

THIRD QUARTER 2020 SITE MONITORING DATA

DUNCAN D20-12, 20-13

COGCC SPILL TRACKING # 459804
COGCC REMEDIATION # 12461

Prepared for:



2115 117th Avenue
Greeley, CO 80631

Prepared by:



6855 West 119th Avenue
Broomfield, Colorado 80020

TABLE 1
GROUNDWATER ELEVATION DATA
NOBLE ENERGY, INC. - DUNCAN D20-12, 20-13

| Monitoring Well ID | Date | Top of Casing Elevation (ft. AMSL) | Total Depth (ft. BTOC) | Depth to Water (ft.) ⁽¹⁾ | Depth to LNAPL (ft.) ⁽¹⁾ | LNAPL Thickness (ft.) | Groundwater Elevation* (ft. AMSL) |
|---------------------------|-------------|---|-------------------------------|--|--|------------------------------|--|
| BH01 | 08/23/19 | 4772.46 | 21.77 | 5.32 | ND | ND | 4765.17 |
| BH01 | 11/15/19 | 4772.46 | 21.68 | 5.73 | ND | ND | 4764.76 |
| BH01 | 02/05/20 | 4772.46 | 21.47 | 5.38 | ND | ND | 4765.11 |
| BH01 | 05/04/20 | 4772.46 | 21.21 | 3.15 | ND | ND | 4767.34 |
| BH01 | 08/05/20 | 4772.46 | 21.14 | 5.84 | ND | ND | 4764.65 |
| BH02 | 08/23/19 | 4773.47 | 17.30 | 5.47 | ND | ND | 4765.14 |
| BH02 | 11/15/19 | 4773.47 | 17.23 | 5.89 | ND | ND | 4764.72 |
| BH02 | 02/05/20 | 4773.47 | 17.20 | 5.58 | ND | ND | 4765.03 |
| BH02 | 05/04/20 | 4773.47 | 17.17 | 3.33 | ND | ND | 4767.28 |
| BH02 | 08/05/20 | 4773.47 | 17.16 | 6.05 | ND | ND | 4764.56 |
| BH03 | 08/23/19 | 4770.68 | 14.10 | 5.83 | ND | ND | 4765.26 |
| BH03 | 11/15/19 | 4770.68 | 13.92 | 6.27 | ND | ND | 4764.82 |
| BH03 | 02/05/20 | 4770.68 | 13.94 | 5.94 | ND | ND | 4765.15 |
| BH03 | 05/04/20 | 4770.68 | 13.87 | 3.67 | ND | ND | 4767.42 |
| BH03 | 08/05/20 | 4770.68 | 13.74 | 6.38 | ND | ND | 4764.71 |
| BH04 | 08/23/19 | 4773.76 | 20.74 | 5.62 | ND | ND | 4765.20 |
| BH04 | 11/15/19 | 4773.76 | 19.76 | 6.02 | ND | ND | 4764.80 |
| BH04 | 02/05/20 | 4773.76 | 20.42 | 5.69 | ND | ND | 4765.13 |
| BH04 | 05/04/20 | 4773.76 | 19.72 | 3.44 | ND | ND | 4767.38 |
| BH04 | 08/05/20 | 4773.76 | 19.75 | 6.21 | ND | ND | 4764.61 |
| BH05 | 08/23/19 | 4772.36 | 20.15 | 5.56 | ND | ND | 4765.12 |
| BH05 | 11/15/19 | 4772.36 | 19.69 | 5.93 | ND | ND | 4764.75 |
| BH05 | 02/05/20 | 4772.36 | 19.40 | 5.61 | ND | ND | 4765.07 |
| BH05 | 05/04/20 | 4772.36 | 19.23 | 3.36 | ND | ND | 4767.32 |
| BH05 | 08/05/20 | 4772.36 | 19.05 | 6.07 | ND | ND | 4764.61 |
| BH06 | 08/23/19 | 4772.64 | 16.63 | 5.53 | ND | ND | 4765.18 |
| BH06 | 11/15/19 | 4772.64 | 16.59 | 5.90 | ND | ND | 4764.81 |
| BH06 | 02/05/20 | 4772.64 | 16.52 | 5.55 | ND | ND | 4765.16 |
| BH06 | 05/04/20 | 4772.64 | 16.60 | 3.32 | ND | ND | 4767.39 |
| BH06 | 08/05/20 | 4772.64 | 16.58 | 6.07 | ND | ND | 4764.64 |
| BH07 | 02/05/20 | 4772.12 | 16.01 | 5.03 | ND | ND | 4765.00 |
| BH07 | 05/04/20 | 4772.12 | 16.09 | 2.77 | ND | ND | 4767.26 |
| BH07 | 08/05/20 | 4772.12 | 16.08 | 5.53 | ND | ND | 4764.50 |
| BH08 | 02/05/20 | 4770.79 | 12.65 | 6.00 | ND | ND | 4764.86 |
| BH08 | 05/04/20 | 4770.79 | 12.66 | 3.78 | ND | ND | 4767.08 |
| BH08 | 08/05/20 | 4770.79 | 12.60 | 6.48 | ND | ND | 4764.38 |

