119	50-148	0.0254	20	
Surrogate: o-Terphenyl	13.9		"	12.5		111	30-150			

Batch 1702282 - EPA 3550A

Blank (1702282-BLK1)

Prepared & Analyzed: 02/27/17

C10-C28 (DRO)	ND	50	mg/kg							
Surrogate: o-Terphenyl	12.3		"	12.5		98.5	30-150			

LCS (1702282-BS1)

Prepared & Analyzed: 02/27/17

C10-C28 (DRO)	562	50	mg/kg	499		113	73-134			
Surrogate: o-Terphenyl	13.0		"	12.5		104	30-150			

Matrix Spike (1702282-MS1)

Source: 1702192-01

Prepared & Analyzed: 02/27/17

C10-C28 (DRO)	578	50	mg/kg	499	9.51	114	50-148			
Surrogate: o-Terphenyl	13.2		"	12.5		105	30-150			

Matrix Spike Dup (1702282-MSD1)

Source: 1702192-01

Prepared & Analyzed: 02/27/17

C10-C28 (DRO)	558	50	mg/kg	499	9.51	110	50-148	3.50	20	
Surrogate: o-Terphenyl	12.8		"	12.5		102	30-150			

Batch 1702305 - EPA 3550A

Blank (1702305-BLK1)

Prepared & Analyzed: 02/28/17

C10-C28 (DRO)	ND	50	mg/kg							
Surrogate: o-Terphenyl	11.2		"	12.5		89.4	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.



Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

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 1702305 - EPA 3550A

LCS (1702305-BS1)				Prepared & Analyzed: 02/28/17						
C10-C28 (DRO)	497	50	mg/kg	499		99.7	73-134			
Surrogate: o-Terphenyl	12.5		"	12.5		99.6	30-150			
Matrix Spike (1702305-MS1)				Source: 1702203-01		Prepared & Analyzed: 02/28/17				
C10-C28 (DRO)	863	50	mg/kg	499	372	98.4	50-148			
Surrogate: o-Terphenyl	20.2		"	12.5		161	30-150			S-02
Matrix Spike Dup (1702305-MSD1)				Source: 1702203-01		Prepared & Analyzed: 02/28/17				
C10-C28 (DRO)	877	50	mg/kg	499	372	101	50-148	1.64	20	
Surrogate: o-Terphenyl	18.3		"	12.5		147	30-150			

Batch 1703016 - EPA 3550A

Blank (1703016-BLK1)				Prepared & Analyzed: 03/01/17						
C10-C28 (DRO)	ND	50	mg/kg							
Surrogate: o-Terphenyl	13.2		"	12.5		106	30-150			
LCS (1703016-BS1)				Prepared & Analyzed: 03/01/17						
C10-C28 (DRO)	600	50	mg/kg	499		120	73-134			
Surrogate: o-Terphenyl	13.6		"	12.5		109	30-150			
Matrix Spike (1703016-MS1)				Source: 1703003-01		Prepared & Analyzed: 03/01/17				
C10-C28 (DRO)	560	50	mg/kg	499	9.18	110	50-148			
Surrogate: o-Terphenyl	12.6		"	12.5		101	30-150			
Matrix Spike Dup (1703016-MSD1)				Source: 1703003-01		Prepared & Analyzed: 03/01/17				
C10-C28 (DRO)	560	50	mg/kg	499	9.18	110	50-148	0.0586	20	
Surrogate: o-Terphenyl	12.3		"	12.5		98.8	30-150			

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6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

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 1703032 - EPA 3550A

Blank (1703032-BLK1)

Prepared & Analyzed: 03/02/17

C10-C28 (DRO)	ND	50	mg/kg							
Surrogate: o-Terphenyl	14.8		"	12.5		119	30-150			

LCS (1703032-BS1)

Prepared & Analyzed: 03/02/17

C10-C28 (DRO)	649	50	mg/kg	499		130	73-134			
Surrogate: o-Terphenyl	12.9		"	12.5		103	30-150			

Matrix Spike (1703032-MS1)

Source: 1703011-01

Prepared & Analyzed: 03/02/17

C10-C28 (DRO)	539	50	mg/kg	499	7.68	106	50-148			
Surrogate: o-Terphenyl	12.0		"	12.5		95.9	30-150			

Matrix Spike Dup (1703032-MSD1)

Source: 1703011-01

Prepared & Analyzed: 03/02/17

C10-C28 (DRO)	528	50	mg/kg	499	7.68	104	50-148	2.03	20	
Surrogate: o-Terphenyl	11.6		"	12.5		93.0	30-150			

Batch 1703054 - EPA 3550A

Blank (1703054-BLK1)

Prepared & Analyzed: 03/06/17

C10-C28 (DRO)	ND	50	mg/kg							
Surrogate: o-Terphenyl	11.6		"	12.5		92.6	30-150			

LCS (1703054-BS1)

Prepared & Analyzed: 03/06/17

C10-C28 (DRO)	481	50	mg/kg	499		96.5	73-134			
Surrogate: o-Terphenyl	11.4		"	12.5		91.1	30-150			

Matrix Spike (1703054-MS1)

Source: 1703034-01

Prepared & Analyzed: 03/06/17

C10-C28 (DRO)	449	50	mg/kg	499	9.00	88.1	50-148			
Surrogate: o-Terphenyl	10.4		"	12.5		83.4	30-150			

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Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

