

EXCAVATION REPORT

BEEBE DRAW RG 26-9, 23
TANK BATTERY HISTORIC RELEASE

COGCC SPILL TRACKING # 455231
COGCC REMEDIATION # Not Assigned

Prepared for:



2115 117th Avenue
Greeley, CO 80631

Prepared by:



6899 North Pecos Street, Unit C
Denver, CO 80221

August 16, 2018

Mr. Jacob Evans
Noble Energy Inc.
2115 117th Avenue
Greeley, CO 80631

Subject: **Excavation Report and NFA Request**
 Beebe Draw RG 26-9,23 Tank Battery Historic
 Release API #: 05-123-13216
 Spill/Release Point ID: 455231
 Initial Form 19 #: 401654823
 NESE S26 T4N R65W
 Weld County, Colorado

Dear Mr. Evans:

Below please find a copy of the above referenced Excavation Report for the Beebe Draw RG 26-9, 23 Tank Battery Historic Release site (Site) in Weld County, Colorado. The text below describes environmental remediation and associated confirmation sampling activities conducted by Tasman Geosciences, Inc. (Tasman), on behalf of Noble Energy, Inc. (Noble), between May 17, 2018 and July 3, 2018.

Introduction

The purpose of this document is to describe the assessment and removal of impacted soil, and confirmation sampling activities at the Site. The activities described below were performed in response to a release confirmed during the plugging and abandonment of the Beebe Draw RG 26-9, 23 tank battery on May 26, 2018.

Facility Background

The Site is located approximately 8 miles SE of Evans in Weld County, Colorado. Site legal description is the northeast 1/4 of the southeast 1/4 of Section 26, Township 4 north, Range 65 west, of the 6th Principal Meridian. The Site is located on terrain that slopes gradually to the northwest. The Site is approximately 15 feet (ft.) west of County Road 47 and approximately 1,980 feet (ft.) North of County Road 40 and has coordinates of 40.28143°, -104.62141°.

As reported on the initial Form 19 submitted on 5/27/2018, a historical release was discovered beneath the produced water vessel during the plugging and abandonment of the Beebe Draw RG 26-9, 23 tank battery. The Colorado Oil and Gas Conservation Commission (COGCC) assigned Spill/Release Point ID# 455231 for the project.

Vault Removal Field Activities

Following the removal of oil and gas production equipment from the site, excavation activities were initiated on May 17, 2018 and Tasman was on site to collect confirmation soil samples in the area of the suspected release. Soil samples were collected from six (6) locations (SS01@3',SS06@10',SS07@9,SS08@9',SS09@9',SS10@9'), along the excavations sidewalls and base and field screened for volatile organic compounds (VOC) with a photo-ionization detector (PID) and standard headspace soil screening techniques. Two additional samples were collected to the north and the east (SS11@', SS12@8') approximately 15' from the main excavation, to a depth of 8'. An existing property fence restricted additional sample collection to the West and South. The vault removal extent and soil sample locations are illustrated in Figure 2. Soil impacts above COGCC Table 910-1 soil standards were confirmed following receipt of laboratory analytical results from Summit Scientific (Summit) located in Golden, Colorado. Complete laboratory analytical results for soil samples collected during Site P&A activities are summarized in Table 1.

Excavation Field Activities

Following the removal of the produced water vessel, excavation activities were completed between June 18, 2018 and July 3, 2018 to remove residual impacts. To address impacted soil, the excavation area was extended to a total depth of 20 feet (ft) below ground surface (bgs). Impacted soils surrounding the release location were excavated and transported off-site for disposal at the Buffalo Ridge landfill in Keensburg, Colorado and Waste Management in Ault, Colorado under signed Noble waste manifests. When possible, clean overburden was utilized for backfill material along with clean, imported fill. A total of approximately 6,312 cubic yards of impacted material was removed from the site for disposal. The final excavation area measured approximately 148' ft. by 78' ft. by 20' ft. bgs.

During excavation activities, soil samples were collected from sixty nine locations (SS01 through SS69) along the sidewalls at approximately 10 to 20 ft. bgs. Six test pits (SS32,SS33,SS34,SS36,SS50,SS51) were utilized throughout excavation activities to determine extents to the north and anticipate excavation size. All test pits were incorporated into the final extent of the excavation. Confirmation soil samples (CS01 through CS08) were also collected from clean overburden stockpiles. Soil samples were submitted to Summit for laboratory analyses of benzene, toluene, ethylbenzene and total xylenes (BTEX), naphthalene, total petroleum hydrocarbons-gasoline range organics (TPH-GRO) using United States Environmental Protection Agency (USEPA) Method 8260, as well as total petroleum hydrocarbon-diesel range organics (TPH-DRO) using USEPA method 8015. Soil analytical is summarized in Table 1, and the final excavation extent and excavation soil sample locations are illustrated in Figure 3. The laboratory analytical reports are included in Attachment A. After sampling activities were completed, the excavation was backfilled with clean overburden material and imported clean fill. At the request of Noble, confirmation backfill samples were collected and screened from the imported clean fill. Representative sample BS01 was submitted to the laboratory for analysis.

Water was visually noted on the sidewalls of the excavation at approximately 14 ft. bgs. Minimal amounts of water pooled in a couple of low-lying areas of the excavation. Based on minimal amounts of water being present, a representative aqueous sample was not collected for laboratory analysis. Light non-aqueous phase liquid (LNAPL) was not observed during excavation activities. On July 9, 2018, backfilling and re-grading of the Site were completed.

Results

Laboratory analyses indicate that BTEX, naphthalene, TPH-GRO, and TPH-DRO concentrations were below the applicable COGCC Table 910-1 soil standards in the soil samples collected from the final extents and base of the Excavation area.

Conclusions

Based upon excavation activities completed at the site and laboratory analytical results of the soil samples collected, petroleum hydrocarbon impacts to soil have been successfully removed. A site assessment will be completed to further delineate impacts.

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

Attachments:

Table 1 - Soil Analytical Data

Figure 1 - Site Location Map

Figure 2 - Vault Removal Soil Analytical Results Map

Figure 3 - Excavation Soil Analytical Results Map

Attachment A - Laboratory Analytical Data Reports

TABLES

TABLE 1
SOIL ANALYTICAL DATA
NOBLE ENERGY, INC. - BEEBE DRAW RG 26 - 9, 23
TANK BATTERY HISTORIC RELEASE

Soil Sample ID	Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	Naphthalene (mg/kg)
COGCC Standard		0.17	85	100	175	500		23
SS01@3'	05/17/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS06@10'	05/17/18	<0.0020	<0.0050	<0.0050	<0.010	55	320	<0.010
SS07@9' ⁽¹⁾	05/17/18	2.7	0.94	6.4	130	1900	980	2.0
SS08@9' ⁽¹⁾	05/17/18	0.83	0.97	29	420	3400	2100	3.1
SS09@9'	05/17/18	0.33	0.94	3.6	48	670	360	1.4
SS10@9'	05/17/18	<0.0020	<0.0050	0.0058	130	1200	520	<0.010
SS11@8'	05/17/18	0.0045	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS12@8'	05/17/18	0.0042	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS13@10'	06/18/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS14@10'	06/18/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	0.012
SS15@10'	06/18/18	<0.0020	<0.0050	<0.0050	0.031	<50	<50	0.011
SS16@10'	06/18/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS17@20'	06/19/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS18@19' ⁽¹⁾	06/19/18	<0.0020	<0.0050	<0.0050	<0.010	<50	160	<0.010
SS20@20'	06/20/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS22@10'	06/20/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS23@10'	06/20/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS24@19'	06/20/18	0.0080	<0.0050	0.46	4.4	590	500	0.24
SS25@19'	06/20/18	<0.0020	<0.0050	<0.0050	0.017	<50	<50	<0.010
SS26@10'	06/20/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS27@20'	06/20/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS28@20'	06/20/18	<0.0020	<0.0050	0.0052	0.066	<50	<50	<0.010
SS29@20'	06/20/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS30@19'	06/20/18	0.016	<0.0050	0.11	0.46	82	<50	0.056
SS31@10'	06/20/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS32@10'	06/21/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS32@15'	06/21/18	<0.0020	<0.0050	0.70	2.0	520	510	0.24
SS33@10'	06/21/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS33@15'	06/21/18	<0.0020	<0.0050	0.013	0.11	570	310	0.042
SS34@10'	06/21/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS34@15'	06/21/18	<0.0020	<0.0050	<0.0050	0.026	<50	<50	<0.010
SS35@15'	06/21/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS36@10'	06/21/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS36@15'	06/21/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS37@10'	06/21/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS37@19'	06/21/18	0.0030	<0.0050	0.22	4.0	240	210	0.18
SS38@19'	06/21/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS39@19'	06/22/18	<0.0020	<0.0050	0.011	0.072	<50	<50	0.012
SS40@19'	06/22/18	<0.0020	<0.0050	0.0079	0.027	<50	<50	<0.010
SS41@20'	06/22/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS42@20'	06/22/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010

TABLE 1
SOIL ANALYTICAL DATA
NOBLE ENERGY, INC. - BEEBE DRAW RG 26 - 9, 23
TANK BATTERY HISTORIC RELEASE

Soil Sample ID	Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	Naphthalene (mg/kg)
COGCC Standard		0.17	85	100	175	500		23
SS44@20'	06/22/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS45@20'	06/22/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS46@20'	06/25/18	<0.0020	<0.0050	<0.0050	0.013	<50	<50	<0.010
SS49@19'	06/25/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS50@10'	06/25/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS50@15'	06/25/18	<0.0020	<0.0050	0.23	1.3	110	97	0.11
SS51@10'	06/25/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS51@15'	06/25/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS52@20'	06/27/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS53@10'	06/27/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS54@10'	06/27/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS55@19'	06/27/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS56@19'	06/27/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS57@10'	06/27/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS57@19'	06/27/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS58@20'	06/28/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS59@10'	06/28/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS59@19'	06/28/18	<0.0020	<0.0050	<0.0050	0.10	<50	<50	<0.010
SS60@10'	06/28/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS60@19'	06/28/18	<0.0020	<0.0050	<0.0050	<0.010	720	1000	<0.010
SS61@19'	06/29/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS62@20'	06/29/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS63@20'	06/29/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS64@20'	06/29/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS65@20'	06/29/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS67@10'	07/02/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS67@19'	07/02/18	<0.0020	<0.0050	0.013	0.076	<50	270	0.013
SS68@20'	07/02/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS69@10'	07/03/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
SS69@19'	07/03/18	<0.0020	<0.0050	<0.0050	<0.010	<50	65	<0.010
BS01	06/27/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
CS01	06/18/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
CS02	06/19/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
CS04	06/26/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
CS05	06/26/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
CS06	06/26/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010
CS07	06/26/18	<0.0020	<0.0050	<0.0050	<0.010	<50	<50	<0.010

TABLE 1
SOIL ANALYTICAL DATA
NOBLE ENERGY, INC. - BEEBE DRAW RG 26 - 9, 23
TANK BATTERY HISTORIC RELEASE

Soil Sample ID	Date	EC (mmhos/cm)	pH	SAR
		4 or 2x BG	6-9	<12
SS01@3'	05/17/18	0.444	8.21	0.270

Notes:

mg/kg = Milligrams per kilogram

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

EC = Specific conductance

BG = Background

SAR = Sodium adsorption ratio

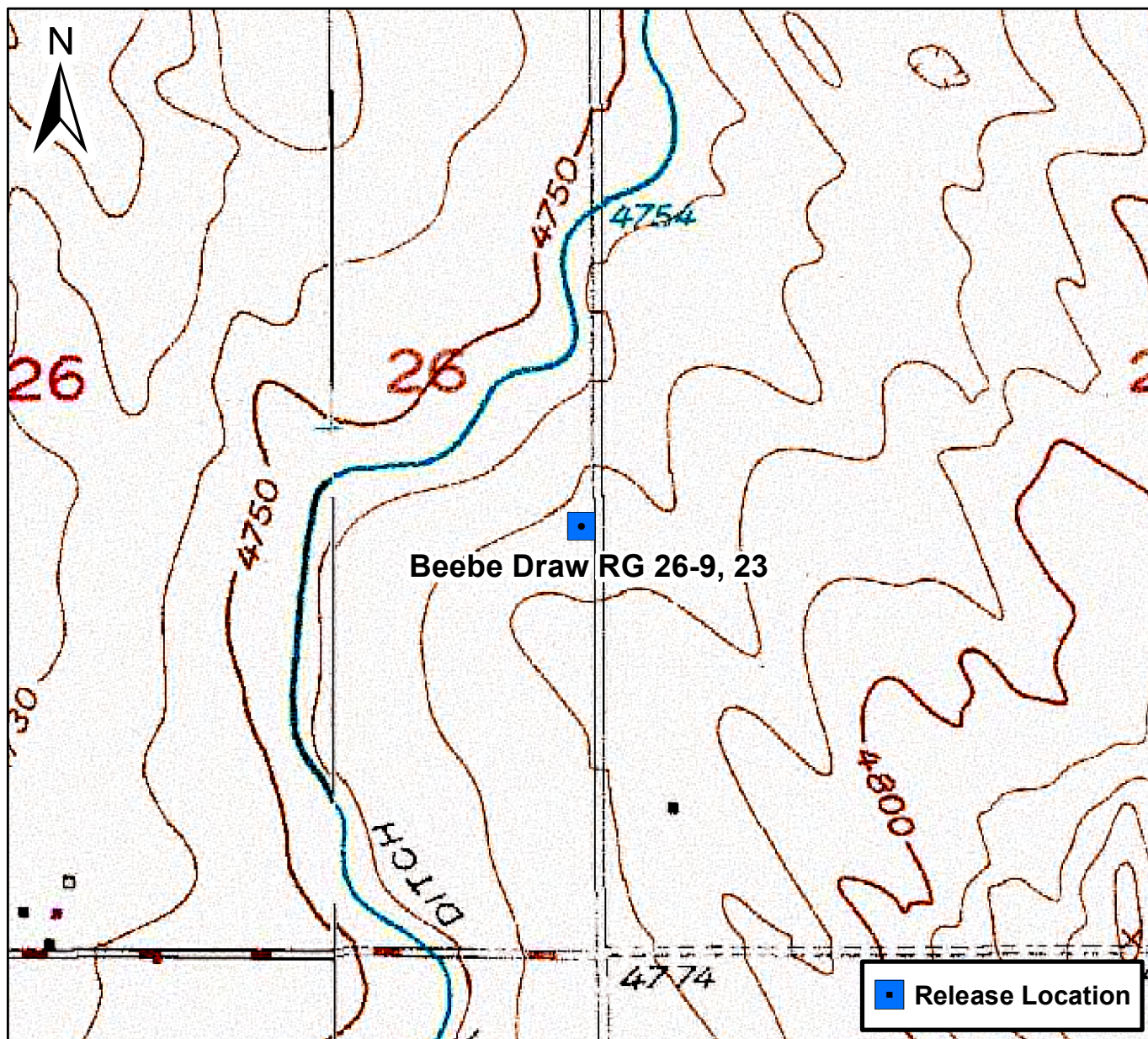
mmhos/cm = milliMhos/centimeter

1 = The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.