TABLE 1
GROUNDWATER ELEVATION DATA
NOBLE ENERGY, INC. - DUNCAN D20-12, 20-13

| Monitoring Well ID | Date | Top of Casing Elevation (ft. AMSL) | Total Depth (ft. BTOC) | Depth to Water (ft.) ⁽¹⁾ | Depth to LNAPL (ft.) ⁽¹⁾ | LNAPL Thickness (ft.) | Groundwater Elevation* (ft. AMSL) |
|--------------------|------|------------------------------------|------------------------|-------------------------------------|-------------------------------------|-----------------------|-----------------------------------|
|--------------------|------|------------------------------------|------------------------|-------------------------------------|-------------------------------------|-----------------------|-----------------------------------|

Notes:

BTOC = Below top of casing

ft. = Feet

ND = No LNAPL detected

AMSL = Above mean sea level

LNAPL = Light non-aqueous phase liquid

1) Depth to water measurements collected prior to third quarter 2019 were measured from top of well casing. Subsequent measurements were collected from top of casing and adjusted using survey data to reflect depth of water from ground surface.

* Groundwater elevation was corrected for product thickness (when present) using the following calculation:

Groundwater elevation = (TOC Elevation - Measured Depth to Water)+(LNAPL Thickness in Well x LNAPL Relative Density)

LNAPL relative density was estimated to be approximately 0.75

TABLE 2
GROUNDWATER ANALYTICAL DATA
NOBLE ENERGY, INC. - DUNCAN D20-12, 20-13

| Monitoring Well ID | Date | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Total Xylenes (µg/L) |
|-----------------------|----------|----------------|----------------|---------------------|----------------------|
| COGCC Standard | | 5 | 560 | 700 | 1,400 |
| GW01 | 12/10/18 | 970 | 3.2 | 560 | 3,800 |
| BH01 | 08/23/19 | 440 | <1.0 | 490 | 1,400 |
| BH01 | 11/15/19 | 840 | <1.0 | 420 | 1,200 |
| BH01 | 02/05/20 | <1.0 | <1.0 | <1.0 | <2.0 |
| BH01 | 05/04/20 | 1,100 | <1.0 | 200 | 1,400 |
| BH01 | 08/05/20 | 850 | <1.0 | 800 | 1,700 |
| BH02 | 08/23/19 | <1.0 | <1.0 | <1.0 | <2.0 |
| BH02 | 11/15/19 | <1.0 | <1.0 | <1.0 | <2.0 |
| BH02 | 02/05/20 | <1.0 | <1.0 | <1.0 | <2.0 |
| BH02 | 05/04/20 | <1.0 | <1.0 | <1.0 | <2.0 |
| BH02 | 08/05/20 | <1.0 | <1.0 | <1.0 | <2.0 |
| BH03 | 08/23/19 | <1.0 | <1.0 | <1.0 | <2.0 |
| BH03 | 11/15/19 | <1.0 | <1.0 | <1.0 | <2.0 |
| BH03 | 02/05/20 | <1.0 | <1.0 | <1.0 | <2.0 |
| BH03 | 05/04/20 | <1.0 | <1.0 | <1.0 | <2.0 |
| BH03 | 08/05/20 | <1.0 | <1.0 | <1.0 | <2.0 |
| BH04 | 08/23/19 | <1.0 | <1.0 | <1.0 | <2.0 |
| BH04 | 11/15/19 | <1.0 | <1.0 | <1.0 | <2.0 |
| BH04 | 02/05/20 | <1.0 | <1.0 | 25 | 79 |
| BH04 | 05/04/20 | 1.1 | <1.0 | 5.9 | 14 |
| BH04 | 08/05/20 | 1.2 | <1.0 | 14 | 50 |
| BH05 | 08/23/19 | 340 | <1.0 | 500 | 1,700 |
| BH05 | 11/15/19 | 530 | <1.0 | 490 | 1,600 |
| BH05 | 02/05/20 | 240 | <1.0 | 450 | 1,100 |
| BH05 | 05/04/20 | 380 | <1.0 | 190 | 480 |
| BH05 | 08/05/20 | 610 | <1.0 | 740 | 1,900 |
| BH06 | 08/23/19 | <1.0 | <1.0 | <1.0 | <2.0 |
| BH06 | 11/15/19 | <1.0 | <1.0 | <1.0 | <2.0 |
| BH06 | 02/05/20 | <1.0 | <1.0 | <1.0 | <2.0 |
| BH06 | 05/04/20 | <1.0 | <1.0 | <1.0 | <2.0 |
| BH06 | 08/05/20 | <1.0 | <1.0 | <1.0 | <2.0 |
| BH07 | 02/05/20 | <1.0 | <1.0 | <1.0 | <2.0 |
| BH07 | 05/04/20 | <1.0 | <1.0 | <1.0 | <2.0 |
| BH07 | 08/05/20 | <1.0 | <1.0 | <1.0 | <2.0 |
| BH08 | 02/05/20 | <1.0 | <1.0 | <1.0 | 2.5 |
| BH08 | 05/04/20 | <1.0 | <1.0 | <1.0 | <2.0 |
| BH08 | 08/05/20 | <1.0 | <1.0 | <1.0 | <2.0 |