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 1703054 - EPA 3550A

Matrix Spike Dup (1703054-MSD1)	Source: 1703034-01			Prepared & Analyzed: 03/06/17						
C10-C28 (DRO)	451	50	mg/kg	499	9.00	88.6	50-148	0.551	20	
Surrogate: o-Terphenyl	10.6		"	12.5		84.7	30-150			

Batch 1703060 - EPA 3550A

Blank (1703060-BLK1)	Prepared & Analyzed: 03/07/17									
C10-C28 (DRO)	ND	50	mg/kg							
Surrogate: o-Terphenyl	13.9		"	12.5		111	30-150			

LCS (1703060-BS1)	Prepared & Analyzed: 03/07/17									
C10-C28 (DRO)	527	50	mg/kg	499		106	73-134			
Surrogate: o-Terphenyl	17.2		"	12.5		138	30-150			

Matrix Spike (1703060-MS1)	Source: 1703038-01			Prepared & Analyzed: 03/07/17						
C10-C28 (DRO)	544	50	mg/kg	499	32.6	102	50-148			
Surrogate: o-Terphenyl	15.9		"	12.5		128	30-150			

Matrix Spike Dup (1703060-MSD1)	Source: 1703038-01			Prepared & Analyzed: 03/07/17						
C10-C28 (DRO)	546	50	mg/kg	499	32.6	103	50-148	0.468	20	
Surrogate: o-Terphenyl	15.0		"	12.5		120	30-150			

Batch 1703081 - EPA 3550A

Blank (1703081-BLK1)	Prepared & Analyzed: 03/08/17									
C10-C28 (DRO)	ND	50	mg/kg							
Surrogate: o-Terphenyl	13.7		"	12.5		110	30-150			

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Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/22/17 13:50

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 1703081 - EPA 3550A

LCS (1703081-BS1)

Prepared & Analyzed: 03/08/17

C10-C28 (DRO)	565	50	mg/kg	499		113	73-134			
Surrogate: o-Terphenyl	18.3		"	12.5		147	30-150			

Matrix Spike (1703081-MS1)

Source: 1703047-01

Prepared & Analyzed: 03/08/17

C10-C28 (DRO)	567	50	mg/kg	499	25.7	108	50-148			
Surrogate: o-Terphenyl	14.7		"	12.5		117	30-150			

Matrix Spike Dup (1703081-MSD1)

Source: 1703047-01

Prepared & Analyzed: 03/08/17

C10-C28 (DRO)	569	50	mg/kg	499	25.7	109	50-148	0.305	20	
Surrogate: o-Terphenyl	16.3		"	12.5		131	30-150			

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Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Bruns

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03/22/17 13:50

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 1701192 - EPA 5030 Soil MS

Blank (1701192-BLK1)

Prepared: 01/20/17 Analyzed: 01/21/17

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	"							
Surrogate: 1,2-Dichloroethane-d4	0.0335		"	0.0400		83.8	23-173			
Surrogate: Toluene-d8	0.0392		"	0.0400		98.0	20-170			
Surrogate: 4-Bromofluorobenzene	0.0367		"	0.0400		91.6	21-167			

LCS (1701192-BS1)

Prepared: 01/20/17 Analyzed: 01/21/17

Naphthalene	ND	0.010	mg/kg				66-138			
Benzene	0.0924	0.0020	"	0.100		92.4	58-130			
Toluene	0.101	0.0050	"	0.100		101	61-134			
Ethylbenzene	0.112	0.0050	"	0.0992		112	74-139			
m,p-Xylene	0.234	0.010	"	0.200		117	73-137			
o-Xylene	0.115	0.0050	"	0.0980		117	73-141			
Surrogate: 1,2-Dichloroethane-d4	0.0332		"	0.0400		83.1	23-173			
Surrogate: Toluene-d8	0.0370		"	0.0400		92.6	20-170			
Surrogate: 4-Bromofluorobenzene	0.0348		"	0.0400		86.9	21-167			

Matrix Spike (1701192-MS1)

Source: 1701132-01

Prepared: 01/20/17 Analyzed: 01/21/17

Naphthalene	ND	0.010	mg/kg		ND		10-158			
Benzene	0.0896	0.0020	"	0.100	ND	89.6	30-131			
Toluene	0.0988	0.0050	"	0.100	ND	98.8	30-134			
Ethylbenzene	0.111	0.0050	"	0.0992	ND	111	22-153			
m,p-Xylene	0.236	0.010	"	0.200	ND	118	10-159			
o-Xylene	0.117	0.0050	"	0.0980	ND	119	31-151			
Surrogate: 1,2-Dichloroethane-d4	0.0340		"	0.0400		85.0	23-173			
Surrogate: Toluene-d8	0.0365		"	0.0400		91.2	20-170			
Surrogate: 4-Bromofluorobenzene	0.0367		"	0.0400		91.8	21-167			

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Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

Volatile Organic Compounds by EPA Method 8260B - Quality Control
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Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 1701192 - EPA 5030 Soil MS

Matrix Spike Dup (1701192-MSD1)				Source: 1701132-01		Prepared: 01/20/17		Analyzed: 01/21/17		
Naphthalene	ND	0.010	mg/kg		ND		10-158		42	
Benzene	0.0916	0.0020	"	0.100	ND	91.6	30-131	2.32	34	
Toluene	0.0989	0.0050	"	0.100	ND	98.9	30-134	0.121	30	
Ethylbenzene	0.112	0.0050	"	0.0992	ND	113	22-153	1.51	24	
m,p-Xylene	0.240	0.010	"	0.200	ND	120	10-159	1.49	68	
o-Xylene	0.119	0.0050	"	0.0980	ND	121	31-151	1.91	38	
Surrogate: 1,2-Dichloroethane-d4	0.0356		"	0.0400		89.1	23-173			
Surrogate: Toluene-d8	0.0368		"	0.0400		92.0	20-170			
Surrogate: 4-Bromofluorobenzene	0.0368		"	0.0400		92.0	21-167			

