

**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)
<b>COGCC Standard</b>		<b>0.17</b>	<b>85</b>	<b>100</b>	<b>175</b>	<b>500</b>		<b>23</b>
BH01@1-2'	01/19/17	<b>33</b>	<b>300</b>	16	<b>370</b>	<b>9,200</b>	<b>950</b>	1.3
BH02@2-3'	01/19/17	<b>0.55</b>	0.34	0.057	0.56	<50	<50	<0.010
BH02@6-8'	01/19/17	<b>0.76</b>	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	<b>5.2</b>	36	3.2	58	<b>2,000</b>	<b>130</b>	<0.010
BH05@7-8'	01/19/17	<b>1.2</b>	19	2.2	42	<b>1,700</b>	<b>120</b>	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	<b>0.33</b>	0.64	0.39	2.8	<50	<50	0.056
BH10@6'	01/19/17	<b>3.4</b>	46	7.0	120	<b>6,600</b>	<b>110</b>	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	<b>94</b>	<b>430</b>	36	<b>500</b>	<b>3,200</b>	<b>1,300</b>	0.24
SS05@7'	02/22/17	<b>14</b>	<b>130</b>	11	170	<b>1,300</b>	<b>1,000</b>	1.5
SS06@7'	02/22/17	<b>2.3</b>	22	2.2	36	<b>380</b>	<b>190</b>	0.1
SS09@7'	02/24/17	<b>0.22</b>	0.057	<0.0050	0.056	<50	<50	<0.010
SS10@7'	02/24/17	<b>88</b>	<b>450</b>	35	<b>490</b>	<b>4,500</b>	<b>1,100</b>	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	<b>26</b>	<b>240</b>	21	<b>320</b>	<b>2,900</b>	<b>710</b>	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)
<b>COGCC Standard</b>		<b>0.17</b>	<b>85</b>	<b>100</b>	<b>175</b>	<b>500</b>		<b>23</b>
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

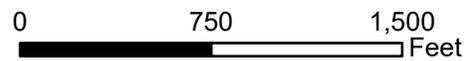
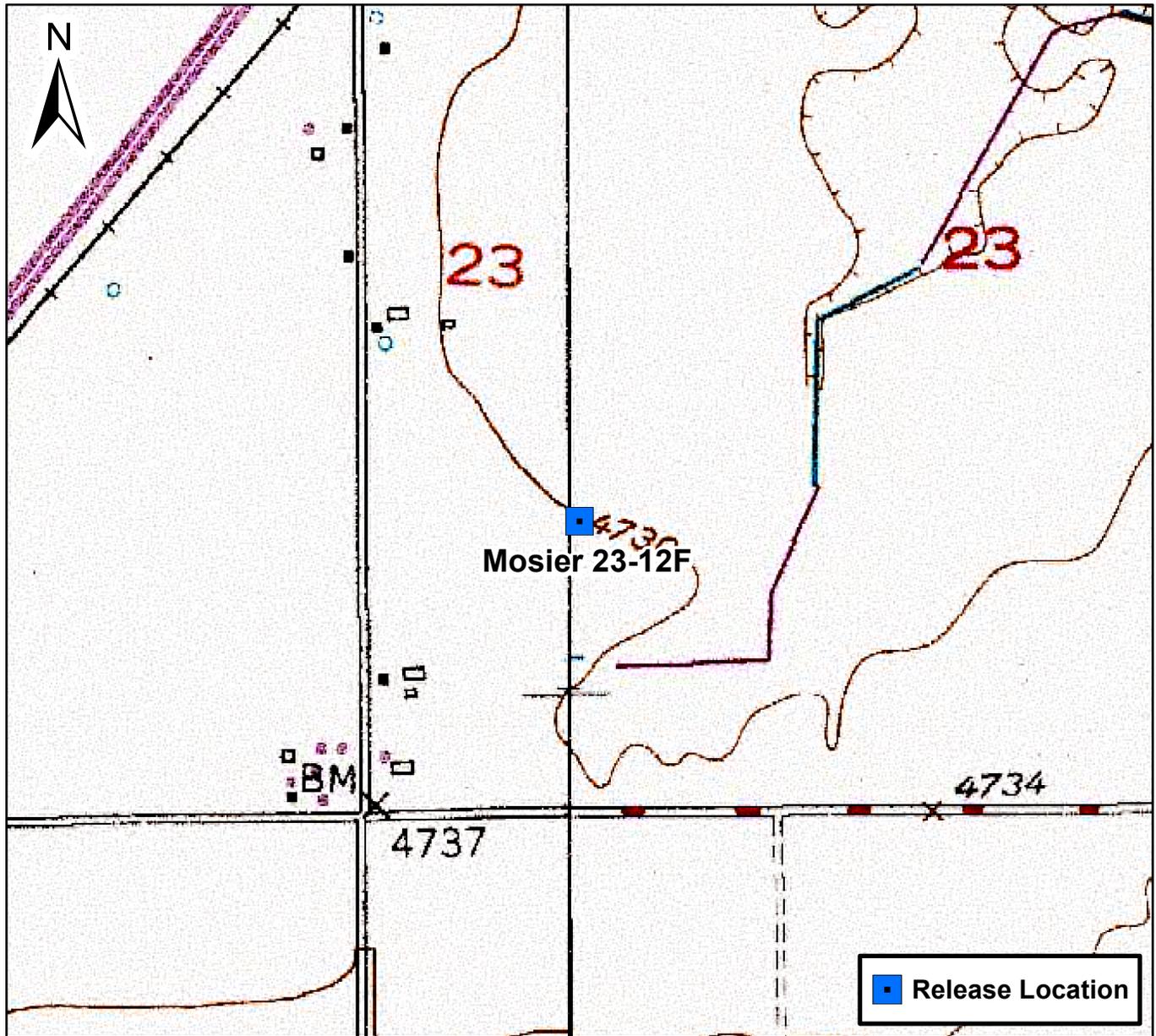
mg/kg = Milligrams per kilogram

