

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

August 29, 2024

Jacob Whritenour

Tasman Geosciences

6855 W. 119th Ave.

Broomfield, CO 80020

RE: Noble - Long C20-17

Work Order #2408276

Enclosed are the results of analyses for samples received by Summit Scientific on 08/22/24 17:37. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Natalie Tessier". The signature is fluid and cursive, with the first name being more prominent.

Natalie Tessier For Paul Shrewsbury

President



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

Project: Noble - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

ANALYTICAL REPORT FOR SAMPLES

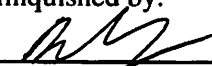
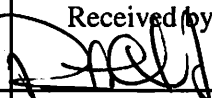
| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|--------------|---------------|--------|----------------|----------------|
| FL01R-S@3' | 2408276-01 | Soil | 08/22/24 09:37 | 08/22/24 17:37 |
| FL01R-W@2.5' | 2408276-02 | Soil | 08/22/24 12:32 | 08/22/24 17:37 |
| FL01-01@2.5' | 2408276-03 | Soil | 08/22/24 12:37 | 08/22/24 17:37 |
| FL01-03@2.5' | 2408276-04 | Soil | 08/22/24 12:45 | 08/22/24 17:37 |
| FL01-04@3' | 2408276-05 | Soil | 08/22/24 13:06 | 08/22/24 17:37 |
| FL01-06@3' | 2408276-06 | Soil | 08/22/24 13:27 | 08/22/24 17:37 |
| BKG01@0-6" | 2408276-07 | Soil | 08/22/24 12:30 | 08/22/24 17:37 |
| BKG01@2.5' | 2408276-08 | Soil | 08/22/24 12:35 | 08/22/24 17:37 |
| BKG01@3' | 2408276-09 | Soil | 08/22/24 12:40 | 08/22/24 17:37 |
| BKG01@5' | 2408276-10 | Soil | 08/22/24 12:45 | 08/22/24 17:37 |

Summit Scientific

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| | | | | | |
|--------------------------------------|--|------------------------------------|--|------------------------------------|--|
| Client: Noble/Tasman | | Send Data To: | | Send Invoice To: | |
| Address: 6855 W. 119th Ave. | | Project Manager: Jake Whritenour | | Company: Noble | |
| City/State/Zip: Broomfield/CO/ 80020 | | E-Mail: Jwhritenour@tasman-geo.com | | Project Name/Location: Long C20-17 | |
| Phone: | | Project Name: Long C20-17 | | AFE#: UWRWE-A 1876-ABN | |
| Sampler Name: Ryan Yavinsky | | Project Number: | | PO/Billing Codes: | |
| | | | | Contact: Miguel Barron | |

| | | | | | Preservative | | | | Matrix | | | | Analysis Requested | | | | | | | | Special Instructions | |
|----|--------------------|--------------|--------------|-----------------|--------------|------|------|-------------|--------|------|----------------|-------------|--------------------|-----------|-----------|--------------|-------------|-------------|------|--|----------------------|--|
| ID | Sample Description | Date Sampled | Time Sampled | # of containers | HCl | HNO3 | None | Other _____ | Water | Soil | Air-Canister # | Other _____ | VOC - 915 | TPH - 915 | PAH - 915 | Metals - 915 | pH, EC, SAR | Boron - HWS | HOLD | | | |
| 1 | FL01R-502.3' | 8/22/24 | 0937 | 3 | | | X | | | X | | | X | X | X | X | X | X | | | | |
| 2 | FL01R-W02.5' | | 1232 | 1 | | | | | | | | | | | | | | | | | | |
| 3 | FL01-0102.5' | | 1237 | 1 | | | | | | | | | | | | | | | | | | |
| 4 | FL01-0302.5' | | 1245 | 1 | | | | | | | | | | | | | | | | | | |
| 5 | FL01-0402.3' | | 1306 | 1 | | | | | | | | | | | | | | | | | | |
| 6 | FL01-0602.3' | | 1327 | 1 | | | | | | | | | | | | | | | | | | |
| 7 | BK60100-6" | | 1230 | 2 | | | | | | | | | | | | | | | | | | |
| 8 | BK60102.5' | | 1235 | 1 | | | | | | | | | | | | | | | | | | |
| 9 | BK60103' | | 1240 | 1 | | | | | | | | | | | | | | | | | | |
| 10 | BK60105' | | 1245 | 1 | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | |
|--|-------------------------|--|-------------------------|-------------------|-------------|--------|
| Relinquished by:  | Date/Time: 8/22/24 1600 | Received by: Tasman Lock Box | Date/Time: 8/22/24 1600 | TAT Business Days | Field DO | Notes: |
| | | | | Same Day | Field EC | |
| Relinquished by: Tasman Lock Box | Date/Time: 8/22/24 1737 | Received by:  | Date/Time: 8/22/24 1737 | 1 Day | Field ORP | |
| | | | | 2 Days | Field pH | |
| Relinquished by: | Date/Time: | Received by: | Date/Time: | 3 Days | Field Temp. | |
| | | | | Standard | Field Turb. | |
| Temperature Upon Receipt: 14.9 | | Corrected Temperature: 0 | | IR gun #: 1 | HNO3 lot #: | |

S₂

Sample Receipt Checklist

S2 Work Order# 2408216Client: Noble Tassman Client Project ID: Long C20-17Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other ☐ Airbill #: ☐

| | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|

Matrix (Check all that apply) Air ☐ Soil/Solid ☒ Water ☐ Other ☐Temp (°C) 14.9Thermometer # 1

| | Yes | No | N/A | Comments (if any) |
|---|-------------------------------------|-------------------------------------|-------------------------------------|-------------------|
| If samples require cooling, is the temperature < 6°C? ⁽¹⁾ NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <u>COOL</u> |
| If custody seals are present, are they intact? ⁽¹⁾ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Are samples due within 48 hours present? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe ²⁺), Hexavalent Chromium (Cr ⁶⁺ , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen | <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"/> | |
| Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾ | <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"/> | |
| 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"/> | |
| 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⁾ Note the type of preservative in the comments column – HCl, H ₂ SO ₄ , NaOH, HNO ₃ , etc. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| 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.AS
Custodian Printed Name8/22/24
Date/Time



Tasman Geosciences
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Broomfield CO, 80020

Project: Noble - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

FL01R-S@3'
2408276-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/22/24 09:37**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | | |
| Benzene | ND | 0.0020 | | mg/kg | 1 | BHH0782 | 08/26/24 | 08/27/24 | EPA 8260B | |
| Toluene | ND | 0.0050 | | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | | " | " | " | " | " | " | |
| 1,3,5-Trimethylbenzene | ND | 0.0050 | | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | | " | " | " | " | " | " | |

Date Sampled: **08/22/24 09:37**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0426 | 106 % | | 50-150 | | " | " | " | " | |
| Surrogate: Toluene-d8 | 0.0406 | 101 % | | 50-150 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 0.0385 | 96.2 % | | 50-150 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/22/24 09:37**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | | |
| C10-C28 (DRO) | ND | 50 | | mg/kg | 1 | BHH0779 | 08/26/24 | 08/28/24 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | | " | " | " | " | " | " | |

Date Sampled: **08/22/24 09:37**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | | |
| Surrogate: o-Terphenyl | 10.4 | 83.3 % | | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

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Broomfield CO, 80020

Project: Noble - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

FL01R-S@3'
2408276-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/22/24 09:37**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--------------------------|--------|-----------|-------|----------|---------|----------|----------|---------------|-------|
| | | Limit | | | | | | | |
| Acenaphthene | ND | 0.00500 | mg/kg | 1 | BHH0688 | 08/23/24 | 08/24/24 | EPA 8270D SIM | |
| Anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (b) fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (k) fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Chrysene | ND | 0.00500 | " | " | " | " | " | " | |
| Dibenz (a,h) anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Fluorene | ND | 0.00500 | " | " | " | " | " | " | |
| Indeno (1,2,3-cd) pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| Pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |
| 2-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **08/22/24 09:37**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0177 | 53.2 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | 0.0194 | 58.1 % | 40-150 | | " | " | " | " | |

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **08/22/24 09:37**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | |
| Boron | ND | 2.00 | mg/L | 1 | BHH0766 | 08/26/24 | 08/29/24 | EPA 6020B | |

Total Metals by EPA 6020B

Date Sampled: **08/22/24 09:37**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------|-------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | |

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Reported:
08/29/24 11:02

FL01R-S@3'
2408276-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

| | | | | | | | | |
|----------|--------|--------|-----------|---|---------|----------|----------|-----------|
| Arsenic | 0.746 | 0.200 | mg/kg dry | 1 | BHH0691 | 08/23/24 | 08/28/24 | EPA 6020B |
| Barium | 79.9 | 0.400 | " | " | " | " | " | " |
| Cadmium | ND | 0.200 | " | " | " | " | " | " |
| Copper | 1.68 | 0.400 | " | " | " | " | " | " |
| Lead | 5.72 | 0.200 | " | " | " | " | " | " |
| Nickel | 1.88 | 0.400 | " | " | " | " | " | " |
| Silver | 0.0211 | 0.0200 | " | " | " | " | " | " |
| Zinc | 6.76 | 0.400 | " | " | " | " | " | " |
| Selenium | ND | 0.260 | " | " | " | " | " | " |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **08/22/24 09:37**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BHH0810 | 08/27/24 | 08/27/24 | EPA 7196A | |

