

# Summit Scientific

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4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

April 12, 2021

Ken Rogowski

Absaroka Solutions

112 High Street

Buffalo, WY 82834

RE: Chalk Bluffs

Work Order #2104023

Enclosed are the results of analyses for samples received by Summit Scientific on 04/01/21 17:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Shrewsbury', with a stylized, cursive script.

Paul Shrewsbury

President



Absaroka Solutions  
112 High Street  
Buffalo WY, 82834

Project: Chalk Bluffs  
Project Number: 418.08  
Project Manager: Ken Rogowski

**Reported:**  
04/12/21 14:22

#### ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled   | Date Received  |
|-----------|---------------|--------|----------------|----------------|
| SS-1@5.5' | 2104023-01    | Soil   | 03/31/21 10:10 | 04/01/21 17:30 |
| SS-2@0'   | 2104023-02    | Soil   | 03/31/21 10:15 | 04/01/21 17:30 |
| SS-3@4'   | 2104023-03    | Soil   | 03/31/21 10:30 | 04/01/21 17:30 |
| SS-4@5'   | 2104023-04    | Soil   | 03/31/21 10:35 | 04/01/21 17:30 |
| SS-5@5'   | 2104023-05    | Soil   | 03/31/21 11:20 | 04/01/21 17:30 |
| SS-6@0'   | 2104023-06    | Soil   | 03/31/21 11:25 | 04/01/21 17:30 |
| SS-7@8'   | 2104023-07    | Soil   | 03/31/21 11:45 | 04/01/21 17:30 |
| BG-1@0'   | 2104023-08    | Soil   | 03/31/21 11:50 | 04/01/21 17:30 |

Summit Scientific

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2104023

## Summit Scientific

S<sub>2</sub>

4653 Table Mountain Drive ♦ Golden, Colorado 80403

303-277-9310 ♦ 303-374-5933 (f)

Page 1 of 1

Client: Absaroka

Project Manager: Ken Rogowski

Address:

E-Mail: [ken.rogowski@absarokasolutions.com](mailto:ken.rogowski@absarokasolutions.com)

City/State/Zip:

Phone:

Project Name: Chalk Bluffs

Sampler Name: TS, JF

Project Number: 418.08

| ID | Sample Description | Date Sampled | Time Sampled | # of containers | Preservative |                  |      |       | Matrix |      |                |       | Analysis Requested |      |     |     |     |                        |                        |                    | Special Instructions |
|----|--------------------|--------------|--------------|-----------------|--------------|------------------|------|-------|--------|------|----------------|-------|--------------------|------|-----|-----|-----|------------------------|------------------------|--------------------|----------------------|
|    |                    |              |              |                 | HCl          | HNO <sub>3</sub> | None | Other | Water  | Soil | Air-Canister # | Other | Full 915 Suite     | BTEX | DRO | ORO | GRO | 1,2,4-trimethylbenzene | 1,3,5-trimethylbenzene |                    |                      |
| 1  | SS-1 @ 5.5'        | 3/31/21      | 10:10        | 3               |              |                  | X    |       |        | X    |                |       |                    | X    | X   | X   | X   | X                      | X                      |                    |                      |
| 2  | SS-2 @ 0'          | 3/31/21      | 10:15        | 3               |              |                  | X    |       |        | X    |                |       |                    | X    | X   | X   | X   | X                      | X                      | EC, pH, SAR, HWS-B |                      |
| 3  | SS-3 @ 4'          | 3/31/21      | 10:30        | 3               |              |                  | X    |       |        | X    |                |       |                    | X    | X   | X   | X   | X                      | X                      |                    |                      |
| 4  | SS-4 @ 5'          | 3/31/21      | 10:35        | 3               |              |                  | X    |       |        | X    |                |       |                    | X    | X   | X   | X   | X                      | X                      |                    |                      |
| 5  | SS-5 @ 5'          | 3/31/21      | 11:20        | 3               |              |                  | X    |       |        | X    |                |       |                    | X    | X   | X   | X   | X                      | X                      |                    |                      |
| 6  | SS-6 @ 0'          | 3/31/21      | 11:25        | 3               |              |                  | X    |       |        | X    |                |       |                    | X    | X   | X   | X   | X                      | X                      |                    |                      |
| 7  | SS-7 @ 8'          | 3/31/21      | 11:45        | 3               |              |                  | X    |       |        | X    |                |       |                    | X    | X   | X   | X   | X                      | X                      |                    |                      |
| 8  | BG-1 @ 0'          | 3/31/21      | 11:50        | 3               |              |                  | X    |       |        | X    |                |       |                    |      |     |     |     |                        |                        | EC, pH, SAR, HWS-B |                      |
| 9  |                    |              |              |                 |              |                  |      |       |        |      |                |       |                    |      |     |     |     |                        |                        |                    |                      |
| 10 |                    |              |              |                 |              |                  |      |       |        |      |                |       |                    |      |     |     |     |                        |                        |                    |                      |