Soil standards referenced from COGCC Table 910-1

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

FIGURES

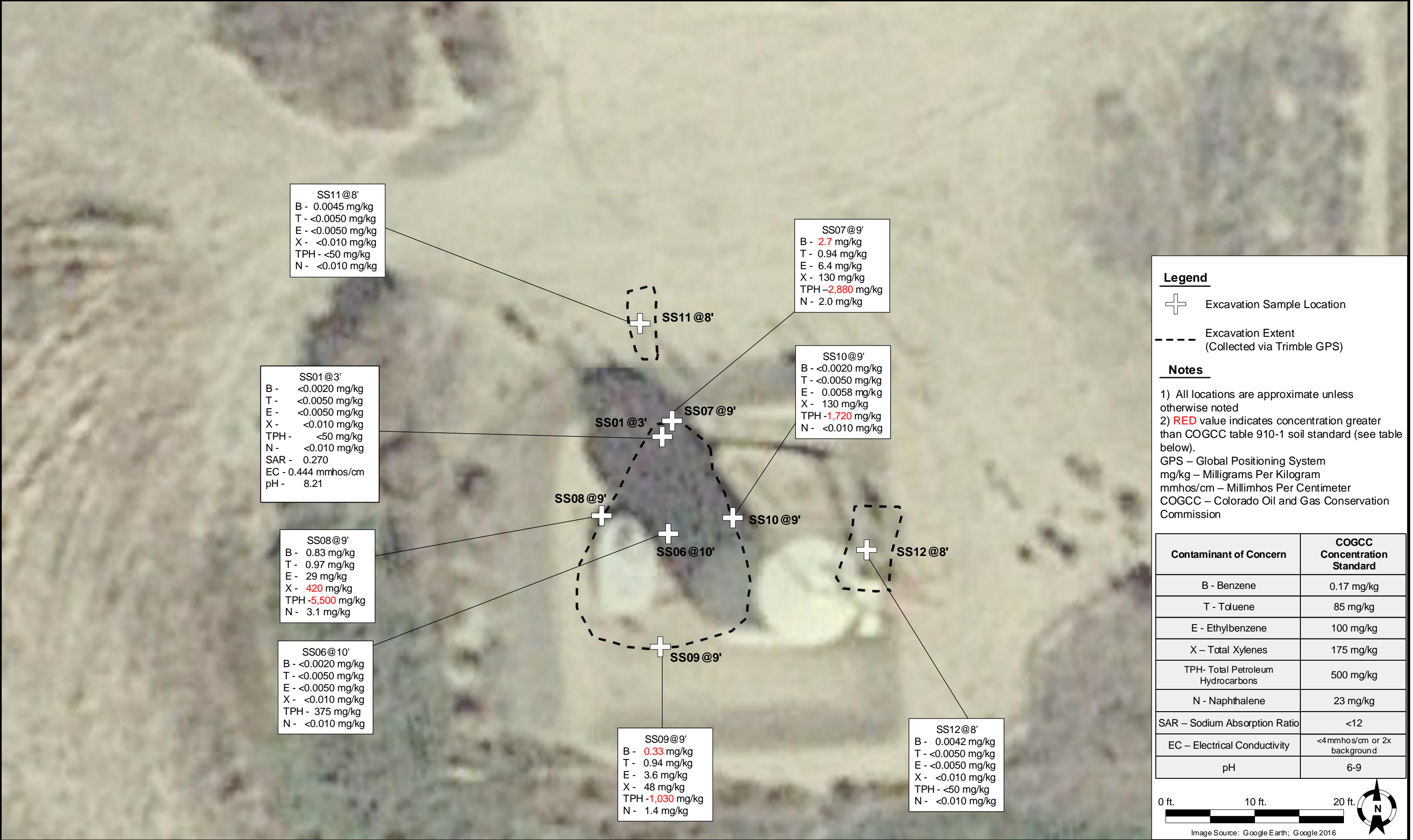


0 750 1,500 Feet

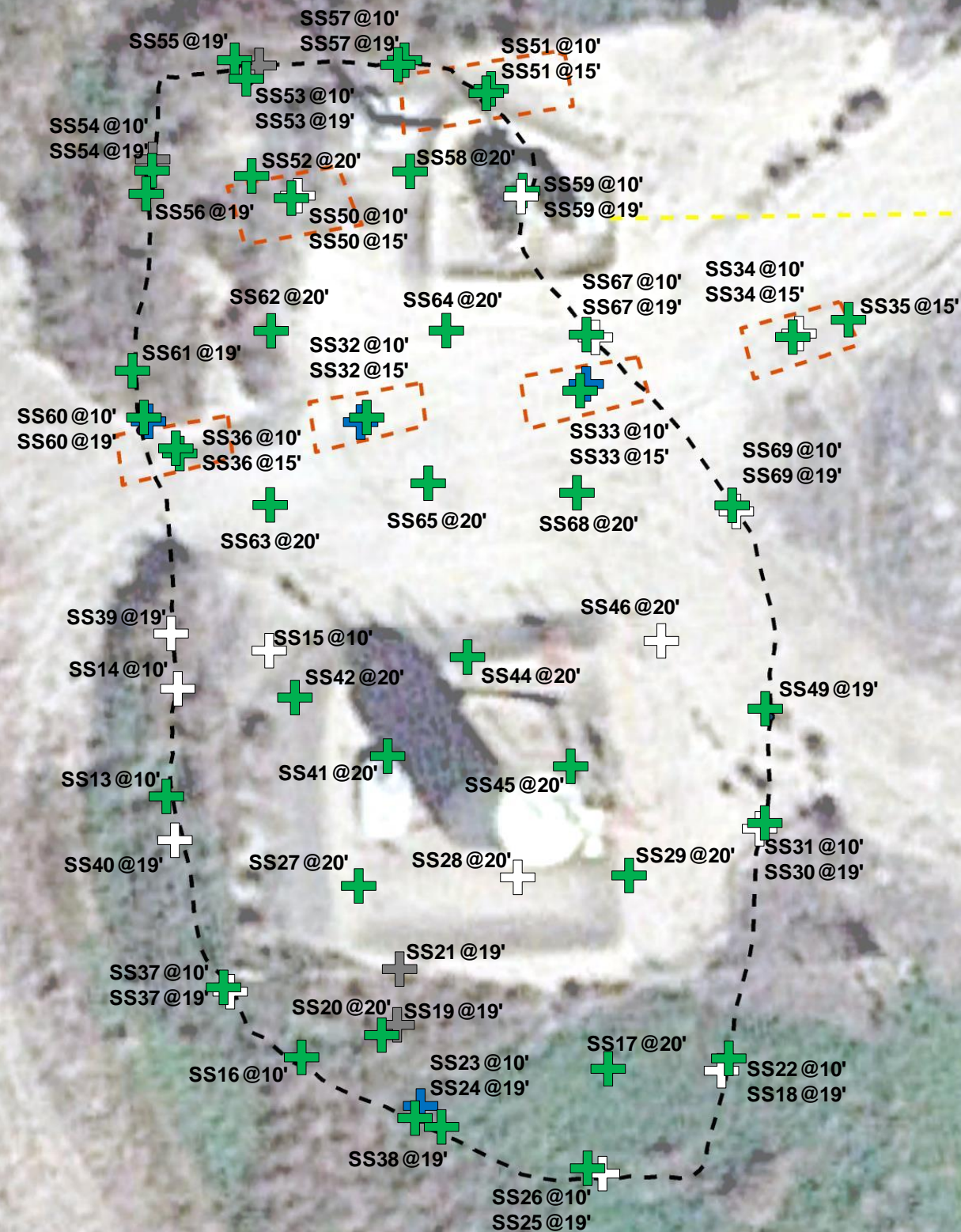
Figure 1

Site Location Map
Beebe Draw RG 26-9, 23
Tank Battery Historic Release
NESE Sec. 26 T4N R65W
Weld County, Colorado





FINAL EXTENT DIMENSIONS:
NORTH/SOUTH: 148'
EAST/WEST: 78'
DEPTH: 20'



Legend

- Soil Sample Location – Above Laboratory Detection Limits (White cross)
- Soil Sample Location – Above COGCC Table 910-1 Limits (Blue cross)
- Soil Sample Location - ND (Green cross)
- Soil Sample Location – Not Submitted for Laboratory Analysis (Grey cross)
- Test -Pit Excavation Extent (Collected via Trimble GPS) (Orange dashed line)
- Excavation Extent (Collected via Trimble GPS) (Black dashed line)
- DCP Line (Collected via Trimble GPS) (Yellow dashed line)

Notes

1) All locations are approximate unless otherwise noted
2) Site Infrastructure has been removed; Shown for illustrative purposes only.

GPS – Global Positioning System
COGCC – Colorado Oil and Gas Conservation Commission
ND – Nothing Detected above Laboratory limits

0 ft. 20 ft. 40 ft.

Image Source: Google Earth; Google 2017

ATTACHMENT A

LABORATORY ANALYTICAL DATA REPORTS

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

August 01, 2018

Brandon Bruns
Tasman Geosciences
6899 Pecos St, Unit C
Denver, CO 80221

RE: Noble - Beebe Draw RG 26-9,23

Enclosed are the results of analyses for samples received by Summit Scientific on 05/17/18 17:46-07/03/18 18:25.
If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to be 'P. Shrewsbury', written in a cursive style.

Paul Shrewsbury For Ben Shrewsbury
Laboratory Manager



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS01@3'	1805225-01	Soil	05/17/18 12:50	05/17/18 17:46
SS06@10'	1805225-02	Soil	05/17/18 13:20	05/17/18 17:46
SS07@9'	1805225-03	Soil	05/17/18 14:31	05/17/18 17:46
SS08@9'	1805225-04	Soil	05/17/18 14:28	05/17/18 17:46
SS09@9'	1805225-05	Soil	05/17/18 14:00	05/17/18 17:46
SS10@9'	1805225-06	Soil	05/17/18 14:22	05/17/18 17:46
SS11@8'	1805225-11	Soil	05/17/18 14:40	05/17/18 17:46
SS12@8'	1805225-12	Soil	05/17/18 14:48	05/17/18 17:46
SS13@10'	1806222-01	Soil	06/18/18 10:00	06/18/18 18:05
SS14@10'	1806222-02	Soil	06/18/18 10:08	06/18/18 18:05
SS15@12'	1806222-03	Soil	06/18/18 12:15	06/18/18 18:05
SS16@10'	1806222-04	Soil	06/18/18 14:25	06/18/18 18:05
CS01	1806222-05	Soil	06/18/18 12:50	06/18/18 18:05
SS17@20'	1806247-01	Soil	06/19/18 09:40	06/19/18 18:00
SS18@19'	1806247-02	Soil	06/19/18 11:30	06/19/18 18:00
CS02	1806247-03	Soil	06/19/18 12:00	06/19/18 18:00
SS20@20'	1806257-01	Soil	06/20/18 09:03	06/20/18 18:00
SS22@10'	1806257-02	Soil	06/20/18 12:20	06/20/18 18:00
SS23@10'	1806257-03	Soil	06/20/18 12:10	06/20/18 18:00
SS24@19'	1806257-04	Soil	06/20/18 12:05	06/20/18 18:00
SS25@19'	1806257-05	Soil	06/20/18 12:15	06/20/18 18:00
SS26@10'	1806257-06	Soil	06/20/18 12:18	06/20/18 18:00
SS27@20'	1806257-07	Soil	06/20/18 13:55	06/20/18 18:00
SS28@20'	1806257-08	Soil	06/20/18 14:01	06/20/18 18:00
SS29@20'	1806257-09	Soil	06/20/18 14:08	06/20/18 18:00
SS30@19'	1806257-10	Soil	06/20/18 15:35	06/20/18 18:00
SS31@10'	1806257-11	Soil	06/20/18 15:38	06/20/18 18:00

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 St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS32@10'	1806283-01	Soil	06/21/18 10:30	06/21/18 18:20
SS32@15'	1806283-02	Soil	06/21/18 10:40	06/21/18 18:20
SS33@10'	1806283-03	Soil	06/21/18 10:50	06/21/18 18:20
SS33@15'	1806283-04	Soil	06/21/18 10:57	06/21/18 18:20
SS34@10'	1806283-05	Soil	06/21/18 11:30	06/21/18 18:20
SS34@15'	1806283-06	Soil	06/21/18 11:35	06/21/18 18:20
SS35@15'	1806283-07	Soil	06/21/18 11:45	06/21/18 18:20
SS36@10'	1806283-08	Soil	06/21/18 12:40	06/21/18 18:20
SS36@15'	1806283-09	Soil	06/21/18 12:45	06/21/18 18:20
SS37@19'	1806283-10	Soil	06/21/18 13:15	06/21/18 18:20
SS37@10'	1806283-11	Soil	06/21/18 13:20	06/21/18 18:20
SS38@19'	1806283-12	Soil	06/21/18 14:19	06/21/18 18:20
SS39@19'	1806296-01	Soil	06/22/18 09:26	06/22/18 18:10
SS40@19'	1806296-02	Soil	06/22/18 09:30	06/22/18 18:10
SS41@20'	1806296-03	Soil	06/22/18 10:21	06/22/18 18:10
SS42@20'	1806296-04	Soil	06/22/18 10:25	06/22/18 18:10
SS44@20'	1806296-05	Soil	06/22/18 13:40	06/22/18 18:10
SS45@20'	1806296-06	Soil	06/22/18 14:25	06/22/18 18:10
SS46@20'	1806309-01	Soil	06/25/18 12:20	06/25/18 18:00
SS49@19'	1806309-02	Soil	06/25/18 13:30	06/25/18 18:00
SS50@10'	1806309-03	Soil	06/25/18 13:40	06/25/18 18:00
SS50@15'	1806309-04	Soil	06/25/18 13:44	06/25/18 18:00
SS51@10'	1806309-05	Soil	06/25/18 14:10	06/25/18 18:00
SS51@15'	1806309-06	Soil	06/25/18 14:18	06/25/18 18:00
CS04	1806327-01	Soil	06/26/18 11:20	06/26/18 18:20
CS05	1806327-02	Soil	06/26/18 11:36	06/26/18 18:20
CS06	1806327-03	Soil	06/26/18 12:24	06/26/18 18:20

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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 St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
CS07	1806327-04	Soil	06/26/18 12:31	06/26/18 18:20
SS52@20'	1806338-01	Soil	06/27/18 08:20	06/27/18 18:00
SS53@10'	1806338-02	Soil	06/27/18 08:35	06/27/18 18:00
SS54@10'	1806338-03	Soil	06/27/18 08:46	06/27/18 18:00
SS55@19'	1806338-04	Soil	06/27/18 09:15	06/27/18 18:00
SS56@19'	1806338-05	Soil	06/27/18 09:32	06/27/18 18:00
SS57@10'	1806338-06	Soil	06/27/18 14:20	06/27/18 18:00
SS57@19'	1806338-07	Soil	06/27/18 14:31	06/27/18 18:00
BS01	1806338-08	Soil	06/27/18 15:00	06/27/18 18:00
SS58@20'	1806369-01	Soil	06/28/18 09:20	06/28/18 18:25
SS59@10'	1806369-02	Soil	06/28/18 09:30	06/28/18 18:25
SS59@19'	1806369-03	Soil	06/28/18 09:36	06/28/18 18:25
SS60@10'	1806369-04	Soil	06/28/18 14:26	06/28/18 18:25
SS60@19'	1806369-05	Soil	06/28/18 14:30	06/28/18 18:25
SS61@19'	1806378-01	Soil	06/29/18 09:35	06/29/18 18:15
SS62@20'	1806378-02	Soil	06/29/18 11:18	06/29/18 18:15
SS63@20'	1806378-03	Soil	06/29/18 11:35	06/29/18 18:15
SS64@20'	1806378-04	Soil	06/29/18 13:41	06/29/18 18:15
SS65@20'	1806378-05	Soil	06/29/18 14:54	06/29/18 18:15
SS67@10'	1807007-01	Soil	07/02/18 14:25	07/02/18 17:00
SS67@19'	1807007-02	Soil	07/02/18 14:31	07/02/18 17:00
SS68@20'	1807007-03	Soil	07/02/18 14:45	07/02/18 17:00
SS69@19'	1807027-01	Soil	07/03/18 09:10	07/03/18 18:25
SS69@10'	1807027-02	Soil	07/03/18 09:16	07/03/18 18:25

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Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

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A handwritten signature in black ink, appearing to be 'MSM'.

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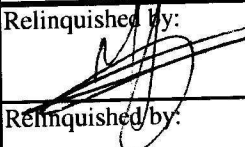
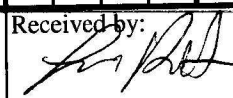
1805225.1

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

Page 1 of 2

Client: TASMAN / NOBLE
Address: _____
City/State/Zip: _____
Phone: 970.210.6571 Fax: _____
Sampler Name: T.L

Project Manager: BRANDON BRENS; INVOICE JACOB EVANS
E-Mail: BRENS@TASMAN-GEOL.COM
Project Name: BEEBE DRAW RG 20-9, 23
Project Number: _____

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix			Analyze For:								Special Instructions		
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	8260 GBTx	8015 DRD	PH, EC, SAR	* npt halogen						
SS01 @ 3'	5/17/18	1250	1			X			X					X	X	X					* per client PLACE SS02, SS03, SS04, SS05, SS11 + SS12 ON HOLD
SS02 @ 10'		1320												X	X						
SS07 @ 9'		1431												X	X						
SS08 @ 9'		1428												X	X						
SS09 @ 9'		1400												X	X						
SS10 @ 9'		1422												X	X						
SS02 @ 3'		1259																			
SS03 @ 3'		1304																			
SS04 @ 3'		1310																			
SS05 @ 5'		1311																			
Relinquished by: 				Date/Time: 5/17/18 1746				Received by: 				Date/Time: 5/17/18 1746				Turn Around Time (Check) Same Day <input type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input checked="" type="checkbox"/> 48 Hours <input type="checkbox"/>				Notes:	
Relinquished by:				Date/Time:				Received by:				Date/Time:				Sample Integrity: Temperature Upon Receipt: 10.6 Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				on 18	
Relinquished by:				Date/Time:				Received in Lab by:				Date/Time:									

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1805225.2

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303-277-9310 ♦ 303-374-5933 Fax

Page 2 of 2

Client: TASMAN / NOBLE
Address: _____
City/State/Zip: _____
Phone: 970.240.6571 Fax: _____
Sampler Name: TL

Project Manager: BRANDON BRUNS
E-Mail: _____
Project Name: BEEBE DRAW RG 210-9, 23
Project Number: _____

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix				Analyze For:								Special Instructions
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)									
SS1108'	5/17/18	1440	1			X			X											
SS1208'	5/17/18	1448	1			X			X											
Relinquished by: _____ Date/Time: _____				Received by: _____ Date/Time: _____				Turn Around Time (Check) Same Day <input type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input type="checkbox"/> 48 Hours <input type="checkbox"/>												Notes: _____
Relinquished by: _____ Date/Time: _____				Received by: _____ Date/Time: _____				Sample Integrity: Temperature Upon Receipt: _____ Intact: Yes <input type="checkbox"/> No <input type="checkbox"/>												
Relinquished by: _____ Date/Time: _____				Received in Lab by: _____ Date/Time: _____																

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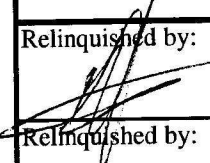
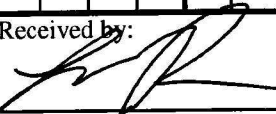
1806222

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Page 1 of 1

Client: Noble/Tasman
Address: -
City/State/Zip: -
Phone: 970.210.6571 Fax: -
Sampler Name: T. Lichtenberg

Project Manager: Brandon Bruns, Invoice: Jacob Evans
E-Mail: Bbruns@tasman-geo.com
Project Name: BEEBE DRAW RG 26-9,23
Project Number: -