Notes:

µg/L = Micrograms per liter

COGCC = Colorado Oil and Gas Conservation Commission

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

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

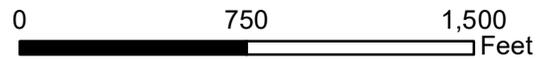
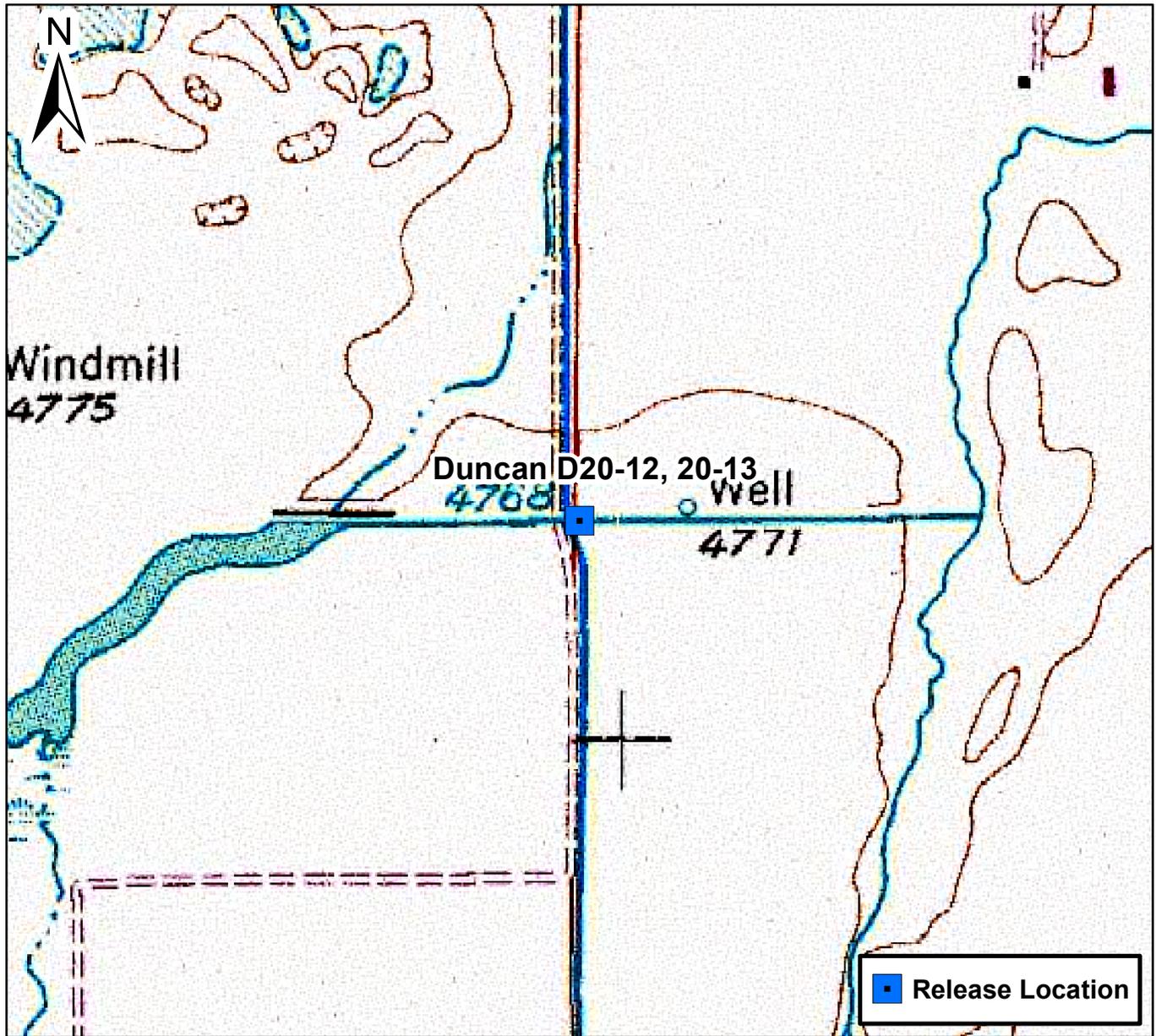


Figure 1

Site Location Map
 Duncan D20-12, 20-13
 NWSW S20 T3N R64W
 Weld County, Colorado





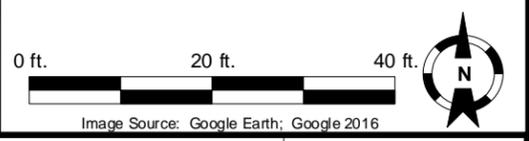
Legend

- - - Excavation Extent – June 2019
(Collected via Trimble GPS)
- - - Excavation Extent – Dec. 2018
(Collected via Trimble GPS)
- - - DCP Line
(Collected via Trimble GPS)
- Overhead Power Line
(Collected via Trimble GPS)
- + + + Property Fence
(Collected via Trimble GPS)
- X Release Location
- Monitoring Well Location
(Collected via Trimble GPS)

Notes

- 1) All locations are approximate unless otherwise noted
- 2) Site infrastructure has been removed, shown for illustrative purposes only.