Batch 1702213 - EPA 5030 Soil MS

Blank (1702213-BLK1)				Prepared & Analyzed: 02/21/17						
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	"							
Surrogate: 1,2-Dichloroethane-d4	0.0421		"	0.0400		105	23-173			
Surrogate: Toluene-d8	0.0405		"	0.0400		101	20-170			
Surrogate: 4-Bromofluorobenzene	0.0436		"	0.0400		109	21-167			

LCS (1702213-BS1)				Prepared & Analyzed: 02/21/17						
Naphthalene	ND	0.010	mg/kg				66-138			
Benzene	0.0820	0.0020	"	0.100		82.0	58-130			
Toluene	0.0879	0.0050	"	0.100		87.9	61-134			
Ethylbenzene	0.0791	0.0050	"	0.0992		79.7	74-139			
m,p-Xylene	0.146	0.010	"	0.200		73.3	73-137			
o-Xylene	0.0742	0.0050	"	0.0980		75.7	73-141			
Surrogate: 1,2-Dichloroethane-d4	0.0361		"	0.0400		90.3	23-173			
Surrogate: Toluene-d8	0.0500		"	0.0400		125	20-170			
Surrogate: 4-Bromofluorobenzene	0.0425		"	0.0400		106	21-167			

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6899 Pecos Street
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Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

Volatile Organic Compounds by EPA Method 8260B - Quality Control
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Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 1702213 - EPA 5030 Soil MS

Matrix Spike (1702213-MS1)

Source: 1702144-01

Prepared & Analyzed: 02/21/17

Naphthalene	ND	0.010	mg/kg	ND	ND		10-158		
Benzene	0.102	0.0020	"	0.100	0.00612	95.8	30-131		
Toluene	0.108	0.0050	"	0.100	0.00627	102	30-134		
Ethylbenzene	0.103	0.0050	"	0.0992	0.00126	102	22-153		
m,p-Xylene	0.205	0.010	"	0.200	0.0201	92.8	10-159		
o-Xylene	0.0983	0.0050	"	0.0980	0.00387	96.3	31-151		
Surrogate: 1,2-Dichloroethane-d4	0.0403		"	0.0400		101	23-173		
Surrogate: Toluene-d8	0.0455		"	0.0400		114	20-170		
Surrogate: 4-Bromofluorobenzene	0.0420		"	0.0400		105	21-167		

Matrix Spike Dup (1702213-MSD1)

Source: 1702144-01

Prepared & Analyzed: 02/21/17

Naphthalene	ND	0.010	mg/kg	ND	ND		10-158		42
Benzene	0.112	0.0020	"	0.100	0.00612	105	30-131	8.99	34
Toluene	0.119	0.0050	"	0.100	0.00627	113	30-134	9.75	30
Ethylbenzene	0.121	0.0050	"	0.0992	0.00126	121	22-153	16.8	24
m,p-Xylene	0.233	0.010	"	0.200	0.0201	107	10-159	12.7	68
o-Xylene	0.115	0.0050	"	0.0980	0.00387	114	31-151	15.8	38
Surrogate: 1,2-Dichloroethane-d4	0.0419		"	0.0400		105	23-173		
Surrogate: Toluene-d8	0.0421		"	0.0400		105	20-170		
Surrogate: 4-Bromofluorobenzene	0.0414		"	0.0400		104	21-167		

Batch 1702230 - EPA 5030 Soil MS

Blank (1702230-BLK1)

Prepared & Analyzed: 02/22/17

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	"						
Surrogate: 1,2-Dichloroethane-d4	0.0425		"	0.0400		106	23-173		
Surrogate: Toluene-d8	0.0422		"	0.0400		106	20-170		
Surrogate: 4-Bromofluorobenzene	0.0393		"	0.0400		98.2	21-167		

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Denver CO, 80221

Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

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 1702230 - EPA 5030 Soil MS

LCS (1702230-BS1)

Prepared & Analyzed: 02/22/17

Naphthalene	ND	0.010	mg/kg				66-138			
Benzene	0.0841	0.0020	"	0.100		84.1	58-130			
Toluene	0.0958	0.0050	"	0.100		95.8	61-134			
Ethylbenzene	0.115	0.0050	"	0.0992		116	74-139			
m,p-Xylene	0.218	0.010	"	0.200		109	73-137			
o-Xylene	0.103	0.0050	"	0.0980		105	73-141			
Surrogate: 1,2-Dichloroethane-d4	0.0422		"	0.0400		106	23-173			
Surrogate: Toluene-d8	0.0399		"	0.0400		99.7	20-170			
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400		98.0	21-167			

Matrix Spike (1702230-MS1)

Source: 1702161-01

Prepared & Analyzed: 02/22/17

Naphthalene	1.52	0.010	mg/kg		0.236		10-158			
Benzene	29.7	0.0020	"	0.100	94.2	NR	30-131			QM-4X
Toluene	50.5	0.0050	"	0.100	433	NR	30-134			QM-4X
Ethylbenzene	18.1	0.0050	"	0.0992	36.2	NR	22-153			QM-4X
m,p-Xylene	77.2	0.010	"	0.200	425	NR	10-159			QM-4X
o-Xylene	30.5	0.0050	"	0.0980	78.2	NR	31-151			QM-4X
Surrogate: 1,2-Dichloroethane-d4	1.39		"	0.0400		NR	23-173			S-02
Surrogate: Toluene-d8	0.972		"	0.0400		NR	20-170			S-02
Surrogate: 4-Bromofluorobenzene	3.05		"	0.0400		NR	21-167			S-02