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix			Analyze For:								Special Instructions		
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	8260 BTEX	8260B GBTEXN	8015 DRO	pH, EC, SAR						
SS01 @ 10'	10/18/18	1000	1			X			X				X	X							
SS02 @ 10'		1008	1																		
SS03 @ 12'		1215	1																		
SS04 @ 10'		1425	1																		
CSD1		1250	1																		
Relinquished by:	Date/Time:		Received by:		Date/Time:		Turn Around Time (Check)				Notes:										
	6.18.18 1805				6.18.18 1805		Same Day <input type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input checked="" type="checkbox"/> 48 Hours <input type="checkbox"/>														
Relinquished by:	Date/Time:		Received by:		Date/Time:		Sample Integrity:														
							Temperature Upon Receipt: <u>10.2</u> Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No														
Relinquished by:	Date/Time:		Received in Lab by:		Date/Time:																

1806 247

Page 1 of 1

Project Manager:	Brandon Bruns, Invoice: Jacob Evans
E-Mail:	Bbruns@tasman-geo.com
Project Name:	BEEBE DRAW RG 210-9, 23
Project Number:	

[illegible]

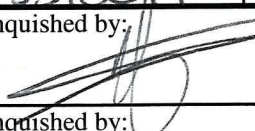
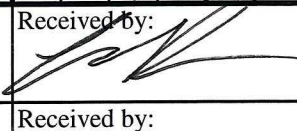
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Page 1 of 2

Client: Noble/Tasman
Address: -
City/State/Zip: -
Phone: 970.210.6571 Fax: -
Sampler Name: T. Lichtenberg

Project Manager: Brandon Brunns, Invoice: Jacob Evans
E-Mail: Bbruns@tasman-geo.com
Project Name: BEEBE DRAW RG 20-9, 23
Project Number: -

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix			Analyze For:						Special Instructions				
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	8260 BTEX	8260B GBTEXN	8015 DRO	pH, EC, SAR						
SS08@20'	6/20/18	903	1			X			X					X	X						
SS10@10'		1220	1																		
SS11@10'		1210	1																		
SS12@19'		1205	1																		
SS13@19'		1215	1																		
SS14@10'		1218	1																		
SS15@20'		1355	1																		
SS16@20'		1401	1																		
SS17@20'		1408	1																		
SS18@19'		1535	1																		
Relinquished by: 				Date/Time: <u>6-20-18</u> <u>1825</u>		Received by: 				Date/Time: <u>6-20-18</u> <u>1825</u>		Turn Around Time (Check)						Notes:			
Relinquished by:				Date/Time:		Received by:				Date/Time:		Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input type="checkbox"/> 48 Hours <input type="checkbox"/>									
Relinquished by:				Date/Time:		Received in Lab by:				Date/Time:		Sample Integrity: Temperature Upon Receipt: <u>16.8</u> Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No									

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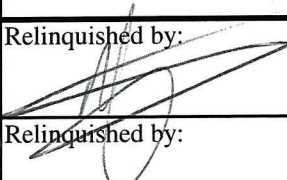
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1806257.2

Page 2 of 2

Client: Noble/Tasman
Address: -
City/State/Zip: -
Phone: 970.210.6571 Fax: -
Sampler Name: T. Lichtenberg

Project Manager: Brandon Bruns, Invoice: Jacob Evans
E-Mail: Bbruns@tasman-geo.com
Project Name: BEEBE DRAIN RG 20-9, 23
Project Number: -

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix			Analyze For:								Special Instructions			
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	8260 BTEX	8260B GBTEXN	8015 DRO	pH, EC, SAR							
SS19@10'	10/20/18	1538	1			X			X				X	X								
Relinquished by: 	Date/Time:	Received by:		Date/Time:		Turn Around Time (Check)		Notes:														
Relinquished by:	Date/Time:	Received by:		Date/Time:		Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input type="checkbox"/> 48 Hours <input type="checkbox"/>																
Relinquished by:	Date/Time:	Received in Lab by:		Date/Time:		Sample Integrity: Temperature Upon Receipt: 18.8 Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																

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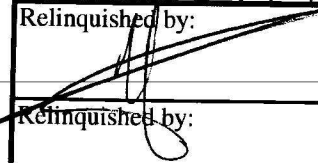
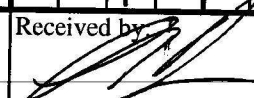
1806283.1

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Client: Noble/Tasman
Address: -
City/State/Zip: -
Phone: 970.210.6571 Fax: -
Sampler Name: T. Lichtenberg

Page 1 of 2

Project Manager: Brandon Bruns, Invoice: Jacob Evans
E-Mail: Bbruns@tasman-geo.com
Project Name: BEEBE DRAW 2G 26-9, 23
Project Number:

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix			Analyze For:					Special Instructions	
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	8260 BTEX	8260B GBTEXN	8015 DRO	pH, EC, SAR		
SS200@10'	6/21/18	1030	1			X			X								
SS200@15'		1040															
SS210@10'		1050															
SS210@15'		1057															
SS220@10'		1130															
SS220@15'		1135															
SS230@15'		1145															
SS240@10'		1240															
SS240@15'		1245															
SS250@19'		1315															
Relinquished by: 		Date/Time: 6-21-18 1825		Received by: 		Date/Time: 6-21-18 1825		Turn Around Time (Check)					Notes:				
Relinquished by:		Date/Time:		Received by:		Date/Time:		Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input type="checkbox"/> 48 Hours <input type="checkbox"/>									
Relinquished by:		Date/Time:		Received in Lab by:		Date/Time:		Sample Integrity: Temperature Upon Receipt: <u>6.4</u> Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No									

1806283.2

Page 2 of 2

Project Manager: Brandon Bruns, Invoice: Jacob Evans
E-Mail: Bbruns@tasman-geo.com
Project Name: BEEBE Draw RG 26-9, 23
Project Number: _____

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Client:	Noble/Tasman		
Address:	-		
City/State/Zip:	-		
Phone:	970.210.6571	Fax:	-
Sampler Name:	T. Lichtenberg		

Project Manager: Brandon Bruns, Invoice: Jacob Evans
E-Mail: Bbruns@tasman-geo.com
Project Name: BEEBE DRAW RG 210-9, 23
Project Number: _____

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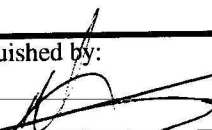
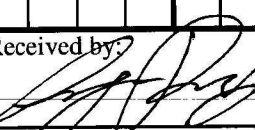
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Page 1 of 1

Client: Noble/Tasman
Address: -
City/State/Zip: -
Phone: 970.210.6571 Fax: -
Sampler Name: T. Lichtenberg

Project Manager: Brandon Bruns, Invoice: Jacob Evans
E-Mail: Bbruns@tasman-geo.com
Project Name: BEEBE DRAW PG 16, 9, 23
Project Number: -

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix				Analyze For:								Special Instructions				
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	8260 BTEX	8260B GBTEXN	8015 DRO	pH, EC, SAR									
CS04	10/16/18	1120	1			X			X					X	X									
CS05	1	1130	1			X			X					X	X									
CS06	1	1224	1			X			X					X	X									
CS07	1	1231	1			X			X					X	X									
Relinquished by: 	Date/Time: 6.26.18 1820	Received by: 	Date/Time: 6.26.18 1820	Turn Around Time (Check)												Notes:								
Relinquished by:	Date/Time:	Received by:	Date/Time:	Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input type="checkbox"/> 48 Hours <input type="checkbox"/>																				
Relinquished by:	Date/Time:	Received in Lab by:	Date/Time:	Sample Integrity: Temperature Upon Receipt: 7.0 Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																				

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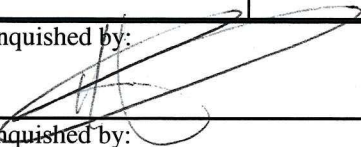
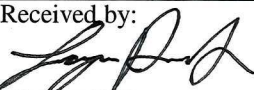
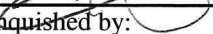
741 Corporate Circle Suite I ♦ Golden, Colorado 80401
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1806338

Page 1 of 1

Client: Noble/Tasman
Address: -
City/State/Zip: -
Phone: 970.210.6571 Fax: -
Sampler Name: T. Lichtenberg

Project Manager: Brandon Bruns, Invoice: Jacob Evans
E-Mail: Bbruns@tasman-geo.com
Project Name: BEEBE DRAWING 26-9, 23
Project Number: -

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix				Analyze For:								Special Instructions	
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	8260 BTEX	8260B GBTEXN	8015 DRO	pH, EC, SAR						
SS40 @ 20'	10/27/18	828	1			X			X					X	X						PLEASE PLACE BTHOI ON HOLD
SS41 @ 10'		835	1																		
SS42 @ 10'		840	1																		
SS43 @ 19'		915	1																		
SS44 @ 19'		932	1																		
SS45 @ 10'		1420	1																		
SS45 @ 19'		1431	1																		
B501		1500	1																		
Relinquished by: 				Date/Time: 6.27.18 1830		Received by: 				Date/Time: 6.27.18 1830		Turn Around Time (Check)								Notes:	
Relinquished by: 				Date/Time:		Received by:				Date/Time:		Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input type="checkbox"/> 48 Hours <input type="checkbox"/>									
Relinquished by:				Date/Time:		Received in Lab by:				Date/Time:		Sample Integrity: Temperature Upon Receipt: 13.0 Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No									

1806 369

Page 1 of 1

Project Manager: Brandon Bruns, Invoice: Jacob Evans
E-Mail: Bbruns@tasman-geo.com
Project Name: BEEBE DRAW RG 26-9, 23
Project Number: _____

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Page 1 of 1

Project Manager: Brandon Bruns, Invoice: Jacob Evans
E-Mail: Bbruns@tasman-geo.com
Project Name: BEEBE DRAW PG 26-9, 23
Project Number: _____

				Preservative				Matrix			Analyze For:										
Sample Description	Date Sampled	Time Sampled	Number of Containers	HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	8260 BTEX	8260B GBTEXN	8015 DRO	pH, EC, SAR						Special Instructions
SS49@19'	6/29/18	935	1			X			X				X	X							
SS50@20'		1118																			
SS51@20'		1135																			
SS52@20'		1341																			
SS53@20'		1454																			
Relinquished by:	Date/Time:		Received by:		Date/Time:		Turn Around Time (Check)		Notes:												
	6.29.18				6.29.18		Same Day														
	1830				1830		24 Hours														
Relinquished by:	Date/Time:		Received by:		Date/Time:		48 Hours														
Relinquished by:	Date/Time:		Received in Lab by:		Date/Time:		Sample Integrity:														
							Temperature Upon Receipt:														
							Intact: Yes No														

1807007

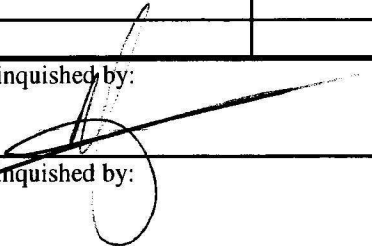
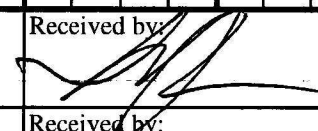
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303-277-9310 ♦ 303-374-5933 Fax

Page 1 of 1

Client: Noble/Tasman
Address: -
City/State/Zip: -
Phone: 970.210.6571 Fax: -
Sampler Name: T. Lichtenberg

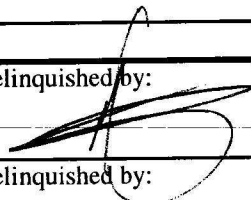
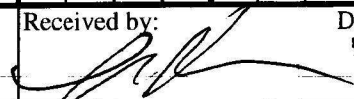
Project Manager: Brandon Bruns, Invoice: Jacob Evans
E-Mail: Bbruns@tasman-geo.com
Project Name: BEEBE DRAW 125 11-9, 23
Project Number:

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix				Analyze For:								Special Instructions		
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	8260 BTEX	8260B GBTEXN	8015 DRO	pH, EC, SAR							
SS55@10'	7/2/10	1425	1			X			X				X	X	X							
SS55@19'	1	1431	1			X			X				X	X	X							
SS56@20'	1	1445	1			X			X				X	X	X							
Relinquished by:	Date/Time:	Received by:	Date/Time:	Turn Around Time (Check)																		Notes:
	7.2.10 1905		7.2.10 1905	Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input type="checkbox"/> 48 Hours <input type="checkbox"/>																		
Relinquished by:	Date/Time:	Received by:	Date/Time:	Sample Integrity:																		
Relinquished by:	Date/Time:	Received in Lab by:	Date/Time:	Temperature Upon Receipt: <u>5.2</u> Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																		on cc

Summit Scientific

Page | of |

Project Manager: Brandon Bruns, Invoice: Jacob Evans
E-Mail: Bbruns@tasman-geo.com
Project Name: BEEBE Draw RG 210-9,23
Project Number: _____

				Preservative				Matrix				Analyze For:								Special Instructions
Sample Description	Date Sampled	Time Sampled	Number of Containers	HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	8260 BTEX	8260B GBTEXN	8015 DRO	pH, EC, SAR					
SS57019'	7/3/18	910	1			X			X				X	X						
SS57010'	7/3/18	910	1			X			X				X	X						
Relinquished by: 				Date/Time: 7.3.18 1830		Received by: 		Date/Time: 7.3.18 1830		Turn Around Time (Check) Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input type="checkbox"/> 48 Hours <input type="checkbox"/>								Notes:		
Relinquished by:				Date/Time:		Received by:		Date/Time:												
Relinquished by:				Date/Time:		Received in Lab by:		Date/Time:		Sample Integrity: Temperature Upon Receipt: 9.0 Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No										

Sample Receipt Checklist

S2 Work Order: 1805225

Client: TASMAN NOBLE Client Project ID: Beebe PIZAN RB 26-9-23

Shipped Via: Pickup Airbill #: _____
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

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

Temp (°C)	10.6
-----------	------

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.				
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect				
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Record the pH in Comments.				
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any):				

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

CP
Custodian Printed Name or Initials

[Signature]
Signature or Initials of Custodian

5/17/18 1825
Date/Time

Sample Receipt Checklist

S2 Work Order: 1806222

Client: Noble Tasman Client Project ID: Beebe Draw RG 26-9, 23

Shipped Via: Pickup Airbill #: _____
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

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

Temp (°C)	<u>10.2</u>
-----------	-------------

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.				
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
If custody seals are present, are they intact ⁽¹⁾ ?			<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?			<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ?			<input checked="" type="checkbox"/>	
Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect				
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ?			<input checked="" type="checkbox"/>	
Record the pH in Comments.				
If dissolved metals are requested, were samples field filtered?			<input checked="" type="checkbox"/>	
Additional Comments (if any):				

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

WP
Custodian Printed Name or Initials

[Signature]
Signature or Initials of Custodian

6.18.18 1805
Date/Time

Sample Receipt Checklist

S2 Work Order: 1806247

Client: NOBLE TARMAN

Client Project ID: Beebe Draw RG 26-9, 23

Shipped Via: Pickup

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

Airbill #: _____

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

Temp (°C)	<u>2.6</u>
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Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.				
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect				
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any): 				

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

Custodian Printed Name or Initials CP

Signature or Initials of Custodian [Signature]

6.19.18 18:17
Date/Time

Sample Receipt Checklist

S2 Work Order: 1804257

Client: Noble/Taman

Client Project ID: Babe Draw RA 26-9, 23

Shipped Via: Pickup

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

Airbill #: _____

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

Temp (°C)	<u>10.8</u>
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Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.				
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect				
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Record the pH in Comments.				
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any):				

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

UP
Custodian Printed Name or Initials

[Signature]
Signature or Initials of Custodian

6.20.18 1825
Date/Time

Sample Receipt Checklist

S2 Work Order: 1806283

Client: Noble TAsman Client Project ID: Beebe Draw RA 264,23

Shipped Via: Pickup Airbill #: _____
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

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

Temp (°C)	<u>6.4</u>
-----------	------------

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ?				
NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	<u> </u>			
Were all samples received intact ⁽¹⁾ ?	<u> </u>			
Was adequate sample volume provided ⁽¹⁾ ?	<u> </u>			
If custody seals are present, are they intact ⁽¹⁾ ?			<u> </u>	
Are samples with holding times due within 48 hours sample due within 48 hours present?			<u> </u>	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<u> </u>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<u> </u>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<u> </u>			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<u> </u>			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			<u> </u>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ?			<u> </u>	
Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect				
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ?			<u> </u>	
Record the pH in Comments.				
If dissolved metals are requested, were samples field filtered?			<u> </u>	
Additional Comments (if any):				

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

UP
Custodian Printed Name or Initials

[Signature]
Signature or Initials of Custodian

6.21.15 1830
Date/Time

Sample Receipt Checklist

S2 Work Order: 1806296

Client: Noble Terman

Client Project ID: Beebe Draw RA 26-9, 23

Shipped Via: Pickup

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

Airbill #: _____

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

Temp (°C)	<u>3.8</u>
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Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.				
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect				
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Record the pH in Comments.				
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any):				

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

CP
Custodian Printed Name or Initials

[Signature]
Signature or Initials of Custodian

6.27.18 1930
Date/Time

Sample Receipt Checklist

S2 Work Order: 1806309

Client: Noble/Tasman

Client Project ID: Beche Draw RA 26-9, 23

Shipped Via: Pickup
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Airbill #: _____