  

|                              |                        |                              |                         |  |   |
|------------------------------|------------------------|------------------------------|-------------------------|--|---|
| Relinquished by: <i>Tube</i> | Date/Time: 4/1/21 1100 | Received by: <i>John Bue</i> | Date/Time: 4/1/21 17:30 | <b>Turn Around Time</b> (Check)<br>Same Day _____ 72 hours _____ 24<br>hours _____ <u>Standard</u> _____ X 48<br>hours _____<br><b>Sample Integrity:</b><br>Temperature Upon Receipt: <u>13.2</u><br>Samples Intact: <u>Yes</u> No | <b>Notes: BILL TO WHITING</b><br>*HWS = Hot Water Soluble |
| Relinquished by:             | Date/Time:             | Received by:                 | Date/Time:              |  |   |
| Relinquished by:             | Date/Time:             | Received by:                 | Date/Time:              |  |   |

# Sample Receipt Checklist

S2 Work Order 2104023

Client: Absaroka

Client Project ID: chalk Bluffs

Shipped Via: ☐ H.D./P.U./FedEx/UPS/USPS/Other ☒

Airbill #: \_\_\_\_\_

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

(Describe)

|           |      |
|-----------|------|
| Temp (°C) | 13.2 |
|-----------|------|

Thermometer ID: 61857155-K

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

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

JB  
Custodian Printed Name or Initials

[Signature]  
Signature of Custodian

4/1/21 19:34  
Date/Time



Absaroka Solutions  
112 High Street  
Buffalo WY, 82834

Project: Chalk Bluffs  
Project Number: 418.08  
Project Manager: Ken Rogowski

**Reported:**  
04/12/21 14:22

**SS-1@5.5'**  
**2104023-01 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/31/21 10:10**

| Analyte                     | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene                     | ND     | 0.0020          | mg/kg | 1        | BED0103 | 04/07/21 | 04/08/21 | 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: **03/31/21 10:10**

| Analyte                          | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 |        | 83.8 %          | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 94.3 %          | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 96.1 %          | 21-167 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/31/21 10:10**

| Analyte       | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| C10-C28 (DRO) | ND     | 50              | mg/kg | 1        | BED0074 | 04/06/21 | 04/07/21 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50              | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **03/31/21 10:10**

| Analyte                | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: o-Terphenyl |        | 98.5 %          | 30-150 |          | "     | "        | "        | "      |       |

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Absaroka Solutions  
112 High Street  
Buffalo WY, 82834

Project: Chalk Bluffs  
Project Number: 418.08  
Project Manager: Ken Rogowski

**Reported:**  
04/12/21 14:22

**SS-2@0'**  
**2104023-02 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/31/21 10:15**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BED0103 | 04/07/21 | 04/08/21 | 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: **03/31/21 10:15**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 102 %     | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 95.5 %    | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 102 %     | 21-167 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/31/21 10:15**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BED0074 | 04/06/21 | 04/07/21 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **03/31/21 10:15**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl |        | 110 %     | 30-150 |          | "     | "        | "        | "      |       |

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

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Absaroka Solutions  
112 High Street  
Buffalo WY, 82834