< = 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**

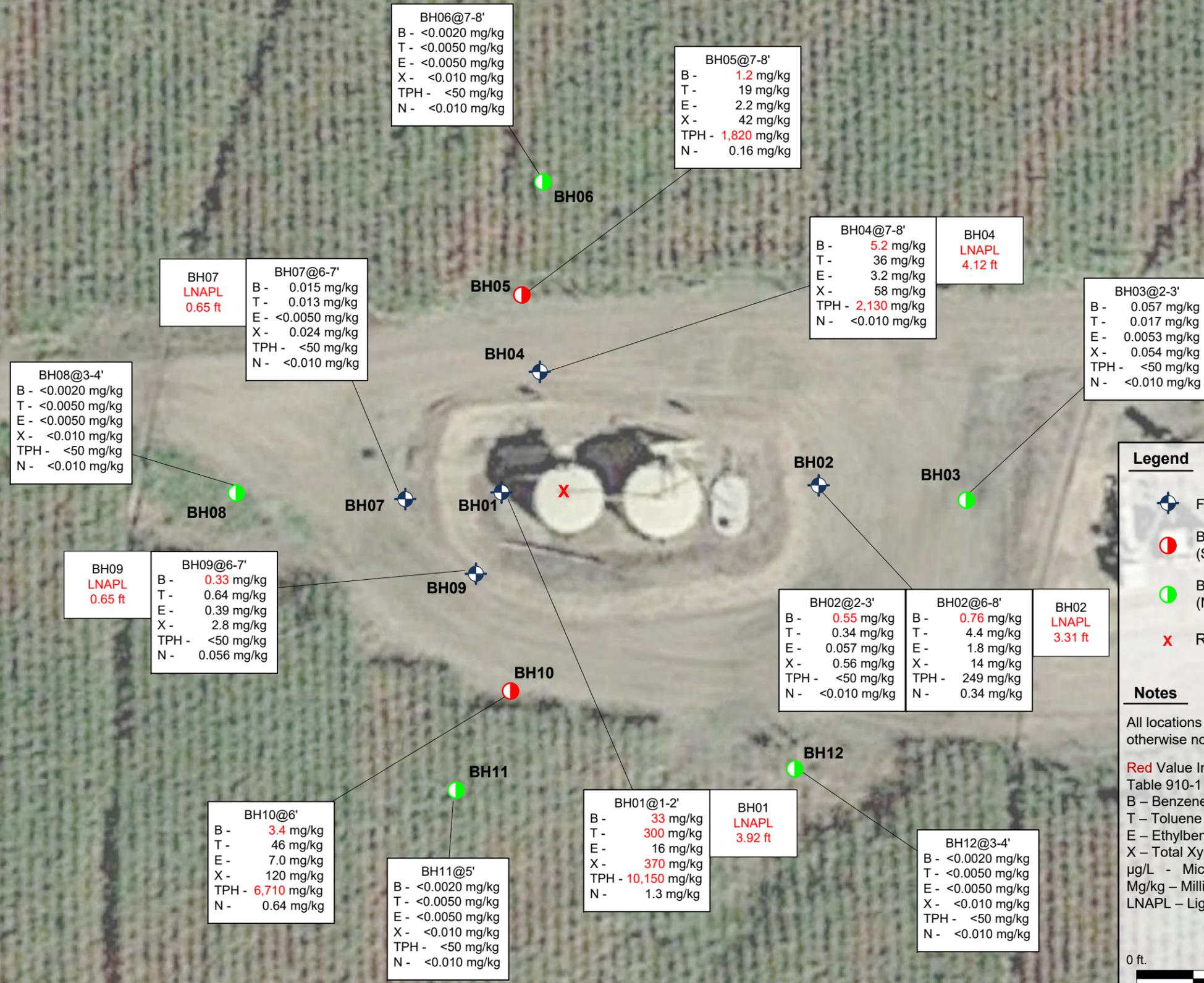
## Figures



### Figure 1

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





**Legend**

- Blue cross: Former Monitoring Well Location
- Red dot: Borehole Soil Sample Location (Soil Impacts Present)
- Green dot: Borehole Soil Sample Location (No Soil Impacts Present)
- Red X: Release Location

**Notes**

All locations are approximate unless otherwise noted.

Red Value Indicates Concentration > COGCC Table 910-1 Standard.

B - Benzene  
 T - Toluene  
 E - Ethylbenzene  
 X - Total Xylenes  
 µg/L - Micrograms Per Liter  
 Mg/kg - Milligrams Per Kilogram  
 LNAPL - Light Non-Aqueous Phase Liquids

0 ft. 20 ft. 40 ft.