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

Temp (°C)	<u>5.2</u>
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Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.				
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect				
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Record the pH in Comments.				
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any):				

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

UP
Custodian Printed Name or Initials

[Signature]
Signature or Initials of Custodian

6-25-18 1830
Date/Time

Sample Receipt Checklist

S2 Work Order: 1806327

Client: Noble/Tasman

Client Project ID: Beebe Draw RG 26-9, 23

Shipped Via: Pickup

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

Airbill #: _____

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

Temp (°C)	<u>7.0</u>
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Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.				
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect				
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Record the pH in Comments.				
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any):				

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

UP
Custodian Printed Name or Initials

[Signature]
Signature or Initials of Custodian

6.26.18 1820
Date/Time

Sample Receipt Checklist

S2 Work Order:

401338

Client:

Noble Tasmán

Client Project ID:

Beebe Draw RG 26-9, 23

Shipped Via:

Pickup

Airbill #:

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

Matrix (check all that apply):

☐ Air

☒ Soil/Solid

☐ Water

☐ Other:

(Describe)

Temp (°C)

13.0

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.				
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect				
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Record the pH in Comments.				
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any):				

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

Custodian Printed Name or Initials

W

Signature or Initials of Custodian

[Signature]

Date/Time

6-27-18 1820

Sample Receipt Checklist

S2 Work Order: 1806369

Client: Noble/Tasman

Client Project ID: Beebe Draw RG 26-9, 23

Shipped Via: Pickup
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Airbill #: _____

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

Temp (°C)	5.5
-----------	-----

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.				
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect				
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Record the pH in Comments.				
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any):				

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

Custodian Printed Name or Initials

Signature or Initials of Custodian

Date/Time

6.28.18 1830

Sample Receipt Checklist

S2 Work Order: 1806378

Client: Noble Tassman

Client Project ID: Beche Draw RG 26-9, 23

Shipped Via: Pickup
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Airbill #: _____

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

Temp (°C)	<u>5.8</u>
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Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.				
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect				
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Record the pH in Comments.				
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any):				

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

JP
Custodian Printed Name or Initials

[Signature]
Signature or Initials of Custodian

6-29-18 1830
Date/Time

Sample Receipt Checklist

S2 Work Order: 1807007

Client: Noble Tasman

Client Project ID: Beche Draw VGI 26-9,23

Shipped Via: _____
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Airbill #: _____

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

Temp (°C)	<u>5.2</u>
-----------	------------

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.				
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect				
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Record the pH in Comments.				
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any):				

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

UP
Custodian Printed Name or Initials

[Signature]
Signature or Initials of Custodian

7218 1905
Date/Time

1807027

Sample Receipt Checklist

S2 Work Order: _____

Client: Noble/TasmanClient Project ID: Beebe Prawn RA 26-9,
23Shipped Via: Pickup
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Airbill #: _____

Matrix (check all that apply): Air Soil/Solid Water Other: _____
(Describe)Temp (°C) 9.0

Thermometer ID: 61857155-K

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

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

Custodian Printed Name or Initials UPSignature or Initials of Custodian [Signature]Date/Time 7.3.18 1630



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS01@3'
1805225-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/17/18 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1805225	05/18/18	05/19/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **05/17/18 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		94.2 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/17/18 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1805222	05/18/18	05/20/18	EPA 8015M	

Date Sampled: **05/17/18 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		65.1 %	30-150		"	"	"	"	

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

Date Sampled: **05/17/18 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	1480	11.5	mg/kg dry	1	1805287	05/23/18	05/24/18	EPA 6020B	

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 St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

SS01@3'
1805225-01 (Soil)

Summit Scientific

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

Magnesium	175	5.73	mg/kg dry	1	1805287	05/23/18	05/24/18	EPA 6020B
Sodium	40.6	5.73	"	"	"	"	"	"

Calculated Analysis

Date Sampled: **05/17/18 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.270	0.100	units	1	1805311	05/25/18	05/25/18	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/17/18 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.2		%	1	1805245	05/21/18	05/22/18	Calculation	
pH	8.21		pH Units	"	1805271	05/22/18	05/24/18	EPA 9045D	

Specific Conductance by EPA Method 120.1

Date Sampled: **05/17/18 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.444	0.0100	mmhos/cm	1	1805272	05/22/18	05/24/18	EPA 120.1	

Summit Scientific

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Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS06@10'
1805225-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/17/18 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1805225	05/18/18	05/19/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	55	50	"	"	"	"	"	"	

Date Sampled: **05/17/18 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		89.7 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		94.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		124 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/17/18 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	320	50	mg/kg	1	1805222	05/18/18	05/20/18	EPA 8015M	

Date Sampled: **05/17/18 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		65.4 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS07@9'
1805225-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/17/18 14:31**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	2.7	0.20	mg/kg	100	1805225	05/18/18	05/19/18	EPA 8260B	
Toluene	0.94	0.50	"	"	"	"	"	"	
Ethylbenzene	6.4	0.50	"	"	"	"	"	"	
Xylenes (total)	130	1.0	"	"	"	"	"	"	
Naphthalene	2.0	1.0	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	1900	500	"	10	"	"	"	"	

Date Sampled: **05/17/18 14:31**

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>		94.2 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		186 %	21-167		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/17/18 14:31**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	980	50	mg/kg	1	1805222	05/18/18	05/20/18	EPA 8015M	

Date Sampled: **05/17/18 14:31**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		74.3 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS08@9'
1805225-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/17/18 14:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.83	0.20	mg/kg	100	1805225	05/18/18	05/19/18	EPA 8260B	
Toluene	0.97	0.50	"	"	"	"	"	"	
Ethylbenzene	29	0.50	"	"	"	"	"	"	
Xylenes (total)	420	1.0	"	"	"	"	"	"	
Naphthalene	3.1	1.0	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	3400	500	"	10	"	"	"	"	

Date Sampled: **05/17/18 14:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		86.1 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		95.9 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		224 %	21-167		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/17/18 14:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	2100	50	mg/kg	1	1805222	05/18/18	05/20/18	EPA 8015M	

Date Sampled: **05/17/18 14:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		79.2 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS09@9'
1805225-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/17/18 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.33	0.20	mg/kg	100	1805225	05/18/18	05/19/18	EPA 8260B	
Toluene	0.94	0.50	"	"	"	"	"	"	
Ethylbenzene	3.6	0.50	"	"	"	"	"	"	
Xylenes (total)	48	1.0	"	"	"	"	"	"	
Naphthalene	1.4	1.0	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	670	500	"	10	"	"	"	"	

Date Sampled: **05/17/18 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		92.6 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		92.7 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		124 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/17/18 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	360	50	mg/kg	1	1805222	05/18/18	05/20/18	EPA 8015M	

Date Sampled: **05/17/18 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		62.1 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

SS10@9'
1805225-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/17/18 14:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1805225	05/18/18	05/19/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.0058	0.0050	"	"	"	"	"	"	
Xylenes (total)	130	1.0	"	100	"	"	"	"	
Naphthalene	ND	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	1200	500	"	10	"	"	"	"	

Date Sampled: **05/17/18 14:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		94.3 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		93.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		151 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/17/18 14:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	520	50	mg/kg	1	1805222	05/18/18	05/20/18	EPA 8015M	

Date Sampled: **05/17/18 14:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		67.0 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS11@8'
1805225-11 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 05/17/18 14:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.0045	0.0020	mg/kg	1	1805345	05/30/18	05/31/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: 05/17/18 14:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		98.0 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 05/17/18 14:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1805344	05/30/18	05/31/18	EPA 8015M	

Date Sampled: 05/17/18 14:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		90.0 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS12@8'
1805225-12 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 05/17/18 14:48

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.0042	0.0020	mg/kg	1	1805345	05/30/18	05/31/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: 05/17/18 14:48

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		103 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		100 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.4 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 05/17/18 14:48

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1805344	05/30/18	05/31/18	EPA 8015M	

Date Sampled: 05/17/18 14:48

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		90.6 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS13@10'
1806222-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 06/18/18 10:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806274	06/19/18	06/19/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: 06/18/18 10:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		97.1 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.9 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 06/18/18 10:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806275	06/19/18	06/20/18	EPA 8015M	

Date Sampled: 06/18/18 10:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		88.2 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS14@10'
1806222-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 06/18/18 10:08

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806274	06/19/18	06/21/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	0.012	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: 06/18/18 10:08

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		115 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.5 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 06/18/18 10:08

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806275	06/19/18	06/20/18	EPA 8015M	

Date Sampled: 06/18/18 10:08

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		82.3 %	30-150		"	"	"	"	

Summit Scientific

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Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

SS15@12'
1806222-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 06/18/18 12:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806274	06/19/18	06/21/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.031	0.010	"	"	"	"	"	"	
Naphthalene	0.011	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: 06/18/18 12:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		119 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 06/18/18 12:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806275	06/19/18	06/20/18	EPA 8015M	

Date Sampled: 06/18/18 12:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		85.8 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS16@10'
1806222-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/18/18 14:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806274	06/19/18	06/21/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/18/18 14:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		122 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		107 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/18/18 14:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806275	06/19/18	06/20/18	EPA 8015M	

Date Sampled: **06/18/18 14:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		84.3 %	30-150		"	"	"	"	

Summit Scientific

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Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

CS01
1806222-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/18/18 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806274	06/19/18	06/21/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/18/18 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		119 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/18/18 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806275	06/19/18	06/20/18	EPA 8015M	

Date Sampled: **06/18/18 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		88.5 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS17@20'
1806247-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 06/19/18 09:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806285	06/19/18	06/19/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: 06/19/18 09:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		125 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 06/19/18 09:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806286	06/19/18	06/19/18	EPA 8015M	

Date Sampled: 06/19/18 09:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		80.7 %	30-150		"	"	"	"	

Summit Scientific

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Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

SS18@19'
1806247-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/19/18 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806285	06/19/18	06/19/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/19/18 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		120 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		163 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/19/18 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	160	50	mg/kg	1	1806286	06/19/18	06/19/18	EPA 8015M	

Date Sampled: **06/19/18 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		84.6 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

CS02
1806247-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/19/18 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806285	06/19/18	06/19/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/19/18 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		125 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		107 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		112 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/19/18 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806286	06/19/18	06/19/18	EPA 8015M	

Date Sampled: **06/19/18 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		85.1 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

SS20@20'
1806257-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/20/18 09:03**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806314	06/20/18	06/20/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/20/18 09:03**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		116 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		100 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/20/18 09:03**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806315	06/20/18	06/20/18	EPA 8015M	

Date Sampled: **06/20/18 09:03**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		84.6 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS22@10'
1806257-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/20/18 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806314	06/20/18	06/20/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/20/18 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		118 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		100 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/20/18 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806315	06/20/18	06/20/18	EPA 8015M	

Date Sampled: **06/20/18 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		86.7 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

SS23@10'
1806257-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/20/18 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806314	06/20/18	06/20/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/20/18 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		124 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		105 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/20/18 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806315	06/20/18	06/20/18	EPA 8015M	

Date Sampled: **06/20/18 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		87.9 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS24@19'
1806257-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/20/18 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.0080	0.0020	mg/kg	1	1806314	06/20/18	06/21/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.46	0.0050	"	"	"	"	"	"	
Xylenes (total)	4.4	1.0	"	100	"	"	"	"	
Naphthalene	0.24	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	590	50	"	100	"	"	"	"	

Date Sampled: **06/20/18 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		155 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		98.6 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		117 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/20/18 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	500	50	mg/kg	1	1806315	06/20/18	06/21/18	EPA 8015M	

Date Sampled: **06/20/18 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		92.5 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS25@19'
1806257-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/20/18 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806314	06/20/18	06/20/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.017	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/20/18 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		114 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		136 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/20/18 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806315	06/20/18	06/21/18	EPA 8015M	

Date Sampled: **06/20/18 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		81.7 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS26@10'
1806257-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/20/18 12:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806314	06/20/18	06/20/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/20/18 12:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		126 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		112 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/20/18 12:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806315	06/20/18	06/21/18	EPA 8015M	

Date Sampled: **06/20/18 12:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		85.8 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS27@20'
1806257-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/20/18 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806314	06/20/18	06/20/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/20/18 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		124 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		105 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		108 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/20/18 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806315	06/20/18	06/21/18	EPA 8015M	

Date Sampled: **06/20/18 13:55**

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

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

SS28@20'
1806257-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/20/18 14:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806314	06/20/18	06/20/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.0052	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.066	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/20/18 14:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		117 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		99.1 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		133 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/20/18 14:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806315	06/20/18	06/21/18	EPA 8015M	

Date Sampled: **06/20/18 14:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		88.1 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS29@20'
1806257-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/20/18 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806314	06/20/18	06/20/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/20/18 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		122 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		118 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/20/18 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806315	06/20/18	06/21/18	EPA 8015M	

Date Sampled: **06/20/18 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		83.3 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

SS30@19'
1806257-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/20/18 15:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.016	0.0020	mg/kg	1	1806314	06/20/18	06/20/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.11	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.46	0.010	"	"	"	"	"	"	
Naphthalene	0.056	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	82	50	"	"	"	"	"	"	

Date Sampled: **06/20/18 15:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		137 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		98.6 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		178 %	21-167		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/20/18 15:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806315	06/20/18	06/21/18	EPA 8015M	

Date Sampled: **06/20/18 15:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		82.6 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS31@10'
1806257-11 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/20/18 15:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806314	06/20/18	06/20/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/20/18 15:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		123 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		105 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		109 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/20/18 15:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806315	06/20/18	06/21/18	EPA 8015M	

Date Sampled: **06/20/18 15:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		89.2 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS32@10'
1806283-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/21/18 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806322	06/21/18	06/21/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/21/18 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		115 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/21/18 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806323	06/21/18	06/21/18	EPA 8015M	

Date Sampled: **06/21/18 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		82.2 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS32@15'
1806283-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/21/18 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806322	06/21/18	06/22/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.70	0.0050	"	"	"	"	"	"	
Xylenes (total)	2.0	1.0	"	100	"	"	"	"	
Naphthalene	0.24	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	520	50	"	100	"	"	"	"	

Date Sampled: **06/21/18 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		121 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		134 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		103 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/21/18 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	510	50	mg/kg	1	1806323	06/21/18	06/21/18	EPA 8015M	

Date Sampled: **06/21/18 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		92.0 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS33@10'
1806283-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/21/18 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806322	06/21/18	06/21/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/21/18 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		113 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/21/18 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806323	06/21/18	06/21/18	EPA 8015M	

Date Sampled: **06/21/18 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		87.3 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS33@15'
1806283-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/21/18 10:57**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806322	06/21/18	06/22/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.013	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.11	0.010	"	"	"	"	"	"	
Naphthalene	0.042	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	570	50	"	100	"	"	"	"	

Date Sampled: **06/21/18 10:57**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		113 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		109 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		108 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/21/18 10:57**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	310	50	mg/kg	1	1806323	06/21/18	06/21/18	EPA 8015M	

Date Sampled: **06/21/18 10:57**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		88.8 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS34@10'
1806283-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 06/21/18 11:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806322	06/21/18	06/21/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: 06/21/18 11:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		119 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.8 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 06/21/18 11:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806323	06/21/18	06/21/18	EPA 8015M	

Date Sampled: 06/21/18 11:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		89.3 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

SS34@15'
1806283-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/21/18 11:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806322	06/21/18	06/22/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.026	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/21/18 11:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		110 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		106 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/21/18 11:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806323	06/21/18	06/21/18	EPA 8015M	

Date Sampled: **06/21/18 11:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		81.6 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

SS35@15'
1806283-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/21/18 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806322	06/21/18	06/21/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/21/18 11:45**

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		99.0 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/21/18 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806323	06/21/18	06/22/18	EPA 8015M	

Date Sampled: **06/21/18 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		84.8 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

SS36@10'
1806283-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/21/18 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806322	06/21/18	06/21/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/21/18 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		117 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/21/18 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806323	06/21/18	06/22/18	EPA 8015M	

Date Sampled: **06/21/18 12:40**

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

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS36@15'
1806283-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/21/18 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806322	06/21/18	06/22/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/21/18 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		111 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/21/18 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806323	06/21/18	06/22/18	EPA 8015M	

Date Sampled: **06/21/18 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		86.5 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS37@19'
1806283-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/21/18 13:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.0030	0.0020	mg/kg	1	1806322	06/21/18	06/22/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.22	0.0050	"	"	"	"	"	"	
Xylenes (total)	4.0	0.10	"	10	"	"	"	"	
Naphthalene	0.18	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	240	50	"	10	"	"	"	"	

Date Sampled: **06/21/18 13:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		114 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		112 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		165 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/21/18 13:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	210	50	mg/kg	1	1806323	06/21/18	06/22/18	EPA 8015M	

Date Sampled: **06/21/18 13:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		88.9 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS37@10'
1806283-11 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 06/21/18 13:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806322	06/21/18	06/21/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: 06/21/18 13:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		116 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 06/21/18 13:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806323	06/21/18	06/22/18	EPA 8015M	

Date Sampled: 06/21/18 13:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		87.4 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS38@19'
1806283-12 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/21/18 14:19**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806322	06/21/18	06/21/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/21/18 14:19**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		115 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/21/18 14:19**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806323	06/21/18	06/22/18	EPA 8015M	

Date Sampled: **06/21/18 14:19**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		84.8 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS39@19'
1806296-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/22/18 09:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806340	06/22/18	06/23/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.011	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.072	0.010	"	"	"	"	"	"	
Naphthalene	0.012	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/22/18 09:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		106 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/22/18 09:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806341	06/22/18	06/23/18	EPA 8015M	