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **08/22/24 09:37**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium | 191 | 0.0500 | mg/L dry | 1 | BHH0789 | 08/26/24 | 08/29/24 | EPA 6020B | |
| Magnesium | 53.1 | 0.0500 | " | " | " | " | " | " | |
| Sodium | 65.3 | 0.0500 | " | " | " | " | " | " | |

Calculated Analysis

Date Sampled: **08/22/24 09:37**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 1.08 | 0.00100 | units | 1 | BHH0899 | 08/29/24 | 08/29/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

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08/29/24 11:02

FL01R-S@3'
2408276-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/22/24 09:37**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 90.7 | | % | 1 | BHH0754 | 08/26/24 | 08/26/24 | Calculation | |

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **08/22/24 09:37**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 1.16 | 0.0100 | mmhos/cm | 1 | BHH0791 | 08/26/24 | 08/28/24 | EPA 120.1 | |

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **08/22/24 09:37**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 8.03 | | pH Units | 1 | BHH0793 | 08/26/24 | 08/28/24 | EPA 9045D | |

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08/29/24 11:02

FL01R-W@2.5'
2408276-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/22/24 12:32**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BHH0782 | 08/26/24 | 08/27/24 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| 1,3,5-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **08/22/24 12:32**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0398 | 99.5 % | 50-150 | | " | " | " | " | |
| Surrogate: Toluene-d8 | 0.0401 | 100 % | 50-150 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 0.0383 | 95.8 % | 50-150 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/22/24 12:32**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BHH0779 | 08/26/24 | 08/28/24 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **08/22/24 12:32**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | |
| Surrogate: o-Terphenyl | 9.77 | 78.2 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

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FL01R-W@2.5'
2408276-02 (Soil)

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Date Sampled: **08/22/24 12:32**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|----------------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene | ND | 0.00500 | mg/kg | 1 | BHH0688 | 08/23/24 | 08/24/24 | EPA 8270D SIM | |
| Anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) anthracene | 0.00650 | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (b) fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (k) fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Chrysene | 0.00804 | 0.00500 | " | " | " | " | " | " | |
| Dibenz (a,h) anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Fluoranthene | 0.0163 | 0.00500 | " | " | " | " | " | " | |
| Fluorene | ND | 0.00500 | " | " | " | " | " | " | |
| Indeno (1,2,3-cd) pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| Pyrene | 0.0158 | 0.00500 | " | " | " | " | " | " | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |
| 2-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **08/22/24 12:32**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0155 | 46.4 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | 0.0167 | 50.1 % | 40-150 | | " | " | " | " | |

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **08/22/24 12:32**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron | ND | 2.00 | mg/L | 1 | BHH0766 | 08/26/24 | 08/29/24 | EPA 6020B | |

Total Metals by EPA 6020B

Date Sampled: **08/22/24 12:32**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|-------|----------|-------|----------|----------|--------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|--------|-------|

Summit Scientific

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

Project: Noble - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

FL01R-W@2.5'
2408276-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

| | | | | | | | | |
|----------|--------|--------|-----------|---|---------|----------|----------|-----------|
| Arsenic | 1.12 | 0.200 | mg/kg dry | 1 | BHH0691 | 08/23/24 | 08/28/24 | EPA 6020B |
| Barium | 79.9 | 0.400 | " | " | " | " | " | " |
| Cadmium | ND | 0.200 | " | " | " | " | " | " |
| Copper | 2.11 | 0.400 | " | " | " | " | " | " |
| Lead | 12.7 | 0.200 | " | " | " | " | " | " |
| Nickel | 2.36 | 0.400 | " | " | " | " | " | " |
| Silver | 0.0251 | 0.0200 | " | " | " | " | " | " |
| Zinc | 7.19 | 0.400 | " | " | " | " | " | " |
| Selenium | ND | 0.260 | " | " | " | " | " | " |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **08/22/24 12:32**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BHH0810 | 08/27/24 | 08/27/24 | EPA 7196A | |

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **08/22/24 12:32**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium | 306 | 0.0500 | mg/L dry | 1 | BHH0789 | 08/26/24 | 08/29/24 | EPA 6020B | |
| Magnesium | 124 | 0.0500 | " | " | " | " | " | " | |
| Sodium | 295 | 0.0500 | " | " | " | " | " | " | |

Calculated Analysis

Date Sampled: **08/22/24 12:32**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 3.60 | 0.00100 | units | 1 | BHH0899 | 08/29/24 | 08/29/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

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

Project: Noble - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

FL01R-W@2.5'
2408276-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/22/24 12:32**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 88.4 | | % | 1 | BHH0754 | 08/26/24 | 08/26/24 | Calculation | |

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **08/22/24 12:32**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 3.58 | 0.0100 | mmhos/cm | 1 | BHH0791 | 08/26/24 | 08/28/24 | EPA 120.1 | |

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **08/22/24 12:32**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 7.94 | | pH Units | 1 | BHH0793 | 08/26/24 | 08/28/24 | EPA 9045D | |

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

FL01-01@2.5'
2408276-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/22/24 12:37**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BHH0782 | 08/26/24 | 08/27/24 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| 1,3,5-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | 0.095 | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **08/22/24 12:37**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0379 | 94.6 % | 50-150 | | " | " | " | " | |
| Surrogate: Toluene-d8 | 0.0389 | 97.2 % | 50-150 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 0.0391 | 97.7 % | 50-150 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/22/24 12:37**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|------------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | |
| C10-C28 (DRO) | 500 | 50 | mg/kg | 1 | BHH0779 | 08/26/24 | 08/28/24 | EPA 8015M | |
| C28-C36 (ORO) | 190 | 50 | " | " | " | " | " | " | |

Date Sampled: **08/22/24 12:37**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | |
| Surrogate: o-Terphenyl | 11.4 | 91.4 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

FL01-01@2.5'
2408276-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/22/24 12:37**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene | 2.89 | 0.250 | mg/kg | 50 | BHH0688 | 08/23/24 | 08/26/24 | EPA 8270D SIM | |
| Anthracene | 8.15 | 0.250 | " | " | " | " | " | " | |
| Benzo (a) anthracene | 23.4 | 0.250 | " | " | " | " | " | " | E |
| Benzo (a) pyrene | 8.72 | 0.250 | " | " | " | " | " | " | |
| Benzo (b) fluoranthene | 13.5 | 0.250 | " | " | " | " | " | " | E |
| Benzo (k) fluoranthene | 7.96 | 0.250 | " | " | " | " | " | " | |
| Chrysene | 14.1 | 0.250 | " | " | " | " | " | " | E |
| Dibenz (a,h) anthracene | 0.774 | 0.250 | " | " | " | " | " | " | |
| Fluoranthene | 26.5 | 0.250 | " | " | " | " | " | " | E |
| Fluorene | 3.66 | 0.250 | " | " | " | " | " | " | |
| Indeno (1,2,3-cd) pyrene | 4.74 | 0.250 | " | " | " | " | " | " | |
| Pyrene | 34.7 | 0.250 | " | " | " | " | " | " | E |
| 1-Methylnaphthalene | 0.182 | 0.00500 | " | 1 | " | " | 08/24/24 | " | |
| 2-Methylnaphthalene | 0.281 | 0.00500 | " | " | " | " | " | " | E |

Date Sampled: **08/22/24 12:37**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0223 | 67.0 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | 0.0403 | 121 % | 40-150 | | " | " | " | " | |

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **08/22/24 12:37**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron | ND | 2.00 | mg/L | 1 | BHH0766 | 08/26/24 | 08/29/24 | EPA 6020B | |

Total Metals by EPA 6020B

Date Sampled: **08/22/24 12:37**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Arsenic | 0.658 | 0.200 | mg/kg dry | 1 | BHH0691 | 08/23/24 | 08/28/24 | EPA 6020B | |

Summit Scientific

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

Project: Noble - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

FL01-01@2.5'
2408276-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B

| | | | | | | | | |
|----------|--------|--------|-----------|---|---------|----------|----------|-----------|
| Barium | 65.6 | 0.400 | mg/kg dry | 1 | BHH0691 | 08/23/24 | 08/28/24 | EPA 6020B |
| Cadmium | ND | 0.200 | " | " | " | " | " | " |
| Copper | 1.60 | 0.400 | " | " | " | " | " | " |
| Lead | 6.10 | 0.200 | " | " | " | " | " | " |
| Nickel | 1.63 | 0.400 | " | " | " | " | " | " |
| Silver | 0.0291 | 0.0200 | " | " | " | " | " | " |
| Zinc | 6.25 | 0.400 | " | " | " | " | " | " |
| Selenium | ND | 0.260 | " | " | " | " | " | " |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **08/22/24 12:37**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BHH0810 | 08/27/24 | 08/27/24 | EPA 7196A | |

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **08/22/24 12:37**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium | 209 | 0.0500 | mg/L dry | 1 | BHH0789 | 08/26/24 | 08/29/24 | EPA 6020B | |
| Magnesium | 70.4 | 0.0500 | " | " | " | " | " | " | |
| Sodium | 250 | 0.0500 | " | " | " | " | " | " | |

Calculated Analysis

Date Sampled: **08/22/24 12:37**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 3.82 | 0.00100 | units | 1 | BHH0899 | 08/29/24 | 08/29/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/22/24 12:37**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|-------|----------|-------|----------|----------|--------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|--------|-------|