Image Source: Google Earth 2016

DATE: March 22, 2017

DESIGNED BY: D. Arnold

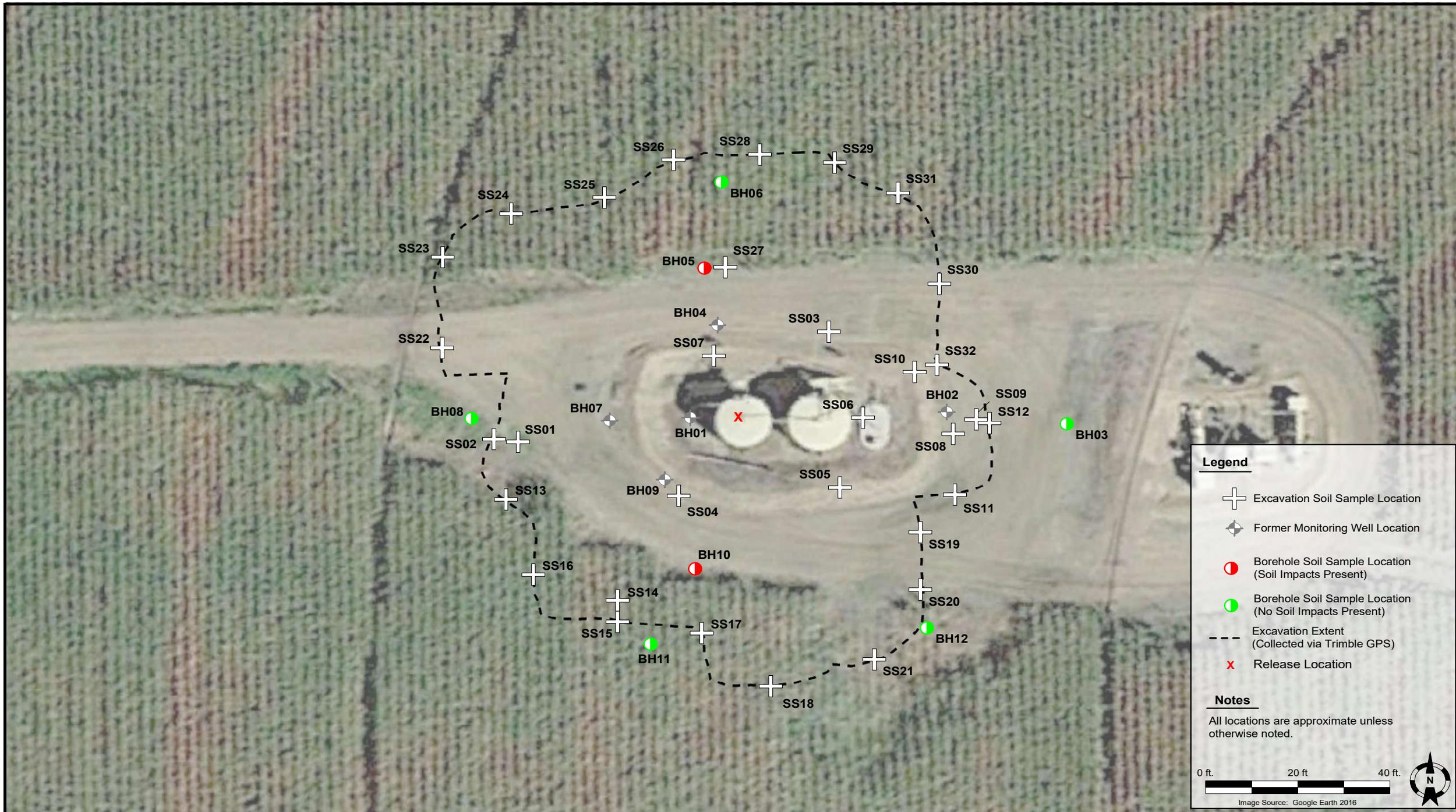
DRAWN BY: D. Arnold



**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



**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 17:17:17. 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 Brunns

**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

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

# 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 / Invoice: Jacob Evans Page 1 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	HNO3	None	Other (Specify)	Groundwater	Soil	Air-Canister #	Other (Specify)	8015 DCO	8210 G80XN			
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)		Same Day <input type="checkbox"/> 72 hours <input checked="" type="checkbox"/>				Notes:					
Relinquished by: <u>NR</u>		Date/Time: <u>1-19-17 17:45</u>	Received by: <u>JS</u>		Date/Time: <u>1-19-17 17:45</u>	24 hours <input type="checkbox"/> Standard <input type="checkbox"/>		48 hours <input type="checkbox"/>									
Relinquished by: _____		Date/Time: _____	Received by: _____		Date/Time: _____	Sample Integrity:		Temperature Upon Receipt: <u>4.4</u>									
						Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No											

www.s2scientific.com



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<sub>2</sub>

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

Client: Noble/Tasman Project Manager: Brandon Bruns / Inspire: 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 <sub>3</sub>	None	Other (Specify)	Groundwater	Soil	Air-Canister #	Other (Specify)	8015 DCO		8020 BTX
1	BH102 6'	1/19/17	14:20	1			X								
2	BH112 5'	↓	14:40	↓			X								
3	BH122 3-4'	↓	15:00	↓			X								
4															
5															
6															
7															
8															
9															
10															

Relinquished by: <u>E.A. Siegel</u>	Date/Time: <u>1/19/17 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 <input checked="" type="checkbox"/>	
Relinquished by: _____	Date/Time: _____	Received by: _____	Date/Time: _____	24 hours _____ Standard _____	
Relinquished by: _____	Date/Time: _____	Received by: _____	Date/Time: _____	48 hours _____	
				Sample Integrity:	
				Temperature Upon Receipt: <u>4.4</u>	
				Intact: <input checked="" type="radio"/> Yes <input type="radio"/> 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: 170129  
 Client: 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)	4.4				

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 <sup>(1)</sup> ?				
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 <sup>(1)</sup> ?	X			
Was adequate sample volume provided <sup>(1)</sup> ?	X			
If custody seals are present, are they intact <sup>(1)</sup> ?			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 <sup>(1)</sup> ?	X			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	X			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	X			
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	X			
For volatiles in water – is there headspace present? <b>If yes, contact client and note in narrative.</b>			X	
Are samples preserved that require preservation (excluding cooling) <sup>(1)</sup> ?			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 <sup>(1)</sup> ?			X	
Record the pH in Comments.			X	
If dissolved metals are requested, were samples field filtered?			X	
Additional Comments (if any):				

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

Muri P.  
Custodian Printed Name

BA 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

# Summit Scientific

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

Page 1 of 1

Client: Noble/Tasman  
Address: \_\_\_\_\_  
City/State/Zip: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
Sampler Name: 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 <sub>3</sub>	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	8260 BTEX	8260B GBTEXN		8015 DRO	pH, EC, SAR
SS02 e7'	2/21/17	14:20	1			X			X				X	X		
Relinquished by: <u>E. A. Avial</u>	Date/Time: <u>16:15 2/21/17</u>	Received by: <u>[Signature]</u>	Date/Time: <u>2-21-17 16:15</u>	Turn Around Time (Check)				Notes:								
Relinquished by: <u>[Signature]</u>	Date/Time: <u>2-21-17 17:30</u>	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"/>	Sample Integrity:		
Relinquished by:	Date/Time:	Received in Lab by:	Date/Time:	Temperature Upon Receipt:	<u>5.3</u>			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