Date Sampled: **06/22/18 09:26**

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

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS40@19'
1806296-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/22/18 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806340	06/22/18	06/23/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.0079	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.027	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/22/18 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		113 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/22/18 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806341	06/22/18	06/23/18	EPA 8015M	

Date Sampled: **06/22/18 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		92.2 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS41@20'
1806296-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/22/18 10:21**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806340	06/22/18	06/23/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/22/18 10:21**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		113 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/22/18 10:21**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806341	06/22/18	06/23/18	EPA 8015M	

Date Sampled: **06/22/18 10:21**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		83.8 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS42@20'
1806296-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/22/18 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806340	06/22/18	06/23/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/22/18 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		113 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/22/18 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806341	06/22/18	06/23/18	EPA 8015M	

Date Sampled: **06/22/18 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		83.2 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

SS44@20'
1806296-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/22/18 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806340	06/22/18	06/23/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/22/18 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		106 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/22/18 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806341	06/22/18	06/23/18	EPA 8015M	

Date Sampled: **06/22/18 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		85.8 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS45@20'
1806296-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/22/18 14:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806340	06/22/18	06/23/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/22/18 14:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		112 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/22/18 14:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806341	06/22/18	06/23/18	EPA 8015M	

Date Sampled: **06/22/18 14:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		91.8 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

SS46@20'
1806309-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/25/18 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806368	06/25/18	06/25/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.013	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/25/18 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		108 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/25/18 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806369	06/25/18	06/26/18	EPA 8015M	

Date Sampled: **06/25/18 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		90.3 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

SS49@19'
1806309-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 06/25/18 13:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806368	06/25/18	06/25/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: 06/25/18 13:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		112 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 06/25/18 13:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806369	06/25/18	06/26/18	EPA 8015M	

Date Sampled: 06/25/18 13:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		91.0 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS50@10'
1806309-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/25/18 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806368	06/25/18	06/25/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/25/18 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		100 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.8 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/25/18 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806369	06/25/18	06/26/18	EPA 8015M	

Date Sampled: **06/25/18 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		90.8 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

SS50@15'
1806309-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/25/18 13:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806368	06/25/18	06/26/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.23	0.0050	"	"	"	"	"	"	
Xylenes (total)	1.3	0.010	"	"	"	"	"	"	
Naphthalene	0.11	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	110	50	"	"	"	"	"	"	

Date Sampled: **06/25/18 13:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		112 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		98.7 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		100 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/25/18 13:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	97	50	mg/kg	1	1806369	06/25/18	06/26/18	EPA 8015M	

Date Sampled: **06/25/18 13:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		92.7 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS51@10'
1806309-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/25/18 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806368	06/25/18	06/25/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/25/18 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		112 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.4 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/25/18 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806369	06/25/18	06/26/18	EPA 8015M	

Date Sampled: **06/25/18 14:10**

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

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

SS51@15'
1806309-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/25/18 14:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806368	06/25/18	06/25/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/25/18 14:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		109 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/25/18 14:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806369	06/25/18	06/26/18	EPA 8015M	

Date Sampled: **06/25/18 14:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		91.3 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

CS04
1806327-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/26/18 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806375	06/26/18	06/26/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/26/18 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		96.9 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/26/18 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806376	06/26/18	06/26/18	EPA 8015M	

Date Sampled: **06/26/18 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		87.4 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

CS05
1806327-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/26/18 11:36**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806375	06/26/18	06/26/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/26/18 11:36**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		99.9 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/26/18 11:36**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806376	06/26/18	06/26/18	EPA 8015M	

Date Sampled: **06/26/18 11:36**

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

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

CS06
1806327-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/26/18 12:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806375	06/26/18	06/26/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/26/18 12:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		96.3 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		100 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/26/18 12:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806376	06/26/18	06/26/18	EPA 8015M	

Date Sampled: **06/26/18 12:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		86.0 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

CS07
1806327-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/26/18 12:31**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806375	06/26/18	06/26/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/26/18 12:31**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		106 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		95.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		107 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/26/18 12:31**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806376	06/26/18	06/26/18	EPA 8015M	

Date Sampled: **06/26/18 12:31**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		89.4 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS52@20'
1806338-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/27/18 08:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806392	06/27/18	06/27/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/27/18 08:20**

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		107 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/27/18 08:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806394	06/27/18	06/27/18	EPA 8015M	

Date Sampled: **06/27/18 08:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		88.1 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS53@10'
1806338-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/27/18 08:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806392	06/27/18	06/27/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/27/18 08:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		105 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/27/18 08:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806394	06/27/18	06/27/18	EPA 8015M	

Date Sampled: **06/27/18 08:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		94.8 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

SS54@10'
1806338-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 06/27/18 08:46

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806392	06/27/18	06/27/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: 06/27/18 08:46

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		110 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 06/27/18 08:46

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806394	06/27/18	06/27/18	EPA 8015M	

Date Sampled: 06/27/18 08:46

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		86.5 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS55@19'
1806338-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/27/18 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806392	06/27/18	06/27/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/27/18 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		110 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/27/18 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806394	06/27/18	06/27/18	EPA 8015M	

Date Sampled: **06/27/18 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		87.4 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

SS56@19'
1806338-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 06/27/18 09:32

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806392	06/27/18	06/27/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: 06/27/18 09:32

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		106 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 06/27/18 09:32

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806394	06/27/18	06/27/18	EPA 8015M	

Date Sampled: 06/27/18 09:32

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		87.6 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS57@10'
1806338-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/27/18 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806392	06/27/18	06/27/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/27/18 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		109 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/27/18 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806394	06/27/18	06/27/18	EPA 8015M	

Date Sampled: **06/27/18 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		86.3 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS57@19'
1806338-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 06/27/18 14:31

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806392	06/27/18	06/27/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: 06/27/18 14:31

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		106 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 06/27/18 14:31

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806394	06/27/18	06/28/18	EPA 8015M	

Date Sampled: 06/27/18 14:31

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		91.2 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

BS01
1806338-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/27/18 15:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806392	06/27/18	06/28/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/27/18 15:00**

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

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/27/18 15:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806394	06/27/18	06/28/18	EPA 8015M	

Date Sampled: **06/27/18 15:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		86.8 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS58@20'
1806369-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/28/18 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806416	06/28/18	06/28/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/28/18 09:20**

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

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/28/18 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806417	06/28/18	06/28/18	EPA 8015M	

Date Sampled: **06/28/18 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		84.6 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS59@10'
1806369-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 06/28/18 09:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806416	06/28/18	06/28/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: 06/28/18 09:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		108 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		107 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 06/28/18 09:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806417	06/28/18	06/28/18	EPA 8015M	

Date Sampled: 06/28/18 09:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		85.3 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS59@19'
1806369-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/28/18 09:36**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806416	06/28/18	06/28/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.10	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/28/18 09:36**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		106 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		125 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/28/18 09:36**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806417	06/28/18	06/28/18	EPA 8015M	

Date Sampled: **06/28/18 09:36**

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

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS60@10'
1806369-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/28/18 14:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806416	06/28/18	06/28/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/28/18 14:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		113 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/28/18 14:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806417	06/28/18	06/28/18	EPA 8015M	

Date Sampled: **06/28/18 14:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		84.9 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

SS60@19'
1806369-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/28/18 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806416	06/28/18	06/28/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	720	500	"	10	"	"	"	"	

Date Sampled: **06/28/18 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		107 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		110 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		149 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/28/18 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	1000	50	mg/kg	1	1806417	06/28/18	06/28/18	EPA 8015M	

Date Sampled: **06/28/18 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		98.3 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS61@19'
1806378-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 06/29/18 09:35

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806428	06/29/18	06/30/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: 06/29/18 09:35

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		98.3 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		110 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 06/29/18 09:35

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806429	06/29/18	06/30/18	EPA 8015M	

Date Sampled: 06/29/18 09:35

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		84.0 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS62@20'
1806378-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/29/18 11:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806428	06/29/18	06/30/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/29/18 11:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		92.1 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.4 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/29/18 11:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806429	06/29/18	06/30/18	EPA 8015M	

Date Sampled: **06/29/18 11:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		79.5 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS63@20'
1806378-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/29/18 11:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806428	06/29/18	06/30/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/29/18 11:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		98.3 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/29/18 11:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806429	06/29/18	06/30/18	EPA 8015M	

Date Sampled: **06/29/18 11:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		82.2 %	30-150		"	"	"	"	

Summit Scientific

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Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS64@20'
1806378-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/29/18 13:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806428	06/29/18	06/30/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/29/18 13:41**

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		98.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/29/18 13:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806429	06/29/18	06/30/18	EPA 8015M	

Date Sampled: **06/29/18 13:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		84.4 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

SS65@20'
1806378-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/29/18 14:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1806428	06/29/18	06/30/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **06/29/18 14:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		100 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.7 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/29/18 14:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1806429	06/29/18	06/30/18	EPA 8015M	

Date Sampled: **06/29/18 14:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		84.0 %	30-150		"	"	"	"	

Summit Scientific

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Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS67@10'
1807007-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/02/18 14:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1807014	07/02/18	07/02/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **07/02/18 14:25**

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		97.4 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/02/18 14:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1807013	07/02/18	07/02/18	EPA 8015M	

Date Sampled: **07/02/18 14:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		85.3 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS67@19'
1807007-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/02/18 14:31**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1807014	07/02/18	07/02/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.013	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.076	0.010	"	"	"	"	"	"	
Naphthalene	0.013	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **07/02/18 14:31**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		101 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		111 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/02/18 14:31**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	270	50	mg/kg	1	1807013	07/02/18	07/02/18	EPA 8015M	

Date Sampled: **07/02/18 14:31**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		87.4 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS68@20'
1807007-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/02/18 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1807014	07/02/18	07/02/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **07/02/18 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		110 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/02/18 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1807013	07/02/18	07/02/18	EPA 8015M	

Date Sampled: **07/02/18 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		84.8 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

SS69@19'
1807027-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/03/18 09:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1807036	07/03/18	07/04/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **07/03/18 09:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		150 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		107 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		131 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/03/18 09:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	65	50	mg/kg	1	1807037	"	07/04/18	EPA 8015M	

Date Sampled: **07/03/18 09:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		84.5 %	30-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

SS69@10'
1807027-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/03/18 09:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1807036	07/03/18	07/04/18	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **07/03/18 09:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		138 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/03/18 09:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1807037	"	07/04/18	EPA 8015M	

Date Sampled: **07/03/18 09:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		85.7 %	30-150		"	"	"	"	

Summit Scientific

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Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch 1805225 - EPA 5030 Soil MS

Blank (1805225-BLK1)

Prepared: 05/18/18 Analyzed: 05/19/18

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Naphthalene	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0360		"	0.0396	90.9	23-173				
Surrogate: Toluene-d8	0.0396		"	0.0400	98.9	20-170				
Surrogate: 4-Bromofluorobenzene	0.0360		"	0.0400	89.9	21-167				

LCS (1805225-BS1)

Prepared: 05/18/18 Analyzed: 05/19/18

Benzene	0.0799	0.0020	mg/kg	0.100	79.9	70-130				
Toluene	0.0875	0.0050	"	0.100	87.5	70-130				
Ethylbenzene	0.0958	0.0050	"	0.100	95.8	70-130				
m,p-Xylene	0.187	0.010	"	0.200	93.5	70-130				
o-Xylene	0.0949	0.0050	"	0.100	94.9	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0343		"	0.0396	86.5	23-173				
Surrogate: Toluene-d8	0.0406		"	0.0400	101	20-170				
Surrogate: 4-Bromofluorobenzene	0.0354		"	0.0400	88.5	21-167				

Matrix Spike (1805225-MS1)

Source: 1805225-01

Prepared: 05/18/18 Analyzed: 05/19/18

Benzene	0.0724	0.0020	mg/kg	0.100	ND	72.4	70-130			
Toluene	0.0727	0.0050	"	0.100	ND	72.7	70-130			
Ethylbenzene	0.0744	0.0050	"	0.100	ND	74.4	70-130			
m,p-Xylene	0.141	0.010	"	0.200	ND	70.6	70-130			
o-Xylene	0.0732	0.0050	"	0.100	ND	73.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0359		"	0.0396	90.7	23-173				
Surrogate: Toluene-d8	0.0412		"	0.0400	103	20-170				
Surrogate: 4-Bromofluorobenzene	0.0360		"	0.0400	89.9	21-167				

Summit Scientific

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Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

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

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

Batch 1805225 - EPA 5030 Soil MS

Matrix Spike Dup (1805225-MSD1)				Source: 1805225-01		Prepared: 05/18/18		Analyzed: 05/19/18		
Benzene	0.0720	0.0020	mg/kg	0.100	ND	72.0	70-130	0.582	30	
Toluene	0.0788	0.0050	"	0.100	ND	78.8	70-130	8.04	30	
Ethylbenzene	0.0858	0.0050	"	0.100	ND	85.8	70-130	14.3	30	
m,p-Xylene	0.170	0.010	"	0.200	ND	85.1	70-130	18.5	30	
o-Xylene	0.0864	0.0050	"	0.100	ND	86.4	70-130	16.6	30	
Surrogate: 1,2-Dichloroethane-d4	0.0336		"	0.0396		84.8	23-173			
Surrogate: Toluene-d8	0.0410		"	0.0400		103	20-170			
Surrogate: 4-Bromofluorobenzene	0.0364		"	0.0400		91.1	21-167			

Batch 1805345 - EPA 5030 Soil MS

Blank (1805345-BLK1)				Prepared: 05/30/18		Analyzed: 05/31/18				
Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Naphthalene	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0394		"	0.0396		99.5	23-173			
Surrogate: Toluene-d8	0.0410		"	0.0400		103	20-170			
Surrogate: 4-Bromofluorobenzene	0.0404		"	0.0400		101	21-167			

LCS (1805345-BS1)				Prepared: 05/30/18		Analyzed: 05/31/18				
Benzene	0.0898	0.0020	mg/kg	0.100		89.8	70-130			
Toluene	0.0883	0.0050	"	0.100		88.3	70-130			
Ethylbenzene	0.0915	0.0050	"	0.100		91.5	70-130			
m,p-Xylene	0.171	0.010	"	0.200		85.3	70-130			
o-Xylene	0.0821	0.0050	"	0.100		82.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0380		"	0.0396		95.9	23-173			
Surrogate: Toluene-d8	0.0430		"	0.0400		107	20-170			
Surrogate: 4-Bromofluorobenzene	0.0382		"	0.0400		95.4	21-167			

Summit Scientific

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Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

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

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

Batch 1805345 - EPA 5030 Soil MS

Matrix Spike (1805345-MS1)

Source: 1805225-11

Prepared: 05/30/18 Analyzed: 05/31/18

Benzene	0.0896	0.0020	mg/kg	0.100	0.00453	85.0	70-130			
Toluene	0.0921	0.0050	"	0.100	ND	92.1	70-130			
Ethylbenzene	0.0965	0.0050	"	0.100	ND	96.5	70-130			
m,p-Xylene	0.183	0.010	"	0.200	ND	91.6	70-130			
o-Xylene	0.0883	0.0050	"	0.100	ND	88.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0402		"	0.0396		102	23-173			
Surrogate: Toluene-d8	0.0419		"	0.0400		105	20-170			
Surrogate: 4-Bromofluorobenzene	0.0391		"	0.0400		97.6	21-167			

Matrix Spike Dup (1805345-MSD1)

Source: 1805225-11

Prepared: 05/30/18 Analyzed: 05/31/18

Benzene	0.0910	0.0020	mg/kg	0.100	0.00453	86.4	70-130	1.56	30	
Toluene	0.0937	0.0050	"	0.100	ND	93.7	70-130	1.71	30	
Ethylbenzene	0.102	0.0050	"	0.100	ND	102	70-130	5.91	30	
m,p-Xylene	0.192	0.010	"	0.200	ND	95.8	70-130	4.42	30	
o-Xylene	0.0939	0.0050	"	0.100	ND	93.9	70-130	6.12	30	
Surrogate: 1,2-Dichloroethane-d4	0.0404		"	0.0396		102	23-173			
Surrogate: Toluene-d8	0.0412		"	0.0400		103	20-170			
Surrogate: 4-Bromofluorobenzene	0.0387		"	0.0400		96.8	21-167			

Batch 1806274 - EPA 5030 Soil MS

Blank (1806274-BLK1)

Prepared & Analyzed: 06/19/18

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Naphthalene	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0380		"	0.0396		95.8	23-173			
Surrogate: Toluene-d8	0.0394		"	0.0400		98.6	20-170			
Surrogate: 4-Bromofluorobenzene	0.0384		"	0.0400		96.1	21-167			

Summit Scientific

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Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

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

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

Batch 1806274 - EPA 5030 Soil MS

LCS (1806274-BS1)

Prepared & Analyzed: 06/19/18

Benzene	0.100	0.0020	mg/kg	0.100		100	70-130
Toluene	0.102	0.0050	"	0.100		102	70-130
Ethylbenzene	0.102	0.0050	"	0.100		102	70-130
m,p-Xylene	0.194	0.010	"	0.200		96.8	70-130
o-Xylene	0.0976	0.0050	"	0.100		97.6	70-130
Surrogate: 1,2-Dichloroethane-d4	0.0365		"	0.0396		92.3	23-173
Surrogate: Toluene-d8	0.0407		"	0.0400		102	20-170
Surrogate: 4-Bromofluorobenzene	0.0374		"	0.0400		93.5	21-167