Project: Chalk Bluffs  
Project Number: 418.08  
Project Manager: Ken Rogowski

**Reported:**  
04/12/21 14:22

**SS-2@0'**  
**2104023-02 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **03/31/21 10:15**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron   | 1.49   | 0.0100          | mg/L  | 1        | BED0162 | 04/09/21 | 04/10/21 | EPA 6020B |       |

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

Date Sampled: **03/31/21 10:15**

| Analyte   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium   | 231    | 0.0652          | mg/L dry | 1        | BED0121 | 04/07/21 | 04/09/21 | EPA 6020B |       |
| Magnesium | 94.9   | 0.0652          | "        | "        | "       | "        | "        | "         |       |
| Sodium    | 169    | 0.0652          | "        | "        | "       | "        | "        | "         |       |

**Calculated Analysis**

Date Sampled: **03/31/21 10:15**

| Analyte                 | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 2.36   | 0.100           | units | 1        | BED0169 | 04/09/21 | 04/09/21 | Calculation |       |

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **03/31/21 10:15**

| Analyte  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 76.7   |                 | %     | 1        | BED0127 | 04/08/21 | 04/08/21 | Calculation |       |

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **03/31/21 10:15**

| Analyte                   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.433  | 0.0100          | mmhos/cm | 1        | BED0151 | 04/08/21 | 04/08/21 | EPA 120.1 |       |

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

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Absaroka Solutions  
112 High Street  
Buffalo WY, 82834

Project: Chalk Bluffs  
Project Number: 418.08  
Project Manager: Ken Rogowski

**Reported:**  
04/12/21 14:22

**SS-2@0'**  
**2104023-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/31/21 10:15**

| Analyte   | Result      | Reporting |  | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|-------------|-----------|--|----------|----------|---------|----------|----------|-----------|-------|
|           |             | Limit     |  |          |          |         |          |          |           |       |
| <b>pH</b> | <b>9.12</b> |           |  | pH Units | 1        | BED0152 | 04/08/21 | 04/08/21 | EPA 9045D |       |

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112 High Street  
Buffalo WY, 82834

Project: Chalk Bluffs  
Project Number: 418.08  
Project Manager: Ken Rogowski

**Reported:**  
04/12/21 14:22

**SS-3@4'**  
**2104023-03 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/31/21 10:30**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BED0103 | 04/07/21 | 04/08/21 | 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: **03/31/21 10:30**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 97.4 %    | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 96.2 %    | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 94.0 %    | 21-167 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/31/21 10:30**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BED0074 | 04/06/21 | 04/07/21 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **03/31/21 10:30**

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

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Absaroka Solutions  
112 High Street  
Buffalo WY, 82834

Project: Chalk Bluffs  
Project Number: 418.08  
Project Manager: Ken Rogowski

**Reported:**  
04/12/21 14:22

**SS-4@5'**  
**2104023-04 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/31/21 10:35**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BED0103 | 04/07/21 | 04/08/21 | 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: **03/31/21 10:35**

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

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/31/21 10:35**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BED0074 | 04/06/21 | 04/07/21 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **03/31/21 10:35**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl |        | 113 %     | 30-150 |          | "     | "        | "        | "      |       |

Summit Scientific

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Absaroka Solutions  
112 High Street  
Buffalo WY, 82834

Project: Chalk Bluffs  
Project Number: 418.08  
Project Manager: Ken Rogowski

**Reported:**  
04/12/21 14:22

**SS-5@5'**  
**2104023-05 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/31/21 11:20**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BED0103 | 04/07/21 | 04/08/21 | 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: **03/31/21 11:20**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 87.9 %    | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 96.0 %    | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 98.4 %    | 21-167 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/31/21 11:20**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BED0074 | 04/06/21 | 04/07/21 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **03/31/21 11:20**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl |        | 114 %     | 30-150 |          | "     | "        | "        | "      |       |

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Absaroka Solutions  
112 High Street  
Buffalo WY, 82834