Matrix Spike Dup (1702230-MSD1)

Source: 1702161-01

Prepared & Analyzed: 02/22/17

Naphthalene	1.76	0.010	mg/kg		0.236		10-158	15.0	42	
Benzene	23.3	0.0020	"	0.100	94.2	NR	30-131	24.2	34	QM-4X
Toluene	39.6	0.0050	"	0.100	433	NR	30-134	24.1	30	QM-4X
Ethylbenzene	9.88	0.0050	"	0.0992	36.2	NR	22-153	58.6	24	QM-4X
m,p-Xylene	42.5	0.010	"	0.200	425	NR	10-159	57.9	68	QM-4X
o-Xylene	17.5	0.0050	"	0.0980	78.2	NR	31-151	54.3	38	QM-4X
Surrogate: 1,2-Dichloroethane-d4	0.858		"	0.0400		NR	23-173			S-02
Surrogate: Toluene-d8	0.494		"	0.0400		NR	20-170			S-02
Surrogate: 4-Bromofluorobenzene	1.55		"	0.0400		NR	21-167			S-02

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Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/22/17 13:50

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 1702264 - EPA 5030 Soil MS

Blank (1702264-BLK1)

Prepared: 02/24/17 Analyzed: 02/25/17

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	"							
Surrogate: 1,2-Dichloroethane-d4	0.0427		"	0.0400		107	23-173			
Surrogate: Toluene-d8	0.0405		"	0.0400		101	20-170			
Surrogate: 4-Bromofluorobenzene	0.0381		"	0.0400		95.2	21-167			

LCS (1702264-BS1)

Prepared: 02/24/17 Analyzed: 02/25/17

Naphthalene	0.00960	0.010	mg/kg				66-138			
Benzene	0.0812	0.0020	"	0.100		81.2	58-130			
Toluene	0.0958	0.0050	"	0.100		95.8	61-134			
Ethylbenzene	0.115	0.0050	"	0.0992		116	74-139			
m,p-Xylene	0.215	0.010	"	0.200		108	73-137			
o-Xylene	0.105	0.0050	"	0.0980		107	73-141			
Surrogate: 1,2-Dichloroethane-d4	0.0421		"	0.0400		105	23-173			
Surrogate: Toluene-d8	0.0404		"	0.0400		101	20-170			
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400		98.0	21-167			

Matrix Spike (1702264-MS1)

Source: 1702176-01

Prepared: 02/24/17 Analyzed: 02/25/17

Naphthalene	0.00960	0.010	mg/kg		0.00945		10-158			
Benzene	0.281	0.0020	"	0.100	0.218	62.2	30-131			
Toluene	0.150	0.0050	"	0.100	0.0573	93.0	30-134			
Ethylbenzene	0.119	0.0050	"	0.0992	0.00348	116	22-153			
m,p-Xylene	0.266	0.010	"	0.200	0.0497	108	10-159			
o-Xylene	0.111	0.0050	"	0.0980	0.00678	107	31-151			
Surrogate: 1,2-Dichloroethane-d4	0.0419		"	0.0400		105	23-173			
Surrogate: Toluene-d8	0.0396		"	0.0400		98.9	20-170			
Surrogate: 4-Bromofluorobenzene	0.0398		"	0.0400		99.5	21-167			

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

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 1702264 - EPA 5030 Soil MS

Matrix Spike Dup (1702264-MSD1)				Source: 1702176-01		Prepared: 02/24/17		Analyzed: 02/25/17		
Naphthalene	0.00957	0.010	mg/kg		0.00945		10-158	0.313	42	
Benzene	0.327	0.0020	"	0.100	0.218	108	30-131	15.2	34	
Toluene	0.163	0.0050	"	0.100	0.0573	105	30-134	7.95	30	
Ethylbenzene	0.119	0.0050	"	0.0992	0.00348	116	22-153	0.404	24	
m,p-Xylene	0.279	0.010	"	0.200	0.0497	115	10-159	4.67	68	
o-Xylene	0.112	0.0050	"	0.0980	0.00678	107	31-151	0.430	38	
Surrogate: 1,2-Dichloroethane-d4	0.0439		"	0.0400		110	23-173			
Surrogate: Toluene-d8	0.0409		"	0.0400		102	20-170			
Surrogate: 4-Bromofluorobenzene	0.0394		"	0.0400		98.6	21-167			

Batch 1702281 - EPA 5030 Soil MS

Blank (1702281-BLK1)				Prepared & Analyzed: 02/27/17						
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	"							
Surrogate: 1,2-Dichloroethane-d4	0.0399		"	0.0400		99.7	23-173			
Surrogate: Toluene-d8	0.0418		"	0.0400		105	20-170			
Surrogate: 4-Bromofluorobenzene	0.0389		"	0.0400		97.4	21-167			

LCS (1702281-BS1)				Prepared & Analyzed: 02/27/17						
Naphthalene	ND	0.010	mg/kg				66-138			
Benzene	0.0792	0.0020	"	0.100		79.2	58-130			
Toluene	0.0929	0.0050	"	0.100		92.9	61-134			
Ethylbenzene	0.114	0.0050	"	0.0992		115	74-139			
m,p-Xylene	0.216	0.010	"	0.200		108	73-137			
o-Xylene	0.102	0.0050	"	0.0980		104	73-141			
Surrogate: 1,2-Dichloroethane-d4	0.0410		"	0.0400		102	23-173			
Surrogate: Toluene-d8	0.0407		"	0.0400		102	20-170			
Surrogate: 4-Bromofluorobenzene	0.0387		"	0.0400		96.7	21-167			