Summit Scientific

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

Project: Noble - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

FL01-01@2.5'
2408276-03 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

| | | | | | | | |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 96.6 | % | 1 | BHH0754 | 08/26/24 | 08/26/24 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **08/22/24 12:37**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 3.08 | 0.0100 | mmhos/cm | 1 | BHH0791 | 08/26/24 | 08/28/24 | EPA 120.1 | |

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **08/22/24 12:37**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 7.55 | | pH Units | 1 | BHH0793 | 08/26/24 | 08/28/24 | EPA 9045D | |

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

FL01-03@2.5'
2408276-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/22/24 12:45**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BHH0782 | 08/26/24 | 08/27/24 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| 1,3,5-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **08/22/24 12:45**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0433 | 108 % | 50-150 | | " | " | " | " | |
| Surrogate: Toluene-d8 | 0.0395 | 98.8 % | 50-150 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 0.0398 | 99.4 % | 50-150 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/22/24 12:45**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BHH0779 | 08/26/24 | 08/28/24 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **08/22/24 12:45**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | |
| Surrogate: o-Terphenyl | 12.7 | 102 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

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Project: Noble - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

FL01-03@2.5'
2408276-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/22/24 12:45**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------------|----------------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene | ND | 0.00500 | mg/kg | 1 | BHH0688 | 08/23/24 | 08/24/24 | EPA 8270D SIM | |
| Anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) anthracene | 0.00604 | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (b) fluoranthene | 0.00858 | 0.00500 | " | " | " | " | " | " | |
| Benzo (k) fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Chrysene | 0.00641 | 0.00500 | " | " | " | " | " | " | |
| Dibenz (a,h) anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Fluoranthene | 0.0117 | 0.00500 | " | " | " | " | " | " | |
| Fluorene | ND | 0.00500 | " | " | " | " | " | " | |
| Indeno (1,2,3-cd) pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| Pyrene | 0.00782 | 0.00500 | " | " | " | " | " | " | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |
| 2-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **08/22/24 12:45**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0224 | 67.1 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | 0.0254 | 76.1 % | 40-150 | | " | " | " | " | |

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **08/22/24 12:45**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron | ND | 2.00 | mg/L | 1 | BHH0766 | 08/26/24 | 08/29/24 | EPA 6020B | |

Total Metals by EPA 6020B

Date Sampled: **08/22/24 12:45**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|-------|----------|-------|----------|----------|--------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|--------|-------|

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6855 W. 119th Ave.
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Project: Noble - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

FL01-03@2.5'
2408276-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B

| | | | | | | | | |
|----------|--------|--------|-----------|---|---------|----------|----------|-----------|
| Arsenic | 0.485 | 0.180 | mg/kg dry | 1 | BHH0691 | 08/23/24 | 08/28/24 | EPA 6020B |
| Barium | 51.3 | 0.360 | " | " | " | " | " | " |
| Cadmium | ND | 0.180 | " | " | " | " | " | " |
| Copper | 1.37 | 0.360 | " | " | " | " | " | " |
| Lead | 5.55 | 0.180 | " | " | " | " | " | " |
| Nickel | 1.27 | 0.360 | " | " | " | " | " | " |
| Silver | 0.0187 | 0.0180 | " | " | " | " | " | " |
| Zinc | 5.38 | 0.360 | " | " | " | " | " | " |
| Selenium | ND | 0.234 | " | " | " | " | " | " |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **08/22/24 12:45**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BHH0810 | 08/27/24 | 08/27/24 | EPA 7196A | |

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **08/22/24 12:45**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium | 28.5 | 0.0500 | mg/L dry | 1 | BHH0789 | 08/26/24 | 08/29/24 | EPA 6020B | |
| Magnesium | 19.7 | 0.0500 | " | " | " | " | " | " | |
| Sodium | 50.1 | 0.0500 | " | " | " | " | " | " | |

Calculated Analysis

Date Sampled: **08/22/24 12:45**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 1.77 | 0.00100 | units | 1 | BHH0899 | 08/29/24 | 08/29/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

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 - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

FL01-03@2.5'
2408276-04 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/22/24 12:45**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 98.0 | | % | 1 | BHH0754 | 08/26/24 | 08/26/24 | Calculation | |

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **08/22/24 12:45**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 2.54 | 0.0100 | mmhos/cm | 1 | BHH0791 | 08/26/24 | 08/28/24 | EPA 120.1 | |

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **08/22/24 12:45**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 8.63 | | pH Units | 1 | BHH0793 | 08/26/24 | 08/28/24 | EPA 9045D | |

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 - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

FL01-04@3'
2408276-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/22/24 13:06**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BHH0782 | 08/26/24 | 08/27/24 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| 1,3,5-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **08/22/24 13:06**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0402 | 101 % | 50-150 | | " | " | " | " | |
| Surrogate: Toluene-d8 | 0.0402 | 101 % | 50-150 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 0.0380 | 95.0 % | 50-150 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/22/24 13:06**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BHH0779 | 08/26/24 | 08/28/24 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **08/22/24 13:06**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | |
| Surrogate: o-Terphenyl | 12.4 | 99.0 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

FL01-04@3'
2408276-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/22/24 13:06**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene | ND | 0.00500 | mg/kg | 1 | BHH0688 | 08/23/24 | 08/24/24 | EPA 8270D SIM | |
| Anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (b) fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (k) fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Chrysene | ND | 0.00500 | " | " | " | " | " | " | |
| Dibenz (a,h) anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Fluorene | ND | 0.00500 | " | " | " | " | " | " | |
| Indeno (1,2,3-cd) pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| Pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |
| 2-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **08/22/24 13:06**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0232 | 69.5 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | 0.0260 | 77.9 % | 40-150 | | " | " | " | " | |

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **08/22/24 13:06**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron | ND | 2.00 | mg/L | 1 | BHH0766 | 08/26/24 | 08/29/24 | EPA 6020B | |

Total Metals by EPA 6020B

Date Sampled: **08/22/24 13:06**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|-------|----------|-------|----------|----------|--------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|--------|-------|

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 - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

FL01-04@3'
2408276-05 (Soil)

Summit Scientific

Total Metals by EPA 6020B

| | | | | | | | | |
|----------|-------|--------|-----------|---|---------|----------|----------|-----------|
| Arsenic | 0.506 | 0.200 | mg/kg dry | 1 | BHH0691 | 08/23/24 | 08/28/24 | EPA 6020B |
| Barium | 49.6 | 0.400 | " | " | " | " | " | " |
| Cadmium | ND | 0.200 | " | " | " | " | " | " |
| Copper | 1.35 | 0.400 | " | " | " | " | " | " |
| Lead | 4.48 | 0.200 | " | " | " | " | " | " |
| Nickel | 1.37 | 0.400 | " | " | " | " | " | " |
| Silver | ND | 0.0200 | " | " | " | " | " | " |
| Zinc | 5.22 | 0.400 | " | " | " | " | " | " |
| Selenium | ND | 0.260 | " | " | " | " | " | " |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **08/22/24 13:06**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BHH0810 | 08/27/24 | 08/27/24 | EPA 7196A | |

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **08/22/24 13:06**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium | 20.6 | 0.0500 | mg/L dry | 1 | BHH0789 | 08/26/24 | 08/29/24 | EPA 6020B | |
| Magnesium | 15.7 | 0.0500 | " | " | " | " | " | " | |
| Sodium | 2.47 | 0.0500 | " | " | " | " | " | " | |

Calculated Analysis

Date Sampled: **08/22/24 13:06**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.0998 | 0.00100 | units | 1 | BHH0899 | 08/29/24 | 08/29/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: Noble - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

FL01-04@3'
2408276-05 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/22/24 13:06**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|--------------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 98.0 | | % | 1 | BHH0754 | 08/26/24 | 08/26/24 | Calculation | |

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **08/22/24 13:06**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.368 | 0.0100 | mmhos/cm | 1 | BHH0791 | 08/26/24 | 08/28/24 | EPA 120.1 | |

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **08/22/24 13:06**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 7.89 | | pH Units | 1 | BHH0793 | 08/26/24 | 08/28/24 | EPA 9045D | |

Summit Scientific

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

Project: Noble - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

FL01-06@3'
2408276-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/22/24 13:27**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BHH0782 | 08/26/24 | 08/27/24 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| 1,3,5-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **08/22/24 13:27**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0422 | 105 % | 50-150 | | " | " | " | " | |
| Surrogate: Toluene-d8 | 0.0395 | 98.7 % | 50-150 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 0.0386 | 96.5 % | 50-150 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/22/24 13:27**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BHH0779 | 08/26/24 | 08/28/24 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **08/22/24 13:27**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | |
| Surrogate: o-Terphenyl | 10.7 | 85.3 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

FL01-06@3'
2408276-06 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/22/24 13:27**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene | 0.0305 | 0.00500 | mg/kg | 1 | BHH0688 | 08/23/24 | 08/24/24 | EPA 8270D SIM | |
| Anthracene | 0.0692 | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) anthracene | 0.174 | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) pyrene | 0.0691 | 0.00500 | " | " | " | " | " | " | |
| Benzo (b) fluoranthene | 0.0514 | 0.00500 | " | " | " | " | " | " | |
| Benzo (k) fluoranthene | 0.0353 | 0.00500 | " | " | " | " | " | " | |
| Chrysene | 0.155 | 0.00500 | " | " | " | " | " | " | |
| Dibenz (a,h) anthracene | 0.0151 | 0.00500 | " | " | " | " | " | " | |
| Fluoranthene | 0.323 | 0.00500 | " | " | " | " | " | " | E |
| Fluorene | 0.0335 | 0.00500 | " | " | " | " | " | " | |
| Indeno (1,2,3-cd) pyrene | 0.110 | 0.00500 | " | " | " | " | " | " | |
| Pyrene | 0.333 | 0.00500 | " | " | " | " | " | " | E |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |
| 2-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **08/22/24 13:27**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0200 | 60.0 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | 0.0223 | 66.9 % | 40-150 | | " | " | " | " | |