Project: Chalk Bluffs  
Project Number: 418.08  
Project Manager: Ken Rogowski

**Reported:**  
04/12/21 14:22

**SS-6@0'**  
**2104023-06 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/31/21 11:25**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BED0103 | 04/07/21 | 04/08/21 | 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: **03/31/21 11:25**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 101 %     | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 93.8 %    | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 105 %     | 21-167 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/31/21 11:25**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BED0074 | 04/06/21 | 04/07/21 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **03/31/21 11:25**

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

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Absaroka Solutions  
112 High Street  
Buffalo WY, 82834

Project: Chalk Bluffs  
Project Number: 418.08  
Project Manager: Ken Rogowski

**Reported:**  
04/12/21 14:22

**SS-7@8'**  
**2104023-07 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/31/21 11:45**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BED0103 | 04/07/21 | 04/08/21 | 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: **03/31/21 11:45**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 88.3 %    | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 93.0 %    | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 97.7 %    | 21-167 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/31/21 11:45**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BED0074 | 04/06/21 | 04/07/21 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **03/31/21 11:45**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl |        | 110 %     | 30-150 |          | "     | "        | "        | "      |       |

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Absaroka Solutions  
112 High Street  
Buffalo WY, 82834

Project: Chalk Bluffs  
Project Number: 418.08  
Project Manager: Ken Rogowski

**Reported:**  
04/12/21 14:22

**BG-1@0'**  
**2104023-08 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **03/31/21 11:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron   | 0.157  | 0.0100          | mg/L  | 1        | BED0162 | 04/09/21 | 04/10/21 | EPA 6020B |       |

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

Date Sampled: **03/31/21 11:50**

| Analyte   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium   | 37.0   | 0.0611          | mg/L dry | 1        | BED0121 | 04/07/21 | 04/09/21 | EPA 6020B |       |
| Magnesium | 8.25   | 0.0611          | "        | "        | "       | "        | "        | "         |       |
| Sodium    | 30.2   | 0.0611          | "        | "        | "       | "        | "        | "         |       |

**Calculated Analysis**

Date Sampled: **03/31/21 11:50**

| Analyte                 | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 1.17   | 0.100           | units | 1        | BED0169 | 04/09/21 | 04/09/21 | Calculation |       |

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **03/31/21 11:50**

| Analyte  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 81.8   |                 | %     | 1        | BED0127 | 04/08/21 | 04/08/21 | Calculation |       |

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **03/31/21 11:50**

| Analyte                   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.369  | 0.0100          | mmhos/cm | 1        | BED0151 | 04/08/21 | 04/08/21 | EPA 120.1 |       |

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

Summit Scientific

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Absaroka Solutions  
112 High Street  
Buffalo WY, 82834

Project: Chalk Bluffs  
Project Number: 418.08  
Project Manager: Ken Rogowski

**Reported:**  
04/12/21 14:22

**BG-1@0'**  
**2104023-08 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/31/21 11:50**

| Analyte   | Result      | Reporting |  | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|-------------|-----------|--|----------|----------|---------|----------|----------|-----------|-------|
|           |             | Limit     |  |          |          |         |          |          |           |       |
| <b>pH</b> | <b>8.52</b> |           |  | pH Units | 1        | BED0152 | 04/08/21 | 04/08/21 | EPA 9045D |       |

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Absaroka Solutions  
112 High Street  
Buffalo WY, 82834

Project: Chalk Bluffs  
Project Number: 418.08  
Project Manager: Ken Rogowski

**Reported:**  
04/12/21 14:22

## 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 BED0103 - EPA 5030 Soil MS

##### Blank (BED0103-BLK1)

Prepared: 04/07/21 Analyzed: 04/08/21

|                                  |        |        |       |        |  |      |        |  |  |  |
|----------------------------------|--------|--------|-------|--------|--|------|--------|--|--|--|
| 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 | 0.0357 |        | "     | 0.0400 |  | 89.2 | 23-173 |  |  |  |
| Surrogate: Toluene-d8            | 0.0402 |        | "     | 0.0400 |  | 101  | 20-170 |  |  |  |
| Surrogate: 4-Bromofluorobenzene  | 0.0381 |        | "     | 0.0400 |  | 95.2 | 21-167 |  |  |  |