Matrix Spike (1806274-MS1)

Source: 1806222-01

Prepared & Analyzed: 06/19/18

Benzene	0.0972	0.0020	mg/kg	0.100	ND	97.2	70-130
Toluene	0.0982	0.0050	"	0.100	ND	98.2	70-130
Ethylbenzene	0.0947	0.0050	"	0.100	ND	94.7	70-130
m,p-Xylene	0.181	0.010	"	0.200	ND	90.5	70-130
o-Xylene	0.0922	0.0050	"	0.100	ND	92.2	70-130
Surrogate: 1,2-Dichloroethane-d4	0.0372		"	0.0396		93.9	23-173
Surrogate: Toluene-d8	0.0414		"	0.0400		104	20-170
Surrogate: 4-Bromofluorobenzene	0.0378		"	0.0400		94.4	21-167

Matrix Spike Dup (1806274-MSD1)

Source: 1806222-01

Prepared & Analyzed: 06/19/18

Benzene	0.0929	0.0020	mg/kg	0.100	ND	92.9	70-130	4.48	30
Toluene	0.0948	0.0050	"	0.100	ND	94.8	70-130	3.51	30
Ethylbenzene	0.0934	0.0050	"	0.100	ND	93.4	70-130	1.37	30
m,p-Xylene	0.177	0.010	"	0.200	ND	88.4	70-130	2.31	30
o-Xylene	0.0909	0.0050	"	0.100	ND	90.9	70-130	1.51	30
Surrogate: 1,2-Dichloroethane-d4	0.0367		"	0.0396		92.7	23-173		
Surrogate: Toluene-d8	0.0406		"	0.0400		102	20-170		
Surrogate: 4-Bromofluorobenzene	0.0380		"	0.0400		95.0	21-167		

Summit Scientific

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Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

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

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

Batch 1806285 - EPA 5030 Soil MS

Blank (1806285-BLK1)

Prepared & Analyzed: 06/19/18

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Naphthalene	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0466		"	0.0396		118	23-173			
Surrogate: Toluene-d8	0.0400		"	0.0400		100	20-170			
Surrogate: 4-Bromofluorobenzene	0.0421		"	0.0400		105	21-167			

LCS (1806285-BS1)

Prepared & Analyzed: 06/19/18

Benzene	0.0807	0.0020	mg/kg	0.100		80.7	70-130			
Toluene	0.0876	0.0050	"	0.100		87.6	70-130			
Ethylbenzene	0.102	0.0050	"	0.100		102	70-130			
m,p-Xylene	0.187	0.010	"	0.200		93.7	70-130			
o-Xylene	0.0941	0.0050	"	0.100		94.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0474		"	0.0396		120	23-173			
Surrogate: Toluene-d8	0.0408		"	0.0400		102	20-170			
Surrogate: 4-Bromofluorobenzene	0.0406		"	0.0400		102	21-167			

Matrix Spike (1806285-MS1)

Source: 1806247-01

Prepared & Analyzed: 06/19/18

Benzene	0.0808	0.0020	mg/kg	0.100	ND	80.8	70-130			
Toluene	0.0833	0.0050	"	0.100	ND	83.3	70-130			
Ethylbenzene	0.101	0.0050	"	0.100	ND	101	70-130			
m,p-Xylene	0.186	0.010	"	0.200	ND	93.0	70-130			
o-Xylene	0.0940	0.0050	"	0.100	ND	94.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0463		"	0.0396		117	23-173			
Surrogate: Toluene-d8	0.0383		"	0.0400		95.7	20-170			
Surrogate: 4-Bromofluorobenzene	0.0410		"	0.0400		103	21-167			

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Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

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

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

Batch 1806285 - EPA 5030 Soil MS

Matrix Spike Dup (1806285-MSD1)			Source: 1806247-01		Prepared & Analyzed: 06/19/18					
Benzene	0.0831	0.0020	mg/kg	0.100	ND	83.1	70-130	2.82	30	
Toluene	0.0874	0.0050	"	0.100	ND	87.4	70-130	4.71	30	
Ethylbenzene	0.0994	0.0050	"	0.100	ND	99.4	70-130	1.65	30	
m,p-Xylene	0.186	0.010	"	0.200	ND	93.0	70-130	0.0161	30	
o-Xylene	0.0947	0.0050	"	0.100	ND	94.7	70-130	0.731	30	
Surrogate: 1,2-Dichloroethane-d4	0.0499		"	0.0396		126	23-173			
Surrogate: Toluene-d8	0.0405		"	0.0400		101	20-170			
Surrogate: 4-Bromofluorobenzene	0.0411		"	0.0400		103	21-167			

Batch 1806314 - EPA 5030 Soil MS

Blank (1806314-BLK1)			Prepared: 06/20/18 Analyzed: 06/21/18							
Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Naphthalene	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0402		"	0.0396		102	23-173			
Surrogate: Toluene-d8	0.0401		"	0.0400		100	20-170			
Surrogate: 4-Bromofluorobenzene	0.0405		"	0.0400		101	21-167			

LCS (1806314-BS1)			Prepared: 06/20/18 Analyzed: 06/21/18							
Benzene	0.0837	0.0020	mg/kg	0.100		83.7	70-130			
Toluene	0.0940	0.0050	"	0.100		94.0	70-130			
Ethylbenzene	0.106	0.0050	"	0.100		106	70-130			
m,p-Xylene	0.195	0.010	"	0.200		97.3	70-130			
o-Xylene	0.0944	0.0050	"	0.100		94.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0435		"	0.0396		110	23-173			
Surrogate: Toluene-d8	0.0412		"	0.0400		103	20-170			
Surrogate: 4-Bromofluorobenzene	0.0389		"	0.0400		97.2	21-167			

Summit Scientific

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Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

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

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

Batch 1806314 - EPA 5030 Soil MS

Matrix Spike (1806314-MS1)

Source: 1806257-02

Prepared: 06/20/18 Analyzed: 06/21/18

Benzene	0.0844	0.0020	mg/kg	0.100	ND	84.4	70-130			
Toluene	0.0932	0.0050	"	0.100	ND	93.2	70-130			
Ethylbenzene	0.107	0.0050	"	0.100	ND	107	70-130			
m,p-Xylene	0.197	0.010	"	0.200	ND	98.5	70-130			
o-Xylene	0.0977	0.0050	"	0.100	ND	97.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0430		"	0.0396		109	23-173			
Surrogate: Toluene-d8	0.0399		"	0.0400		99.8	20-170			
Surrogate: 4-Bromofluorobenzene	0.0401		"	0.0400		100	21-167			

Matrix Spike Dup (1806314-MSD1)

Source: 1806257-02

Prepared: 06/20/18 Analyzed: 06/21/18

Benzene	0.0852	0.0020	mg/kg	0.100	ND	85.2	70-130	0.990	30	
Toluene	0.0961	0.0050	"	0.100	ND	96.1	70-130	3.08	30	
Ethylbenzene	0.109	0.0050	"	0.100	ND	109	70-130	2.41	30	
m,p-Xylene	0.202	0.010	"	0.200	ND	101	70-130	2.47	30	
o-Xylene	0.100	0.0050	"	0.100	ND	100	70-130	2.78	30	
Surrogate: 1,2-Dichloroethane-d4	0.0449		"	0.0396		113	23-173			
Surrogate: Toluene-d8	0.0402		"	0.0400		100	20-170			
Surrogate: 4-Bromofluorobenzene	0.0390		"	0.0400		97.6	21-167			

Batch 1806322 - EPA 5030 Soil MS

Blank (1806322-BLK1)

Prepared: 06/21/18 Analyzed: 06/22/18

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Naphthalene	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0410		"	0.0396		103	23-173			
Surrogate: Toluene-d8	0.0415		"	0.0400		104	20-170			
Surrogate: 4-Bromofluorobenzene	0.0410		"	0.0400		103	21-167			

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Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

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

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

Batch 1806322 - EPA 5030 Soil MS

LCS (1806322-BS1)

Prepared: 06/21/18 Analyzed: 06/22/18

Benzene	0.0911	0.0020	mg/kg	0.100		91.1	70-130			
Toluene	0.0954	0.0050	"	0.100		95.4	70-130			
Ethylbenzene	0.107	0.0050	"	0.100		107	70-130			
m,p-Xylene	0.190	0.010	"	0.200		95.2	70-130			
o-Xylene	0.0952	0.0050	"	0.100		95.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0440		"	0.0396		111	23-173			
Surrogate: Toluene-d8	0.0414		"	0.0400		104	20-170			
Surrogate: 4-Bromofluorobenzene	0.0399		"	0.0400		99.7	21-167			

Matrix Spike (1806322-MS1)

Source: 1806283-01

Prepared: 06/21/18 Analyzed: 06/22/18

Benzene	0.0933	0.0020	mg/kg	0.100	ND	93.3	70-130			
Toluene	0.0963	0.0050	"	0.100	ND	96.3	70-130			
Ethylbenzene	0.111	0.0050	"	0.100	ND	111	70-130			
m,p-Xylene	0.197	0.010	"	0.200	ND	98.7	70-130			
o-Xylene	0.0984	0.0050	"	0.100	ND	98.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0436		"	0.0396		110	23-173			
Surrogate: Toluene-d8	0.0407		"	0.0400		102	20-170			
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400		97.9	21-167			

Matrix Spike Dup (1806322-MSD1)

Source: 1806283-01

Prepared: 06/21/18 Analyzed: 06/22/18

Benzene	0.0991	0.0020	mg/kg	0.100	ND	99.1	70-130	6.05	30	
Toluene	0.103	0.0050	"	0.100	ND	103	70-130	6.68	30	
Ethylbenzene	0.117	0.0050	"	0.100	ND	117	70-130	5.21	30	
m,p-Xylene	0.208	0.010	"	0.200	ND	104	70-130	5.34	30	
o-Xylene	0.103	0.0050	"	0.100	ND	103	70-130	4.21	30	
Surrogate: 1,2-Dichloroethane-d4	0.0446		"	0.0396		113	23-173			
Surrogate: Toluene-d8	0.0400		"	0.0400		100	20-170			
Surrogate: 4-Bromofluorobenzene	0.0393		"	0.0400		98.2	21-167			

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Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

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

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

Batch 1806340 - EPA 5030 Soil MS

Blank (1806340-BLK1)

Prepared: 06/22/18 Analyzed: 06/23/18

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Naphthalene	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0430		"	0.0396	109	23-173				
Surrogate: Toluene-d8	0.0408		"	0.0400	102	20-170				
Surrogate: 4-Bromofluorobenzene	0.0398		"	0.0400	99.6	21-167				

LCS (1806340-BS1)

Prepared: 06/22/18 Analyzed: 06/23/18

Benzene	0.0893	0.0020	mg/kg	0.100	89.3	70-130				
Toluene	0.0970	0.0050	"	0.100	97.0	70-130				
Ethylbenzene	0.113	0.0050	"	0.100	113	70-130				
m,p-Xylene	0.208	0.010	"	0.200	104	70-130				
o-Xylene	0.0998	0.0050	"	0.100	99.8	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0431		"	0.0396	109	23-173				
Surrogate: Toluene-d8	0.0398		"	0.0400	99.5	20-170				
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400	98.1	21-167				

Matrix Spike (1806340-MS1)

Source: 1806296-01

Prepared: 06/22/18 Analyzed: 06/23/18

Benzene	0.0890	0.0020	mg/kg	0.100	ND	89.0	70-130			
Toluene	0.0878	0.0050	"	0.100	ND	87.8	70-130			
Ethylbenzene	0.175	0.0050	"	0.100	0.0113	163	70-130			QM-07
m,p-Xylene	0.671	0.010	"	0.200	0.0719	300	70-130			QM-07
o-Xylene	0.109	0.0050	"	0.100	ND	109	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0448		"	0.0396	113	23-173				
Surrogate: Toluene-d8	0.0434		"	0.0400	109	20-170				
Surrogate: 4-Bromofluorobenzene	0.0436		"	0.0400	109	21-167				

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Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

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

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

Batch 1806340 - EPA 5030 Soil MS

Matrix Spike Dup (1806340-MSD1)			Source: 1806296-01		Prepared: 06/22/18 Analyzed: 06/23/18					
Benzene	0.0863	0.0020	mg/kg	0.100	ND	86.3	70-130	3.08	30	
Toluene	0.0860	0.0050	"	0.100	ND	86.0	70-130	2.00	30	
Ethylbenzene	0.184	0.0050	"	0.100	0.0113	172	70-130	5.17	30	QM-07
m,p-Xylene	0.727	0.010	"	0.200	0.0719	328	70-130	7.96	30	QM-07
o-Xylene	0.109	0.0050	"	0.100	ND	109	70-130	0.276	30	
Surrogate: 1,2-Dichloroethane-d4	0.0442		"	0.0396		112	23-173			
Surrogate: Toluene-d8	0.0436		"	0.0400		109	20-170			
Surrogate: 4-Bromofluorobenzene	0.0412		"	0.0400		103	21-167			

Batch 1806368 - EPA 5030 Soil MS

Blank (1806368-BLK1)			Prepared & Analyzed: 06/25/18							
Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Naphthalene	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0371		"	0.0396		93.7	23-173			
Surrogate: Toluene-d8	0.0388		"	0.0400		96.9	20-170			
Surrogate: 4-Bromofluorobenzene	0.0371		"	0.0400		92.7	21-167			

LCS (1806368-BS1)			Prepared & Analyzed: 06/25/18							
Benzene	0.0906	0.0020	mg/kg	0.100		90.6	70-130			
Toluene	0.102	0.0050	"	0.100		102	70-130			
Ethylbenzene	0.116	0.0050	"	0.100		116	70-130			
m,p-Xylene	0.228	0.010	"	0.200		114	70-130			
o-Xylene	0.104	0.0050	"	0.100		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0360		"	0.0396		90.9	23-173			
Surrogate: Toluene-d8	0.0392		"	0.0400		97.9	20-170			
Surrogate: 4-Bromofluorobenzene	0.0374		"	0.0400		93.6	21-167			

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Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

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

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

Batch 1806368 - EPA 5030 Soil MS

Matrix Spike (1806368-MS1)

Source: 1806308-01

Prepared & Analyzed: 06/25/18

Benzene	0.0922	0.0020	mg/kg	0.100	ND	92.2	70-130		
Toluene	0.102	0.0050	"	0.100	ND	102	70-130		
Ethylbenzene	0.117	0.0050	"	0.100	ND	117	70-130		
m,p-Xylene	0.228	0.010	"	0.200	ND	114	70-130		
o-Xylene	0.104	0.0050	"	0.100	ND	104	70-130		
Surrogate: 1,2-Dichloroethane-d4	0.0397		"	0.0396		100	23-173		
Surrogate: Toluene-d8	0.0388		"	0.0400		97.0	20-170		
Surrogate: 4-Bromofluorobenzene	0.0384		"	0.0400		95.9	21-167		

Matrix Spike Dup (1806368-MSD1)

Source: 1806308-01

Prepared & Analyzed: 06/25/18

Benzene	0.0920	0.0020	mg/kg	0.100	ND	92.0	70-130	0.261	30
Toluene	0.104	0.0050	"	0.100	ND	104	70-130	1.93	30
Ethylbenzene	0.119	0.0050	"	0.100	ND	119	70-130	2.11	30
m,p-Xylene	0.236	0.010	"	0.200	ND	118	70-130	3.40	30
o-Xylene	0.107	0.0050	"	0.100	ND	107	70-130	3.06	30
Surrogate: 1,2-Dichloroethane-d4	0.0398		"	0.0396		100	23-173		
Surrogate: Toluene-d8	0.0391		"	0.0400		97.6	20-170		
Surrogate: 4-Bromofluorobenzene	0.0399		"	0.0400		99.7	21-167		

Batch 1806375 - EPA 5030 Soil MS

Blank (1806375-BLK1)

Prepared & Analyzed: 06/26/18

Benzene	ND	0.0020	mg/kg						
Toluene	ND	0.0050	"						
Ethylbenzene	ND	0.0050	"						
Xylenes (total)	ND	0.010	"						
Naphthalene	ND	0.010	"						
Gasoline Range Hydrocarbons	ND	50	"						
Surrogate: 1,2-Dichloroethane-d4	0.0396		"	0.0396		100	23-173		
Surrogate: Toluene-d8	0.0404		"	0.0400		101	20-170		
Surrogate: 4-Bromofluorobenzene	0.0427		"	0.0400		107	21-167		

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Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

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

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

Batch 1806375 - EPA 5030 Soil MS

LCS (1806375-BS1)

Prepared & Analyzed: 06/26/18

Benzene	0.0889	0.0020	mg/kg	0.100		88.9	70-130
Toluene	0.0958	0.0050	"	0.100		95.8	70-130
Ethylbenzene	0.109	0.0050	"	0.100		109	70-130
m,p-Xylene	0.204	0.010	"	0.200		102	70-130
o-Xylene	0.0984	0.0050	"	0.100		98.4	70-130
Surrogate: 1,2-Dichloroethane-d4	0.0403		"	0.0396		102	23-173
Surrogate: Toluene-d8	0.0410		"	0.0400		103	20-170
Surrogate: 4-Bromofluorobenzene	0.0418		"	0.0400		105	21-167

Matrix Spike (1806375-MS1)