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **08/22/24 13:27**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron | ND | 2.00 | mg/L | 1 | BHH0766 | 08/26/24 | 08/29/24 | EPA 6020B | |

Total Metals by EPA 6020B

Date Sampled: **08/22/24 13:27**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Arsenic | 0.609 | 0.200 | mg/kg dry | 1 | BHH0691 | 08/23/24 | 08/28/24 | EPA 6020B | |

Summit Scientific

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

Project: Noble - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

FL01-06@3'
2408276-06 (Soil)

Summit Scientific

Total Metals by EPA 6020B

| | | | | | | | | |
|----------|--------|--------|-----------|---|---------|----------|----------|-----------|
| Barium | 43.2 | 0.400 | mg/kg dry | 1 | BHH0691 | 08/23/24 | 08/28/24 | EPA 6020B |
| Cadmium | ND | 0.200 | " | " | " | " | " | " |
| Copper | 1.33 | 0.400 | " | " | " | " | " | " |
| Lead | 4.14 | 0.200 | " | " | " | " | " | " |
| Nickel | 1.55 | 0.400 | " | " | " | " | " | " |
| Silver | 0.0221 | 0.0200 | " | " | " | " | " | " |
| Zinc | 5.37 | 0.400 | " | " | " | " | " | " |
| Selenium | ND | 0.260 | " | " | " | " | " | " |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **08/22/24 13:27**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BHH0810 | 08/27/24 | 08/27/24 | EPA 7196A | |

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **08/22/24 13:27**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium | 194 | 0.0500 | mg/L dry | 1 | BHH0789 | 08/26/24 | 08/29/24 | EPA 6020B | |
| Magnesium | 141 | 0.0500 | " | " | " | " | " | " | |
| Sodium | 424 | 0.0500 | " | " | " | " | " | " | |

Calculated Analysis

Date Sampled: **08/22/24 13:27**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 5.65 | 0.00100 | units | 1 | BHH0899 | 08/29/24 | 08/29/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/22/24 13:27**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|-------|----------|-------|----------|----------|--------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|--------|-------|

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 - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

FL01-06@3'
2408276-06 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

| | | | | | | | |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 93.3 | % | 1 | BHH0754 | 08/26/24 | 08/26/24 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **08/22/24 13:27**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 4.20 | 0.0100 | mmhos/cm | 1 | BHH0791 | 08/26/24 | 08/28/24 | EPA 120.1 | |

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **08/22/24 13:27**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 7.49 | | pH Units | 1 | BHH0793 | 08/26/24 | 08/28/24 | EPA 9045D | |

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 - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

BKG01@0-6"
2408276-07 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **08/22/24 12:30**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | |
| Boron | ND | 2.00 | mg/L | 1 | BHH0766 | 08/26/24 | 08/29/24 | EPA 6020B | |

Total Metals by EPA 6020B

Date Sampled: **08/22/24 12:30**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|---------------|-----------|-----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | |
| Arsenic | 0.662 | 0.200 | mg/kg dry | 1 | BHH0691 | 08/23/24 | 08/28/24 | EPA 6020B | |
| Barium | 62.5 | 0.400 | " | " | " | " | " | " | |
| Cadmium | ND | 0.200 | " | " | " | " | " | " | |
| Copper | 1.66 | 0.400 | " | " | " | " | " | " | |
| Lead | 7.80 | 0.200 | " | " | " | " | " | " | |
| Nickel | 1.57 | 0.400 | " | " | " | " | " | " | |
| Silver | 0.0256 | 0.0200 | " | " | " | " | " | " | |
| Zinc | 6.28 | 0.400 | " | " | " | " | " | " | |
| Selenium | ND | 0.260 | " | " | " | " | " | " | |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **08/22/24 12:30**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------|-----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | |
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BHH0810 | 08/27/24 | 08/27/24 | EPA 7196A | |

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **08/22/24 12:30**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|-------------|-----------|----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | |
| Calcium | 137 | 0.0500 | mg/L dry | 1 | BHH0789 | 08/26/24 | 08/29/24 | EPA 6020B | |
| Magnesium | 35.4 | 0.0500 | " | " | " | " | " | " | |
| Sodium | 70.5 | 0.0500 | " | " | " | " | " | " | |

Summit Scientific

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

Project: Noble - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

BKG01@0-6"
2408276-07 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **08/22/24 12:30**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|--------------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 1.39 | 0.00100 | units | 1 | BHH0899 | 08/29/24 | 08/29/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/22/24 12:30**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|--------------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 96.7 | | % | 1 | BHH0754 | 08/26/24 | 08/26/24 | Calculation | |

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **08/22/24 12:30**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 1.69 | 0.0100 | mmhos/cm | 1 | BHH0791 | 08/26/24 | 08/28/24 | EPA 120.1 | |

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **08/22/24 12:30**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 7.74 | | pH Units | 1 | BHH0793 | 08/26/24 | 08/28/24 | EPA 9045D | |

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

Project: Noble - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

BKG01@2.5'
2408276-08 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **08/22/24 12:35**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | |
| Boron | ND | 2.00 | mg/L | 1 | BHH0766 | 08/26/24 | 08/29/24 | EPA 6020B | |

Total Metals by EPA 6020B

Date Sampled: **08/22/24 12:35**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|---------------|-----------|-----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | |
| Arsenic | 0.965 | 0.200 | mg/kg dry | 1 | BHH0691 | 08/23/24 | 08/28/24 | EPA 6020B | |
| Barium | 122 | 0.400 | " | " | " | " | " | " | |
| Cadmium | ND | 0.200 | " | " | " | " | " | " | |
| Copper | 1.87 | 0.400 | " | " | " | " | " | " | |
| Lead | 16.9 | 0.200 | " | " | " | " | " | " | |
| Nickel | 1.91 | 0.400 | " | " | " | " | " | " | |
| Silver | 0.0284 | 0.0200 | " | " | " | " | " | " | |
| Zinc | 7.00 | 0.400 | " | " | " | " | " | " | |
| Selenium | ND | 0.260 | " | " | " | " | " | " | |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **08/22/24 12:35**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------|-----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | |
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BHH0810 | 08/27/24 | 08/27/24 | EPA 7196A | |

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **08/22/24 12:35**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|-------------|-----------|----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | |
| Calcium | 593 | 0.0500 | mg/L dry | 1 | BHH0789 | 08/26/24 | 08/29/24 | EPA 6020B | |
| Magnesium | 411 | 0.0500 | " | " | " | " | " | " | |
| Sodium | 1580 | 0.0500 | " | " | " | " | " | " | |

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

Project: Noble - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

BKG01@2.5'
2408276-08 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **08/22/24 12:35**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|--------------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 12.2 | 0.00100 | units | 1 | BHH0899 | 08/29/24 | 08/29/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/22/24 12:35**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|--------------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 94.2 | | % | 1 | BHH0754 | 08/26/24 | 08/26/24 | Calculation | |

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **08/22/24 12:35**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 13.6 | 0.0100 | mmhos/cm | 1 | BHH0791 | 08/26/24 | 08/28/24 | EPA 120.1 | |

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **08/22/24 12:35**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 7.79 | | pH Units | 1 | BHH0793 | 08/26/24 | 08/28/24 | EPA 9045D | |

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

Project: Noble - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

BKG01@3'
2408276-09 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **08/22/24 12:40**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | |
| Boron | ND | 2.00 | mg/L | 1 | BHH0766 | 08/26/24 | 08/29/24 | EPA 6020B | |

Total Metals by EPA 6020B

Date Sampled: **08/22/24 12:40**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|---------------|-----------|-----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | |
| Arsenic | 0.668 | 0.200 | mg/kg dry | 1 | BHH0691 | 08/23/24 | 08/28/24 | EPA 6020B | |
| Barium | 64.7 | 0.400 | " | " | " | " | " | " | |
| Cadmium | ND | 0.200 | " | " | " | " | " | " | |
| Copper | 1.73 | 0.400 | " | " | " | " | " | " | |
| Lead | 59.1 | 0.200 | " | " | " | " | " | " | |
| Nickel | 1.62 | 0.400 | " | " | " | " | " | " | |
| Silver | 0.0240 | 0.0200 | " | " | " | " | " | " | |
| Zinc | 6.46 | 0.400 | " | " | " | " | " | " | |
| Selenium | ND | 0.260 | " | " | " | " | " | " | |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **08/22/24 12:40**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------|-----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | |
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BHH0810 | 08/27/24 | 08/27/24 | EPA 7196A | |

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **08/22/24 12:40**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|------------|-----------|----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | |
| Calcium | 443 | 0.0500 | mg/L dry | 1 | BHH0789 | 08/26/24 | 08/29/24 | EPA 6020B | |
| Magnesium | 222 | 0.0500 | " | " | " | " | " | " | |
| Sodium | 814 | 0.0500 | " | " | " | " | " | " | |