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6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

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 1702281 - EPA 5030 Soil MS

Matrix Spike (1702281-MS1)

Source: 1702192-01

Prepared & Analyzed: 02/27/17

Naphthalene	ND	0.010	mg/kg	ND	ND		10-158			
Benzene	0.0826	0.0020	"	0.100	0.00501	77.6	30-131			
Toluene	0.0994	0.0050	"	0.100	ND	99.4	30-134			
Ethylbenzene	0.110	0.0050	"	0.0992	ND	111	22-153			
m,p-Xylene	0.214	0.010	"	0.200	0.00351	105	10-159			
o-Xylene	0.103	0.0050	"	0.0980	ND	105	31-151			
Surrogate: 1,2-Dichloroethane-d4	0.0450		"	0.0400		113	23-173			
Surrogate: Toluene-d8	0.0420		"	0.0400		105	20-170			
Surrogate: 4-Bromofluorobenzene	0.0406		"	0.0400		101	21-167			

Matrix Spike Dup (1702281-MSD1)

Source: 1702192-01

Prepared & Analyzed: 02/27/17

Naphthalene	ND	0.010	mg/kg	ND	ND		10-158		42	
Benzene	0.0820	0.0020	"	0.100	0.00501	77.0	30-131	0.765	34	
Toluene	0.0959	0.0050	"	0.100	ND	95.9	30-134	3.53	30	
Ethylbenzene	0.110	0.0050	"	0.0992	ND	111	22-153	0.355	24	
m,p-Xylene	0.211	0.010	"	0.200	0.00351	104	10-159	1.24	68	
o-Xylene	0.103	0.0050	"	0.0980	ND	105	31-151	0.234	38	
Surrogate: 1,2-Dichloroethane-d4	0.0437		"	0.0400		109	23-173			
Surrogate: Toluene-d8	0.0406		"	0.0400		101	20-170			
Surrogate: 4-Bromofluorobenzene	0.0396		"	0.0400		98.9	21-167			

Batch 1702304 - EPA 5030 Soil MS

Blank (1702304-BLK1)

Prepared & Analyzed: 02/28/17

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	"							
Surrogate: 1,2-Dichloroethane-d4	0.0400		"	0.0400		99.9	23-173			
Surrogate: Toluene-d8	0.0410		"	0.0400		102	20-170			
Surrogate: 4-Bromofluorobenzene	0.0379		"	0.0400		94.8	21-167			

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Denver CO, 80221

Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

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

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

Batch 1702304 - EPA 5030 Soil MS

LCS (1702304-BS1)

Prepared & Analyzed: 02/28/17

Naphthalene	ND	0.010	mg/kg				66-138			
Benzene	0.0804	0.0020	"	0.100		80.4	58-130			
Toluene	0.0948	0.0050	"	0.100		94.8	61-134			
Ethylbenzene	0.114	0.0050	"	0.0992		115	74-139			
m,p-Xylene	0.215	0.010	"	0.200		108	73-137			
o-Xylene	0.102	0.0050	"	0.0980		104	73-141			
Surrogate: 1,2-Dichloroethane-d4	0.0395		"	0.0400		98.8	23-173			
Surrogate: Toluene-d8	0.0387		"	0.0400		96.7	20-170			
Surrogate: 4-Bromofluorobenzene	0.0379		"	0.0400		94.8	21-167			

Matrix Spike (1702304-MS1)

Source: 1702203-01

Prepared & Analyzed: 02/28/17

Naphthalene	ND	0.010	mg/kg		ND		10-158			
Benzene	0.0795	0.0020	"	0.100	ND	79.5	30-131			
Toluene	0.0959	0.0050	"	0.100	ND	95.9	30-134			
Ethylbenzene	0.109	0.0050	"	0.0992	ND	110	22-153			
m,p-Xylene	0.203	0.010	"	0.200	ND	102	10-159			
o-Xylene	0.0986	0.0050	"	0.0980	ND	101	31-151			
Surrogate: 1,2-Dichloroethane-d4	0.0388		"	0.0400		96.9	23-173			
Surrogate: Toluene-d8	0.0398		"	0.0400		99.4	20-170			
Surrogate: 4-Bromofluorobenzene	0.0636		"	0.0400		159	21-167			

Matrix Spike Dup (1702304-MSD1)

Source: 1702203-01

Prepared & Analyzed: 02/28/17

Naphthalene	ND	0.010	mg/kg		ND		10-158		42	
Benzene	0.0803	0.0020	"	0.100	ND	80.3	30-131	1.05	34	
Toluene	0.0940	0.0050	"	0.100	ND	94.0	30-134	2.02	30	
Ethylbenzene	0.109	0.0050	"	0.0992	ND	110	22-153	0.0274	24	
m,p-Xylene	0.206	0.010	"	0.200	ND	103	10-159	1.43	68	
o-Xylene	0.100	0.0050	"	0.0980	ND	102	31-151	1.48	38	
Surrogate: 1,2-Dichloroethane-d4	0.0404		"	0.0400		101	23-173			
Surrogate: Toluene-d8	0.0408		"	0.0400		102	20-170			
Surrogate: 4-Bromofluorobenzene	0.0586		"	0.0400		147	21-167			

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Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