Source: 1806327-01

Prepared & Analyzed: 06/26/18

Benzene	0.0928	0.0020	mg/kg	0.100	ND	92.8	70-130
Toluene	0.101	0.0050	"	0.100	ND	101	70-130
Ethylbenzene	0.113	0.0050	"	0.100	ND	113	70-130
m,p-Xylene	0.210	0.010	"	0.200	ND	105	70-130
o-Xylene	0.0999	0.0050	"	0.100	ND	99.9	70-130
Surrogate: 1,2-Dichloroethane-d4	0.0412		"	0.0396		104	23-173
Surrogate: Toluene-d8	0.0411		"	0.0400		103	20-170
Surrogate: 4-Bromofluorobenzene	0.0405		"	0.0400		101	21-167

Matrix Spike Dup (1806375-MSD1)

Source: 1806327-01

Prepared & Analyzed: 06/26/18

Benzene	0.0959	0.0020	mg/kg	0.100	ND	95.9	70-130	3.31	30
Toluene	0.103	0.0050	"	0.100	ND	103	70-130	2.36	30
Ethylbenzene	0.120	0.0050	"	0.100	ND	120	70-130	6.29	30
m,p-Xylene	0.227	0.010	"	0.200	ND	113	70-130	7.68	30
o-Xylene	0.109	0.0050	"	0.100	ND	109	70-130	8.68	30
Surrogate: 1,2-Dichloroethane-d4	0.0398		"	0.0396		101	23-173		
Surrogate: Toluene-d8	0.0398		"	0.0400		99.4	20-170		
Surrogate: 4-Bromofluorobenzene	0.0410		"	0.0400		102	21-167		

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Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

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

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

Batch 1806392 - EPA 5030 Soil MS

Blank (1806392-BLK1)

Prepared: 06/27/18 Analyzed: 06/28/18

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Naphthalene	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0406		"	0.0396	102	23-173				
Surrogate: Toluene-d8	0.0412		"	0.0400	103	20-170				
Surrogate: 4-Bromofluorobenzene	0.0416		"	0.0400	104	21-167				

LCS (1806392-BS1)

Prepared: 06/27/18 Analyzed: 06/28/18

Benzene	0.0886	0.0020	mg/kg	0.100	88.6	70-130				
Toluene	0.0973	0.0050	"	0.100	97.3	70-130				
Ethylbenzene	0.112	0.0050	"	0.100	112	70-130				
m,p-Xylene	0.206	0.010	"	0.200	103	70-130				
o-Xylene	0.0996	0.0050	"	0.100	99.6	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0408		"	0.0396	103	23-173				
Surrogate: Toluene-d8	0.0405		"	0.0400	101	20-170				
Surrogate: 4-Bromofluorobenzene	0.0415		"	0.0400	104	21-167				

Matrix Spike (1806392-MS1)

Source: 1806338-01

Prepared: 06/27/18 Analyzed: 06/28/18

Benzene	0.0876	0.0020	mg/kg	0.100	ND	87.6	70-130			
Toluene	0.0956	0.0050	"	0.100	ND	95.6	70-130			
Ethylbenzene	0.108	0.0050	"	0.100	ND	108	70-130			
m,p-Xylene	0.198	0.010	"	0.200	ND	99.2	70-130			
o-Xylene	0.0956	0.0050	"	0.100	ND	95.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0426		"	0.0396	108	23-173				
Surrogate: Toluene-d8	0.0409		"	0.0400	102	20-170				
Surrogate: 4-Bromofluorobenzene	0.0411		"	0.0400	103	21-167				

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Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

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

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

Batch 1806392 - EPA 5030 Soil MS

Matrix Spike Dup (1806392-MSD1)				Source: 1806338-01		Prepared: 06/27/18		Analyzed: 06/28/18		
Benzene	0.0989	0.0020	mg/kg	0.100	ND	98.9	70-130	12.2	30	
Toluene	0.108	0.0050	"	0.100	ND	108	70-130	11.9	30	
Ethylbenzene	0.126	0.0050	"	0.100	ND	126	70-130	15.0	30	
m,p-Xylene	0.231	0.010	"	0.200	ND	115	70-130	15.1	30	
o-Xylene	0.112	0.0050	"	0.100	ND	112	70-130	16.0	30	
Surrogate: 1,2-Dichloroethane-d4	0.0446		"	0.0396		113	23-173			
Surrogate: Toluene-d8	0.0413		"	0.0400		103	20-170			
Surrogate: 4-Bromofluorobenzene	0.0428		"	0.0400		107	21-167			

Batch 1806416 - EPA 5030 Soil MS

Blank (1806416-BLK1)				Prepared: 06/28/18		Analyzed: 06/29/18				
Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Naphthalene	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0411		"	0.0396		104	23-173			
Surrogate: Toluene-d8	0.0406		"	0.0400		101	20-170			
Surrogate: 4-Bromofluorobenzene	0.0387		"	0.0400		96.7	21-167			

LCS (1806416-BS1)				Prepared: 06/28/18		Analyzed: 06/29/18				
Benzene	0.0854	0.0020	mg/kg	0.100		85.4	70-130			
Toluene	0.0922	0.0050	"	0.100		92.2	70-130			
Ethylbenzene	0.114	0.0050	"	0.100		114	70-130			
m,p-Xylene	0.219	0.010	"	0.200		110	70-130			
o-Xylene	0.0929	0.0050	"	0.100		92.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0398		"	0.0396		100	23-173			
Surrogate: Toluene-d8	0.0357		"	0.0400		89.3	20-170			
Surrogate: 4-Bromofluorobenzene	0.0381		"	0.0400		95.2	21-167			

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Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

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

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

Batch 1806416 - EPA 5030 Soil MS

Matrix Spike (1806416-MS1)

Source: 1806369-01

Prepared: 06/28/18 Analyzed: 06/29/18

Benzene	0.0736	0.0020	mg/kg	0.100	ND	73.6	70-130			
Toluene	0.0926	0.0050	"	0.100	ND	92.6	70-130			
Ethylbenzene	0.112	0.0050	"	0.100	ND	112	70-130			
m,p-Xylene	0.205	0.010	"	0.200	ND	102	70-130			
o-Xylene	0.104	0.0050	"	0.100	ND	104	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0392		"	0.0396		99.0	23-173			
Surrogate: Toluene-d8	0.0383		"	0.0400		95.8	20-170			
Surrogate: 4-Bromofluorobenzene	0.0368		"	0.0400		92.0	21-167			

Matrix Spike Dup (1806416-MSD1)

Source: 1806369-01

Prepared: 06/28/18 Analyzed: 06/29/18

Benzene	0.0826	0.0020	mg/kg	0.100	ND	82.6	70-130	11.5	30	
Toluene	0.0887	0.0050	"	0.100	ND	88.7	70-130	4.24	30	
Ethylbenzene	0.100	0.0050	"	0.100	ND	100	70-130	11.3	30	
m,p-Xylene	0.201	0.010	"	0.200	ND	101	70-130	1.74	30	
o-Xylene	0.0901	0.0050	"	0.100	ND	90.1	70-130	14.2	30	
Surrogate: 1,2-Dichloroethane-d4	0.0406		"	0.0396		102	23-173			
Surrogate: Toluene-d8	0.0381		"	0.0400		95.2	20-170			
Surrogate: 4-Bromofluorobenzene	0.0342		"	0.0400		85.4	21-167			

Batch 1806428 - EPA 5030 Soil MS

Blank (1806428-BLK1)

Prepared: 06/29/18 Analyzed: 06/30/18

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Naphthalene	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0422		"	0.0396		106	23-173			
Surrogate: Toluene-d8	0.0395		"	0.0400		98.8	20-170			
Surrogate: 4-Bromofluorobenzene	0.0420		"	0.0400		105	21-167			

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Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

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

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

Batch 1806428 - EPA 5030 Soil MS

LCS (1806428-BS1)

Prepared: 06/29/18 Analyzed: 06/30/18

Benzene	0.0888	0.0020	mg/kg	0.100		88.8	70-130			
Toluene	0.0968	0.0050	"	0.100		96.8	70-130			
Ethylbenzene	0.113	0.0050	"	0.100		113	70-130			
m,p-Xylene	0.214	0.010	"	0.200		107	70-130			
o-Xylene	0.0997	0.0050	"	0.100		99.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0435		"	0.0396		110	23-173			
Surrogate: Toluene-d8	0.0397		"	0.0400		99.2	20-170			
Surrogate: 4-Bromofluorobenzene	0.0399		"	0.0400		99.7	21-167			

Matrix Spike (1806428-MS1)

Source: 1806377-01

Prepared: 06/29/18 Analyzed: 06/30/18

Benzene	0.0955	0.0020	mg/kg	0.100	ND	95.5	70-130			
Toluene	0.105	0.0050	"	0.100	ND	105	70-130			
Ethylbenzene	0.121	0.0050	"	0.100	0.0593	61.2	70-130			
m,p-Xylene	0.223	0.010	"	0.200	ND	112	70-130			
o-Xylene	0.109	0.0050	"	0.100	0.0947	14.6	70-130			QM-07
Surrogate: 1,2-Dichloroethane-d4	0.0462		"	0.0396		117	23-173			
Surrogate: Toluene-d8	0.0400		"	0.0400		100	20-170			
Surrogate: 4-Bromofluorobenzene	0.0406		"	0.0400		102	21-167			

Matrix Spike Dup (1806428-MSD1)

Source: 1806377-01

Prepared: 06/29/18 Analyzed: 06/30/18

Benzene	0.0889	0.0020	mg/kg	0.100	ND	88.9	70-130	7.13	30	
Toluene	0.0974	0.0050	"	0.100	ND	97.4	70-130	7.76	30	
Ethylbenzene	0.115	0.0050	"	0.100	0.0593	55.6	70-130	4.77	30	
m,p-Xylene	0.217	0.010	"	0.200	ND	109	70-130	2.85	30	
o-Xylene	0.103	0.0050	"	0.100	0.0947	8.07	70-130	6.11	30	QM-07
Surrogate: 1,2-Dichloroethane-d4	0.0448		"	0.0396		113	23-173			
Surrogate: Toluene-d8	0.0398		"	0.0400		99.4	20-170			
Surrogate: 4-Bromofluorobenzene	0.0403		"	0.0400		101	21-167			

Summit Scientific

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Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

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

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

Batch 1807014 - EPA 5030 Soil MS

Blank (1807014-BLK1)

Prepared & Analyzed: 07/02/18

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Naphthalene	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0442		"	0.0396	112	23-173				
Surrogate: Toluene-d8	0.0399		"	0.0400	99.8	20-170				
Surrogate: 4-Bromofluorobenzene	0.0404		"	0.0400	101	21-167				

LCS (1807014-BS1)

Prepared & Analyzed: 07/02/18

Benzene	0.135	0.0020	mg/kg	0.150	89.8	70-130				
Toluene	0.134	0.0050	"	0.150	89.5	70-130				
Ethylbenzene	0.133	0.0050	"	0.150	88.4	70-130				
m,p-Xylene	0.257	0.010	"	0.300	85.8	70-130				
o-Xylene	0.137	0.0050	"	0.150	91.1	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0408		"	0.0396	103	23-173				
Surrogate: Toluene-d8	0.0398		"	0.0400	99.5	20-170				
Surrogate: 4-Bromofluorobenzene	0.0398		"	0.0400	99.5	21-167				

Matrix Spike (1807014-MS1)

Source: 1806385-01

Prepared & Analyzed: 07/02/18

Benzene	0.138	0.0020	mg/kg	0.150	ND	92.0	70-130			
Toluene	0.135	0.0050	"	0.150	ND	90.0	70-130			
Ethylbenzene	0.130	0.0050	"	0.150	ND	86.7	70-130			
m,p-Xylene	0.251	0.010	"	0.300	ND	83.7	70-130			
o-Xylene	0.132	0.0050	"	0.150	ND	88.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0412		"	0.0396	104	23-173				
Surrogate: Toluene-d8	0.0402		"	0.0400	100	20-170				
Surrogate: 4-Bromofluorobenzene	0.0397		"	0.0400	99.2	21-167				

Summit Scientific

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Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

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

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

Batch 1807014 - EPA 5030 Soil MS

Matrix Spike Dup (1807014-MSD1)				Source: 1806385-01		Prepared & Analyzed: 07/02/18				
Benzene	0.128	0.0020	mg/kg	0.150	ND	85.5	70-130	7.37	30	
Toluene	0.126	0.0050	"	0.150	ND	84.3	70-130	6.63	30	
Ethylbenzene	0.121	0.0050	"	0.150	ND	80.9	70-130	6.89	30	
m,p-Xylene	0.234	0.010	"	0.300	ND	78.0	70-130	7.08	30	
o-Xylene	0.125	0.0050	"	0.150	ND	83.6	70-130	5.54	30	
Surrogate: 1,2-Dichloroethane-d4	0.0406		"	0.0396		103	23-173			
Surrogate: Toluene-d8	0.0403		"	0.0400		101	20-170			
Surrogate: 4-Bromofluorobenzene	0.0396		"	0.0400		99.0	21-167			

Batch 1807036 - EPA 5030 Soil MS

Blank (1807036-BLK1)				Prepared & Analyzed: 07/03/18						
Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Naphthalene	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0418		"	0.0396		105	23-173			
Surrogate: Toluene-d8	0.0370		"	0.0400		92.6	20-170			
Surrogate: 4-Bromofluorobenzene	0.0402		"	0.0400		100	21-167			

LCS (1807036-BS1)				Prepared & Analyzed: 07/03/18						
Benzene	0.0830	0.0020	mg/kg	0.100		83.0	70-130			
Toluene	0.0920	0.0050	"	0.100		92.0	70-130			
Ethylbenzene	0.104	0.0050	"	0.100		104	70-130			
m,p-Xylene	0.194	0.010	"	0.200		96.9	70-130			
o-Xylene	0.0915	0.0050	"	0.100		91.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0390		"	0.0396		98.5	23-173			
Surrogate: Toluene-d8	0.0383		"	0.0400		95.8	20-170			
Surrogate: 4-Bromofluorobenzene	0.0393		"	0.0400		98.2	21-167			

Summit Scientific

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Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

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

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

Batch 1807036 - EPA 5030 Soil MS

Matrix Spike (1807036-MS1)

Source: 1807017-01

Prepared & Analyzed: 07/03/18

Benzene	0.0908	0.0020	mg/kg	0.100	ND	90.8	70-130		
Toluene	0.0715	0.0050	"	0.100	ND	71.5	70-130		
Ethylbenzene	0.105	0.0050	"	0.100	ND	105	70-130		
m,p-Xylene	0.195	0.010	"	0.200	ND	97.4	70-130		
o-Xylene	0.0969	0.0050	"	0.100	ND	96.9	70-130		
Surrogate: 1,2-Dichloroethane-d4	0.0436		"	0.0396		110	23-173		
Surrogate: Toluene-d8	0.0303		"	0.0400		75.7	20-170		
Surrogate: 4-Bromofluorobenzene	0.0378		"	0.0400		94.4	21-167		

Matrix Spike Dup (1807036-MSD1)

Source: 1807017-01

Prepared & Analyzed: 07/03/18

Benzene	0.0848	0.0020	mg/kg	0.100	ND	84.8	70-130	6.84	30
Toluene	0.0767	0.0050	"	0.100	ND	76.7	70-130	7.09	30
Ethylbenzene	0.107	0.0050	"	0.100	ND	107	70-130	2.63	30
m,p-Xylene	0.198	0.010	"	0.200	ND	98.8	70-130	1.41	30
o-Xylene	0.0986	0.0050	"	0.100	ND	98.6	70-130	1.75	30
Surrogate: 1,2-Dichloroethane-d4	0.0405		"	0.0396		102	23-173		
Surrogate: Toluene-d8	0.0326		"	0.0400		81.4	20-170		
Surrogate: 4-Bromofluorobenzene	0.0393		"	0.0400		98.3	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 St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 1805222 - EPA 3550A

Blank (1805222-BLK1)

Prepared: 05/18/18 Analyzed: 05/20/18

C10-C28 (DRO) ND 50 mg/kg

LCS (1805222-BS1)

Prepared: 05/18/18 Analyzed: 05/20/18

C10-C28 (DRO) 435 50 mg/kg 500 87.0 70-130

Matrix Spike (1805222-MS1)

Source: 1805216-01

Prepared: 05/18/18 Analyzed: 05/20/18

C10-C28 (DRO) 425 50 mg/kg 500 25.9 79.8 70-130

Matrix Spike Dup (1805222-MSD1)

Source: 1805216-01

Prepared: 05/18/18 Analyzed: 05/20/18

C10-C28 (DRO) 400 50 mg/kg 500 25.9 74.9 70-130 6.03 20

Batch 1805344 - EPA 3550A

Blank (1805344-BLK1)

Prepared: 05/30/18 Analyzed: 05/31/18

C10-C28 (DRO) ND 50 mg/kg

LCS (1805344-BS1)

Prepared: 05/30/18 Analyzed: 05/31/18

C10-C28 (DRO) 552 50 mg/kg 500 110 70-130

Matrix Spike (1805344-MS1)

Source: 1805225-11

Prepared: 05/30/18 Analyzed: 05/31/18

C10-C28 (DRO) 528 50 mg/kg 500 41.3 97.3 70-130

Matrix Spike Dup (1805344-MSD1)

Source: 1805225-11

Prepared: 05/30/18 Analyzed: 05/31/18

C10-C28 (DRO) 547 50 mg/kg 500 41.3 101 70-130 3.70 20

Batch 1806275 - EPA 3550A

Blank (1806275-BLK1)

Prepared & Analyzed: 06/19/18

C10-C28 (DRO) ND 50 mg/kg

Summit Scientific

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Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 1806275 - EPA 3550A

LCS (1806275-BS1)