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

BKG01@3'
2408276-09 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **08/22/24 12:40**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|--------------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 7.88 | 0.00100 | units | 1 | BHH0899 | 08/29/24 | 08/29/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/22/24 12:40**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|--------------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 96.0 | | % | 1 | BHH0754 | 08/26/24 | 08/26/24 | Calculation | |

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **08/22/24 12:40**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 7.74 | 0.0100 | mmhos/cm | 1 | BHH0791 | 08/26/24 | 08/28/24 | EPA 120.1 | |

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **08/22/24 12:40**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 7.61 | | pH Units | 1 | BHH0793 | 08/26/24 | 08/28/24 | EPA 9045D | |

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Broomfield CO, 80020

Project: Noble - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

BKG01@5'
2408276-10 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **08/22/24 12:45**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | |
| Boron | ND | 2.00 | mg/L | 1 | BHH0766 | 08/26/24 | 08/29/24 | EPA 6020B | |

Total Metals by EPA 6020B

Date Sampled: **08/22/24 12:45**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|-----------|-----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | |
| Arsenic | 1.87 | 0.200 | mg/kg dry | 1 | BHH0693 | 08/23/24 | 08/28/24 | EPA 6020B | |
| Barium | 50.2 | 0.400 | " | " | " | " | " | " | |
| Cadmium | ND | 0.200 | " | " | " | " | " | " | |
| Copper | 3.90 | 0.400 | " | " | " | " | " | " | |
| Lead | 9.00 | 0.200 | " | " | " | " | " | " | |
| Nickel | 3.47 | 0.400 | " | " | " | " | " | " | |
| Silver | 0.0208 | 0.0200 | " | " | " | " | " | " | |
| Zinc | 14.5 | 0.400 | " | " | " | " | " | " | |
| Selenium | ND | 0.260 | " | " | " | " | " | " | |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **08/22/24 12:45**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------|-----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | |
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BHH0810 | 08/27/24 | 08/27/24 | EPA 7196A | |

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **08/22/24 12:45**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------|----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | |
| Calcium | 468 | 0.0500 | mg/L dry | 1 | BHH0789 | 08/26/24 | 08/29/24 | EPA 6020B | |
| Magnesium | 238 | 0.0500 | " | " | " | " | " | " | |
| Sodium | 782 | 0.0500 | " | " | " | " | " | " | |

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

BKG01@5'
2408276-10 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **08/22/24 12:45**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|--------------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 7.34 | 0.00100 | units | 1 | BHH0899 | 08/29/24 | 08/29/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/22/24 12:45**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|--------------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 95.6 | | % | 1 | BHH0754 | 08/26/24 | 08/26/24 | Calculation | |

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **08/22/24 12:45**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 7.12 | 0.0100 | mmhos/cm | 1 | BHH0791 | 08/26/24 | 08/28/24 | EPA 120.1 | |

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **08/22/24 12:45**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 7.60 | | pH Units | 1 | BHH0793 | 08/26/24 | 08/28/24 | EPA 9045D | |

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

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 BHH0782 - EPA 5030 Soil MS

Blank (BHH0782-BLK1)

Prepared & Analyzed: 08/26/24

| | | | | | | | | | | |
|----------------------------------|--------|--------|-------|--------|--|------|--------|--|--|--|
| Benzene | ND | 0.0020 | mg/kg | | | | | | | |
| Toluene | ND | 0.0050 | " | | | | | | | |
| Ethylbenzene | ND | 0.0050 | " | | | | | | | |
| Xylenes (total) | ND | 0.010 | " | | | | | | | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | | | | | | | |
| 1,3,5-Trimethylbenzene | ND | 0.0050 | " | | | | | | | |
| Naphthalene | ND | 0.0038 | " | | | | | | | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0463 | | " | 0.0400 | | 116 | 50-150 | | | |
| Surrogate: Toluene-d8 | 0.0405 | | " | 0.0400 | | 101 | 50-150 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0390 | | " | 0.0400 | | 97.5 | 50-150 | | | |

LCS (BHH0782-BS1)

Prepared & Analyzed: 08/26/24

| | | | | | | | | | | |
|----------------------------------|--------|--------|-------|--------|--|------|--------|--|--|--|
| Benzene | 0.101 | 0.0020 | mg/kg | 0.100 | | 101 | 70-130 | | | |
| Toluene | 0.101 | 0.0050 | " | 0.100 | | 101 | 70-130 | | | |
| Ethylbenzene | 0.105 | 0.0050 | " | 0.100 | | 105 | 70-130 | | | |
| m,p-Xylene | 0.204 | 0.010 | " | 0.200 | | 102 | 70-130 | | | |
| o-Xylene | 0.100 | 0.0050 | " | 0.100 | | 100 | 70-130 | | | |
| 1,2,4-Trimethylbenzene | 0.100 | 0.0050 | " | 0.100 | | 100 | 70-130 | | | |
| 1,3,5-Trimethylbenzene | 0.0998 | 0.0050 | " | 0.100 | | 99.8 | 70-130 | | | |
| Naphthalene | 0.0983 | 0.0038 | " | 0.100 | | 98.3 | 70-130 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0416 | | " | 0.0400 | | 104 | 50-150 | | | |
| Surrogate: Toluene-d8 | 0.0392 | | " | 0.0400 | | 98.1 | 50-150 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0397 | | " | 0.0400 | | 99.3 | 50-150 | | | |

Matrix Spike (BHH0782-MS1)

Source: 2408275-01

Prepared & Analyzed: 08/26/24

| | | | | | | | | | | |
|----------------------------------|--------|--------|-------|--------|----|------|--------|--|--|--|
| Benzene | 0.102 | 0.0020 | mg/kg | 0.100 | ND | 102 | 70-130 | | | |
| Toluene | 0.104 | 0.0050 | " | 0.100 | ND | 104 | 70-130 | | | |
| Ethylbenzene | 0.105 | 0.0050 | " | 0.100 | ND | 105 | 70-130 | | | |
| m,p-Xylene | 0.204 | 0.010 | " | 0.200 | ND | 102 | 70-130 | | | |
| o-Xylene | 0.0978 | 0.0050 | " | 0.100 | ND | 97.8 | 70-130 | | | |
| 1,2,4-Trimethylbenzene | 0.0949 | 0.0050 | " | 0.100 | ND | 94.9 | 70-130 | | | |
| 1,3,5-Trimethylbenzene | 0.0966 | 0.0050 | " | 0.100 | ND | 96.6 | 70-130 | | | |
| Naphthalene | 0.0887 | 0.0038 | " | 0.100 | ND | 88.7 | 70-130 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0433 | | " | 0.0400 | | 108 | 50-150 | | | |
| Surrogate: Toluene-d8 | 0.0399 | | " | 0.0400 | | 99.8 | 50-150 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0385 | | " | 0.0400 | | 96.2 | 50-150 | | | |

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

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 BHH0782 - EPA 5030 Soil MS

| Matrix Spike Dup (BHH0782-MSD1) | Source: 2408275-01 | | | Prepared & Analyzed: 08/26/24 | | | | | | |
|----------------------------------|--------------------|--------|-------|-------------------------------|----|------|--------|-------|----|--|
| Benzene | 0.0991 | 0.0020 | mg/kg | 0.100 | ND | 99.1 | 70-130 | 2.78 | 30 | |
| Toluene | 0.0991 | 0.0050 | " | 0.100 | ND | 99.1 | 70-130 | 4.44 | 30 | |
| Ethylbenzene | 0.103 | 0.0050 | " | 0.100 | ND | 103 | 70-130 | 2.34 | 30 | |
| m,p-Xylene | 0.202 | 0.010 | " | 0.200 | ND | 101 | 70-130 | 0.973 | 30 | |
| o-Xylene | 0.0967 | 0.0050 | " | 0.100 | ND | 96.7 | 70-130 | 1.17 | 30 | |
| 1,2,4-Trimethylbenzene | 0.0934 | 0.0050 | " | 0.100 | ND | 93.4 | 70-130 | 1.56 | 30 | |
| 1,3,5-Trimethylbenzene | 0.0947 | 0.0050 | " | 0.100 | ND | 94.7 | 70-130 | 2.01 | 30 | |
| Naphthalene | 0.0862 | 0.0038 | " | 0.100 | ND | 86.2 | 70-130 | 2.88 | 30 | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0440 | | " | 0.0400 | | 110 | 50-150 | | | |
| Surrogate: Toluene-d8 | 0.0405 | | " | 0.0400 | | 101 | 50-150 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0398 | | " | 0.0400 | | 99.4 | 50-150 | | | |

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Project: Noble - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

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 BHH0779 - EPA 3550A

Blank (BHH0779-BLK1)

Prepared: 08/26/24 Analyzed: 08/28/24

| | | | | | | | | | | |
|------------------------|------|----|-------|------|--|------|--------|--|--|--|
| C10-C28 (DRO) | ND | 50 | mg/kg | | | | | | | |
| C28-C36 (ORO) | ND | 50 | " | | | | | | | |
| Surrogate: o-Terphenyl | 11.6 | | " | 12.5 | | 93.2 | 30-150 | | | |

LCS (BHH0779-BS1)

Prepared: 08/26/24 Analyzed: 08/28/24

| | | | | | | | | | | |
|------------------------|------|----|-------|------|--|-----|--------|--|--|--|
| C10-C28 (DRO) | 553 | 50 | mg/kg | 500 | | 111 | 70-130 | | | |
| Surrogate: o-Terphenyl | 13.0 | | " | 12.5 | | 104 | 30-150 | | | |