Volatile Organic Compounds by EPA Method 8260B - Quality Control
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Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 1703015 - EPA 5030 Soil MS

Blank (1703015-BLK1)

Prepared & Analyzed: 03/01/17

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	"							
Surrogate: 1,2-Dichloroethane-d4	0.0372		"	0.0400		92.9	23-173			
Surrogate: Toluene-d8	0.0404		"	0.0400		101	20-170			
Surrogate: 4-Bromofluorobenzene	0.0362		"	0.0400		90.5	21-167			

LCS (1703015-BS1)

Prepared & Analyzed: 03/01/17

Naphthalene	ND	0.010	mg/kg				66-138			
Benzene	0.0796	0.0020	"	0.100		79.6	58-130			
Toluene	0.0952	0.0050	"	0.100		95.2	61-134			
Ethylbenzene	0.114	0.0050	"	0.0992		114	74-139			
m,p-Xylene	0.220	0.010	"	0.200		110	73-137			
o-Xylene	0.104	0.0050	"	0.0980		106	73-141			
Surrogate: 1,2-Dichloroethane-d4	0.0386		"	0.0400		96.4	23-173			
Surrogate: Toluene-d8	0.0392		"	0.0400		98.0	20-170			
Surrogate: 4-Bromofluorobenzene	0.0377		"	0.0400		94.2	21-167			

Matrix Spike (1703015-MS1)

Source: 1703003-01

Prepared & Analyzed: 03/01/17

Naphthalene	ND	0.010	mg/kg		ND		10-158			
Benzene	0.0824	0.0020	"	0.100	ND	82.4	30-131			
Toluene	0.0962	0.0050	"	0.100	ND	96.2	30-134			
Ethylbenzene	0.114	0.0050	"	0.0992	ND	115	22-153			
m,p-Xylene	0.219	0.010	"	0.200	ND	110	10-159			
o-Xylene	0.106	0.0050	"	0.0980	ND	108	31-151			
Surrogate: 1,2-Dichloroethane-d4	0.0413		"	0.0400		103	23-173			
Surrogate: Toluene-d8	0.0404		"	0.0400		101	20-170			
Surrogate: 4-Bromofluorobenzene	0.0388		"	0.0400		96.9	21-167			

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

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 1703015 - EPA 5030 Soil MS

Matrix Spike Dup (1703015-MSD1)				Source: 1703003-01		Prepared & Analyzed: 03/01/17				
Naphthalene	ND	0.010	mg/kg		ND		10-158		42	
Benzene	0.0804	0.0020	"	0.100	ND	80.4	30-131	2.47	34	
Toluene	0.0962	0.0050	"	0.100	ND	96.2	30-134	0.00	30	
Ethylbenzene	0.115	0.0050	"	0.0992	ND	116	22-153	0.445	24	
m,p-Xylene	0.221	0.010	"	0.200	ND	111	10-159	0.791	68	
o-Xylene	0.106	0.0050	"	0.0980	ND	108	31-151	0.142	38	
Surrogate: 1,2-Dichloroethane-d4	0.0404		"	0.0400		101	23-173			
Surrogate: Toluene-d8	0.0399		"	0.0400		99.8	20-170			
Surrogate: 4-Bromofluorobenzene	0.0389		"	0.0400		97.3	21-167			

Batch 1703031 - EPA 5030 Soil MS

Blank (1703031-BLK1)				Prepared & Analyzed: 03/02/17						
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	"							
Surrogate: 1,2-Dichloroethane-d4	0.0427		"	0.0400		107	23-173			
Surrogate: Toluene-d8	0.0407		"	0.0400		102	20-170			
Surrogate: 4-Bromofluorobenzene	0.0362		"	0.0400		90.6	21-167			

LCS (1703031-BS1)				Prepared & Analyzed: 03/02/17						
Naphthalene	ND	0.010	mg/kg				66-138			
Benzene	0.0817	0.0020	"	0.100		81.7	58-130			
Toluene	0.0965	0.0050	"	0.100		96.5	61-134			
Ethylbenzene	0.112	0.0050	"	0.0992		113	74-139			
m,p-Xylene	0.217	0.010	"	0.200		109	73-137			
o-Xylene	0.100	0.0050	"	0.0980		102	73-141			
Surrogate: 1,2-Dichloroethane-d4	0.0453		"	0.0400		113	23-173			
Surrogate: Toluene-d8	0.0397		"	0.0400		99.2	20-170			
Surrogate: 4-Bromofluorobenzene	0.0384		"	0.0400		96.1	21-167			

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6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

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 1703031 - EPA 5030 Soil MS

Matrix Spike (1703031-MS1)

Source: 1703011-01

Prepared & Analyzed: 03/02/17

Naphthalene	ND	0.010	mg/kg		ND		10-158			
Benzene	0.0831	0.0020	"	0.100	ND	83.1	30-131			
Toluene	0.0976	0.0050	"	0.100	ND	97.6	30-134			
Ethylbenzene	0.113	0.0050	"	0.0992	ND	114	22-153			
m,p-Xylene	0.222	0.010	"	0.200	ND	111	10-159			
o-Xylene	0.104	0.0050	"	0.0980	ND	106	31-151			
Surrogate: 1,2-Dichloroethane-d4	0.0455		"	0.0400		114	23-173			
Surrogate: Toluene-d8	0.0403		"	0.0400		101	20-170			
Surrogate: 4-Bromofluorobenzene	0.0381		"	0.0400		95.2	21-167			

Matrix Spike Dup (1703031-MSD1)