##### LCS (BED0103-BS1)

Prepared: 04/07/21 Analyzed: 04/08/21

|                                  |        |        |       |        |  |      |        |  |  |  |
|----------------------------------|--------|--------|-------|--------|--|------|--------|--|--|--|
| Benzene                          | 0.178  | 0.0020 | mg/kg | 0.150  |  | 119  | 70-130 |  |  |  |
| Toluene                          | 0.127  | 0.0050 | "     | 0.150  |  | 84.7 | 70-130 |  |  |  |
| Ethylbenzene                     | 0.141  | 0.0050 | "     | 0.150  |  | 94.3 | 70-130 |  |  |  |
| m,p-Xylene                       | 0.271  | 0.010  | "     | 0.300  |  | 90.4 | 70-130 |  |  |  |
| o-Xylene                         | 0.137  | 0.0050 | "     | 0.150  |  | 91.5 | 70-130 |  |  |  |
| 1,2,4-Trimethylbenzene           | 0.154  | 0.0050 | "     | 0.150  |  | 103  | 70-130 |  |  |  |
| 1,3,5-Trimethylbenzene           | 0.151  | 0.0050 | "     | 0.150  |  | 101  | 70-130 |  |  |  |
| Naphthalene                      | 0.177  | 0.0038 | "     | 0.150  |  | 118  | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0318 |        | "     | 0.0400 |  | 79.4 | 23-173 |  |  |  |
| Surrogate: Toluene-d8            | 0.0366 |        | "     | 0.0400 |  | 91.6 | 20-170 |  |  |  |
| Surrogate: 4-Bromofluorobenzene  | 0.0398 |        | "     | 0.0400 |  | 99.4 | 21-167 |  |  |  |

##### Matrix Spike (BED0103-MS1)

Source: 2104076-01

Prepared: 04/07/21 Analyzed: 04/08/21

|                                  |        |        |       |        |    |      |        |  |  |  |
|----------------------------------|--------|--------|-------|--------|----|------|--------|--|--|--|
| Benzene                          | 0.159  | 0.0020 | mg/kg | 0.150  | ND | 106  | 70-130 |  |  |  |
| Toluene                          | 0.114  | 0.0050 | "     | 0.150  | ND | 76.2 | 70-130 |  |  |  |
| Ethylbenzene                     | 0.127  | 0.0050 | "     | 0.150  | ND | 84.9 | 70-130 |  |  |  |
| m,p-Xylene                       | 0.243  | 0.010  | "     | 0.300  | ND | 80.9 | 70-130 |  |  |  |
| o-Xylene                         | 0.123  | 0.0050 | "     | 0.150  | ND | 82.2 | 70-130 |  |  |  |
| 1,2,4-Trimethylbenzene           | 0.144  | 0.0050 | "     | 0.150  | ND | 96.0 | 70-130 |  |  |  |
| 1,3,5-Trimethylbenzene           | 0.142  | 0.0050 | "     | 0.150  | ND | 94.4 | 70-130 |  |  |  |
| Naphthalene                      | 0.177  | 0.0038 | "     | 0.150  | ND | 118  | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0305 |        | "     | 0.0400 |    | 76.4 | 23-173 |  |  |  |
| Surrogate: Toluene-d8            | 0.0366 |        | "     | 0.0400 |    | 91.6 | 20-170 |  |  |  |
| Surrogate: 4-Bromofluorobenzene  | 0.0382 |        | "     | 0.0400 |    | 95.5 | 21-167 |  |  |  |

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Absaroka Solutions  
112 High Street  
Buffalo WY, 82834