GPS – Global Positioning System



| | |
|--------------|------------|
| DATE: | 02/28/2020 |
| DESIGNED BY: | JW |
| DRAWN BY: | KC |



TASMAN
GEOSCIENCES

Tasman Geosciences, Inc.
6855 W. 119th Avenue
Broomfield, CO 80020

Noble Energy, Inc. – DJ Basin
Duncan D20-12, 20-13
 NWSW, Section 20, Township 3 North, Range 64 West
 Weld County, Colorado

Site Overview Map

FIGURE
2



Legend

- X Release Location
- ◆ Monitoring Well Location (Collected via Trimble GPS)
- - - Excavation Extent – June 2019 (Collected via Trimble GPS)
- - - Excavation Extent – Dec. 2018 (Collected via Trimble GPS)
- - - DCP Line (Collected via Trimble GPS)
- Overhead Power Line (Collected via Trimble GPS)
- Property Fence (Collected via Trimble GPS)
- Groundwater Elevation Contour (Dashed Where Inferred)
- 4818.39 Measured Groundwater Elevation—ft. amsl
- Approximate Groundwater Flow Direction

Notes

- 1) All locations are approximate unless otherwise noted
- 2) Site infrastructure has been removed, shown for illustrative purposes only.
- 3) Underground utilities are spatially projected

GPS – Global Positioning System
ft. amsl – feet above mean sea level

0 ft. 20 ft. 40 ft. N

Image Source: Google Earth; Google 2016

| | |
|--------------|------------|
| DATE: | 09/22/2020 |
| DESIGNED BY: | JW |
| DRAWN BY: | TC |

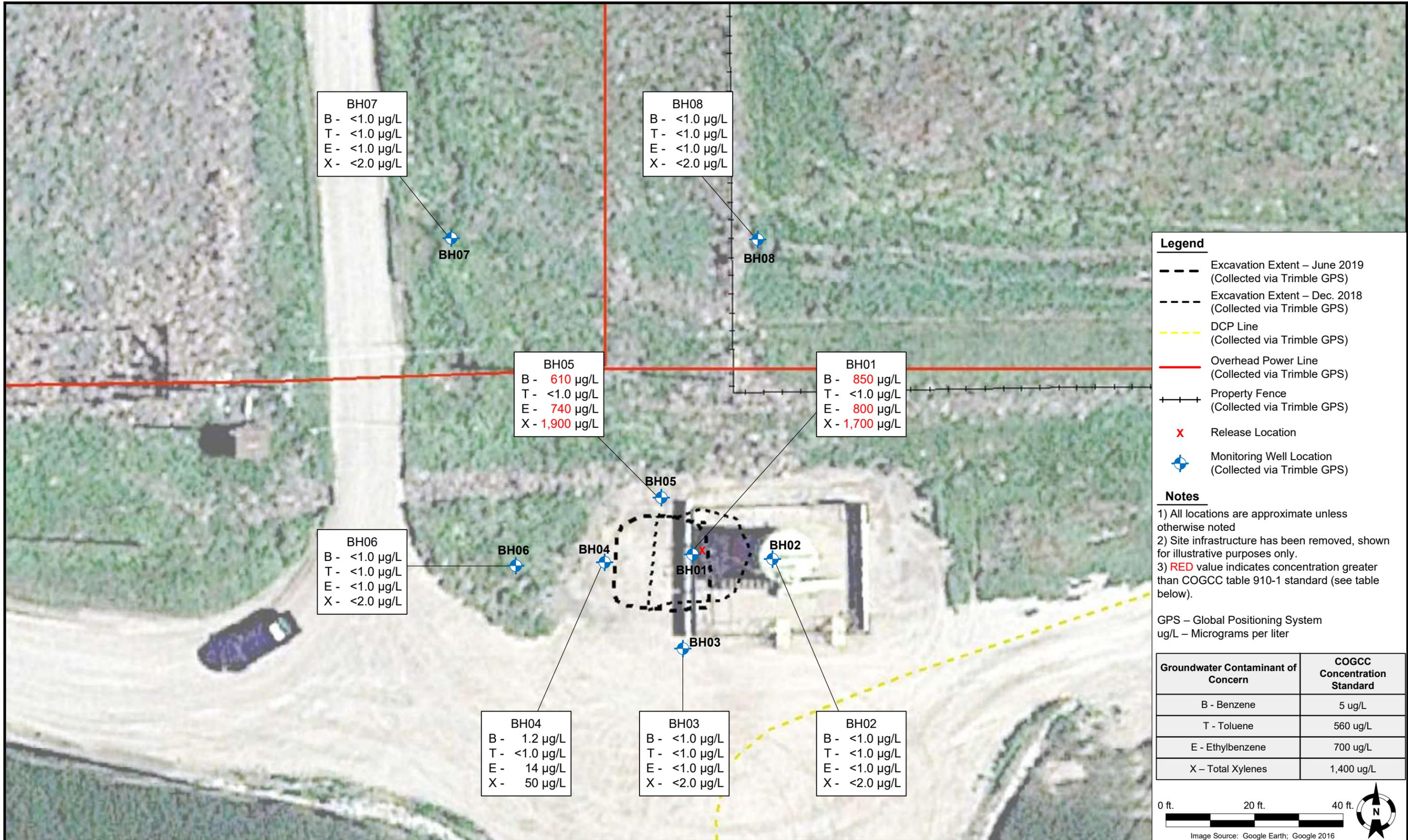
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GEOSCIENCES