Source: 1703011-01

Prepared & Analyzed: 03/02/17

Naphthalene	ND	0.010	mg/kg		ND		10-158		42	
Benzene	0.0805	0.0020	"	0.100	ND	80.5	30-131	3.19	34	
Toluene	0.0965	0.0050	"	0.100	ND	96.5	30-134	1.17	30	
Ethylbenzene	0.117	0.0050	"	0.0992	ND	118	22-153	3.21	24	
m,p-Xylene	0.226	0.010	"	0.200	ND	113	10-159	1.59	68	
o-Xylene	0.107	0.0050	"	0.0980	ND	109	31-151	3.44	38	
Surrogate: 1,2-Dichloroethane-d4	0.0446		"	0.0400		111	23-173			
Surrogate: Toluene-d8	0.0394		"	0.0400		98.6	20-170			
Surrogate: 4-Bromofluorobenzene	0.0389		"	0.0400		97.4	21-167			

Batch 1703053 - EPA 5030 Soil MS

Blank (1703053-BLK1)

Prepared & Analyzed: 03/06/17

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	"							
Surrogate: 1,2-Dichloroethane-d4	0.0452		"	0.0400		113	23-173			
Surrogate: Toluene-d8	0.0416		"	0.0400		104	20-170			
Surrogate: 4-Bromofluorobenzene	0.0422		"	0.0400		105	21-167			

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6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

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 1703053 - EPA 5030 Soil MS

LCS (1703053-BS1)

Prepared & Analyzed: 03/06/17

Naphthalene	ND	0.010	mg/kg				66-138			
Benzene	0.0976	0.0020	"	0.100		97.6	58-130			
Toluene	0.0969	0.0050	"	0.100		96.9	61-134			
Ethylbenzene	0.0996	0.0050	"	0.0992		100	74-139			
m,p-Xylene	0.188	0.010	"	0.200		94.2	73-137			
o-Xylene	0.0916	0.0050	"	0.0980		93.5	73-141			
Surrogate: 1,2-Dichloroethane-d4	0.0417		"	0.0400		104	23-173			
Surrogate: Toluene-d8	0.0449		"	0.0400		112	20-170			
Surrogate: 4-Bromofluorobenzene	0.0412		"	0.0400		103	21-167			

Matrix Spike (1703053-MS1)

Source: 1703034-01

Prepared & Analyzed: 03/06/17

Naphthalene	ND	0.010	mg/kg		ND		10-158			
Benzene	0.112	0.0020	"	0.100	0.00519	106	30-131			
Toluene	0.112	0.0050	"	0.100	0.00507	107	30-134			
Ethylbenzene	0.112	0.0050	"	0.0992	ND	113	22-153			
m,p-Xylene	0.220	0.010	"	0.200	0.00906	106	10-159			
o-Xylene	0.107	0.0050	"	0.0980	ND	110	31-151			
Surrogate: 1,2-Dichloroethane-d4	0.0438		"	0.0400		109	23-173			
Surrogate: Toluene-d8	0.0434		"	0.0400		109	20-170			
Surrogate: 4-Bromofluorobenzene	0.0409		"	0.0400		102	21-167			

Matrix Spike Dup (1703053-MSD1)

Source: 1703034-01

Prepared & Analyzed: 03/06/17

Naphthalene	ND	0.010	mg/kg		ND		10-158		42	
Benzene	0.123	0.0020	"	0.100	0.00519	118	30-131	9.96	34	
Toluene	0.125	0.0050	"	0.100	0.00507	120	30-134	10.7	30	
Ethylbenzene	0.128	0.0050	"	0.0992	ND	129	22-153	12.7	24	
m,p-Xylene	0.251	0.010	"	0.200	0.00906	121	10-159	13.1	68	
o-Xylene	0.121	0.0050	"	0.0980	ND	124	31-151	12.0	38	
Surrogate: 1,2-Dichloroethane-d4	0.0455		"	0.0400		114	23-173			
Surrogate: Toluene-d8	0.0426		"	0.0400		106	20-170			
Surrogate: 4-Bromofluorobenzene	0.0408		"	0.0400		102	21-167			

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Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

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 1703059 - EPA 5030 Soil MS

Blank (1703059-BLK1)

Prepared & Analyzed: 03/07/17

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	"							
Surrogate: 1,2-Dichloroethane-d4	0.0427		"	0.0400		107	23-173			
Surrogate: Toluene-d8	0.0414		"	0.0400		103	20-170			
Surrogate: 4-Bromofluorobenzene	0.0373		"	0.0400		93.3	21-167			

LCS (1703059-BS1)

Prepared & Analyzed: 03/07/17

Naphthalene	ND	0.010	mg/kg				66-138			
Benzene	0.0783	0.0020	"	0.100		78.3	58-130			
Toluene	0.0944	0.0050	"	0.100		94.4	61-134			
Ethylbenzene	0.111	0.0050	"	0.0992		112	74-139			
m,p-Xylene	0.213	0.010	"	0.200		107	73-137			
o-Xylene	0.0987	0.0050	"	0.0980		101	73-141			
Surrogate: 1,2-Dichloroethane-d4	0.0441		"	0.0400		110	23-173			
Surrogate: Toluene-d8	0.0407		"	0.0400		102	20-170			
Surrogate: 4-Bromofluorobenzene	0.0390		"	0.0400		97.5	21-167			

Matrix Spike (1703059-MS1)