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 <sup>(1)?</sup> 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 <sup>(1)?</sup>	✓			
Was adequate sample volume provided <sup>(1)?</sup>	✓			
If custody seals are present, are they intact <sup>(1)?</sup>			✓	
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 <sup>(1)?</sup>	✓			
Does the COC agree with the number and type of sample bottles received <sup>(1)?</sup>	✓			
Do the sample IDs on the bottle labels match the COC <sup>(1)?</sup>	✓			
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)?</sup>	✓			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			✓	
Are samples preserved that require preservation (excluding cooling) <sup>(1)?</sup> 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 <sup>(1)?</sup> Record the pH in Comments.			✓	
If dissolved metals are requested, were samples field filtered?			✓	
Additional Comments (if any):				

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

Muri P  
Custodian Printed Name

MB 2-21-17  
Signature or Initials of Custodian

16:20  
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

1702161

# 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 Sigel

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 <sub>3</sub>	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	8260 BTEX	8260B GBTEXN		8015 DRO	pH, EC, SAR
SS03e7'	2/22/17	1400	1			X		X				X	X	X		
SS05e7'	2/22/17	1440	1			X		X				X	X	X		
SS06e7'	2/22/17	1450	1			X		X				X	X	X		
Relinquished by: <u>E. A. Sigel</u>		Date/Time: <u>2/22/17 10:00</u>		Received by: <u>NA</u>		Date/Time: <u>2-22-17 10:00</u>		Turn Around Time (Check)				Notes:				
		Date/Time:		Received by:		Date/Time:		Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/>								
		Date/Time:		Received by:		Date/Time:		24 Hours <input type="checkbox"/> Standard <input type="checkbox"/>								
		Date/Time:		Received in Lab by:		Date/Time:		48 Hours <input type="checkbox"/>								
		Date/Time:		Received in Lab by:		Date/Time:		Sample Integrity:								
		Date/Time:		Received in Lab by:		Date/Time:		Temperature Upon Receipt: <u>2.6</u>								
		Date/Time:		Received in Lab by:		Date/Time:		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. Airbill #: \_\_\_\_\_  
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

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 <sup>(1)</sup> ?				
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 <sup>(1)</sup> ?	X			
Was adequate sample volume provided <sup>(1)</sup> ?	X			
If custody seals are present, are they intact <sup>(1)</sup> ?			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 <sup>(1)</sup> ?	X			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	X			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	X			
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	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) <sup>(1)</sup> ?			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 <sup>(1)</sup> ?			X	
Record the pH in Comments.			X	
If dissolved metals are requested, were samples field filtered?			X	
Additional Comments (if any):				

<sup>(1)</sup> 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

1702176

# 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 Segel

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 <sub>3</sub>	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	8260 BTEX	8260B GBTEXN		8015 DRO
SS09e7'	2/24/17	12:50	1			X		X				X	X		
SS10e7'	2/24/17	14:15	1			X		X				X	X		
SS11e7'	2/24/17	14:20	1			X		X				X	X		
Relinquished by:	Date/Time:		Received by:	Date/Time:		Turn Around Time (Check)			Notes:						
<u>E. A. Hill</u>	<u>2/24/17 15:25</u>		<u>[Signature]</u>	<u>2-24-17 15:25</u>		Same Day	<input checked="" type="checkbox"/>	72 Hours	<input type="checkbox"/>	Standard	<input type="checkbox"/>				
Relinquished by:	Date/Time:		Received by:	Date/Time:		24 Hours	<input type="checkbox"/>	48 Hours	<input type="checkbox"/>						
<u>[Signature]</u>	<u>2-24-17 17:30</u>														
Relinquished by:	Date/Time:		Received in Lab by:	Date/Time:		Sample Integrity:									
						Temperature Upon Receipt:	<u>55</u>								
						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

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 <sup>(1)</sup> ?	<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 <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
If custody seals are present, are they intact <sup>(1)</sup> ?			<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 <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	<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) <sup>(1)</sup> ?			<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 <sup>(1)</sup> ?			<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):				

<sup>(1)</sup> 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. Airbill #: \_\_\_\_\_  
(UPS, FedEx, Hand Delivered, Pick-up, etc.)  
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 <sup>(1)</sup> ?	X			
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 <sup>(1)</sup> ?	X			
Was adequate sample volume provided <sup>(1)</sup> ?	X			
If custody seals are present, are they intact <sup>(1)</sup> ?			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 <sup>(1)</sup> ?	X			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	X			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	X			
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	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) <sup>(1)</sup> ?			X	
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 <sup>(1)</sup> ?			X	
Record the pH in Comments.				
If dissolved metals are requested, were samples field filtered?			X	
Additional Comments (if any):				

<sup>(1)</sup> 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 1702204

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 Sigel

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 <sub>3</sub>	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	8260 BTEX	8260B GBTEXN		8015 DRO
SS13 e.7'	2/28/17	8:40	1												
SS15 e.7'	2/28/17	13:20	1												
SS16 e.7'	2/28/17	13:30	1												
Relinquished by: <u>E. A. Sigel</u>	Date/Time: <u>2/28/17 1730</u>	Received by: <u>MB</u>	Date/Time: <u>2/28/17 1700</u>	Turn Around Time (Check)				Notes:							
				Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/>				<u>on ice</u>							
				24 Hours <input type="checkbox"/> Standard <input type="checkbox"/>											
				48 Hours <input type="checkbox"/>											
Relinquished by: <u>MB</u>	Date/Time: <u>2/28/17 1730</u>	Received by: <u>MB</u>	Date/Time: <u>2-28-17 1730</u>	Sample Integrity: <u>4.1°C</u>											
				Temperature Upon Receipt: <u>4.1°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: 1702204  
 Client: Noble/Hasman 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)	4.1				