Prepared & Analyzed: 06/19/18

C10-C28 (DRO)	502	50	mg/kg	500	100	70-130
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Matrix Spike (1806275-MS1)

Source: 1806222-01

Prepared & Analyzed: 06/19/18

C10-C28 (DRO)	501	50	mg/kg	500	28.0	94.7	70-130
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Matrix Spike Dup (1806275-MSD1)

Source: 1806222-01

Prepared & Analyzed: 06/19/18

C10-C28 (DRO)	530	50	mg/kg	500	28.0	100	70-130	5.52	20
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Batch 1806286 - EPA 3550A

Blank (1806286-BLK1)

Prepared & Analyzed: 06/19/18

C10-C28 (DRO)	ND	50	mg/kg
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LCS (1806286-BS1)

Prepared & Analyzed: 06/19/18

C10-C28 (DRO)	517	50	mg/kg	500	103	70-130
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Matrix Spike (1806286-MS1)

Source: 1806247-01

Prepared & Analyzed: 06/19/18

C10-C28 (DRO)	530	50	mg/kg	500	27.8	100	70-130
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Matrix Spike Dup (1806286-MSD1)

Source: 1806247-01

Prepared & Analyzed: 06/19/18

C10-C28 (DRO)	513	50	mg/kg	500	27.8	97.1	70-130	3.23	20
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Batch 1806315 - EPA 3550A

Blank (1806315-BLK1)

Prepared & Analyzed: 06/20/18

C10-C28 (DRO)	ND	50	mg/kg
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Summit Scientific

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Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 1806315 - EPA 3550A

LCS (1806315-BS1)

Prepared & Analyzed: 06/20/18

C10-C28 (DRO)	502	50	mg/kg	500	100	70-130
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Matrix Spike (1806315-MS1)

Source: 1806257-02

Prepared & Analyzed: 06/20/18

C10-C28 (DRO)	563	50	mg/kg	500	16.4	109	70-130
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Matrix Spike Dup (1806315-MSD1)

Source: 1806257-02

Prepared & Analyzed: 06/20/18

C10-C28 (DRO)	519	50	mg/kg	500	16.4	101	70-130	8.08	20
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Batch 1806323 - EPA 3550A

Blank (1806323-BLK1)

Prepared & Analyzed: 06/21/18

C10-C28 (DRO)	ND	50	mg/kg
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LCS (1806323-BS1)

Prepared & Analyzed: 06/21/18

C10-C28 (DRO)	564	50	mg/kg	500	113	70-130
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Matrix Spike (1806323-MS1)

Source: 1806283-01

Prepared & Analyzed: 06/21/18

C10-C28 (DRO)	514	50	mg/kg	500	16.2	99.5	70-130
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Matrix Spike Dup (1806323-MSD1)

Source: 1806283-01

Prepared & Analyzed: 06/21/18

C10-C28 (DRO)	498	50	mg/kg	500	16.2	96.4	70-130	3.08	20
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Batch 1806341 - EPA 3550A

Blank (1806341-BLK1)

Prepared: 06/22/18 Analyzed: 06/23/18

C10-C28 (DRO)	ND	50	mg/kg
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Summit Scientific

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Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 1806341 - EPA 3550A

LCS (1806341-BS1)

Prepared: 06/22/18 Analyzed: 06/23/18

C10-C28 (DRO)	573	50	mg/kg	500	115	70-130
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Matrix Spike (1806341-MS1)

Source: 1806296-01

Prepared: 06/22/18 Analyzed: 06/23/18

C10-C28 (DRO)	554	50	mg/kg	500	19.3	107	70-130
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Matrix Spike Dup (1806341-MSD1)

Source: 1806296-01

Prepared: 06/22/18 Analyzed: 06/23/18

C10-C28 (DRO)	604	50	mg/kg	500	19.3	117	70-130	8.54	20
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Batch 1806369 - EPA 3550A

Blank (1806369-BLK1)

Prepared & Analyzed: 06/25/18

C10-C28 (DRO)	ND	50	mg/kg
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LCS (1806369-BS1)

Prepared & Analyzed: 06/25/18

C10-C28 (DRO)	627	50	mg/kg	500	125	70-130
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Matrix Spike (1806369-MS1)

Source: 1806309-04

Prepared & Analyzed: 06/25/18

C10-C28 (DRO)	709	50	mg/kg	500	96.5	123	70-130
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Matrix Spike Dup (1806369-MSD1)

Source: 1806309-04

Prepared & Analyzed: 06/25/18

C10-C28 (DRO)	711	50	mg/kg	500	96.5	123	70-130	0.233	20
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Batch 1806376 - EPA 3550A

Blank (1806376-BLK1)

Prepared & Analyzed: 06/26/18

C10-C28 (DRO)	ND	50	mg/kg
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Summit Scientific

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Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 1806376 - EPA 3550A

LCS (1806376-BS1)

Prepared & Analyzed: 06/26/18

C10-C28 (DRO)	641	50	mg/kg	500	128	70-130
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Matrix Spike (1806376-MS1)

Source: 1806327-01

Prepared & Analyzed: 06/26/18

C10-C28 (DRO)	664	50	mg/kg	500	14.4	130	70-130
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Matrix Spike Dup (1806376-MSD1)

Source: 1806327-01

Prepared & Analyzed: 06/26/18

C10-C28 (DRO)	661	50	mg/kg	500	14.4	129	70-130	0.421	20
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Batch 1806394 - EPA 3550A

Blank (1806394-BLK1)

Prepared: 06/27/18 Analyzed: 06/28/18

C10-C28 (DRO)	ND	50	mg/kg
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LCS (1806394-BS1)

Prepared: 06/27/18 Analyzed: 06/28/18

C10-C28 (DRO)	525	50	mg/kg	500	105	70-130
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Matrix Spike (1806394-MS1)

Source: 1806338-01

Prepared: 06/27/18 Analyzed: 06/28/18

C10-C28 (DRO)	528	50	mg/kg	500	16.1	106	70-130
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Matrix Spike Dup (1806394-MSD1)

Source: 1806338-01

Prepared & Analyzed: 06/27/18

C10-C28 (DRO)	561	50	mg/kg	500	16.1	112	70-130	5.96	20
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Batch 1806417 - EPA 3550A

Blank (1806417-BLK1)

Prepared: 06/28/18 Analyzed: 06/29/18

C10-C28 (DRO)	ND	50	mg/kg
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Summit Scientific

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Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 1806417 - EPA 3550A

LCS (1806417-BS1)

Prepared: 06/28/18 Analyzed: 06/29/18

C10-C28 (DRO)	595	50	mg/kg	500	119	70-130
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Matrix Spike (1806417-MS1)

Source: 1806369-01

Prepared: 06/28/18 Analyzed: 06/29/18

C10-C28 (DRO)	570	50	mg/kg	500	24.2	114	70-130
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Matrix Spike Dup (1806417-MSD1)

Source: 1806369-01

Prepared: 06/28/18 Analyzed: 06/29/18

C10-C28 (DRO)	602	50	mg/kg	500	24.2	120	70-130	5.50	20
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Batch 1806429 - EPA 5030 Soil MS

Blank (1806429-BLK1)

Prepared: 06/29/18 Analyzed: 06/30/18

C10-C28 (DRO)	ND	50	mg/kg
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LCS (1806429-BS1)

Prepared: 06/29/18 Analyzed: 06/30/18

C10-C28 (DRO)	547	50	mg/kg	500	109	70-130
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Matrix Spike (1806429-MS1)

Source: 1806378-01

Prepared: 06/29/18 Analyzed: 06/30/18

C10-C28 (DRO)	551	50	mg/kg	500	ND	110	70-130
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Matrix Spike Dup (1806429-MSD1)

Source: 1806378-01

Prepared: 06/29/18 Analyzed: 06/30/18

C10-C28 (DRO)	553	50	mg/kg	500	ND	111	70-130	0.374	20
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Batch 1807013 - EPA 5030 Soil MS

Blank (1807013-BLK1)

Prepared: 07/02/18 Analyzed: 07/03/18

C10-C28 (DRO)	ND	50	mg/kg
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Summit Scientific

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Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 1807013 - EPA 5030 Soil MS

LCS (1807013-BS1)

Prepared: 07/02/18 Analyzed: 07/03/18

C10-C28 (DRO)	498	50	mg/kg	500	99.6	70-130
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Matrix Spike (1807013-MS1)

Source: 1806385-01

Prepared: 07/02/18 Analyzed: 07/03/18

C10-C28 (DRO)	492	50	mg/kg	500	20.9	98.4	70-130
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Matrix Spike Dup (1807013-MSD1)

Source: 1806385-01

Prepared: 07/02/18 Analyzed: 07/03/18

C10-C28 (DRO)	498	50	mg/kg	500	20.9	99.6	70-130	1.12	20
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Batch 1807037 - EPA 3550A

Blank (1807037-BLK1)

Prepared & Analyzed: 07/03/18

C10-C28 (DRO)	ND	50	mg/kg
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LCS (1807037-BS1)

Prepared & Analyzed: 07/03/18

C10-C28 (DRO)	466	50	mg/kg	500	93.2	70-130
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Matrix Spike (1807037-MS1)

Source: 1807017-01

Prepared & Analyzed: 07/03/18

C10-C28 (DRO)	485	50	mg/kg	500	20.5	97.0	70-130
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Matrix Spike Dup (1807037-MSD1)

Source: 1807017-01

Prepared & Analyzed: 07/03/18

C10-C28 (DRO)	487	50	mg/kg	500	20.5	97.4	70-130	0.539	20
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Summit Scientific

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Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/01/18 07:45

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

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

Batch 1805287 - General Preparation

Blank (1805287-BLK1)

Prepared: 05/23/18 Analyzed: 05/24/18

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

LCS (1805287-BS1)

Prepared: 05/23/18 Analyzed: 05/24/18

Calcium	417	10.0	mg/kg wet	500	83.4	70-130
Magnesium	441	5.00	"	500	88.2	70-130
Sodium	443	5.00	"	500	88.5	70-130

Duplicate (1805287-DUP1)

Source: 1805225-01

Prepared: 05/23/18 Analyzed: 05/24/18

Calcium	1580	11.5	mg/kg dry	1480	7.00	20
Magnesium	180	5.73	"	175	3.03	20
Sodium	42.0	5.73	"	40.6	3.22	20

Matrix Spike (1805287-MS1)

Source: 1805225-01

Prepared: 05/23/18 Analyzed: 05/24/18

Calcium	1980	11.5	mg/kg dry	573	1480	87.5	70-130
Magnesium	644	5.73	"	573	175	81.8	70-130
Sodium	515	5.73	"	573	40.6	82.7	70-130

Matrix Spike Dup (1805287-MSD1)

Source: 1805225-01

Prepared: 05/23/18 Analyzed: 05/24/18

Calcium	2120	11.5	mg/kg dry	573	1480	113	70-130	7.04	25
Magnesium	798	5.73	"	573	175	109	70-130	21.4	25
Sodium	628	5.73	"	573	40.6	102	70-130	19.8	25

Summit Scientific

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Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control
Summit Scientific

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

Batch 1805245 - General Preparation

Duplicate (1805245-DUP1) **Source: 1805220-01** Prepared: 05/21/18 Analyzed: 05/22/18

% Solids	86.1		%		89.0			3.28	20	
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Batch 1805271 - General Preparation

Duplicate (1805271-DUP1) **Source: 1805227-02** Prepared: 05/22/18 Analyzed: 05/24/18

pH	8.8		pH Units		9.0			2.58	20	
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Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

Specific Conductance by EPA Method 120.1 - Quality Control
Summit Scientific

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

Batch 1805272 - General Preparation

Duplicate (1805272-DUP1)

Source: 1805225-01

Prepared: 05/22/18 Analyzed: 05/24/18

Specific Conductance (EC)	0.387	0.0100	mmhos/cm	0.444	13.8	20
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Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Noble Beebe Draw RG 26-9, 23 May to July 2018 Field Samples

Memo to File: Re field sample id changes. Samples collected June 2018 - July 2018 were mis-numbered in the field sample ID by 12, due to the May 2018 sample ids not taken into consideration when June sample ID numbering began. Field Sample IDs were modified to correct numbering, then modified to correct. A cross-reference list is presented below.

Memo by Linda Spry O'Rourke 7/31/2018

COC Field Sample ID	Lab Sample ID	Revised Field Sample ID per July 6, 2018 email to lab	Revised Field Sample ID in Combined Report
SS01@3'	1805225-01	same as COC	SS01@3'
SS06@10'	1805225-02	same as COC	SS06@10'
SS07@9'	1805225-03	same as COC	SS07@9'
SS08@9'	1805225-04	same as COC	SS08@9'
SS09@9	1805225-05	same as COC	SS09@9
SS10@9'	1805225-06	same as COC	SS10@9'
SS11@8'	1805225-11	same as COC	SS11@8'
SS12@8'	1805225-12	same as COC	SS12@8'
SS01@10'	1806222-01	SS13@10'	SS013@10'
SS02@10'	1806222-02	SS14@10'	SS014@10'
SS03@12'	1806222-03	SS15@12'	SS015@12'
SS04@10'	1806222-04	SS16@10'	SS016@10'
CS01	1806222-05	same as COC	CS01
SS05@20'	1806247-01	SS17@20'	SS17@20'
SS06@19'	1806247-02	SS18@19'	SS18@19'
	1806247-03	same as COC	CS02
SS08@20'	1806257-01	SS20@20'	SS20@20'
SS10@10'	1806257-02	SS22@10'	SS22@10'
SS11@10'	1806257-03	SS23@10'	SS23@10'
SS12@19'	1806257-04	SS24@19'	SS24@19'
SS13@19'	1806257-05	SS25@19'	SS25@19'
SS14@10'	1806257-06	SS26@10'	SS26@10'
SS15@20'	1806257-07	SS27@20'	SS27@20'
SS16@20'	1806257-08	SS28@20'	SS28@20'
SS17@20'	1806257-09	SS29@20'	SS29@20'
SS18@19'	1806257-10	SS30@19'	SS30@19'
SS19@10'	1806257-11	SS31@10'	SS31@10'
SS20@10'	1806283-01	SS32@10'	SS32@10'
SS20@15'	1806283-02	SS32@15'	SS32@15'
SS21@10'	1806283-03	SS33@10'	SS33@10'
SS21@15'	1806283-04	SS33@15'	SS33@15'
SS22@10'	1806283-05	SS34@10'	SS34@10'
SS22@15'	1806283-06	SS34@15'	SS34@15'
SS23@15'	1806283-07	SS35@15'	SS35@15'
SS24@10;	1806283-08	SS36@10'	SS36@10'

SS24@15'	1806283-09	SS36@15'	SS36@15'
SS25@19'	1806283-10	SS37@19'	SS37@19'
SS25@10'	1806283-11	SS37@10'	SS37@10'
SS26@19'	1806283-12	SS38@19'	SS38@19'
SS27@19'	1806296-01	SS39@19'	SS39@19'
SS28@19'	1806296-02	SS40@19'	SS40@19'
SS29@20'	1806296-03	SS41@20'	SS41@20'
SS30@20'	1806296-04	SS42@20'	SS42@20'
SS32@20'	1806296-05	SS44@20'	SS44@20'
SS33@20'	1806296-06	SS45@20'	SS45@20'
SS34@20'	1806309-01	SS46@20'	SS46@20'
SS37@19'	1806309-02	SS49@19'	SS49@19'
SS38@10'	1806309-03	SS50@10'	SS50@10'
SS38@15'	1806309-04	SS50@15'	SS50@15'
SS39@10'	1806309-05	SS51@10'	SS51@10'
SS39@15'	1806309-06	SS51@15'	SS51@15'
CS04	1806327-01	same as COC	CS04
CS05	1806327-02	same as COC	CS05
CS06	1806327-03	same as COC	CS06
CS07	1806327-04	same as COC	CS07
SS40@20'	1806338-01	SS52@20'	SS52@20'
SS41@10'	1806338-02	SS53@10'	SS53@10'
SS42@10'	1806338-03	SS54@10'	SS54@10'
SS43@19'	1806338-04	SS55@19'	SS55@19'
SS44@19'	1806338-05	SS56@19'	SS56@19'
SS45@10'	1806338-06	SS57@10'	SS57@10'
SS45@19'	1806338-07	SS57@19'	SS57@19'
BS01	1806338-08	same as COC	BS01
SS46@20'	1806369-01	SS58@20'	SS58@20'
SS47@10'	1806369-02	SS59@10'	SS59@10'
SS47@19'	1806369-03	SS59@19'	SS59@19'
SS48@10'	1806369-04	SS60@10'	SS50@10'
SS48@19'	1806369-05	SS60@19'	SS50@19'
SS49@19'	1806378-01	SS61@19'	SS61@19'
SS50@20'	1806378-02	SS62@20'	SS62@20'
SS51@20'	1806378-03	SS63@20'	SS63@20'
SS52@20'	1806378-04	SS64@20'	SS64@20'
SS53@20'	1806378-05	SS65@20'	SS65@20'
SS55@10'	1807007-01	SS67@10'	SS67@10'
SS55@19'	1807007-02	SS67@19'	SS67@19'
SS56@20'	1807007-03	SS68@20'	SS68@20'
SS57@19'	1807027-01	SS69@19'	SS69@19'
SS57@10'	1807027-02	SS69@10'	SS69@10'

errors.



Tasman Geosciences
6899 Pecos St, Unit C
Denver CO, 80221

Project: Noble - Beebe Draw RG 26-9,23

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/01/18 07:45

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-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
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