Matrix Spike (BHH0779-MS1)

Source: 2408275-01

Prepared: 08/26/24 Analyzed: 08/28/24

| | | | | | | | | | | |
|------------------------|------|----|-------|------|------|------|--------|--|--|--|
| C10-C28 (DRO) | 462 | 50 | mg/kg | 500 | 17.4 | 88.8 | 70-130 | | | |
| Surrogate: o-Terphenyl | 9.23 | | " | 12.5 | | 73.9 | 30-150 | | | |

Matrix Spike Dup (BHH0779-MSD1)

Source: 2408275-01

Prepared: 08/26/24 Analyzed: 08/28/24

| | | | | | | | | | | |
|------------------------|------|----|-------|------|------|------|--------|------|----|--|
| C10-C28 (DRO) | 417 | 50 | mg/kg | 500 | 17.4 | 79.9 | 70-130 | 10.2 | 20 | |
| Surrogate: o-Terphenyl | 9.83 | | " | 12.5 | | 78.7 | 30-150 | | | |

Summit Scientific

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

Project: Noble - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHH0688 - EPA 5030 Soil MS

Blank (BHH0688-BLK1)

Prepared & Analyzed: 08/23/24

| | | | | | | | | | | |
|------------------------------------|--------|---------|-------|--------|--|------|--------|--|--|--|
| Acenaphthene | ND | 0.00500 | mg/kg | | | | | | | |
| Anthracene | ND | 0.00500 | " | | | | | | | |
| Benzo (a) anthracene | ND | 0.00500 | " | | | | | | | |
| Benzo (a) pyrene | ND | 0.00500 | " | | | | | | | |
| Benzo (b) fluoranthene | ND | 0.00500 | " | | | | | | | |
| Benzo (k) fluoranthene | ND | 0.00500 | " | | | | | | | |
| Chrysene | ND | 0.00500 | " | | | | | | | |
| Dibenz (a,h) anthracene | ND | 0.00500 | " | | | | | | | |
| Fluoranthene | ND | 0.00500 | " | | | | | | | |
| Fluorene | ND | 0.00500 | " | | | | | | | |
| Indeno (1,2,3-cd) pyrene | ND | 0.00500 | " | | | | | | | |
| Pyrene | ND | 0.00500 | " | | | | | | | |
| 1-Methylnaphthalene | ND | 0.00500 | " | | | | | | | |
| 2-Methylnaphthalene | ND | 0.00500 | " | | | | | | | |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0192 | | " | 0.0333 | | 57.6 | 40-150 | | | |
| Surrogate: Fluoranthene-d10 | 0.0246 | | " | 0.0333 | | 73.9 | 40-150 | | | |

LCS (BHH0688-BS1)

Prepared & Analyzed: 08/23/24

| | | | | | | | | | | |
|------------------------------------|--------|---------|-------|--------|--|------|--------|--|--|--|
| Acenaphthene | 0.0247 | 0.00500 | mg/kg | 0.0333 | | 74.0 | 31-137 | | | |
| Anthracene | 0.0266 | 0.00500 | " | 0.0333 | | 79.7 | 30-120 | | | |
| Benzo (a) anthracene | 0.0283 | 0.00500 | " | 0.0333 | | 84.8 | 30-120 | | | |
| Benzo (a) pyrene | 0.0220 | 0.00500 | " | 0.0333 | | 66.0 | 30-120 | | | |
| Benzo (b) fluoranthene | 0.0354 | 0.00500 | " | 0.0333 | | 106 | 30-120 | | | |
| Benzo (k) fluoranthene | 0.0178 | 0.00500 | " | 0.0333 | | 53.5 | 30-120 | | | |
| Chrysene | 0.0329 | 0.00500 | " | 0.0333 | | 98.7 | 30-120 | | | |
| Dibenz (a,h) anthracene | 0.0239 | 0.00500 | " | 0.0333 | | 71.6 | 30-120 | | | |
| Fluoranthene | 0.0248 | 0.00500 | " | 0.0333 | | 74.4 | 30-120 | | | |
| Fluorene | 0.0261 | 0.00500 | " | 0.0333 | | 78.4 | 30-120 | | | |
| Indeno (1,2,3-cd) pyrene | 0.0270 | 0.00500 | " | 0.0333 | | 80.9 | 30-120 | | | |
| Pyrene | 0.0300 | 0.00500 | " | 0.0333 | | 90.1 | 35-142 | | | |
| 1-Methylnaphthalene | 0.0193 | 0.00500 | " | 0.0333 | | 57.8 | 35-142 | | | |
| 2-Methylnaphthalene | 0.0193 | 0.00500 | " | 0.0333 | | 57.8 | 35-142 | | | |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0193 | | " | 0.0333 | | 57.8 | 40-150 | | | |
| Surrogate: Fluoranthene-d10 | 0.0262 | | " | 0.0333 | | 78.5 | 40-150 | | | |

Summit Scientific

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

Project: Noble - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHH0688 - EPA 5030 Soil MS

Matrix Spike (BHH0688-MS1)

Source: 2408254-01

Prepared & Analyzed: 08/23/24

| | | | | | | | | | |
|------------------------------------|--------|---------|-------|--------|---------|------|--------|--|--|
| Acenaphthene | 0.0175 | 0.00500 | mg/kg | 0.0333 | ND | 52.5 | 31-137 | | |
| Anthracene | 0.0199 | 0.00500 | " | 0.0333 | ND | 59.6 | 30-120 | | |
| Benzo (a) anthracene | 0.0217 | 0.00500 | " | 0.0333 | ND | 65.0 | 30-120 | | |
| Benzo (a) pyrene | 0.0151 | 0.00500 | " | 0.0333 | ND | 45.2 | 30-120 | | |
| Benzo (b) fluoranthene | 0.0132 | 0.00500 | " | 0.0333 | ND | 39.7 | 30-120 | | |
| Benzo (k) fluoranthene | 0.0191 | 0.00500 | " | 0.0333 | ND | 57.4 | 30-120 | | |
| Chrysene | 0.0235 | 0.00500 | " | 0.0333 | ND | 70.6 | 30-120 | | |
| Dibenz (a,h) anthracene | 0.0197 | 0.00500 | " | 0.0333 | ND | 59.1 | 30-120 | | |
| Fluoranthene | 0.0187 | 0.00500 | " | 0.0333 | ND | 56.1 | 30-120 | | |
| Fluorene | 0.0195 | 0.00500 | " | 0.0333 | ND | 58.4 | 30-120 | | |
| Indeno (1,2,3-cd) pyrene | 0.0147 | 0.00500 | " | 0.0333 | ND | 44.0 | 30-120 | | |
| Pyrene | 0.0217 | 0.00500 | " | 0.0333 | ND | 65.0 | 35-142 | | |
| 1-Methylnaphthalene | 0.0168 | 0.00500 | " | 0.0333 | ND | 50.3 | 15-130 | | |
| 2-Methylnaphthalene | 0.0166 | 0.00500 | " | 0.0333 | 0.00573 | 32.6 | 15-130 | | |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0163 | | " | 0.0333 | | 49.0 | 40-150 | | |
| Surrogate: Fluoranthene-d10 | 0.0200 | | " | 0.0333 | | 59.9 | 40-150 | | |

Matrix Spike Dup (BHH0688-MSD1)

Source: 2408254-01

Prepared & Analyzed: 08/23/24

| | | | | | | | | | | |
|------------------------------------|--------|---------|-------|--------|---------|------|--------|------|----|-------|
| Acenaphthene | 0.0217 | 0.00500 | mg/kg | 0.0333 | ND | 65.1 | 31-137 | 21.4 | 30 | |
| Anthracene | 0.0229 | 0.00500 | " | 0.0333 | ND | 68.6 | 30-120 | 13.9 | 30 | |
| Benzo (a) anthracene | 0.0249 | 0.00500 | " | 0.0333 | ND | 74.6 | 30-120 | 13.8 | 30 | |
| Benzo (a) pyrene | 0.0171 | 0.00500 | " | 0.0333 | ND | 51.2 | 30-120 | 12.4 | 30 | |
| Benzo (b) fluoranthene | 0.0264 | 0.00500 | " | 0.0333 | ND | 79.2 | 30-120 | 66.5 | 30 | QR-02 |
| Benzo (k) fluoranthene | 0.0137 | 0.00500 | " | 0.0333 | ND | 41.2 | 30-120 | 32.9 | 30 | QR-02 |
| Chrysene | 0.0153 | 0.00500 | " | 0.0333 | ND | 45.8 | 30-120 | 42.8 | 30 | QR-02 |
| Dibenz (a,h) anthracene | 0.0151 | 0.00500 | " | 0.0333 | ND | 45.3 | 30-120 | 26.3 | 30 | |
| Fluoranthene | 0.0213 | 0.00500 | " | 0.0333 | ND | 63.9 | 30-120 | 13.0 | 30 | |
| Fluorene | 0.0268 | 0.00500 | " | 0.0333 | ND | 80.3 | 30-120 | 31.6 | 30 | QR-02 |
| Indeno (1,2,3-cd) pyrene | 0.0177 | 0.00500 | " | 0.0333 | ND | 53.1 | 30-120 | 18.8 | 30 | |
| Pyrene | 0.0237 | 0.00500 | " | 0.0333 | ND | 71.2 | 35-142 | 9.02 | 30 | |
| 1-Methylnaphthalene | 0.0199 | 0.00500 | " | 0.0333 | ND | 59.7 | 15-130 | 17.1 | 50 | |
| 2-Methylnaphthalene | 0.0202 | 0.00500 | " | 0.0333 | 0.00573 | 43.3 | 15-130 | 19.3 | 50 | |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0182 | | " | 0.0333 | | 54.7 | 40-150 | | | |
| Surrogate: Fluoranthene-d10 | 0.0230 | | " | 0.0333 | | 69.0 | 40-150 | | | |