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 <sup>(1)</sup> ?	✓			
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 <sup>(1)</sup> ?	✓			
Was adequate sample volume provided <sup>(1)</sup> ?	✓			
If custody seals are present, are they intact <sup>(1)</sup> ?			✓	
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 <sup>(1)</sup> ?	✓			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	✓			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	✓			
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	✓			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			✓	
Are samples preserved that require preservation (excluding cooling) <sup>(1)</sup> ?			✓	
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 <sup>(1)</sup> ?			✓	
Record the pH in Comments.				
If dissolved metals are requested, were samples field filtered?			✓	
Additional Comments (if any):				

<sup>(1)</sup> 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

[Signature]



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 <sub>3</sub>	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	8260 BTEX		8260B GBTEXN	8015 DRO
SS 17 @ 7'	3/1/17	900	1		X										
SS 18 @ 7'	↓	1420	1		X							X	X		
SS 19 @ 7'	↓	1530	1		X							X	X		
SS 20 @ 7'	↓	1540	1		X							X	X		
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"/>							
Relinquished by: MB		Date/Time: 3/1/17 1740		Received by: MB		Date/Time: 3-1-17 1740		Sample Integrity:							
								Temperature Upon Receipt: 5.7°C							
								Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No							

www.s2scientific.com



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: PIU Airbill #: \_\_\_\_\_  
(UPS, FedEx, Hand Delivered, Pick-up, etc.)  
 Matrix (check all that apply):  Air  Soil/Solid  Water  Other: \_\_\_\_\_  
(Describe)

Cooler ID					
Temp (°C)	5.7				

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature just above 0°C to ≤ 6°C <sup>(1)</sup> ?	<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 <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
If custody seals are present, are they intact <sup>(1)</sup> ?			<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 <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace present? <b>If yes, contact client and note in narrative.</b>			<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) <sup>(1)</sup> ?			<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 <sup>(1)</sup> ?			<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):				

<sup>(1)</sup> 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

[Signature]



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: \_\_\_\_\_ Project Manager: Brandon Bruns Invoice: Raul Sanchez  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ E-Mail: \_\_\_\_\_  
Sampler Name: Eric Siegel Project Name: Mosier 23-12F  
Project Number: \_\_\_\_\_

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative			Matrix			Analyze For:				Special Instructions	
				HCl	HNO <sub>3</sub>	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	8260 BTEX	8260B GBTEXN		8015 DRO
5521e7	3/2/17	8:45	1		<input checked="" type="checkbox"/>							<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Relinquished by: <u>E. Siegel</u>		Date/Time: <u>3/2/17 1705</u>		Received by: <u>[Signature]</u>		Date/Time: <u>1705</u>		Turn Around Time (Check)				Notes:			
Relinquished by: <u>[Signature]</u>		Date/Time: <u>3/2/17 1730</u>		Received by: <u>[Signature]</u>		Date/Time: <u>3-2-17 1730</u>		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"/>				on ice			
Relinquished by: _____		Date/Time: _____		Received in Lab by: _____		Date/Time: _____		Sample Integrity:							
								Temperature Upon Receipt: <u>4.9°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: 1703013  
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>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 <sup>(1)</sup> ?	<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 <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
If custody seals are present, are they intact <sup>(1)</sup> ?			<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 <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace present? <b>If yes, contact client and note in narrative.</b>			<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) <sup>(1)</sup> ?			<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 <sup>(1)</sup> ?			<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):				

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

Brandon Bruns  
Custodian Printed Name

[Signature]  
Signature of Initials of Custodian

3/22/17 17:30  
Date/Time

[Signature]



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 <sub>3</sub>	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										
SS24e7'		9:30	1			X										
SS25e7'		11:25	1			X										
SS26e7'		14:00	1			X										
SS27e7'		15:15	1			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>		Date/Time: <u>3/6/17 1735</u>	Received by: _____		Date/Time: _____	Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/>										
Relinquished by: _____		Date/Time: _____	Received in Lab by: _____		Date/Time: _____	24 Hours <input type="checkbox"/> Standard <input type="checkbox"/>										
Relinquished by: _____		Date/Time: _____	Received in Lab by: _____		Date/Time: _____	48 Hours <input type="checkbox"/>										
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 <sup>(1)</sup> ?	<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 <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
If custody seals are present, are they intact <sup>(1)</sup> ?			<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 <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace present? <b>If yes, contact client and note in narrative.</b>			<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) <sup>(1)</sup> ?			<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 <sup>(1)</sup> ?			<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):				

<sup>(1)</sup> 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

3/6/17 1740  
Date/Time

[Signature]





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 <sup>(1)</sup> ?				
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 <sup>(1)</sup> ?	✓			
Was adequate sample volume provided <sup>(1)</sup> ?	✓			
If custody seals are present, are they intact <sup>(1)</sup> ?			✓	
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 <sup>(1)</sup> ?	✓			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	✓			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	✓			
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	✓			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			✓	
Are samples preserved that require preservation (excluding cooling) <sup>(1)</sup> ?			✓	
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 <sup>(1)</sup> ?			✓	
Record the pH in Comments.			✓	
If dissolved metals are requested, were samples field filtered?			✓	
Additional Comments (if any):				

<sup>(1)</sup> 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

[Signature]



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 1703047

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

Page 1 of 1

Client: <u>Noble/Tasman</u>	Project Manager: <u>Brandon Bruns, Invoice: Raul Sanchez</u>
Address: _____	E-Mail: _____
City/State/Zip: _____	Project Name: <u>Mosier 23-12F</u>
Phone: _____ Fax: _____	Project Number: _____
Sampler Name: <u>Eric Siegel</u>	