Source: 1703040-01

Prepared & Analyzed: 03/07/17

Naphthalene	ND	0.010	mg/kg		ND		10-158			
Benzene	0.0800	0.0020	"	0.100	ND	80.0	30-131			
Toluene	0.0929	0.0050	"	0.100	ND	92.9	30-134			
Ethylbenzene	0.110	0.0050	"	0.0992	ND	111	22-153			
m,p-Xylene	0.212	0.010	"	0.200	ND	106	10-159			
o-Xylene	0.101	0.0050	"	0.0980	ND	103	31-151			
Surrogate: 1,2-Dichloroethane-d4	0.0428		"	0.0400		107	23-173			
Surrogate: Toluene-d8	0.0402		"	0.0400		100	20-170			
Surrogate: 4-Bromofluorobenzene	0.0376		"	0.0400		94.0	21-167			

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

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 1703059 - EPA 5030 Soil MS

Matrix Spike Dup (1703059-MSD1)				Source: 1703040-01		Prepared & Analyzed: 03/07/17				
Naphthalene	ND	0.010	mg/kg		ND		10-158		42	
Benzene	0.0815	0.0020	"	0.100	ND	81.5	30-131	1.93	34	
Toluene	0.0947	0.0050	"	0.100	ND	94.7	30-134	1.92	30	
Ethylbenzene	0.112	0.0050	"	0.0992	ND	113	22-153	2.29	24	
m,p-Xylene	0.213	0.010	"	0.200	ND	107	10-159	0.382	68	
o-Xylene	0.103	0.0050	"	0.0980	ND	105	31-151	2.13	38	
Surrogate: 1,2-Dichloroethane-d4	0.0456		"	0.0400		114	23-173			
Surrogate: Toluene-d8	0.0405		"	0.0400		101	20-170			
Surrogate: 4-Bromofluorobenzene	0.0379		"	0.0400		94.8	21-167			

Batch 1703080 - EPA 5030 Soil MS

Blank (1703080-BLK1)				Prepared & Analyzed: 03/08/17						
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	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0450		"	0.0400		113	23-173			
Surrogate: Toluene-d8	0.0408		"	0.0400		102	20-170			
Surrogate: 4-Bromofluorobenzene	0.0373		"	0.0400		93.3	21-167			

LCS (1703080-BS1)				Prepared & Analyzed: 03/08/17						
Naphthalene	ND	0.010	mg/kg				66-138			
Benzene	0.0775	0.0020	"	0.100		77.5	58-130			
Toluene	0.0928	0.0050	"	0.100		92.8	61-134			
Ethylbenzene	0.111	0.0050	"	0.0992		112	74-139			
m,p-Xylene	0.215	0.010	"	0.200		108	73-137			
o-Xylene	0.101	0.0050	"	0.0980		103	73-141			
Xylenes (total)	0.316	0.010	"				0-200			
Gasoline Range Hydrocarbons	1.22	0.50	"				30-150			
Surrogate: 1,2-Dichloroethane-d4	0.0447		"	0.0400		112	23-173			
Surrogate: Toluene-d8	0.0381		"	0.0400		95.3	20-170			
Surrogate: 4-Bromofluorobenzene	0.0388		"	0.0400		97.0	21-167			

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

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 1703080 - EPA 5030 Soil MS

Matrix Spike (1703080-MS1)			Source: 1703047-01		Prepared & Analyzed: 03/08/17					
Naphthalene	ND	0.010	mg/kg		ND		10-158			
Benzene	0.0805	0.0020	"	0.100	ND	80.5	30-131			
Toluene	0.0934	0.0050	"	0.100	ND	93.4	30-134			
Ethylbenzene	0.113	0.0050	"	0.0992	ND	114	22-153			
m,p-Xylene	0.214	0.010	"	0.200	ND	107	10-159			
o-Xylene	0.101	0.0050	"	0.0980	ND	103	31-151			
Xylenes (total)	0.315	0.010	"		ND		30-160			
Gasoline Range Hydrocarbons	1.31	0.50	"		ND		30-160			
Surrogate: 1,2-Dichloroethane-d4	0.0471		"	0.0400		118	23-173			
Surrogate: Toluene-d8	0.0395		"	0.0400		98.8	20-170			
Surrogate: 4-Bromofluorobenzene	0.0370		"	0.0400		92.4	21-167			

Matrix Spike Dup (1703080-MSD1)			Source: 1703047-01		Prepared & Analyzed: 03/08/17					
Naphthalene	ND	0.010	mg/kg		ND		10-158		42	
Benzene	0.0803	0.0020	"	0.100	ND	80.3	30-131	0.261	34	
Toluene	0.0948	0.0050	"	0.100	ND	94.8	30-134	1.47	30	
Ethylbenzene	0.113	0.0050	"	0.0992	ND	114	22-153	0.239	24	
m,p-Xylene	0.219	0.010	"	0.200	ND	110	10-159	2.32	68	
o-Xylene	0.101	0.0050	"	0.0980	ND	103	31-151	0.149	38	
Xylenes (total)	0.320	0.010	"		ND		30-160	1.63	30	
Gasoline Range Hydrocarbons	1.27	0.50	"		ND		30-160	2.95	30	
Surrogate: 1,2-Dichloroethane-d4	0.0464		"	0.0400		116	23-173			
Surrogate: Toluene-d8	0.0392		"	0.0400		97.9	20-170			
Surrogate: 4-Bromofluorobenzene	0.0383		"	0.0400		95.8	21-167			

Summit Scientific

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Tasman Geosciences
6899 Pecos Street
Denver CO, 80221

Project: Mosier 23-12F

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/22/17 13:50

Notes and Definitions

S-02	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
QM-4X	The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.
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