Summit Scientific

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

Project: Noble - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

Total Metals by EPA 6020B Hot Water Soluble Extraction - Quality Control
Summit Scientific

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

Batch BHH0766 - EPA 3050B

Blank (BHH0766-BLK1)

Prepared: 08/26/24 Analyzed: 08/29/24

Boron ND 2.00 mg/L

LCS (BHH0766-BS1)

Prepared: 08/26/24 Analyzed: 08/29/24

Boron 4.94 2.00 mg/L 5.00 98.9 80-120

Duplicate (BHH0766-DUP1)

Source: 2408276-01

Prepared: 08/26/24 Analyzed: 08/29/24

Boron 0.240 2.00 mg/L 0.260 8.00 20

Matrix Spike (BHH0766-MS1)

Source: 2408276-01

Prepared: 08/26/24 Analyzed: 08/29/24

Boron 5.28 2.00 mg/L 5.05 0.260 99.6 75-125

Matrix Spike Dup (BHH0766-MSD1)

Source: 2408276-01

Prepared: 08/26/24 Analyzed: 08/29/24

Boron 5.09 2.00 mg/L 5.05 0.260 95.8 75-125 3.65 25

Summit Scientific

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

Project: Noble - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHH0691 - EPA 3050B

Blank (BHH0691-BLK1)

Prepared: 08/23/24 Analyzed: 08/28/24

| | | | |
|----------|----|--------|-----------|
| Arsenic | ND | 0.200 | mg/kg wet |
| Barium | ND | 0.400 | " |
| Cadmium | ND | 0.200 | " |
| Copper | ND | 0.400 | " |
| Lead | ND | 0.200 | " |
| Nickel | ND | 0.400 | " |
| Silver | ND | 0.0200 | " |
| Zinc | ND | 0.400 | " |
| Selenium | ND | 0.260 | " |

LCS (BHH0691-BS1)

Prepared: 08/23/24 Analyzed: 08/28/24

| | | | | | | |
|----------|------|--------|-----------|------|------|--------|
| Arsenic | 38.2 | 0.200 | mg/kg wet | 38.5 | 99.3 | 80-120 |
| Barium | 38.6 | 0.400 | " | 38.5 | 100 | 80-120 |
| Cadmium | 1.88 | 0.200 | " | 1.92 | 97.9 | 80-120 |
| Copper | 38.6 | 0.400 | " | 38.5 | 100 | 80-120 |
| Lead | 20.5 | 0.200 | " | 19.2 | 107 | 80-120 |
| Nickel | 38.1 | 0.400 | " | 38.5 | 99.2 | 80-120 |
| Silver | 1.88 | 0.0200 | " | 1.92 | 97.6 | 80-120 |
| Zinc | 37.9 | 0.400 | " | 38.5 | 98.5 | 80-120 |
| Selenium | 3.92 | 0.260 | " | 3.85 | 102 | 80-120 |

Duplicate (BHH0691-DUP1)

Source: 2408275-02

Prepared: 08/23/24 Analyzed: 08/28/24

| | | | | | | | |
|----------|--------|--------|-----------|--------|------|----|-------|
| Arsenic | 1.01 | 0.181 | mg/kg dry | 1.03 | 2.41 | 20 | |
| Barium | 141 | 0.362 | " | 126 | 11.4 | 20 | |
| Cadmium | 0.165 | 0.181 | " | 0.153 | 7.41 | 20 | |
| Copper | 2.11 | 0.362 | " | 2.16 | 2.40 | 20 | |
| Lead | 8.56 | 0.181 | " | 7.71 | 10.4 | 20 | |
| Nickel | 2.52 | 0.362 | " | 2.63 | 4.22 | 20 | |
| Silver | 0.0733 | 0.0181 | " | 0.0588 | 22.0 | 20 | QR-01 |
| Zinc | 7.62 | 0.362 | " | 7.88 | 3.34 | 20 | |
| Selenium | 0.167 | 0.236 | " | ND | 200 | 20 | QR-01 |

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

Project: Noble - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHH0691 - EPA 3050B

| Matrix Spike (BHH0691-MS1) | | | Source: 2408275-02 | | Prepared: 08/23/24 Analyzed: 08/28/24 | | | | | | |
|----------------------------|------|--------|--------------------|------|---------------------------------------|------|--------|--|--|--|-------|
| Arsenic | 11.4 | 0.200 | mg/kg dry | 44.6 | 1.03 | 23.2 | 75-125 | | | | QM-05 |
| Barium | 165 | 0.400 | " | 44.6 | 126 | 86.0 | 75-125 | | | | |
| Cadmium | 2.33 | 0.200 | " | 2.23 | 0.153 | 97.5 | 75-125 | | | | |
| Copper | 12.7 | 0.400 | " | 44.6 | 2.16 | 23.6 | 75-125 | | | | QM-05 |
| Lead | 27.1 | 0.200 | " | 22.3 | 7.71 | 86.9 | 75-125 | | | | |
| Nickel | 13.3 | 0.400 | " | 44.6 | 2.63 | 23.9 | 75-125 | | | | QM-05 |
| Silver | 2.16 | 0.0200 | " | 2.23 | 0.0588 | 94.3 | 75-125 | | | | |
| Zinc | 18.9 | 0.400 | " | 44.6 | 7.88 | 24.7 | 75-125 | | | | QM-05 |
| Selenium | 4.39 | 0.260 | " | 4.46 | ND | 98.5 | 75-125 | | | | |

| Matrix Spike Dup (BHH0691-MSD1) | | | Source: 2408275-02 | | Prepared: 08/23/24 Analyzed: 08/28/24 | | | | | | |
|---------------------------------|------|--------|--------------------|------|---------------------------------------|------|--------|------|----|--|-------|
| Arsenic | 9.79 | 0.200 | mg/kg dry | 41.9 | 1.03 | 20.9 | 75-125 | 15.1 | 25 | | QM-05 |
| Barium | 173 | 0.400 | " | 41.9 | 126 | 111 | 75-125 | 4.79 | 25 | | |
| Cadmium | 2.17 | 0.200 | " | 2.10 | 0.153 | 96.4 | 75-125 | 6.79 | 25 | | |
| Copper | 11.0 | 0.400 | " | 41.9 | 2.16 | 21.2 | 75-125 | 14.0 | 25 | | QM-05 |
| Lead | 26.3 | 0.200 | " | 21.0 | 7.71 | 88.7 | 75-125 | 2.92 | 25 | | |
| Nickel | 11.5 | 0.400 | " | 41.9 | 2.63 | 21.2 | 75-125 | 14.0 | 25 | | QM-05 |
| Silver | 2.06 | 0.0200 | " | 2.10 | 0.0588 | 95.2 | 75-125 | 5.03 | 25 | | |
| Zinc | 16.8 | 0.400 | " | 41.9 | 7.88 | 21.4 | 75-125 | 11.5 | 25 | | QM-05 |
| Selenium | 4.16 | 0.260 | " | 4.19 | ND | 99.2 | 75-125 | 5.41 | 25 | | |

Batch BHH0693 - EPA 3050B

| Blank (BHH0693-BLK1) | | | Prepared: 08/23/24 Analyzed: 08/28/24 | | | | | | | | |
|----------------------|----|--------|---------------------------------------|--|--|--|--|--|--|--|--|
| Arsenic | ND | 0.200 | mg/kg wet | | | | | | | | |
| Barium | ND | 0.400 | " | | | | | | | | |
| Cadmium | ND | 0.200 | " | | | | | | | | |
| Copper | ND | 0.400 | " | | | | | | | | |
| Lead | ND | 0.200 | " | | | | | | | | |
| Nickel | ND | 0.400 | " | | | | | | | | |
| Silver | ND | 0.0200 | " | | | | | | | | |
| Zinc | ND | 0.400 | " | | | | | | | | |
| Selenium | ND | 0.260 | " | | | | | | | | |

Summit Scientific

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

Project: Noble - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHH0693 - EPA 3050B

LCS (BHH0693-BS1)

Prepared: 08/23/24 Analyzed: 08/28/24

| | | | | | | | | | | |
|----------|------|--------|-----------|------|--|------|--------|--|--|--|
| Arsenic | 34.6 | 0.200 | mg/kg wet | 37.6 | | 92.0 | 80-120 | | | |
| Barium | 33.4 | 0.400 | " | 37.6 | | 88.8 | 80-120 | | | |
| Cadmium | 1.70 | 0.200 | " | 1.88 | | 90.3 | 80-120 | | | |
| Copper | 36.6 | 0.400 | " | 37.6 | | 97.3 | 80-120 | | | |
| Lead | 16.9 | 0.200 | " | 18.8 | | 90.1 | 80-120 | | | |
| Nickel | 36.2 | 0.400 | " | 37.6 | | 96.3 | 80-120 | | | |
| Silver | 1.70 | 0.0200 | " | 1.88 | | 90.5 | 80-120 | | | |
| Zinc | 35.7 | 0.400 | " | 37.6 | | 95.0 | 80-120 | | | |
| Selenium | 3.80 | 0.260 | " | 3.76 | | 101 | 80-120 | | | |