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative			Matrix			Analyze For:				Special Instructions	
				HCl	HNO <sub>3</sub>	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	8260 BTEX	8260B GBTEXN		8015 DRO
SS32E7'	3/8/17	8:40	1		X			X				X	X		
Relinquished by: <u>E. Siegel</u>	Date/Time: <u>3/8/17 1700</u>	Received by: <u>[Signature]</u>	Date/Time: <u>3/8/17 1700</u>	Turn Around Time (Check)				Notes:							
Relinquished by: <u>[Signature]</u>	Date/Time: <u>3/8/17 1730</u>	Received by: <u>[Signature]</u>	Date/Time: <u>3-8-17 1730</u>	Same Day	<input checked="" type="checkbox"/>	72 Hours	<input type="checkbox"/>	on ice							
Relinquished by: <u>[Signature]</u>	Date/Time: <u>3/8/17 1730</u>	Received by: <u>[Signature]</u>	Date/Time: <u>3-8-17 1730</u>	24 Hours	<input type="checkbox"/>	Standard	<input type="checkbox"/>								
Relinquished by: <u>[Signature]</u>	Date/Time: <u>3/8/17 1730</u>	Received by: <u>[Signature]</u>	Date/Time: <u>3-8-17 1730</u>	48 Hours	<input type="checkbox"/>										
Sample Integrity:				Temperature Upon Receipt: <u>4.8°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: 1763047

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

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

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

Cooler ID					
Temp (°C)	4.8				

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 <sup>(1)</sup> ?				
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 <sup>(1)</sup> ?	✓			
Was adequate sample volume provided <sup>(1)</sup> ?	✓			
If custody seals are present, are they intact <sup>(1)</sup> ?			✓	
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 <sup>(1)</sup> ?	✓			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	✓			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	✓			
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	✓			
For volatiles in water – is there headspace present? <b>if yes, contact client and note in narrative.</b>			✓	
Are samples preserved that require preservation (excluding cooling) <sup>(1)</sup> ?			✓	
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 <sup>(1)</sup> ?			✓	
Record the pH in Comments.			✓	
If dissolved metals are requested, were samples field filtered?			✓	
Additional Comments (if any):				

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

Nakifa  
Custodian Printed Name

[Signature]  
Signature or Initials of Custodian

3/8/17 1730  
Date/Time

[Signature]



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

**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
<b>C10-C28 (DRO)</b>	<b>950</b>	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
<b>Naphthalene</b>	<b>1.3</b>	1.0	mg/kg	100	1701192	01/20/17	01/22/17	EPA 8260B	
<b>Benzene</b>	<b>33</b>	0.20	"	"	"	"	"	"	
<b>Toluene</b>	<b>300</b>	5.0	"	1000	"	"	"	"	
<b>Ethylbenzene</b>	<b>16</b>	0.50	"	100	"	"	"	"	
<b>Xylenes (total)</b>	<b>370</b>	10	"	1000	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>9200</b>	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: <i>o</i> -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	
<b>Benzene</b>	<b>0.55</b>	0.0020	"	"	"	"	"	"	
<b>Toluene</b>	<b>0.34</b>	0.0050	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>0.057</b>	0.0050	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>0.56</b>	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 Brunns

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
<b>C10-C28 (DRO)</b>	<b>150</b>	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
<b>Naphthalene</b>	<b>0.34</b>	0.10	mg/kg	10	1701192	01/20/17	01/22/17	EPA 8260B	
<b>Benzene</b>	<b>0.76</b>	0.020	"	"	"	"	"	"	
<b>Toluene</b>	<b>4.4</b>	0.50	"	100	"	"	"	"	
<b>Ethylbenzene</b>	<b>1.8</b>	0.050	"	10	"	"	"	"	
<b>Xylenes (total)</b>	<b>14</b>	1.0	"	100	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>99</b>	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

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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

**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: <i>o</i> -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	
<b>Benzene</b>	<b>0.057</b>	0.0020	"	"	"	"	"	"	
<b>Toluene</b>	<b>0.017</b>	0.0050	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>0.0053</b>	0.0050	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>0.054</b>	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

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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

**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
<b>C10-C28 (DRO)</b>	<b>130</b>	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	
<b>Benzene</b>	<b>5.2</b>	0.20	"	"	"	"	"	"	
<b>Toluene</b>	<b>36</b>	0.50	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>3.2</b>	0.50	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>58</b>	1.0	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>2000</b>	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

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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

**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
<b>C10-C28 (DRO)</b>	<b>120</b>	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
<b>Naphthalene</b>	<b>0.16</b>	0.010	mg/kg	1	1701192	01/20/17	01/22/17	EPA 8260B	
<b>Benzene</b>	<b>1.2</b>	0.20	"	100	"	"	"	"	
<b>Toluene</b>	<b>19</b>	0.50	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>2.2</b>	0.50	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>42</b>	1.0	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>1700</b>	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		"	"	"	"	

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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

**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: <i>o</i> -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		"	"	"	"	

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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

**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: <i>o</i> -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	
<b>Benzene</b>	<b>0.015</b>	0.0020	"	"	"	"	"	"	
<b>Toluene</b>	<b>0.013</b>	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>0.024</b>	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		"	"	"	"	

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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

**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: <i>o</i> -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		"	"	"	"	

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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

**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: <i>o</i> -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
<b>Naphthalene</b>	<b>0.056</b>	0.010	mg/kg	1	1701192	01/20/17	01/22/17	EPA 8260B	
<b>Benzene</b>	<b>0.33</b>	0.0020	"	"	"	"	"	"	
<b>Toluene</b>	<b>0.64</b>	0.0050	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>0.39</b>	0.0050	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>2.8</b>	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		"	"	"	"	

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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
<b>C10-C28 (DRO)</b>	<b>110</b>	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
<b>Naphthalene</b>	<b>0.64</b>	0.010	mg/kg	1	1701192	01/20/17	01/22/17	EPA 8260B	
<b>Benzene</b>	<b>3.4</b>	0.20	"	100	"	"	"	"	
<b>Toluene</b>	<b>46</b>	0.50	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>7.0</b>	0.50	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>120</b>	1.0	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>6600</b>	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		"	"	"	"	

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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

**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: <i>o</i> -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: <i>o</i> -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

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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

**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: <i>o</i> -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	
<b>Benzene</b>	<b>0.0061</b>	0.0020	"	"	"	"	"	"	
<b>Toluene</b>	<b>0.0063</b>	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>0.024</b>	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