Tasman Geosciences, Inc.
6855 W. 119th Avenue
Broomfield, CO 80020

Noble Energy, Inc. – DJ Basin
Duncan D20-12, 20-13
NWSW, Section 20, Township 3 North, Range 64 West
Weld County, Colorado

Groundwater Potentiometric
Surface/ Contour Figure
(08/05/2020)

FIGURE
3



Legend

- Excavation Extent – June 2019 (Collected via Trimble GPS)
- Excavation Extent – Dec. 2018 (Collected via Trimble GPS)
- DCP Line (Collected via Trimble GPS)
- Overhead Power Line (Collected via Trimble GPS)
- Property Fence (Collected via Trimble GPS)
- X Release Location
- Monitoring Well Location (Collected via Trimble GPS)

Notes

- 1) All locations are approximate unless otherwise noted
- 2) Site infrastructure has been removed, shown for illustrative purposes only.
- 3) RED value indicates concentration greater than COGCC table 910-1 standard (see table below).

GPS – Global Positioning System
ug/L – Micrograms per liter

| Groundwater Contaminant of Concern | COGCC Concentration Standard |
|------------------------------------|------------------------------|
| B - Benzene | 5 ug/L |
| T - Toluene | 560 ug/L |
| E - Ethylbenzene | 700 ug/L |
| X – Total Xylenes | 1,400 ug/L |



DATE: 9/4/2020

DESIGNED BY: JW

DRAWN BY: MG

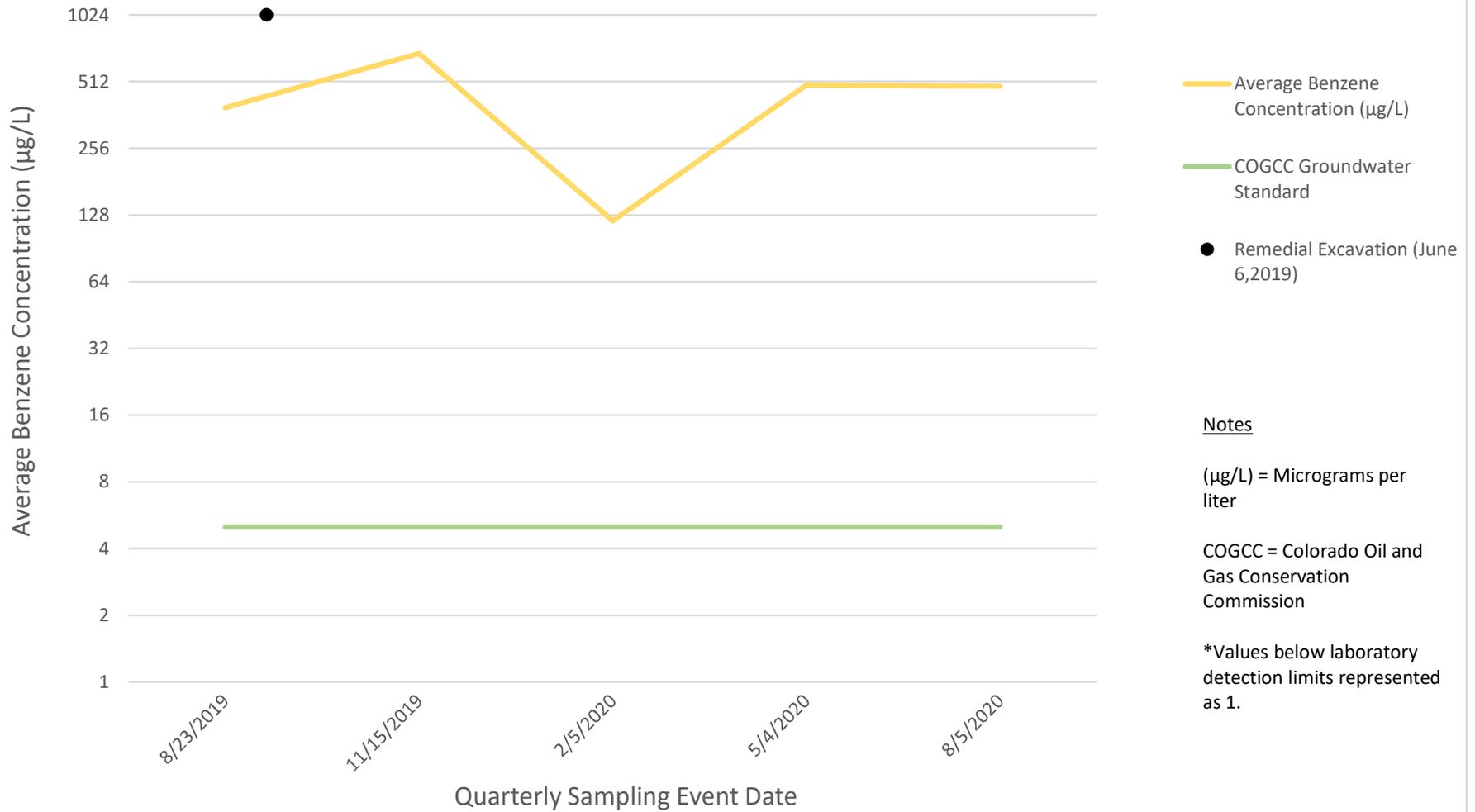
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Tasman Geosciences, Inc.
6855 W. 119th Avenue
Broomfield, CO 80020