Duplicate (BHH0693-DUP1)

Source: 2408276-10

Prepared: 08/23/24 Analyzed: 08/28/24

| | | | | | | | | | | |
|----------|--------|--------|-----------|--|--------|--|--|------|----|--|
| Arsenic | 1.95 | 0.200 | mg/kg dry | | 1.87 | | | 4.31 | 20 | |
| Barium | 45.5 | 0.400 | " | | 50.2 | | | 9.97 | 20 | |
| Cadmium | 0.164 | 0.200 | " | | 0.161 | | | 1.83 | 20 | |
| Copper | 3.81 | 0.400 | " | | 3.90 | | | 2.33 | 20 | |
| Lead | 7.88 | 0.200 | " | | 9.00 | | | 13.2 | 20 | |
| Nickel | 3.33 | 0.400 | " | | 3.47 | | | 4.08 | 20 | |
| Silver | 0.0194 | 0.0200 | " | | 0.0208 | | | 6.67 | 20 | |
| Zinc | 15.0 | 0.400 | " | | 14.5 | | | 3.37 | 20 | |
| Selenium | ND | 0.260 | " | | ND | | | | 20 | |

Matrix Spike (BHH0693-MS1)

Source: 2408276-10

Prepared: 08/23/24 Analyzed: 08/28/24

| | | | | | | | | | | |
|----------|------|--------|-----------|------|--------|------|--------|--|--|-------|
| Arsenic | 35.6 | 0.179 | mg/kg dry | 37.4 | 1.87 | 90.2 | 75-125 | | | |
| Barium | 85.1 | 0.357 | " | 37.4 | 50.2 | 93.3 | 75-125 | | | |
| Cadmium | 1.85 | 0.179 | " | 1.87 | 0.161 | 90.2 | 75-125 | | | |
| Copper | 27.8 | 0.357 | " | 37.4 | 3.90 | 64.0 | 75-125 | | | QM-05 |
| Lead | 24.6 | 0.179 | " | 18.7 | 9.00 | 83.6 | 75-125 | | | |
| Nickel | 27.6 | 0.357 | " | 37.4 | 3.47 | 64.7 | 75-125 | | | QM-05 |
| Silver | 1.68 | 0.0179 | " | 1.87 | 0.0208 | 88.7 | 75-125 | | | |
| Zinc | 39.3 | 0.357 | " | 37.4 | 14.5 | 66.2 | 75-125 | | | QM-05 |
| Selenium | 3.63 | 0.232 | " | 3.74 | ND | 97.2 | 75-125 | | | |

Summit Scientific

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

Project: Noble - Long C20-17
Project Number: UWRWE-A1876-ABN
Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHH0693 - EPA 3050B

| Matrix Spike Dup (BHH0693-MSD1) | | Source: 2408276-10 | | | Prepared: 08/23/24 Analyzed: 08/28/24 | | | | | |
|---------------------------------|------|--------------------|-----------|------|---------------------------------------|------|--------|------|----|-------|
| Arsenic | 36.1 | 0.200 | mg/kg dry | 38.4 | 1.87 | 89.1 | 75-125 | 1.58 | 25 | |
| Barium | 90.1 | 0.400 | " | 38.4 | 50.2 | 104 | 75-125 | 5.75 | 25 | |
| Cadmium | 1.92 | 0.200 | " | 1.92 | 0.161 | 91.7 | 75-125 | 4.10 | 25 | |
| Copper | 29.3 | 0.400 | " | 38.4 | 3.90 | 66.1 | 75-125 | 5.24 | 25 | QM-05 |
| Lead | 25.0 | 0.200 | " | 19.2 | 9.00 | 83.4 | 75-125 | 1.69 | 25 | |
| Nickel | 28.9 | 0.400 | " | 38.4 | 3.47 | 66.1 | 75-125 | 4.53 | 25 | QM-05 |
| Silver | 1.75 | 0.0200 | " | 1.92 | 0.0208 | 90.1 | 75-125 | 4.45 | 25 | |
| Zinc | 40.5 | 0.400 | " | 38.4 | 14.5 | 67.4 | 75-125 | 3.00 | 25 | QM-05 |
| Selenium | 3.78 | 0.260 | " | 3.84 | ND | 98.4 | 75-125 | 4.06 | 25 | |

Summit Scientific

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

Project: Noble - Long C20-17
Project Number: UWRWE-A1876-ABN
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Reported:
08/29/24 11:02

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BHH0810 - 3060A Mod

Blank (BHH0810-BLK1)

Prepared & Analyzed: 08/27/24

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BHH0810-BS1)

Prepared & Analyzed: 08/27/24

Chromium, Hexavalent 5.15 0.30 mg/kg wet 5.00 103 80-120

Duplicate (BHH0810-DUP1)

Source: 2408276-01

Prepared & Analyzed: 08/27/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BHH0810-MS1)

Source: 2408276-01

Prepared & Analyzed: 08/27/24

Chromium, Hexavalent 5.02 0.30 mg/kg dry 5.51 ND 91.0 75-125

Matrix Spike Dup (BHH0810-MSD1)

Source: 2408276-01

Prepared & Analyzed: 08/27/24

Chromium, Hexavalent 5.57 0.30 mg/kg dry 5.51 ND 101 75-125 10.4 20

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Reported:
08/29/24 11:02

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction - Quality Control
Summit Scientific

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

Batch BHH0789 - General Preparation

Blank (BHH0789-BLK1)

Prepared: 08/26/24 Analyzed: 08/29/24

| | | | |
|-----------|----|--------|----------|
| Calcium | ND | 0.0500 | mg/L wet |
| Magnesium | ND | 0.0500 | " |
| Sodium | ND | 0.0500 | " |

LCS (BHH0789-BS1)

Prepared: 08/26/24 Analyzed: 08/29/24

| | | | | | | |
|-----------|------|--------|----------|------|-----|--------|
| Calcium | 5.84 | 0.0500 | mg/L wet | 5.00 | 117 | 70-130 |
| Magnesium | 5.10 | 0.0500 | " | 5.00 | 102 | 70-130 |
| Sodium | 5.11 | 0.0500 | " | 5.00 | 102 | 70-130 |

Summit Scientific

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Project Number: UWRWE-A1876-ABN

Project Manager: Jacob Whritenour

Reported:

08/29/24 11:02

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control

Summit Scientific

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

Batch BHH0754 - General Preparation

| Duplicate (BHH0754-DUP1) | | Source: 2408275-01 | | | Prepared & Analyzed: 08/26/24 | | | | | | |
|--------------------------|------|--------------------|---|--|-------------------------------|--|--|------|--|----|--|
| % Solids | 84.3 | | % | | 86.0 | | | 1.98 | | 20 | |

Summit Scientific

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Project: Noble - Long C20-17
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Reported:
08/29/24 11:02

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction - Quality Control
Summit Scientific

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

Batch BHH0791 - General Preparation

Blank (BHH0791-BLK1)

Prepared: 08/26/24 Analyzed: 08/28/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BHH0791-BS1)

Prepared: 08/26/24 Analyzed: 08/28/24

Specific Conductance (EC) 0.154 0.0100 mmhos/cm 0.150 103 95-105

Duplicate (BHH0791-DUP1)

Source: 2408276-01

Prepared: 08/26/24 Analyzed: 08/28/24

Specific Conductance (EC) 1.15 0.0100 mmhos/cm 1.16 0.864 20

Summit Scientific

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Broomfield CO, 80020

Project: Noble - Long C20-17

Project Number: UWRWE-A1876-ABN

Project Manager: Jacob Whritenour

Reported:
08/29/24 11:02

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction - Quality Control

Summit Scientific

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

Batch BHH0793 - General Preparation

LCS (BHH0793-BS1)

Prepared: 08/26/24 Analyzed: 08/28/24

| | | | | | |
|----|------|----------|------|------|--------|
| pH | 9.07 | pH Units | 9.18 | 98.8 | 95-105 |
|----|------|----------|------|------|--------|

Duplicate (BHH0793-DUP1)

Source: 2408276-01

Prepared: 08/26/24 Analyzed: 08/28/24

| | | | | | |
|----|------|----------|------|-------|----|
| pH | 7.99 | pH Units | 8.03 | 0.499 | 20 |
|----|------|----------|------|-------|----|

Summit Scientific

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6855 W. 119th Ave.
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Project: Noble - Long C20-17

Project Number: UWRWE-A1876-ABN

Project Manager: Jacob Whritenour

Reported:

08/29/24 11:02

Notes and Definitions

| | |
|-------|---|
| QR-02 | The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data. |
| QR-01 | Analyses are not controlled on RPD values from sample concentrations below the reporting limit. QC batch accepted based on LCS and/or LCSD QC results. |
| QM-05 | The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The associated LCS and/or LCSD were within acceptance limits, therefore the data are considered valid. |
| E | The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. |
| DET | Analyte DETECTED |
| ND | Analyte NOT DETECTED at or above the reporting limit |
| NR | Not Reported |
| dry | Sample results reported on a dry weight basis |
| RPD | Relative Percent Difference |