Project: Chalk Bluffs  
Project Number: 418.08  
Project Manager: Ken Rogowski

**Reported:**  
04/12/21 14:22

**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 BED0103 - EPA 5030 Soil MS**

| Matrix Spike Dup (BED0103-MSD1)  | Source: 2104076-01 |        |       | Prepared: 04/07/21 Analyzed: 04/08/21 |    |      |        |      |    |  |
|----------------------------------|--------------------|--------|-------|---------------------------------------|----|------|--------|------|----|--|
| Benzene                          | 0.167              | 0.0020 | mg/kg | 0.150                                 | ND | 111  | 70-130 | 5.05 | 30 |  |
| Toluene                          | 0.117              | 0.0050 | "     | 0.150                                 | ND | 78.0 | 70-130 | 2.28 | 30 |  |
| Ethylbenzene                     | 0.126              | 0.0050 | "     | 0.150                                 | ND | 83.9 | 70-130 | 1.18 | 30 |  |
| m,p-Xylene                       | 0.239              | 0.010  | "     | 0.300                                 | ND | 79.7 | 70-130 | 1.52 | 30 |  |
| o-Xylene                         | 0.122              | 0.0050 | "     | 0.150                                 | ND | 81.1 | 70-130 | 1.45 | 30 |  |
| 1,2,4-Trimethylbenzene           | 0.148              | 0.0050 | "     | 0.150                                 | ND | 98.3 | 70-130 | 2.37 | 30 |  |
| 1,3,5-Trimethylbenzene           | 0.147              | 0.0050 | "     | 0.150                                 | ND | 98.1 | 70-130 | 3.85 | 30 |  |
| Naphthalene                      | 0.185              | 0.0038 | "     | 0.150                                 | ND | 123  | 70-130 | 4.53 | 30 |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0314             |        | "     | 0.0400                                |    | 78.5 | 23-173 |      |    |  |
| Surrogate: Toluene-d8            | 0.0361             |        | "     | 0.0400                                |    | 90.3 | 20-170 |      |    |  |
| Surrogate: 4-Bromofluorobenzene  | 0.0381             |        | "     | 0.0400                                |    | 95.2 | 21-167 |      |    |  |

Summit Scientific

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Absaroka Solutions  
112 High Street  
Buffalo WY, 82834

Project: Chalk Bluffs  
Project Number: 418.08  
Project Manager: Ken Rogowski

**Reported:**  
04/12/21 14:22

**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 BED0074 - EPA 3550A**

**Blank (BED0074-BLK1)**

Prepared: 04/06/21 Analyzed: 04/07/21

|               |    |    |       |
|---------------|----|----|-------|
| C10-C28 (DRO) | ND | 50 | mg/kg |
| C28-C36 (ORO) | ND | 50 | "     |

**LCS (BED0074-BS1)**

Prepared: 04/06/21 Analyzed: 04/07/21

|               |     |    |       |     |      |        |
|---------------|-----|----|-------|-----|------|--------|
| C10-C28 (DRO) | 413 | 50 | mg/kg | 500 | 82.6 | 70-130 |
|---------------|-----|----|-------|-----|------|--------|

**Matrix Spike (BED0074-MS1)**

Source: 2104022-04

Prepared: 04/06/21 Analyzed: 04/07/21

|               |     |    |       |     |      |      |        |
|---------------|-----|----|-------|-----|------|------|--------|
| C10-C28 (DRO) | 502 | 50 | mg/kg | 500 | 57.4 | 88.9 | 70-130 |
|---------------|-----|----|-------|-----|------|------|--------|

**Matrix Spike Dup (BED0074-MSD1)**

Source: 2104022-04

Prepared: 04/06/21 Analyzed: 04/07/21

|               |     |    |       |     |      |      |        |      |    |
|---------------|-----|----|-------|-----|------|------|--------|------|----|
| C10-C28 (DRO) | 517 | 50 | mg/kg | 500 | 57.4 | 91.9 | 70-130 | 2.96 | 20 |
|---------------|-----|----|-------|-----|------|------|--------|------|----|

Summit Scientific

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Absaroka Solutions  
112 High Street  
Buffalo WY, 82834