Noble Energy, Inc. – DJ Basin
Duncan D20-12, 20-13
NWSW, Section 20, Township 3 North, Range 64 West
Weld County, Colorado

Groundwater Analytical Results
Map
(08/05/2020)

FIGURE
4

Figure 5
Duncan D20-12, 20-13
Average Quarterly Benzene Concentrations



Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

August 11, 2020

Brandon Bruns

Tasman Geosciences

6855 W. 119th Ave.

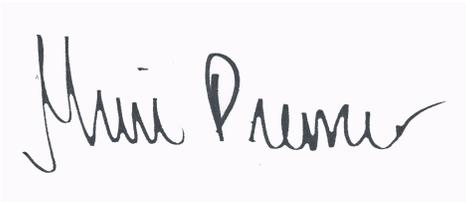
Broomfield, CO 80020

RE: Noble - Duncan D20-12, 20-13

Work Order #2008026

Enclosed are the results of analyses for samples received by Summit Scientific on 08/05/20 17:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Muri Premer". The signature is written in a cursive style with a large initial "M" and a long, sweeping underline.

Muri Premer For Paul Shrewsbury
President



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Duncan D20-12, 20-13

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/11/20 14:47

ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|-----------|---------------|--------|----------------|----------------|
| BH01 | 2008026-01 | Water | 08/05/20 14:29 | 08/05/20 17:30 |
| BH02 | 2008026-02 | Water | 08/05/20 13:36 | 08/05/20 17:30 |
| BH03 | 2008026-03 | Water | 08/05/20 13:51 | 08/05/20 17:30 |
| BH04 | 2008026-04 | Water | 08/05/20 14:12 | 08/05/20 17:30 |
| BH05 | 2008026-05 | Water | 08/05/20 14:24 | 08/05/20 17:30 |
| BH06 | 2008026-06 | Water | 08/05/20 14:09 | 08/05/20 17:30 |
| BH07 | 2008026-07 | Water | 08/05/20 13:38 | 08/05/20 17:30 |
| BH08 | 2008026-08 | Water | 08/05/20 13:56 | 08/05/20 17:30 |

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.

Summit Scientific

2008026

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

Page 1 of 1

Client: Noble/Tasman
Address: 6855 W 119th Ave
City/State/Zip: Broomfield, CO 80020
Phone: 303-487-1228 Fax: -
Sampler Name: Brandon V.

Project Manager: Brandon Bruns, Invoice: Jacob Evans
E-Mail: bbruns@tasman-geo.com
Project Name: Duncan D20-12, 20-13
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) | BTEX | | | | | | | |
| BH01 | 8/5/20 | 1429 | 3 | X | | | | X | | | | X | | | | | | | |
| BH02 | | 1336 | | | | | | | | | | | | | | | | | |
| BH03 | | 1351 | | | | | | | | | | | | | | | | | |
| BH04 | | 1412 | | | | | | | | | | | | | | | | | |
| BH05 | | 1424 | | | | | | | | | | | | | | | | | |
| BH06 | | 1409 | | | | | | | | | | | | | | | | | |
| BH07 | | 1338 | | | | | | | | | | | | | | | | | |
| BH08 | | 1356 | | | | | | | | | | | | | | | | | |

| | | | | |
|---|---|--|--------|--|
| Relinquished by: <u>Brandon V.</u> Date/Time: <u>8/5/20 1600</u> | Received by: <u>Tasman lock box</u> Date/Time: <u>8/5/20 1600</u> | 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: <u>Tasman lock box</u> Date/Time: <u>08/05/2020 1730</u> | Received by: <u>[Signature]</u> Date/Time: <u>08/05/2020 1730</u> | | | Sample Integrity: Temperature Upon Receipt: <u>4.0</u> Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Relinquished by: | Received In Lab by: | | | |

Sample Receipt Checklist

S2 Work Order 2008026

Client: Noble/ASMAN

Client Project ID: Duncan 020-02, 20-13

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other _____ Airbill #: _____

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

Temp (°C) 4.8

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. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 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 checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| For volatiles in water – is there headspace present? If yes, contact client and note in narrative. | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | HCl |
| 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.