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

**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
<b>C10-C28 (DRO)</b>	<b>1300</b>	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
<b>Naphthalene</b>	<b>0.24</b>	0.010	mg/kg	1	1702230	02/22/17	02/22/17	EPA 8260B	
<b>Benzene</b>	<b>94</b>	0.20	"	100	"	"	"	"	E
<b>Toluene</b>	<b>430</b>	0.50	"	"	"	"	"	"	E
<b>Ethylbenzene</b>	<b>36</b>	0.50	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>500</b>	1.0	"	"	"	"	"	"	E
<b>Gasoline Range Hydrocarbons</b>	<b>3200</b>	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

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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

**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
<b>C10-C28 (DRO)</b>	<b>1000</b>	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
<b>Naphthalene</b>	<b>1.5</b>	1.0	mg/kg	100	1702230	02/22/17	02/22/17	EPA 8260B	
<b>Benzene</b>	<b>14</b>	0.20	"	"	"	"	"	"	
<b>Toluene</b>	<b>130</b>	0.50	"	"	"	"	"	"	E
<b>Ethylbenzene</b>	<b>11</b>	0.50	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>170</b>	1.0	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>1300</b>	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

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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

**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
<b>C10-C28 (DRO)</b>	<b>190</b>	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
<b>Naphthalene</b>	<b>0.10</b>	0.010	mg/kg	1	1702230	02/22/17	02/22/17	EPA 8260B	
<b>Benzene</b>	<b>2.3</b>	0.20	"	100	"	"	"	"	
<b>Toluene</b>	<b>22</b>	0.50	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>2.2</b>	0.50	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>36</b>	1.0	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>380</b>	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

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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

**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: <i>o</i> -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	
<b>Benzene</b>	<b>0.22</b>	0.0020	"	"	"	"	"	"	
<b>Toluene</b>	<b>0.057</b>	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>0.056</b>	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		"	"	"	"	

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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

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
Surrogate: o-Terphenyl		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
Surrogate: 1,2-Dichloroethane-d4		138 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.3 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		170 %	21-167		"	"	"	"	S-02

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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

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		"	"	"	"	

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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

**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: <i>o</i> -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	
<b>Benzene</b>	<b>0.0050</b>	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		"	"	"	"	

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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

**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: <i>o</i> -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		"	"	"	"	

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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

**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: <i>o</i> -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		"	"	"	"	

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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

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

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

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

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

**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: <i>o</i> -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	
<b>Benzene</b>	<b>0.010</b>	0.0020	"	"	"	"	"	"	
<b>Toluene</b>	<b>0.0052</b>	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>0.016</b>	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: <i>o</i> -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	
<b>Benzene</b>	<b>0.012</b>	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		"	"	"	"	

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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

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

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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

**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: <i>o</i> -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

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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

**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: <i>o</i> -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	
<b>Benzene</b>	<b>0.0052</b>	0.0020	"	"	"	"	"	"	
<b>Toluene</b>	<b>0.0051</b>	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		"	"	"	"	

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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

**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
<i>Surrogate: o-Terphenyl</i>		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	"	"	"	"	"	"	
<b>Toluene</b>	<b>0.0050</b>	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
<i>Surrogate: 1,2-Dichloroethane-d4</i>		116 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		103 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		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 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: <i>o</i> -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		"	"	"	"	

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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

**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: <i>o</i> -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		"	"	"	"	

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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		"	"	"	"	

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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 Brunns

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
Surrogate: o-Terphenyl		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
Surrogate: 1,2-Dichloroethane-d4		110 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		118 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		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: <i>o</i> -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

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

**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: <i>o</i> -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: <i>o</i> -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		"	"	"	"	

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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: <i>o</i> -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		"	"	"	"	

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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

**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: <i>o</i> -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

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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

### Extractable Petroleum Hydrocarbons by 8015 - Quality Control

#### Summit Scientific

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

#### 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				

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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		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

**Batch 1702214 - EPA 3550A**

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

**Batch 1702231 - EPA 3550A**

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

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

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

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

**Batch 1702255 - EPA 3550A**

<b>LCS (1702255-BS1)</b>		<b>Prepared &amp; Analyzed: 02/24/17</b>								
C10-C28 (DRO)	610	50	mg/kg	499		122	73-134			
Surrogate: <i>o</i> -Terphenyl	14.2		"	12.5		114	30-150			

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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		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

**Batch 1702255 - EPA 3550A**

<b>Matrix Spike (1702255-MS1)</b>		<b>Source: 1702170-01</b>			<b>Prepared &amp; Analyzed: 02/24/17</b>					
C10-C28 (DRO)	606	50	mg/kg	499	14.2	119	50-148			
Surrogate: <i>o</i> -Terphenyl	14.0		"	12.5		112	30-150			
<b>Matrix Spike Dup (1702255-MSD1)</b>		<b>Source: 1702170-01</b>			<b>Prepared &amp; Analyzed: 02/24/17</b>					
C10-C28 (DRO)	606	50	mg/kg	499	14.2	119	50-148	0.0254	20	
Surrogate: <i>o</i> -Terphenyl	13.9		"	12.5		111	30-150			

**Batch 1702282 - EPA 3550A**

<b>Blank (1702282-BLK1)</b>		<b>Prepared &amp; Analyzed: 02/27/17</b>								
C10-C28 (DRO)	ND	50	mg/kg							
Surrogate: <i>o</i> -Terphenyl	12.3		"	12.5		98.5	30-150			
<b>LCS (1702282-BS1)</b>		<b>Prepared &amp; Analyzed: 02/27/17</b>								
C10-C28 (DRO)	562	50	mg/kg	499		113	73-134			
Surrogate: <i>o</i> -Terphenyl	13.0		"	12.5		104	30-150			
<b>Matrix Spike (1702282-MS1)</b>		<b>Source: 1702192-01</b>			<b>Prepared &amp; Analyzed: 02/27/17</b>					
C10-C28 (DRO)	578	50	mg/kg	499	9.51	114	50-148			
Surrogate: <i>o</i> -Terphenyl	13.2		"	12.5		105	30-150			
<b>Matrix Spike Dup (1702282-MSD1)</b>		<b>Source: 1702192-01</b>			<b>Prepared &amp; Analyzed: 02/27/17</b>					
C10-C28 (DRO)	558	50	mg/kg	499	9.51	110	50-148	3.50	20	
Surrogate: <i>o</i> -Terphenyl	12.8		"	12.5		102	30-150			