Project: Chalk Bluffs  
Project Number: 418.08  
Project Manager: Ken Rogowski

**Reported:**  
04/12/21 14:22

**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 BED0162 - EPA 3050B**

**Blank (BED0162-BLK1)**

Prepared: 04/09/21 Analyzed: 04/10/21

Boron ND 0.0100 mg/L

**LCS (BED0162-BS1)**

Prepared: 04/09/21 Analyzed: 04/10/21

Boron 4.58 0.0100 mg/L 5.00 91.5 80-120

**Duplicate (BED0162-DUP1)**

**Source: 2103483-01**

Prepared: 04/09/21 Analyzed: 04/10/21

Boron 1.10 0.0100 mg/L 1.21 9.64 20

**Matrix Spike (BED0162-MS1)**

**Source: 2103483-01**

Prepared: 04/09/21 Analyzed: 04/10/21

Boron 5.61 0.0100 mg/L 5.00 1.21 88.0 75-125

**Matrix Spike Dup (BED0162-MSD1)**

**Source: 2103483-01**

Prepared: 04/09/21 Analyzed: 04/10/21

Boron 5.90 0.0100 mg/L 5.00 1.21 93.9 75-125 5.08 25

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Project Manager: Ken Rogowski

**Reported:**  
04/12/21 14:22

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

**Summit Scientific**

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

**Batch BED0121 - General Preparation**

**Blank (BED0121-BLK1)**

Prepared: 04/07/21 Analyzed: 04/09/21

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

**LCS (BED0121-BS1)**

Prepared: 04/07/21 Analyzed: 04/09/21

|           |      |        |          |      |     |        |
|-----------|------|--------|----------|------|-----|--------|
| Calcium   | 6.09 | 0.0500 | mg/L wet | 5.00 | 122 | 70-130 |
| Magnesium | 6.50 | 0.0500 | "        | 5.00 | 130 | 70-130 |
| Sodium    | 6.08 | 0.0500 | "        | 5.00 | 122 | 70-130 |

Summit Scientific

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Project Number: 418.08  
Project Manager: Ken Rogowski

**Reported:**  
04/12/21 14:22

**Physical Parameters by APHA/ASTM/EPA Methods - Quality Control**  
**Summit Scientific**

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

**Batch BED0127 - General Preparation**

| Duplicate (BED0127-DUP1) |      | Source: 2104005-03 |   | Prepared & Analyzed: 04/08/21 |      |  |  |       |    |  |
|--------------------------|------|--------------------|---|-------------------------------|------|--|--|-------|----|--|
| % Solids                 | 75.4 |                    | % |                               | 75.2 |  |  | 0.267 | 20 |  |

Summit Scientific

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Buffalo WY, 82834

Project: Chalk Bluffs  
Project Number: 418.08  
Project Manager: Ken Rogowski

**Reported:**  
04/12/21 14:22

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

**Summit Scientific**

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

**Batch BED0151 - General Preparation**

**Blank (BED0151-BLK1)**

Prepared & Analyzed: 04/08/21

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BED0151-BS1)**

Prepared & Analyzed: 04/08/21

Specific Conductance (EC) 0.152 0.0100 mmhos/cm 0.150 101 90-110

**Duplicate (BED0151-DUP1)**

**Source: 2103341-03**

Prepared & Analyzed: 04/08/21

Specific Conductance (EC) 4.61 0.0100 mmhos/cm 4.50 2.42 20

Summit Scientific

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112 High Street  
Buffalo WY, 82834

Project: Chalk Bluffs  
Project Number: 418.08  
Project Manager: Ken Rogowski

**Reported:**  
04/12/21 14:22

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

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

**Batch BED0152 - General Preparation**

**LCS (BED0152-BS1)**

Prepared & Analyzed: 04/08/21

|    |      |          |      |     |        |
|----|------|----------|------|-----|--------|
| pH | 9.29 | pH Units | 9.21 | 101 | 95-105 |
|----|------|----------|------|-----|--------|

**Duplicate (BED0152-DUP1)**

**Source: 2103341-03**

Prepared & Analyzed: 04/08/21

|    |      |          |      |       |    |
|----|------|----------|------|-------|----|
| pH | 8.18 | pH Units | 8.11 | 0.859 | 20 |
|----|------|----------|------|-------|----|

Summit Scientific

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Absaroka Solutions  
112 High Street  
Buffalo WY, 82834

Project: Chalk Bluffs

Project Number: 418.08  
Project Manager: Ken Rogowski

**Reported:**  
04/12/21 14:22

### Notes and Definitions

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