TS
Custodian Printed Name or Initials

[Signature]
Signature of Custodian

08/05/2020
Date/Time



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Duncan D20-12, 20-13

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/11/20 14:47

BH01
2008026-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/05/20 14:29**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|-------------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | 850 | 100 | ug/l | 100 | 2008053 | 08/06/20 | 08/06/20 | EPA 8260B | |
| Toluene | ND | 1.0 | " | 1 | " | " | " | " | |
| Ethylbenzene | 800 | 100 | " | 100 | " | " | " | " | |
| Xylenes (total) | 1700 | 200 | " | " | " | " | " | " | |

Date Sampled: **08/05/20 14:29**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 | | 101 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 102 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 98.6 % | 21-167 | | " | " | " | " | |

Summit Scientific

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



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Duncan D20-12, 20-13

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/11/20 14:47

BH02
2008026-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/05/20 13:36**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | | |
| Benzene | ND | 1.0 | | ug/l | 1 | 2008053 | 08/06/20 | 08/06/20 | EPA 8260B | |
| Toluene | ND | 1.0 | | " | " | " | " | " | " | |
| Ethylbenzene | ND | 1.0 | | " | " | " | " | " | " | |
| Xylenes (total) | ND | 2.0 | | " | " | " | " | " | " | |

Date Sampled: **08/05/20 13:36**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 106 % | | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 102 % | | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 100 % | | 21-167 | | " | " | " | " | |

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Duncan D20-12, 20-13

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/11/20 14:47

BH03
2008026-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/05/20 13:51**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | | |
| Benzene | ND | 1.0 | | ug/l | 1 | 2008053 | 08/06/20 | 08/06/20 | EPA 8260B | |
| Toluene | ND | 1.0 | | " | " | " | " | " | " | |
| Ethylbenzene | ND | 1.0 | | " | " | " | " | " | " | |
| Xylenes (total) | ND | 2.0 | | " | " | " | " | " | " | |

Date Sampled: **08/05/20 13:51**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 104 % | | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 102 % | | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 99.2 % | | 21-167 | | " | " | " | " | |

Summit Scientific

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



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Duncan D20-12, 20-13

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/11/20 14:47

BH04
2008026-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/05/20 14:12**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|------------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | | |
| Benzene | 1.2 | 1.0 | | ug/l | 1 | 2008053 | 08/06/20 | 08/06/20 | EPA 8260B | |
| Toluene | ND | 1.0 | | " | " | " | " | " | " | |
| Ethylbenzene | 14 | 1.0 | | " | " | " | " | " | " | |
| Xylenes (total) | 50 | 2.0 | | " | " | " | " | " | " | |

Date Sampled: **08/05/20 14:12**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 105 % | | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 101 % | | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 104 % | | 21-167 | | " | " | " | " | |

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Duncan D20-12, 20-13

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/11/20 14:47

BH05
2008026-05 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/05/20 14:24**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|-------------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | | |
| Benzene | 610 | 100 | | ug/l | 100 | 2008053 | 08/06/20 | 08/07/20 | EPA 8260B | |
| Toluene | ND | 1.0 | | " | 1 | " | " | " | " | |
| Ethylbenzene | 740 | 100 | | " | 100 | " | " | " | " | |
| Xylenes (total) | 1900 | 200 | | " | " | " | " | " | " | |

Date Sampled: **08/05/20 14:24**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 101 % | | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 103 % | | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 101 % | | 21-167 | | " | " | " | " | |

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Duncan D20-12, 20-13

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/11/20 14:47

BH06
2008026-06 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/05/20 14:09**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | | |
| Benzene | ND | 1.0 | | ug/l | 1 | 2008053 | 08/06/20 | 08/07/20 | EPA 8260B | |
| Toluene | ND | 1.0 | | " | " | " | " | " | " | |
| Ethylbenzene | ND | 1.0 | | " | " | " | " | " | " | |
| Xylenes (total) | ND | 2.0 | | " | " | " | " | " | " | |

Date Sampled: **08/05/20 14:09**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 109 % | | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 102 % | | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 99.4 % | | 21-167 | | " | " | " | " | |

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Duncan D20-12, 20-13

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/11/20 14:47

BH07
2008026-07 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/05/20 13:38**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | | |
| Benzene | ND | 1.0 | | ug/l | 1 | 2008053 | 08/06/20 | 08/07/20 | EPA 8260B | |
| Toluene | ND | 1.0 | | " | " | " | " | " | " | |
| Ethylbenzene | ND | 1.0 | | " | " | " | " | " | " | |
| Xylenes (total) | ND | 2.0 | | " | " | " | " | " | " | |

Date Sampled: **08/05/20 13:38**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 105 % | | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 98.3 % | | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 95.2 % | | 21-167 | | " | " | " | " | |

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Duncan D20-12, 20-13

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/11/20 14:47

BH08
2008026-08 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/05/20 13:56**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | | |
| Benzene | ND | 1.0 | | ug/l | 1 | 2008053 | 08/06/20 | 08/07/20 | EPA 8260B | |
| Toluene | ND | 1.0 | | " | " | " | " | " | " | |
| Ethylbenzene | ND | 1.0 | | " | " | " | " | " | " | |
| Xylenes (total) | ND | 2.0 | | " | " | " | " | " | " | |