**Batch 1702305 - EPA 3550A**

<b>Blank (1702305-BLK1)</b>		<b>Prepared &amp; Analyzed: 02/28/17</b>								
C10-C28 (DRO)	ND	50	mg/kg							
Surrogate: <i>o</i> -Terphenyl	11.2		"	12.5		89.4	30-150			

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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		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

**Batch 1702305 - EPA 3550A**

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

**Batch 1703016 - EPA 3550A**

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

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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		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

**Batch 1703032 - EPA 3550A**

**Blank (1703032-BLK1)**

Prepared & Analyzed: 03/02/17

C10-C28 (DRO)	ND	50	mg/kg							
Surrogate: <i>o</i> -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: <i>o</i> -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: <i>o</i> -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: <i>o</i> -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: <i>o</i> -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: <i>o</i> -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: <i>o</i> -Terphenyl	10.4		"	12.5		83.4	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		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

**Batch 1703054 - EPA 3550A**

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

**Batch 1703060 - EPA 3550A**

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

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

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

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

**Batch 1703081 - EPA 3550A**

<b>Blank (1703081-BLK1)</b>		<b>Prepared &amp; Analyzed: 03/08/17</b>								
C10-C28 (DRO)	ND	50	mg/kg							
Surrogate: <i>o</i> -Terphenyl	13.7		"	12.5		110	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		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

**Batch 1703081 - EPA 3550A**

**LCS (1703081-BS1)**

Prepared & Analyzed: 03/08/17

C10-C28 (DRO)	565	50	mg/kg	499		113	73-134			
Surrogate: <i>o</i> -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: <i>o</i> -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: <i>o</i> -Terphenyl	16.3		"	12.5		131	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

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

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

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

**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			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0332</i>		<i>"</i>	<i>0.0400</i>		<i>83.1</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0370</i>		<i>"</i>	<i>0.0400</i>		<i>92.6</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0348</i>		<i>"</i>	<i>0.0400</i>		<i>86.9</i>	<i>21-167</i>			

**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			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0340</i>		<i>"</i>	<i>0.0400</i>		<i>85.0</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0365</i>		<i>"</i>	<i>0.0400</i>		<i>91.2</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0367</i>		<i>"</i>	<i>0.0400</i>		<i>91.8</i>	<i>21-167</i>			

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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

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

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

**Batch 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  
Denver CO, 80221

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		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit		

**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		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		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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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		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

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

**Matrix Spike (1702230-MS1)**

Source: 1702161-01

Prepared & Analyzed: 02/22/17

Naphthalene	1.52	0.010	mg/kg	0.236	94.2	NR	10-158			
Benzene	29.7	0.0020	"	0.100	433	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	NR	23-173			S-02
Surrogate: Toluene-d8	0.972		"	0.0400	NR	NR	20-170			S-02
Surrogate: 4-Bromofluorobenzene	3.05		"	0.0400	NR	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	94.2	NR	10-158	15.0	42	
Benzene	23.3	0.0020	"	0.100	433	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	NR	23-173			S-02
Surrogate: Toluene-d8	0.494		"	0.0400	NR	NR	20-170			S-02
Surrogate: 4-Bromofluorobenzene	1.55		"	0.0400	NR	NR	21-167			S-02

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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		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

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

**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			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0421</i>		<i>"</i>	<i>0.0400</i>		<i>105</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0404</i>		<i>"</i>	<i>0.0400</i>		<i>101</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0392</i>		<i>"</i>	<i>0.0400</i>		<i>98.0</i>	<i>21-167</i>			

**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			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0419</i>		<i>"</i>	<i>0.0400</i>		<i>105</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0396</i>		<i>"</i>	<i>0.0400</i>		<i>98.9</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0398</i>		<i>"</i>	<i>0.0400</i>		<i>99.5</i>	<i>21-167</i>			

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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

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

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

**Batch 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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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

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

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

**Batch 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			

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

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

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

**Batch 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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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		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

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

**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			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0386</i>		<i>"</i>	<i>0.0400</i>		<i>96.4</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0392</i>		<i>"</i>	<i>0.0400</i>		<i>98.0</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0377</i>		<i>"</i>	<i>0.0400</i>		<i>94.2</i>	<i>21-167</i>			

**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			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0413</i>		<i>"</i>	<i>0.0400</i>		<i>103</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0404</i>		<i>"</i>	<i>0.0400</i>		<i>101</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0388</i>		<i>"</i>	<i>0.0400</i>		<i>96.9</i>	<i>21-167</i>			

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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

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

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

**Batch 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	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 Brunns

Reported:  
03/22/17 13:50

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

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

**Batch 1703031 - EPA 5030 Soil MS**

**Matrix Spike (1703031-MS1)**

Source: 1703011-01

Prepared & Analyzed: 03/02/17

Naphthalene	ND	0.010	mg/kg	ND	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	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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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		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

**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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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		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

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

**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			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0441</i>		<i>"</i>	<i>0.0400</i>		<i>110</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0407</i>		<i>"</i>	<i>0.0400</i>		<i>102</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0390</i>		<i>"</i>	<i>0.0400</i>		<i>97.5</i>	<i>21-167</i>			

**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			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0428</i>		<i>"</i>	<i>0.0400</i>		<i>107</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0402</i>		<i>"</i>	<i>0.0400</i>		<i>100</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0376</i>		<i>"</i>	<i>0.0400</i>		<i>94.0</i>	<i>21-167</i>			

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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

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

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

**Batch 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	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		

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

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

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

**Batch 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