Date Sampled: **08/05/20 13:56**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 107 % | | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 100 % | | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 94.2 % | | 21-167 | | " | " | " | " | |

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Duncan D20-12, 20-13

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/11/20 14:47

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch 2008053 - EPA 5030 Water MS

Blank (2008053-BLK1)

Prepared & Analyzed: 08/06/20

| | | | | | | | | | | | |
|----------------------------------|------|-----|------|------|--|------|--|--------|--|--|--|
| Benzene | ND | 1.0 | ug/l | | | | | | | | |
| Toluene | ND | 1.0 | " | | | | | | | | |
| Ethylbenzene | ND | 1.0 | " | | | | | | | | |
| Xylenes (total) | ND | 2.0 | " | | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 14.8 | | " | 13.3 | | 111 | | 23-173 | | | |
| Surrogate: Toluene-d8 | 13.7 | | " | 13.3 | | 103 | | 20-170 | | | |
| Surrogate: 4-Bromofluorobenzene | 13.0 | | " | 13.3 | | 97.5 | | 21-167 | | | |

LCS (2008053-BS1)

Prepared & Analyzed: 08/06/20

| | | | | | | | | | | | |
|----------------------------------|------|-----|------|------|--|------|--|--------|--|--|--|
| Benzene | 32.6 | 1.0 | ug/l | 33.3 | | 97.8 | | 51-132 | | | |
| Toluene | 32.2 | 1.0 | " | 33.3 | | 96.7 | | 51-138 | | | |
| Ethylbenzene | 34.0 | 1.0 | " | 33.3 | | 102 | | 58-146 | | | |
| m,p-Xylene | 58.2 | 2.0 | " | 66.7 | | 87.3 | | 57-144 | | | |
| o-Xylene | 31.0 | 1.0 | " | 33.3 | | 93.1 | | 53-146 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 14.4 | | " | 13.3 | | 108 | | 23-173 | | | |
| Surrogate: Toluene-d8 | 13.5 | | " | 13.3 | | 101 | | 20-170 | | | |
| Surrogate: 4-Bromofluorobenzene | 13.0 | | " | 13.3 | | 97.7 | | 21-167 | | | |

Matrix Spike (2008053-MS1)

Source: 2008030-01

Prepared & Analyzed: 08/06/20

| | | | | | | | | | | | |
|----------------------------------|------|-----|------|------|----|------|--|--------|--|--|--|
| Benzene | 32.6 | 1.0 | ug/l | 33.3 | ND | 97.7 | | 34-141 | | | |
| Toluene | 32.6 | 1.0 | " | 33.3 | ND | 97.9 | | 27-151 | | | |
| Ethylbenzene | 33.5 | 1.0 | " | 33.3 | ND | 100 | | 29-160 | | | |
| m,p-Xylene | 57.4 | 2.0 | " | 66.7 | ND | 86.1 | | 20-166 | | | |
| o-Xylene | 30.6 | 1.0 | " | 33.3 | ND | 91.7 | | 33-159 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 14.4 | | " | 13.3 | | 108 | | 23-173 | | | |
| Surrogate: Toluene-d8 | 13.6 | | " | 13.3 | | 102 | | 20-170 | | | |
| Surrogate: 4-Bromofluorobenzene | 13.0 | | " | 13.3 | | 97.9 | | 21-167 | | | |

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Duncan D20-12, 20-13

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/11/20 14:47

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch 2008053 - EPA 5030 Water MS

| Matrix Spike Dup (2008053-MSD1) | Source: 2008030-01 | | | Prepared & Analyzed: 08/06/20 | | | | | | | |
|---|---------------------------|-----|----------|--|----|-------------|---------------|-------|----|--|--|
| Benzene | 32.5 | 1.0 | ug/l | 33.3 | ND | 97.6 | 34-141 | 0.123 | 30 | | |
| Toluene | 32.0 | 1.0 | " | 33.3 | ND | 96.0 | 27-151 | 1.95 | 30 | | |
| Ethylbenzene | 33.0 | 1.0 | " | 33.3 | ND | 99.0 | 29-160 | 1.38 | 30 | | |
| m,p-Xylene | 56.7 | 2.0 | " | 66.7 | ND | 85.1 | 20-166 | 1.19 | 30 | | |
| o-Xylene | 30.8 | 1.0 | " | 33.3 | ND | 92.5 | 33-159 | 0.847 | 30 | | |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | <i>14.8</i> | | <i>"</i> | <i>13.3</i> | | <i>111</i> | <i>23-173</i> | | | | |
| <i>Surrogate: Toluene-d8</i> | <i>13.5</i> | | <i>"</i> | <i>13.3</i> | | <i>101</i> | <i>20-170</i> | | | | |
| <i>Surrogate: 4-Bromofluorobenzene</i> | <i>13.2</i> | | <i>"</i> | <i>13.3</i> | | <i>99.1</i> | <i>21-167</i> | | | | |

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Duncan D20-12, 20-13

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/11/20 14:47

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference