RECEIVED
ELECTRONIC REPORT
DEC 23 2015
BUREAU OF LAND MANAGEMENT

Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

**SUNDRY NOTICES AND REPORTS ON WELLS**

***Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.***

***SUBMIT IN TRIPLICATE - Other instructions on reverse side.***

5. Lease Serial No.
751141038

6. If Indian, Allottee or Tribe Name
UTE MOUNTAIN UTE

7. If Unit or CA/Agreement, Name and/or No.

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
PRAIRIE FALCON 19-2917

2. Name of Operator
BRIDGECREEK RESOURCES COLO LLC
Contact: CHRISTINE CAMPBELL
E-Mail: ccampbell@bridgecreekresources.com

9. API Well No.
30-045-35737-00-X1

3a. Address
405 URBAN STREET, SUITE 400
LAKEWOOD, CO 80228

3b. Phone No. (include area code)
Ph: 303-945-2642

10. Field and Pool, or Exploratory
VERDE GALLUP

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 19 T31N R14W SESE 151FSL 335FEL

11. County or Parish, and State
SAN JUAN COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

| TYPE OF SUBMISSION | TYPE OF ACTION | | | |
|---|---|---|---|---|
| ☒ Notice of Intent | ☐ Acidize | ☐ Deepen | ☐ Production (Start/Resume) | ☐ Water Shut-Off |
| ☐ Subsequent Report | ☐ Alter Casing | ☐ Fracture Treat | ☐ Reclamation | ☐ Well Integrity |
| ☐ Final Abandonment Notice | ☐ Casing Repair | ☐ New Construction | ☐ Recomplete | ☒ Other Emergency Pits or Closure |
| | ☐ Change Plans | ☐ Plug and Abandon | ☐ Temporarily Abandon | |
| | ☐ Convert to Injection | ☐ Plug Back | ☐ Water Disposal | |

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Bridgecreek Resources (CO), LLC requests permission to construct a mixing pad on the Prairie Falcon 19-29 17 well location.

Construction will include cutting an 8-inch trench around the mixing pad to secure the bottom of the liner. This will not interfere with rig stabilization for drilling future wells. We are planning to excavate approximately 3.5-feet of the burial trench to give us dirt to construct the berms around the mixing pad (3-feet high). The liner will go up and over the berms and secured in the trench. We will layer the mixing pad with clean, then stabilized cuttings, like a lasagna. During inclement weather, a liner will cover the mixing pad. The burial trench will be temporary fenced to prevent accidental entry into the excavation.

No material will be buried until written approval is received from the BLM.

SEE ATTACHED CONDITIONS OF APPROVAL

OIL CONS. DIV DIST. 3

JAN 11 2016

14. I hereby certify that the foregoing is true and correct.

**Electronic Submission #327209 verified by the BLM Well Information System**
**For BRIDGECREEK RESOURCES COLO LLC, sent to the Durango**
**Committed to AFMSS for processing by TRACEY AYZE on 12/23/2015 (16TA0382SE)**

Name *(Printed/Typed)* CHRISTINE CAMPBELL — Title REGULATORY LEAD

Signature (Electronic Submission) — Date 12/23/2015

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved By — Title MSC — Date 12/30/15

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office TRES RIOS FIELD OFFICE

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

NMOCD Accepted For Record

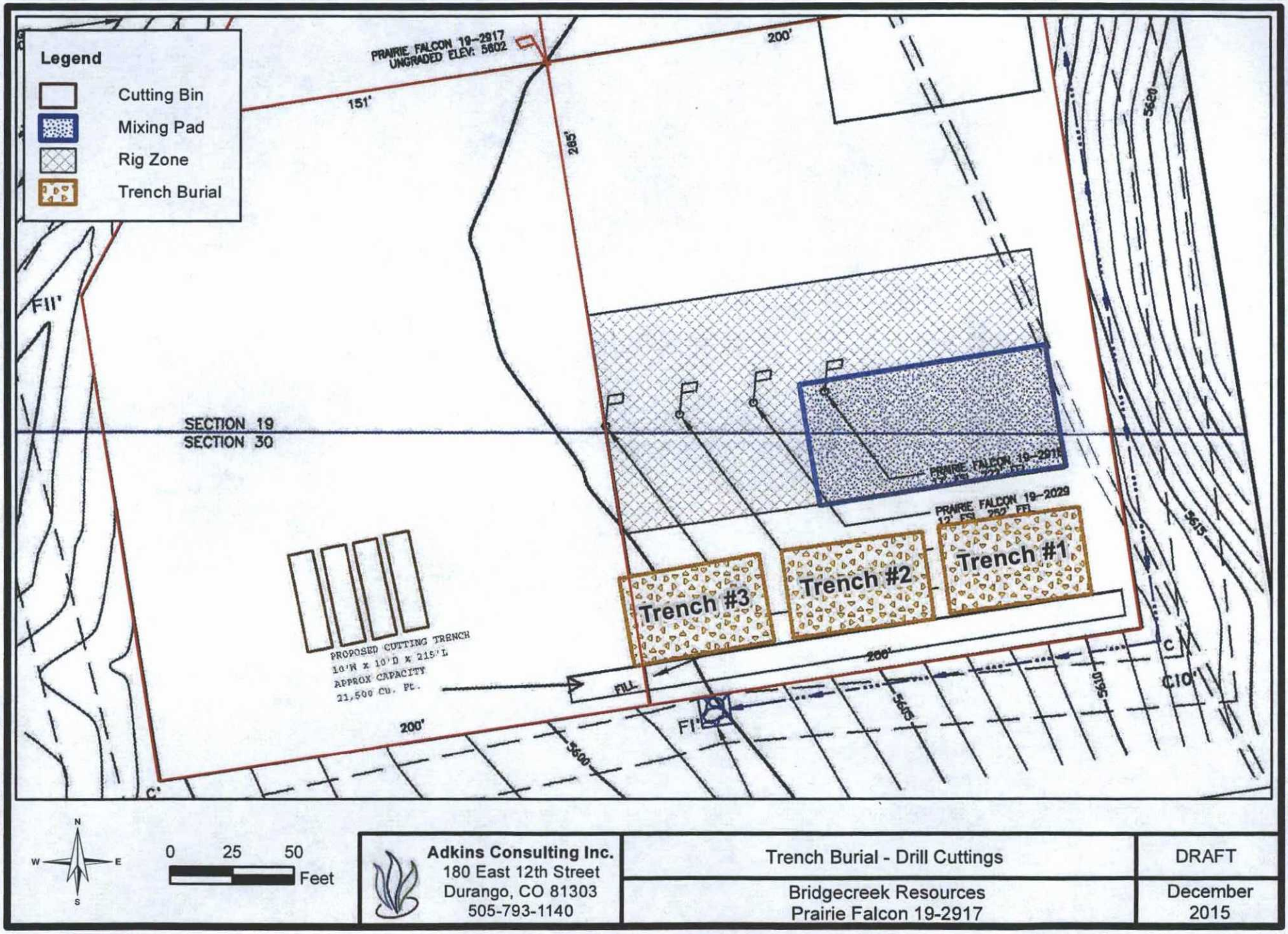
38

## Additional data for EC transaction #327209 that would not fit on the form

**32. Additional remarks, continued**

Bridgecreek will be submitting an amendment to the approved SUPO that will include a revised trench closure plan. The forthcoming closure plan will state that cuttings will be buried at a 3-parts clean soil:1 part cuttings in the location of Trench 1 on the attached trench layout diagram.

Also attached is the mixing ratio calculations that show the Benzene is below UMU Table standards when mixed (3 clean: 1 cuttings). The only other exceedance of standards is Arsenic, which is naturally high. Also attached is the Chain of Custody from Envirotech for your reference.




| | | |
|---|---|---|
| **Adkins Consulting Inc.**<br>180 East 12th Street<br>Durango, CO 81303<br>505-793-1140 | Trench Burial - Drill Cuttings | DRAFT |
| | Bridgecreek Resources<br>Prairie Falcon 19-2917 | December<br>2015 |

| Mixing Ratio | DRO (8015D) | MRO (8015D) | GRO (8015D) | TPH(EPA 8015) | Benzene | Toluene | Ethylbenzene | Xylenes (total) | Arsenic |
|---|---|---|---|---|---|---|---|---|---|
| clean:cuttings | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| 1:1 | 196 | 86 | 38 | 320 | 0.31 | 0.75 | 0.29 | 1.16 | 5.03 |
| 2:1 | 139 | 74 | 32 | 245 | 0.21 | 0.50 | 0.20 | 0.78 | 4.91 |
| 3:1 | 111 | 68 | 29 | 208 | 0.16 | 0.38 | 0.16 | 0.59 | 4.85 |
| | | | | | | | | | |
| UMU Table (COGCC Table 910-1) | | | | 500 | 0.17 | 85 | 100 | 175 | 0.39 |
| NMOCD (Rule 19.15.17; DTW > 100 ft) | | | | 1,000 | 10 | | | | |
| CDPHE-HMWMD/EPA RSLs | | | | | 5.10 | 4,700 | 25 | 250 | 3 |
| | | | | | | | | | |
| Cuttings: Result or RDL if ND | 367.00 | 122.00 | 56.00 | 545.00 | 0.59 | 1.47 | 0.54 | 2.30 | 5.38 |
| Background: Result or RDL if ND | 25 | 50 | 20 | 95 | 0.02 | 0.02 | 0.03 | 0.02 | 4.67 |
| | | | | | | | | | |
| Notes: | | | | | | | | | |
| exceeds UMU Table standards | | | | | | | | | |
| exceeds EPA RSL Standards | | | | | | | | | |

envirotech
Analytical Laboratory

# Analytical Report

## Report Summary

Client: Bridgecreek Resources, LLC
Chain Of Custody Number:
Samples Received: 12/4/2015 5:44:00PM
Job Number: 15090-0001
Work Order: P512016
Project Name/Location: Prairie Falcon 19- 29-17

Entire Report Reviewed By: _____ Date: 12/22/15

Tim Cain, Laboratory Manager

Supplement to analytical report generated on: 12/15/15 5:22 pm



5796 US Highway 64, Farmington, NM 87401 Ph (505) 632-0615 Fx (505) 632-1865
Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301 Ph (970) 259-0615 Fr (800) 362-1879
envirotech-inc.com
laboratory@envirotech-inc.com

envirotech
Analytical Laboratory

| | | | |
|---|---|---|---|
| Bridgecreek Resources, LLC | Project Name: | Prairie Falcon 19- 29-17 | |
| 405 Urban St Suite 400 | Project Number: | 15090-0001 | **Reported:** |
| Lakewood CO, 80228 | Project Manager: | Andrew Parker | 22-Dec-15 10:34 |

## Analyical Report for Samples

| Client Sample ID | Lab Sample ID | Matrix | Sampled | Received | Container |
|---|---|---|---|---|---|
| Bin Composite | P512016-01A | Soil | 12/04/15 | 12/04/15 | Glass Jar, 4 oz. |
| | P512016-01B | Soil | 12/04/15 | 12/04/15 | Glass Jar, 4 oz. |
| | P512016-01C | Soil | 12/04/15 | 12/04/15 | Glass Jar, 4 oz. |
| Background | P512016-02A | Soil | 12/04/15 | 12/04/15 | Glass Jar, 4 oz. |
| | P512016-02B | Soil | 12/04/15 | 12/04/15 | Glass Jar, 4 oz. |
| | P512016-02C | Soil | 12/04/15 | 12/04/15 | Glass Jar, 4 oz. |

| | | | |
|---|---|---|---|
| Bridgecreek Resources, LLC | Project Name: | Prairie Falcon 19- 29-17 | |
| 405 Urban St Suite 400 | Project Number: | 15090-0001 | **Reported:** |
| Lakewood CO, 80228 | Project Manager: | Andrew Parker | 22-Dec-15 10:34 |

## Bin Composite

**P512016-01 (Solid)**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 8021** | | | | | | | | | |
| Benzene | **0.59** | 0.10 | mg/kg | 1 | 1550020 | 12/09/15 | 12/10/15 | EPA 8021B | |
| Toluene | **1.47** | 0.10 | mg/kg | 1 | 1550020 | 12/09/15 | 12/10/15 | EPA 8021B | |
| Ethylbenzene | **0.54** | 0.10 | mg/kg | 1 | 1550020 | 12/09/15 | 12/10/15 | EPA 8021B | |
| p,m-Xylene | **1.33** | 0.20 | mg/kg | 1 | 1550020 | 12/09/15 | 12/10/15 | EPA 8021B | |
| o-Xylene | **0.97** | 0.10 | mg/kg | 1 | 1550020 | 12/09/15 | 12/10/15 | EPA 8021B | |
| Total Xylenes | **2.30** | 0.10 | mg/kg | 1 | 1550020 | 12/09/15 | 12/10/15 | EPA 8021B | |
| Total BTEX | **4.90** | 0.10 | mg/kg | 1 | 1550020 | 12/09/15 | 12/10/15 | EPA 8021B | |
| *Surrogate: 4-Bromochlorobenzene-PID* | | *117 %* | | *50-150* | *1550020* | *12/09/15* | *12/10/15* | *EPA 8021B* | |
| **Nonhalogenated Organics by 8015** | | | | | | | | | |
| Gasoline Range Organics (C6-C10) | **56.0** | 20.0 | mg/kg | 1 | 1550020 | 12/09/15 | 12/10/15 | EPA 8015D | |
| Diesel Range Organics (C10-C28) | **367** | 25.0 | mg/kg | 1 | 1550019 | 12/09/15 | 12/10/15 | EPA 8015D | |
| Oil Range Organics (C28-C40+) | **122** | 50.0 | mg/kg | 1 | 1550019 | 12/09/15 | 12/10/15 | EPA 8015D | |
| *Surrogate: n-Nonane* | | *113 %* | | *50-200* | *1550019* | *12/09/15* | *12/10/15* | *EPA 8015D* | |
| *Surrogate: 1-Chloro-4-fluorobenzene-FID* | | *92.3 %* | | *50-150* | *1550020* | *12/09/15* | *12/10/15* | *EPA 8015D* | |
| **Total Metals by 6010** | | | | | | | | | |
| Arsenic | **5.38** | 0.96 | mg/kg | 1 | 1551002 | 12/14/15 | 12/14/15 | EPA 6010C | |
| Barium | **1830** | 9.60 | mg/kg | 1 | 1551002 | 12/14/15 | 12/14/15 | EPA 6010C | |
| Cadmium | ND | 0.96 | mg/kg | 1 | 1551002 | 12/14/15 | 12/14/15 | EPA 6010C | |
| Chromium | **25.5** | 4.80 | mg/kg | 1 | 1551002 | 12/14/15 | 12/14/15 | EPA 6010C | |
| Copper | **3.68** | 1.92 | mg/kg | 1 | 1551002 | 12/14/15 | 12/14/15 | EPA 6010C | |
| Lead | **16.2** | 0.96 | mg/kg | 1 | 1551002 | 12/14/15 | 12/14/15 | EPA 6010C | |
| Mercury | ND | 0.96 | mg/kg | 1 | 1551002 | 12/14/15 | 12/14/15 | EPA 6010C | |
| Nickel | **12.3** | 0.96 | mg/kg | 1 | 1551002 | 12/14/15 | 12/14/15 | EPA 6010C | |
| Selenium | ND | 4.80 | mg/kg | 1 | 1551002 | 12/14/15 | 12/14/15 | EPA 6010C | |
| Silver | ND | 0.96 | mg/kg | 1 | 1551002 | 12/14/15 | 12/14/15 | EPA 6010C | |
| Zinc | **54.5** | 1.92 | mg/kg | 1 | 1551002 | 12/14/15 | 12/14/15 | EPA 6010C | |

| | | | |
|---|---|---|---|
| Bridgecreek Resources, LLC | Project Name: | Prairie Falcon 19- 29-17 | |
| 405 Urban St Suite 400 | Project Number: | 15090-0001 | **Reported:** |
| Lakewood CO, 80228 | Project Manager: | Andrew Parker | 22-Dec-15 10:34 |

## Bin Composite

**P512016-01 (Solid)**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Cation/Anion Analysis** | | | | | | | | | |
| pH @25°C | **8.98** | | pH Units | 1 | 1550009 | 12/08/15 12:24 | 12/08/15 14:33 | 9040C/4500 H | |
| Electrical Conductivity | **1630** | | umhos/cm | 1 | 1550009 | 12/08/15 12:24 | 12/08/15 14:33 | 9050A/2510 | |
| Sodium Absorption Ratio | **2.24** | | N/A | 1 | 1551017 | 12/15/15 | 12/15/15 | [CALC] | |
| Chloride | **134** | 20.0 | mg/kg | 1 | 1550022 | 12/10/15 | 12/10/15 | EPA 300.0 | |
| Calcium | **52.0** | 0.50 | mg/L | 1 | 1551009 | 12/14/15 | 12/15/15 | EPA 6010C | |
| Magnesium | **39.9** | 0.20 | mg/L | 1 | 1551009 | 12/14/15 | 12/15/15 | EPA 6010C | |
| Sodium | **88.1** | 2.00 | mg/L | 1 | 1551009 | 12/14/15 | 12/15/15 | EPA 6010C | |
| **Boron-Hot Water Soluble by EPA 6010** | | | | | | | | | |
| Boron | ND | 0.50 | mg/L | 1 | 1551005 | 12/14/15 | 12/15/15 | EPA 6010C | |

| | | | |
|---|---|---|---|
| Bridgecreek Resources, LLC | Project Name: | Prairie Falcon 19- 29-17 | |
| 405 Urban St Suite 400 | Project Number: | 15090-0001 | **Reported:** |
| Lakewood CO, 80228 | Project Manager: | Andrew Parker | 22-Dec-15 10:34 |

## Background

### P512016-02 (Solid)

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 8021** | | | | | | | | | |
| Benzene | ND | 0.02 | mg/kg | 1 | 1550020 | 12/09/15 | 12/10/15 | EPA 8021B | A-01 |
| Toluene | ND | 0.02 | mg/kg | 1 | 1550020 | 12/09/15 | 12/10/15 | EPA 8021B | A-01 |
| Ethylbenzene | **0.03** | 0.02 | mg/kg | 1 | 1550020 | 12/09/15 | 12/10/15 | EPA 8021B | A-01 |
| p,m-Xylene | ND | 0.04 | mg/kg | 1 | 1550020 | 12/09/15 | 12/10/15 | EPA 8021B | A-01 |
| o-Xylene | ND | 0.02 | mg/kg | 1 | 1550020 | 12/09/15 | 12/10/15 | EPA 8021B | A-01 |
| Total Xylenes | ND | 0.02 | mg/kg | 1 | 1550020 | 12/09/15 | 12/10/15 | EPA 8021B | A-01 |
| Total BTEX | ND | 0.02 | mg/kg | 1 | 1550020 | 12/09/15 | 12/10/15 | EPA 8021B | A-01 |
| *Surrogate: 4-Bromochlorobenzene-PID* | | *115 %* | | *50-150* | *1550020* | *12/09/15* | *12/10/15* | *EPA 8021B* | |
| **Nonhalogenated Organics by 8015** | | | | | | | | | |
| Gasoline Range Organics (C6-C10) | ND | 20.0 | mg/kg | 1 | 1550020 | 12/09/15 | 12/10/15 | EPA 8015D | |
| Diesel Range Organics (C10-C28) | ND | 25.0 | mg/kg | 1 | 1550019 | 12/09/15 | 12/10/15 | EPA 8015D | |
| Oil Range Organics (C28-C40+) | ND | 50.0 | mg/kg | 1 | 1550019 | 12/09/15 | 12/10/15 | EPA 8015D | |
| *Surrogate: n-Nonane* | | *107 %* | | *50-200* | *1550019* | *12/09/15* | *12/10/15* | *EPA 8015D* | |
| *Surrogate: 1-Chloro-4-fluorobenzene-FID* | | *86.5 %* | | *50-150* | *1550020* | *12/09/15* | *12/10/15* | *EPA 8015D* | |
| **Total Metals by 6010** | | | | | | | | | |
| Arsenic | **4.67** | 0.99 | mg/kg | 1 | 1551002 | 12/14/15 | 12/14/15 | EPA 6010C | |
| Barium | **152** | 9.86 | mg/kg | 1 | 1551002 | 12/14/15 | 12/14/15 | EPA 6010C | |
| Cadmium | ND | 0.99 | mg/kg | 1 | 1551002 | 12/14/15 | 12/14/15 | EPA 6010C | |
| Chromium | **13.1** | 4.93 | mg/kg | 1 | 1551002 | 12/14/15 | 12/14/15 | EPA 6010C | |
| Copper | ND | 1.97 | mg/kg | 1 | 1551002 | 12/14/15 | 12/14/15 | EPA 6010C | |
| Lead | **15.6** | 0.99 | mg/kg | 1 | 1551002 | 12/14/15 | 12/14/15 | EPA 6010C | |
| Mercury | ND | 0.99 | mg/kg | 1 | 1551002 | 12/14/15 | 12/14/15 | EPA 6010C | |
| Nickel | **9.07** | 0.99 | mg/kg | 1 | 1551002 | 12/14/15 | 12/14/15 | EPA 6010C | |
| Selenium | ND | 4.93 | mg/kg | 1 | 1551002 | 12/14/15 | 12/14/15 | EPA 6010C | |
| Silver | ND | 0.99 | mg/kg | 1 | 1551002 | 12/14/15 | 12/14/15 | EPA 6010C | |
| Zinc | **39.9** | 1.97 | mg/kg | 1 | 1551002 | 12/14/15 | 12/14/15 | EPA 6010C | |

| | | | |
|---|---|---|---|
| Bridgecreek Resources, LLC | Project Name: | Prairie Falcon 19- 29-17 | |
| 405 Urban St Suite 400 | Project Number: | 15090-0001 | **Reported:** |
| Lakewood CO, 80228 | Project Manager: | Andrew Parker | 22-Dec-15 10:34 |

## Background

### P512016-02 (Solid)

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Cation/Anion Analysis** | | | | | | | | | |
| pH @21.6°C | **8.73** | | pH Units | 1 | 1550009 | 12/08/15 12:24 | 12/08/15 14:33 | 9040C/4500 H | |
| Electrical Conductivity | **112** | | umhos/cm | 1 | 1550009 | 12/08/15 12:24 | 12/08/15 14:33 | 9050A/2510 | |
| Sodium Absorption Ratio | **0.186** | | N/A | 1 | 1551017 | 12/15/15 | 12/15/15 | [CALC] | |
| Chloride | **849** | 20.0 | mg/kg | 1 | 1550022 | 12/10/15 | 12/10/15 | EPA 300.0 | |
| Calcium | **22.1** | 0.50 | mg/L | 1 | 1551009 | 12/14/15 | 12/15/15 | EPA 6010C | |
| Magnesium | **20.1** | 0.20 | mg/L | 1 | 1551009 | 12/14/15 | 12/15/15 | EPA 6010C | |
| Sodium | **5.02** | 2.00 | mg/L | 1 | 1551009 | 12/14/15 | 12/15/15 | EPA 6010C | |
| **Boron-Hot Water Soluble by EPA 6010** | | | | | | | | | |
| Boron | ND | 0.50 | mg/L | 1 | 1551005 | 12/14/15 | 12/15/15 | EPA 6010C | |

| | | | |
|---|---|---|---|
| Bridgecreek Resources, LLC | Project Name: | Prairie Falcon 19- 29-17 | |
| 405 Urban St Suite 400 | Project Number: | 15090-0001 | **Reported:** |
| Lakewood CO, 80228 | Project Manager: | Andrew Parker | 22-Dec-15 10:34 |

## Volatile Organics by EPA 8021 - Quality Control

## Envirotech Analytical Laboratory

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1550020 - Purge and Trap EPA 5030A** | | | | | | | | | | |
| **Blank (1550020-BLK1)** | | | | Prepared: 09-Dec-15 Analyzed: 10-Dec-15 | | | | | | |
| Benzene | ND | 0.10 | mg/kg | | | | | | | |
| Toluene | ND | 0.10 | " | | | | | | | |
| Ethylbenzene | ND | 0.10 | " | | | | | | | |
| p,m-Xylene | ND | 0.20 | " | | | | | | | |
| o-Xylene | ND | 0.10 | " | | | | | | | |
| Total Xylenes | ND | 0.10 | " | | | | | | | |
| Total BTEX | ND | 0.10 | " | | | | | | | |
| *Surrogate: 4-Bromochlorobenzene-PID* | *0.364* | | " | *0.400* | | *91.1* | *50-150* | | | |
| **LCS (1550020-BS1)** | | | | Prepared: 09-Dec-15 Analyzed: 10-Dec-15 | | | | | | |
| Benzene | 11.8 | 0.10 | mg/kg | 10.0 | | 118 | 70-130 | | | |
| Toluene | 11.6 | 0.10 | " | 10.0 | | 116 | 70-130 | | | |
| Ethylbenzene | 11.6 | 0.10 | " | 10.0 | | 116 | 70-130 | | | |
| p,m-Xylene | 23.5 | 0.20 | " | 20.0 | | 117 | 70-130 | | | |
| o-Xylene | 11.2 | 0.10 | " | 10.0 | | 112 | 70-130 | | | |
| *Surrogate: 4-Bromochlorobenzene-PID* | *0.367* | | " | *0.400* | | *91.6* | *50-150* | | | |
| **Matrix Spike (1550020-MS1)** | **Source: P512014-21** | | | Prepared: 09-Dec-15 Analyzed: 10-Dec-15 | | | | | | |
| Benzene | 10.9 | 0.10 | mg/kg | 10.0 | ND | 109 | 54.3-133 | | | |
| Toluene | 10.7 | 0.10 | " | 10.0 | ND | 107 | 61.4-130 | | | |
| Ethylbenzene | 10.7 | 0.10 | " | 10.0 | ND | 107 | 61.4-133 | | | |
| p,m-Xylene | 21.6 | 0.20 | " | 20.0 | ND | 108 | 63.3-131 | | | |
| o-Xylene | 10.5 | 0.10 | " | 10.0 | ND | 105 | 63.3-131 | | | |
| *Surrogate: 4-Bromochlorobenzene-PID* | *0.365* | | " | *0.400* | | *91.3* | *50-150* | | | |
| **Matrix Spike Dup (1550020-MSD1)** | **Source: P512014-21** | | | Prepared: 09-Dec-15 Analyzed: 10-Dec-15 | | | | | | |
| Benzene | 11.4 | 0.10 | mg/kg | 10.0 | ND | 114 | 54.3-133 | 4.80 | 20 | |
| Toluene | 11.2 | 0.10 | " | 10.0 | ND | 112 | 61.4-130 | 4.97 | 20 | |
| Ethylbenzene | 11.2 | 0.10 | " | 10.0 | ND | 112 | 61.4-133 | 5.01 | 20 | |
| p,m-Xylene | 22.7 | 0.20 | " | 20.0 | ND | 113 | 63.3-131 | 4.85 | 20 | |
| o-Xylene | 10.9 | 0.10 | " | 10.0 | ND | 109 | 63.3-131 | 4.21 | 20 | |
| *Surrogate: 4-Bromochlorobenzene-PID* | *0.366* | | " | *0.400* | | *91.4* | *50-150* | | | |

| | | | |
|---|---|---|---|
| Bridgecreek Resources, LLC | Project Name: | Prairie Falcon 19- 29-17 | |
| 405 Urban St Suite 400 | Project Number: | 15090-0001 | **Reported:** |
| Lakewood CO, 80228 | Project Manager: | Andrew Parker | 22-Dec-15 10:34 |

## Nonhalogenated Organics by 8015 - Quality Control

## Envirotech Analytical Laboratory

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1550019 - DRO Extraction EPA 3550M** | | | | | | | | | | |
| **Blank (1550019-BLK1)** | | | | Prepared & Analyzed: 09-Dec-15 | | | | | | |
| Diesel Range Organics (C10-C28) | ND | 25.0 | mg/kg | | | | | | | |
| *Surrogate: n-Nonane* | *52.4* | | " | *50.0* | | *105* | *50-200* | | | |
| **LCS (1550019-BS1)** | | | | Prepared & Analyzed: 09-Dec-15 | | | | | | |
| Diesel Range Organics (C10-C28) | 502 | 25.0 | mg/kg | 500 | | 100 | 38-132 | | | |
| *Surrogate: n-Nonane* | *52.4* | | " | *50.0* | | *105* | *50-200* | | | |
| **Matrix Spike (1550019-MS1)** | **Source: P512013-01** | | | Prepared & Analyzed: 09-Dec-15 | | | | | | |
| Diesel Range Organics (C10-C28) | 506 | 25.0 | mg/kg | 500 | ND | 101 | 38-132 | | | |
| *Surrogate: n-Nonane* | *49.5* | | " | *50.0* | | *99.0* | *50-200* | | | |
| **Matrix Spike Dup (1550019-MSD1)** | **Source: P512013-01** | | | Prepared & Analyzed: 09-Dec-15 | | | | | | |
| Diesel Range Organics (C10-C28) | 507 | 25.0 | mg/kg | 500 | ND | 101 | 38-132 | 0.207 | 20 | |
| *Surrogate: n-Nonane* | *47.8* | | " | *50.0* | | *95.6* | *50-200* | | | |

| | | | |
|---|---|---|---|
| Bridgecreek Resources, LLC | Project Name: | Prairie Falcon 19- 29-17 | |
| 405 Urban St Suite 400 | Project Number: | 15090-0001 | **Reported:** |
| Lakewood CO, 80228 | Project Manager: | Andrew Parker | 22-Dec-15 10:34 |

## Nonhalogenated Organics by 8015 - Quality Control

## Envirotech Analytical Laboratory

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1550020 - Purge and Trap EPA 5030A** | | | | | | | | | | |
| **Blank (1550020-BLK1)** | | | | Prepared: 09-Dec-15 Analyzed: 10-Dec-15 | | | | | | |
| Gasoline Range Organics (C6-C10) | ND | 20.0 | mg/kg | | | | | | | |
| *Surrogate: 1-Chloro-4-fluorobenzene-FID* | *0.270* | | " | *0.400* | | *67.5* | *50-150* | | | |
| **LCS (1550020-BS1)** | | | | Prepared: 09-Dec-15 Analyzed: 10-Dec-15 | | | | | | |
| Gasoline Range Organics (C6-C10) | 109 | 20.0 | mg/kg | 113 | | 96.7 | 70-130 | | | |
| *Surrogate: 1-Chloro-4-fluorobenzene-FID* | *0.278* | | " | *0.400* | | *69.5* | *50-150* | | | |
| **Matrix Spike (1550020-MS1)** | **Source: P512014-21** | | | Prepared: 09-Dec-15 Analyzed: 10-Dec-15 | | | | | | |
| Gasoline Range Organics (C6-C10) | 101 | 20.0 | mg/kg | 113 | ND | 89.1 | 70-130 | | | |
| *Surrogate: 1-Chloro-4-fluorobenzene-FID* | *0.276* | | " | *0.400* | | *69.0* | *50-150* | | | |
| **Matrix Spike Dup (1550020-MSD1)** | **Source: P512014-21** | | | Prepared: 09-Dec-15 Analyzed: 10-Dec-15 | | | | | | |
| Gasoline Range Organics (C6-C10) | 105 | 20.0 | mg/kg | 113 | ND | 93.3 | 70-130 | 4.57 | 20 | |
| *Surrogate: 1-Chloro-4-fluorobenzene-FID* | *0.277* | | " | *0.400* | | *69.3* | *50-150* | | | |

| | | | |
|---|---|---|---|
| Bridgecreek Resources, LLC | Project Name: | Prairie Falcon 19- 29-17 | |
| 405 Urban St Suite 400 | Project Number: | 15090-0001 | **Reported:** |
| Lakewood CO, 80228 | Project Manager: | Andrew Parker | 22-Dec-15 10:34 |

## Total Metals by 6010 - Quality Control

## Envirotech Analytical Laboratory

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1551002 - Metal Solid Digestion EPA 3051A** | | | | | | | | | | |
| **Blank (1551002-BLK1)** | | | | Prepared & Analyzed: 14-Dec-15 | | | | | | |
| Arsenic | ND | 1.00 | mg/kg | | | | | | | |
| Barium | ND | 10.0 | " | | | | | | | |
| Cadmium | ND | 1.00 | " | | | | | | | |
| Chromium | ND | 5.00 | " | | | | | | | |
| Copper | ND | 2.00 | " | | | | | | | |
| Lead | ND | 1.00 | " | | | | | | | |
| Mercury | ND | 1.00 | " | | | | | | | |
| Nickel | ND | 1.00 | " | | | | | | | |
| Selenium | ND | 5.00 | " | | | | | | | |
| Silver | ND | 1.00 | " | | | | | | | |
| Zinc | ND | 2.00 | " | | | | | | | |
| **LCS (1551002-BS1)** | | | | Prepared & Analyzed: 14-Dec-15 | | | | | | |
| Arsenic | 93.1 | 1.00 | mg/kg | 100 | | 93.1 | 80-120 | | | |
| Barium | 103 | 10.0 | " | 100 | | 103 | 80-120 | | | |
| Cadmium | 96.0 | 1.00 | " | 100 | | 96.0 | 80-120 | | | |
| Chromium | 103 | 5.00 | " | 100 | | 103 | 80-120 | | | |
| Copper | 87.8 | 2.00 | " | 100 | | 87.8 | 80-120 | | | |
| Lead | 97.9 | 1.00 | " | 100 | | 97.9 | 80-120 | | | |
| Mercury | 92.8 | 1.00 | " | 100 | | 92.8 | 80-120 | | | |
| Nickel | 95.6 | 1.00 | " | 100 | | 95.6 | 80-120 | | | |
| Selenium | 89.1 | 5.00 | " | 100 | | 89.1 | 80-120 | | | |
| Silver | 97.5 | 1.00 | " | 100 | | 97.5 | 80-120 | | | |
| Zinc | 94.7 | 2.00 | " | 100 | | 94.7 | 80-120 | | | |
| **Matrix Spike (1551002-MS1)** | **Source: P512013-06** | | | Prepared & Analyzed: 14-Dec-15 | | | | | | |
| Arsenic | 93.4 | 0.98 | mg/kg | 97.8 | 1.88 | 93.6 | 75-125 | | | |
| Barium | 156 | 9.78 | " | 97.8 | 59.5 | 99.1 | 75-125 | | | |
| Cadmium | 94.4 | 0.98 | " | 97.8 | ND | 96.5 | 75-125 | | | |
| Chromium | 105 | 4.89 | " | 97.8 | 4.91 | 102 | 75-125 | | | |
| Copper | 84.8 | 1.96 | " | 97.8 | ND | 86.7 | 75-125 | | | |
| Lead | 101 | 0.98 | " | 97.8 | 5.56 | 97.6 | 75-125 | | | |
| Mercury | 92.8 | 0.98 | " | 97.8 | ND | 94.9 | 75-125 | | | |
| Nickel | 95.9 | 0.98 | " | 97.8 | 2.20 | 95.7 | 75-125 | | | |
| Selenium | 87.9 | 4.89 | " | 97.8 | ND | 89.8 | 75-125 | | | |
| Silver | 46.2 | 0.98 | " | 97.8 | ND | 47.2 | 75-125 | | | SPK1 |
| Zinc | 103 | 1.96 | " | 97.8 | 9.97 | 95.0 | 75-125 | | | |

| | | | |
|---|---|---|---|
| Bridgecreek Resources, LLC | Project Name: | Prairie Falcon 19- 29-17 | |
| 405 Urban St Suite 400 | Project Number: | 15090-0001 | **Reported:** |
| Lakewood CO, 80228 | Project Manager: | Andrew Parker | 22-Dec-15 10:34 |

## Total Metals by 6010 - Quality Control

## Envirotech Analytical Laboratory

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1551002 - Metal Solid Digestion EPA 3051A** | | | | | | | | | | |
| **Matrix Spike Dup (1551002-MSD1)** | **Source: P512013-06** | | | Prepared & Analyzed: 14-Dec-15 | | | | | | |
| Arsenic | 91.2 | 0.95 | mg/kg | 95.1 | 1.88 | 94.0 | 75-125 | 2.40 | 20 | |
| Barium | 164 | 9.51 | " | 95.1 | 59.5 | 110 | 75-125 | 4.69 | 20 | |
| Cadmium | 92.2 | 0.95 | " | 95.1 | ND | 97.0 | 75-125 | 2.38 | 20 | |
| Chromium | 103 | 4.75 | " | 95.1 | 4.91 | 104 | 75-125 | 1.50 | 20 | |
| Copper | 82.5 | 1.90 | " | 95.1 | ND | 86.8 | 75-125 | 2.81 | 20 | |
| Lead | 99.8 | 0.95 | " | 95.1 | 5.56 | 99.2 | 75-125 | 1.26 | 20 | |
| Mercury | 89.7 | 0.95 | " | 95.1 | ND | 94.4 | 75-125 | 3.41 | 20 | |
| Nickel | 93.4 | 0.95 | " | 95.1 | 2.20 | 95.9 | 75-125 | 2.63 | 20 | |
| Selenium | 86.2 | 4.75 | " | 95.1 | ND | 90.7 | 75-125 | 1.95 | 20 | |
| Silver | 28.6 | 0.95 | " | 95.1 | ND | 30.1 | 75-125 | 47.0 | 20 | SPK1 |
| Zinc | 101 | 1.90 | " | 95.1 | 9.97 | 95.4 | 75-125 | 2.23 | 20 | |

| | | | |
|---|---|---|---|
| Bridgecreek Resources, LLC | Project Name: | Prairie Falcon 19- 29-17 | |
| 405 Urban St Suite 400 | Project Number: | 15090-0001 | **Reported:** |
| Lakewood CO, 80228 | Project Manager: | Andrew Parker | 22-Dec-15 10:34 |

## Cation/Anion Analysis - Quality Control

## Envirotech Analytical Laboratory

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1550022 - Anion Extraction EPA 300.0** | | | | | | | | | | |
| **Blank (1550022-BLK1)** | | | | Prepared & Analyzed: 10-Dec-15 | | | | | | |
| Chloride | ND | 20.0 | mg/kg | | | | | | | |
| **LCS (1550022-BS1)** | | | | Prepared & Analyzed: 10-Dec-15 | | | | | | |
| Chloride | 472 | 20.0 | mg/kg | 500 | | 94.4 | 90-110 | | | |
| **Matrix Spike (1550022-MS1)** | **Source: P512013-01** | | | Prepared & Analyzed: 10-Dec-15 | | | | | | |
| Chloride | 505 | 20.0 | mg/kg | 500 | ND | 101 | 80-120 | | | |
| **Matrix Spike Dup (1550022-MSD1)** | **Source: P512013-01** | | | Prepared & Analyzed: 10-Dec-15 | | | | | | |
| Chloride | 507 | 20.0 | mg/kg | 500 | ND | 101 | 80-120 | 0.563 | 20 | |

| | | | |
|---|---|---|---|
| Bridgecreek Resources, LLC | Project Name: | Prairie Falcon 19- 29-17 | |
| 405 Urban St Suite 400 | Project Number: | 15090-0001 | **Reported:** |
| Lakewood CO, 80228 | Project Manager: | Andrew Parker | 22-Dec-15 10:34 |

## Cation/Anion Analysis - Quality Control

## Envirotech Analytical Laboratory

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1551009 - Metal Water Digestion EPA 3015A** | | | | | | | | | | |
| **Blank (1551009-BLK1)** | | | | Prepared & Analyzed: 14-Dec-15 | | | | | | |
| Calcium | ND | 0.50 | mg/L | | | | | | | |
| Magnesium | ND | 0.20 | " | | | | | | | |
| Sodium | ND | 2.00 | " | | | | | | | |
| **LCS (1551009-BS1)** | | | | Prepared & Analyzed: 14-Dec-15 | | | | | | |
| Calcium | 109 | 0.50 | mg/L | 111 | | 98.5 | 80-120 | | | |
| Magnesium | 114 | 0.20 | " | 111 | | 103 | 80-120 | | | |
| Sodium | 122 | 2.00 | " | 111 | | 110 | 80-120 | | | |
| **Matrix Spike (1551009-MS1)** | **Source: P512013-01** | | | Prepared & Analyzed: 14-Dec-15 | | | | | | |
| Calcium | 121 | 0.50 | mg/L | 111 | 11.2 | 99.1 | 75-125 | | | |
| Magnesium | 116 | 0.20 | " | 111 | 2.60 | 102 | 75-125 | | | |
| Sodium | 122 | 2.00 | " | 111 | 2.31 | 108 | 75-125 | | | |
| **Matrix Spike Dup (1551009-MSD1)** | **Source: P512013-01** | | | Prepared & Analyzed: 14-Dec-15 | | | | | | |
| Calcium | 118 | 0.50 | mg/L | 111 | 11.2 | 95.8 | 75-125 | 3.16 | 20 | |
| Magnesium | 118 | 0.20 | " | 111 | 2.60 | 104 | 75-125 | 1.14 | 20 | |
| Sodium | 124 | 2.00 | " | 111 | 2.31 | 109 | 75-125 | 1.36 | 20 | |

| | | | |
|---|---|---|---|
| Bridgecreek Resources, LLC | Project Name: | Prairie Falcon 19- 29-17 | |
| 405 Urban St Suite 400 | Project Number: | 15090-0001 | **Reported:** |
| Lakewood CO, 80228 | Project Manager: | Andrew Parker | 22-Dec-15 10:34 |

## Boron-Hot Water Soluble by EPA 6010 - Quality Control

## Envirotech Analytical Laboratory

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1551005 - Boron HW Soluble Digestion** | | | | | | | | | | |
| **Blank (1551005-BLK1)** | | | | Prepared: 14-Dec-15 Analyzed: 15-Dec-15 | | | | | | |
| Boron | ND | 0.50 | mg/L | | | | | | | |
| **LCS (1551005-BS1)** | | | | Prepared: 14-Dec-15 Analyzed: 15-Dec-15 | | | | | | |
| Boron | 4.15 | | mg/L | 4.00 | | 104 | 80-120 | | | |
| **Matrix Spike (1551005-MS1)** | **Source: P512016-02** | | | Prepared: 14-Dec-15 Analyzed: 15-Dec-15 | | | | | | |
| Boron | 3.19 | | mg/L | 4.00 | 0.06 | 78.1 | 75-125 | | | |
| **Matrix Spike Dup (1551005-MSD1)** | **Source: P512016-02** | | | Prepared: 14-Dec-15 Analyzed: 15-Dec-15 | | | | | | |
| Boron | 2.98 | | mg/L | 4.00 | 0.06 | 73.1 | 75-125 | 6.55 | 20 | SPK1 |

| | | | |
|---|---|---|---|
| Bridgecreek Resources, LLC | Project Name: | Prairie Falcon 19- 29-17 | |
| 405 Urban St Suite 400 | Project Number: | 15090-0001 | **Reported:** |
| Lakewood CO, 80228 | Project Manager: | Andrew Parker | 22-Dec-15 10:34 |

## Notes and Definitions

| | |
|---|---|
| SPK1 | The spike recovery is outside of quality control limits. |
| A-01 | Re-reported. Client requested lower detection limit. |
| 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 |

Client: Bridgecreek Resources
Project: Prairie Falcon 29-17 per Andrew Parker 12/07/15 ag
Sampler: A. Parker
Phone: 970-570-9535
Email(s): andrew@akinsenvironmental.com
Project Manager:

RUSH? ☐ 1d ☐ 3d

Lab Use Only
Lab WO# P512016
Job Number 15090-0002

Page 1 of 1

| Sample ID | Sample Date | Sample Time | Matrix | Containers QTY - Vol/TYPE/Preservative | GRO/DRO by 8015 mRO | BTEX by 8021 | TPH by ~~418.1~~ 8015 NO | Chloride by 300.0 | Table 910-1 Ar | Cr-A | CRO | DRO | MRO | Lab Number | Correct Cont/Prsrv (s) Y/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~~3 pt~~ 4 oz Bar Composite | 12/4 | 4:15 | Solid | 3-4oz glass/cool | X | | X | X | X | X | | | | 1 | Y |
| ~~3 pt~~ 4 oz Background | 12/4 | 4:30 | ↓ | 1 | X | | X | X | X | X | | | | 2 | Y |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

| Relinquished by: (Signature) | Date | Time | Received by: (Signature) | Date | Time |
|---|---|---|---|---|---|
| Andrew Parker | 12/4/15 | 17:35 | Alana Hill | 12/4/15 | 17:44 |
| Relinquished by: (Signature) | Date | Time | Received by: (Signature) | Date | Time |

Lab Use Only
**Received on Ice (Y) / N
T1____ T2____ T3____
AVG Temp °C 4.0

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other ____
Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA
**Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

☐ Sample(s) dropped off after hours to a secure drop off area.

Chain of Custody

Notes/Billing info:

envirotech Analytical Laboratory
5796 US Highway 64, Farmington, NM 87401 Ph (505) 632-0615 Fx (505) 632-1865
Three Springs - 65 Mercado Street, Suite 115, Durango, CO 81301 Ph (970) 259-0615 Fx (800) 362-1879
envirotech-inc.com

# ANALYTICAL REPORT

December 15, 2015

## EnviroTech- NM

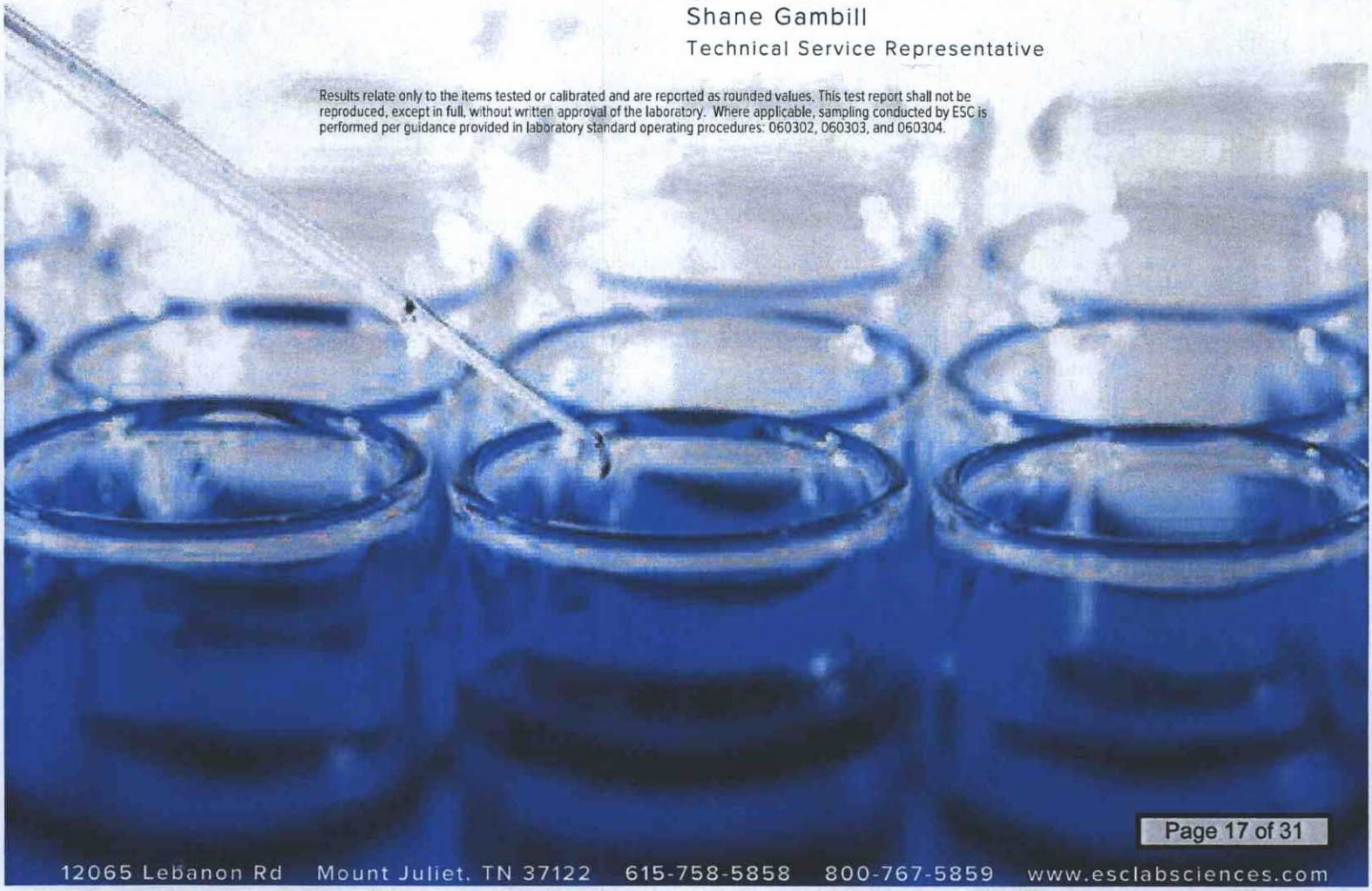
| | |
|---|---|
| Sample Delivery Group: | L805353 |
| Samples Received: | 12/08/2015 |
| Project Number: | 15090-0002 |
| Description: | Prairie Falcon 19-29-17 |
| Site: | P512016 |
| Report To: | Tim Cain and Lynn Cook<br>5796 US. Highway 64<br>Farmington, NM 87401 |

Entire Report Reviewed By:

Shane Gambill

Technical Service Representative







12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.esclabsciences.com

# TABLE OF CONTENTS

## BIN COMPOSITE L805353-01 Solid

Collected by: A. Parker
Collected date/time: 12/04/15 16:15
Received date/time: 12/08/15 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM | WG834440 | 1 | 12/09/15 19:07 | 12/10/15 11:12 | KMP |
| Total Solids by Method 2540 G-2011 | WG834540 | 1 | 12/14/15 13:03 | 12/14/15 13:12 | MEL |
| Wet Chemistry by Method 2580 B-2011 | WG834194 | 1 | 12/08/15 21:26 | 12/08/15 21:27 | MZ |
| Wet Chemistry by Method 3060A/7196A | WG834156 | 1 | 12/09/15 09:52 | 12/10/15 13:58 | AMC |
| Wet Chemistry by Method 9045D | WG834208 | 1 | 12/09/15 09:20 | 12/09/15 09:20 | MAJ |

## BACKGROUND L805353-02 Solid

Collected by: A. Parker
Collected date/time: 12/04/15 16:30
Received date/time: 12/08/15 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM | WG834440 | 1 | 12/09/15 19:07 | 12/10/15 11:34 | KMP |
| Total Solids by Method 2540 G-2011 | WG834540 | 1 | 12/14/15 13:03 | 12/14/15 13:12 | MEL |
| Wet Chemistry by Method 2580 B-2011 | WG834194 | 1 | 12/08/15 21:26 | 12/08/15 21:27 | MZ |
| Wet Chemistry by Method 3060A/7196A | WG834156 | 1 | 12/09/15 09:52 | 12/10/15 14:00 | AMC |
| Wet Chemistry by Method 9045D | WG834208 | 1 | 12/09/15 09:20 | 12/09/15 09:20 | MAJ |

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Shane Gambill
Technical Service Representative

## Total Solids by Method 2540 G-2011

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | % | | | date / time | |
| Total Solids | 75.1 | | 1 | 12/14/2015 13:12 | WG834540 |

## Wet Chemistry by Method 2580 B-2011

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | mV | | | date / time | |
| ORP | 90 | | 1 | 12/08/2015 21:27 | WG834194 |

## Wet Chemistry by Method 3060A/7196A

| Analyte | Result (dry) | Qualifier | RDL (dry) | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | mg/kg | | mg/kg | | date / time | |
| Chromium,Hexavalent | ND | | 2.66 | 1 | 12/10/2015 13:58 | WG834156 |

## Wet Chemistry by Method 9045D

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 9.64 | | 1 | 12/09/2015 09:20 | WG834208 |

**Sample Narrative:**

9045D L805353-01 WG834208: 9.64 at 23.7c

## Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

| Analyte | Result (dry) | Qualifier | RDL (dry) | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | mg/kg | | mg/kg | | date / time | |
| Anthracene | ND | | 0.00799 | 1 | 12/10/2015 11:12 | WG834440 |
| Acenaphthene | 0.0123 | | 0.00799 | 1 | 12/10/2015 11:12 | WG834440 |
| Acenaphthylene | ND | | 0.00799 | 1 | 12/10/2015 11:12 | WG834440 |
| Benzo(a)anthracene | ND | | 0.00799 | 1 | 12/10/2015 11:12 | WG834440 |
| Benzo(a)pyrene | ND | | 0.00799 | 1 | 12/10/2015 11:12 | WG834440 |
| Benzo(b)fluoranthene | ND | | 0.00799 | 1 | 12/10/2015 11:12 | WG834440 |
| Benzo(g,h,i)perylene | ND | | 0.00799 | 1 | 12/10/2015 11:12 | WG834440 |
| Benzo(k)fluoranthene | ND | | 0.00799 | 1 | 12/10/2015 11:12 | WG834440 |
| Chrysene | ND | | 0.00799 | 1 | 12/10/2015 11:12 | WG834440 |
| Dibenz(a,h)anthracene | ND | | 0.00799 | 1 | 12/10/2015 11:12 | WG834440 |
| Fluoranthene | ND | | 0.00799 | 1 | 12/10/2015 11:12 | WG834440 |
| Fluorene | 0.0379 | | 0.00799 | 1 | 12/10/2015 11:12 | WG834440 |
| Indeno(1,2,3-cd)pyrene | ND | | 0.00799 | 1 | 12/10/2015 11:12 | WG834440 |
| Naphthalene | 0.394 | | 0.0266 | 1 | 12/10/2015 11:12 | WG834440 |
| Phenanthrene | 0.0733 | | 0.00799 | 1 | 12/10/2015 11:12 | WG834440 |
| Pyrene | 0.00940 | | 0.00799 | 1 | 12/10/2015 11:12 | WG834440 |
| 1-Methylnaphthalene | 0.320 | | 0.0266 | 1 | 12/10/2015 11:12 | WG834440 |
| 2-Methylnaphthalene | 0.409 | | 0.0266 | 1 | 12/10/2015 11:12 | WG834440 |
| 2-Chloronaphthalene | ND | | 0.0266 | 1 | 12/10/2015 11:12 | WG834440 |
| *(S) Nitrobenzene-d5* | *69.5* | | *22.1-146* | | *12/10/2015 11:12* | WG834440 |
| *(S) 2-Fluorobiphenyl* | *41.7* | | *40.6-122* | | *12/10/2015 11:12* | WG834440 |
| *(S) p-Terphenyl-d14* | *44.3* | | *32.2-131* | | *12/10/2015 11:12* | WG834440 |

## Total Solids by Method 2540 G-2011

| Analyte | Result | Qualifier | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|
| | % | | | | |
| Total Solids | 84.7 | | 1 | 12/14/2015 13:12 | WG834540 |

## Wet Chemistry by Method 2580 B-2011

| Analyte | Result | Qualifier | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|
| | mV | | | | |
| ORP | 124 | | 1 | 12/08/2015 21:27 | WG834194 |

## Wet Chemistry by Method 3060A/7196A

| Analyte | Result (dry) | Qualifier | RDL (dry) | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|
| | mg/kg | | mg/kg | | | |
| Chromium,Hexavalent | ND | | 2.36 | 1 | 12/10/2015 14:00 | WG834156 |

## Wet Chemistry by Method 9045D

| Analyte | Result | Qualifier | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|
| | su | | | | |
| pH | 9.11 | | 1 | 12/09/2015 09:20 | WG834208 |

**Sample Narrative:**

9045D L805353-02 WG834208: 9.11 at 23.9c

## Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

| Analyte | Result (dry) | Qualifier | RDL (dry) | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|
| | mg/kg | | mg/kg | | | |
| Anthracene | ND | | 0.00708 | 1 | 12/10/2015 11:34 | WG834440 |
| Acenaphthene | ND | | 0.00708 | 1 | 12/10/2015 11:34 | WG834440 |
| Acenaphthylene | ND | | 0.00708 | 1 | 12/10/2015 11:34 | WG834440 |
| Benzo(a)anthracene | ND | | 0.00708 | 1 | 12/10/2015 11:34 | WG834440 |
| Benzo(a)pyrene | ND | | 0.00708 | 1 | 12/10/2015 11:34 | WG834440 |
| Benzo(b)fluoranthene | ND | | 0.00708 | 1 | 12/10/2015 11:34 | WG834440 |
| Benzo(g,h,i)perylene | ND | | 0.00708 | 1 | 12/10/2015 11:34 | WG834440 |
| Benzo(k)fluoranthene | ND | | 0.00708 | 1 | 12/10/2015 11:34 | WG834440 |
| Chrysene | ND | | 0.00708 | 1 | 12/10/2015 11:34 | WG834440 |
| Dibenz(a,h)anthracene | ND | | 0.00708 | 1 | 12/10/2015 11:34 | WG834440 |
| Fluoranthene | ND | | 0.00708 | 1 | 12/10/2015 11:34 | WG834440 |
| Fluorene | ND | | 0.00708 | 1 | 12/10/2015 11:34 | WG834440 |
| Indeno(1,2,3-cd)pyrene | ND | | 0.00708 | 1 | 12/10/2015 11:34 | WG834440 |
| Naphthalene | ND | | 0.0236 | 1 | 12/10/2015 11:34 | WG834440 |
| Phenanthrene | ND | | 0.00708 | 1 | 12/10/2015 11:34 | WG834440 |
| Pyrene | ND | | 0.00708 | 1 | 12/10/2015 11:34 | WG834440 |
| 1-Methylnaphthalene | ND | | 0.0236 | 1 | 12/10/2015 11:34 | WG834440 |
| 2-Methylnaphthalene | ND | | 0.0236 | 1 | 12/10/2015 11:34 | WG834440 |
| 2-Chloronaphthalene | ND | | 0.0236 | 1 | 12/10/2015 11:34 | WG834440 |
| *(S) Nitrobenzene-d5* | *67.4* | | *22.1-146* | | *12/10/2015 11:34* | WG834440 |
| *(S) 2-Fluorobiphenyl* | *71.9* | | *40.6-122* | | *12/10/2015 11:34* | WG834440 |
| *(S) p-Terphenyl-d14* | *67.9* | | *32.2-131* | | *12/10/2015 11:34* | WG834440 |

## Method Blank (MB)

(MB) 12/14/15 13:12

| Analyte | MB Result % | MB Qualifier | MB RDL % |
|---|---|---|---|
| Total Solids | 0.000400 | | |

## L805396-01 Original Sample (OS) • Duplicate (DUP)

(OS) 12/14/15 13:12 • (DUP) 12/14/15 13:12

| Analyte | Original Result % | DUP Result % | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Total Solids | 78.9 | 77.2 | 1 | 2.28 | | 5 |

## Laboratory Control Sample (LCS)

(LCS) 12/14/15 13:12

| Analyte | Spike Amount % | LCS Result % | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Total Solids | 50.0 | 50.0 | 99.9 | 85.0-115 | |

## L804772-01 Original Sample (OS) • Duplicate (DUP)

(OS) 12/08/15 21:27 • (DUP) 12/08/15 21:27

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | mV | mV | | % | | % |
| ORP | -19.0 | -18 | 1 | 0.000 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 12/08/15 21:27 • (LCSD) 12/08/15 21:27

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | mV | mV | mV | % | % | % | | | % | % |
| ORP | 100 | 97 | 98 | 97.0 | 98.0 | 90.0-110 | | | 1.03 | 20 |

## Method Blank (MB)

(MB) 12/10/15 13:35

| Analyte | MB Result mg/kg | MB Qualifier | MB RDL mg/kg |
|---|---|---|---|
| Chromium,Hexavalent | ND | | 2.00 |

## L805169-01 Original Sample (OS) • Duplicate (DUP)

(OS) 12/10/15 13:43 • (DUP) 12/10/15 13:53

| Analyte | Original Result mg/kg | DUP Result mg/kg | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Chromium,Hexavalent | ND | ND | 1 | 0.000 | | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 12/10/15 13:40 • (LCSD) 12/10/15 13:41

| Analyte | Spike Amount mg/kg | LCS Result mg/kg | LCSD Result mg/kg | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Chromium,Hexavalent | 97.4 | 78.2 | 79.6 | 80.3 | 81.7 | 80.0-120 | | | 1.77 | 20 |

## L805169-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 12/10/15 13:43 • (MS) 12/10/15 13:53 • (MSD) 12/10/15 13:54

| Analyte | Spike Amount mg/kg | Original Result mg/kg | MS Result mg/kg | MSD Result mg/kg | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium,Hexavalent | 20.0 | ND | 15.8 | 16.5 | 79.0 | 82.5 | 1 | 75.0-125 | | | 4.33 | 20 |

## L804859-20 Original Sample (OS) • Duplicate (DUP)

(OS) 12/09/15 09:20 • (DUP) 12/09/15 09:20

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | su | su | | % | | % |
| pH | 4.14 | 4.17 | 1 | 0.722 | | 1 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 12/09/15 09:20 • (LCSD) 12/09/15 09:20

| Analyte | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| | su | su | su | % | % | % | | | % | % |
| pH | 6.72 | 6.72 | 6.69 | 100 | 99.6 | 98.5-102 | | | 0.447 | 1 |

## Method Blank (MB)

(MB) 12/10/15 08:42

| Analyte | MB Result mg/kg | MB Qualifier | MB RDL mg/kg |
|---|---|---|---|
| Anthracene | ND | | 0.00600 |
| Acenaphthene | ND | | 0.00600 |
| Acenaphthylene | ND | | 0.00600 |
| Benzo(a)anthracene | ND | | 0.00600 |
| Benzo(a)pyrene | ND | | 0.00600 |
| Benzo(b)fluoranthene | ND | | 0.00600 |
| Benzo(g,h,i)perylene | ND | | 0.00600 |
| Benzo(k)fluoranthene | ND | | 0.00600 |
| Chrysene | ND | | 0.00600 |
| Dibenz(a,h)anthracene | ND | | 0.00600 |
| Fluoranthene | ND | | 0.00600 |
| Fluorene | ND | | 0.00600 |
| Indeno(1,2,3-cd)pyrene | ND | | 0.00600 |
| Naphthalene | ND | | 0.0200 |
| Phenanthrene | ND | | 0.00600 |
| Pyrene | ND | | 0.00600 |
| 1-Methylnaphthalene | ND | | 0.0200 |
| 2-Methylnaphthalene | ND | | 0.0200 |
| 2-Chloronaphthalene | ND | | 0.0200 |
| *(S) p-Terphenyl-d14* | *83.0* | | *32.2-131* |
| *(S) Nitrobenzene-d5* | *75.4* | | *22.1-146* |
| *(S) 2-Fluorobiphenyl* | *88.2* | | *40.6-122* |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 12/10/15 07:59 • (LCSD) 12/10/15 08:20

| Analyte | Spike Amount mg/kg | LCS Result mg/kg | LCSD Result mg/kg | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Anthracene | 0.0800 | 0.0723 | 0.0752 | 90.4 | 94.0 | 50.3-130 | | | 3.89 | 20 |
| Acenaphthene | 0.0800 | 0.0681 | 0.0711 | 85.1 | 88.8 | 52.4-120 | | | 4.26 | 20 |
| Acenaphthylene | 0.0800 | 0.0696 | 0.0727 | 87.0 | 90.8 | 49.6-120 | | | 4.32 | 20 |
| Benzo(a)anthracene | 0.0800 | 0.0711 | 0.0738 | 88.9 | 92.3 | 46.7-125 | | | 3.72 | 20 |
| Benzo(a)pyrene | 0.0800 | 0.0596 | 0.0609 | 74.5 | 76.1 | 42.3-119 | | | 2.13 | 20 |
| Benzo(b)fluoranthene | 0.0800 | 0.0668 | 0.0632 | 83.4 | 79.0 | 43.6-124 | | | 5.41 | 20 |
| Benzo(g,h,i)perylene | 0.0800 | 0.0673 | 0.0696 | 84.1 | 87.0 | 45.1-132 | | | 3.34 | 20 |
| Benzo(k)fluoranthene | 0.0800 | 0.0671 | 0.0760 | 83.9 | 95.0 | 46.1-131 | | | 12.4 | 20 |

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 12/10/15 07:59 • (LCSD) 12/10/15 08:20

| Analyte | Spike Amount mg/kg | LCS Result mg/kg | LCSD Result mg/kg | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Chrysene | 0.0800 | 0.0736 | 0.0774 | 92.0 | 96.8 | 49.5-131 | | | 5.05 | 20 |
| Dibenz(a,h)anthracene | 0.0800 | 0.0668 | 0.0687 | 83.5 | 85.9 | 44.8-133 | | | 2.83 | 20 |
| Fluoranthene | 0.0800 | 0.0731 | 0.0763 | 91.4 | 95.4 | 49.3-128 | | | 4.26 | 20 |
| Fluorene | 0.0800 | 0.0703 | 0.0729 | 87.9 | 91.1 | 50.6-121 | | | 3.59 | 20 |
| Indeno(1,2,3-cd)pyrene | 0.0800 | 0.0703 | 0.0728 | 87.8 | 91.0 | 46.1-135 | | | 3.49 | 20 |
| Naphthalene | 0.0800 | 0.0638 | 0.0655 | 79.7 | 81.8 | 49.6-115 | | | 2.63 | 20 |
| Phenanthrene | 0.0800 | 0.0658 | 0.0678 | 82.3 | 84.7 | 48.8-121 | | | 2.90 | 20 |
| Pyrene | 0.0800 | 0.0749 | 0.0773 | 93.6 | 96.6 | 44.7-130 | | | 3.10 | 20 |
| 1-Methylnaphthalene | 0.0800 | 0.0720 | 0.0744 | 90.0 | 93.0 | 50.6-122 | | | 3.25 | 20 |
| 2-Methylnaphthalene | 0.0800 | 0.0734 | 0.0757 | 91.8 | 94.6 | 50.4-120 | | | 3.09 | 20 |
| 2-Chloronaphthalene | 0.0800 | 0.0735 | 0.0763 | 91.9 | 95.4 | 53.9-121 | | | 3.74 | 20 |
| *(S) p-Terphenyl-d14* | | | | *87.3* | *88.6* | *32.2-131* | | | | |
| *(S) Nitrobenzene-d5* | | | | *79.4* | *78.0* | *22.1-146* | | | | |
| *(S) 2-Fluorobiphenyl* | | | | *92.4* | *94.7* | *40.6-122* | | | | |

## Abbreviations and Definitions

| | |
|---|---|
| SDG | Sample Delivery Group. |
| MDL | Method Detection Limit. |
| RDL | Reported Detection Limit. |
| ND,U | Not detected at the Reporting Limit (or MDL where applicable). |
| RPD | Relative Percent Difference. |
| (dry) | Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils]. |
| Original Sample | The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG. |
| (S) | Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media. |
| Rec. | Recovery. |
| SDL | Sample Detection Limit. |
| MQL | Method Quantitation Limit. |
| Unadj. MQL | Unadjusted Method Quantitation Limit. |

| Qualifier | Description |
|---|---|
| | The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG. |

# ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.



## State Accreditations

| | | | |
|---|---|---|---|
| Alabama | 40660 | Nevada | TN-03-2002-34 |
| Alaska | UST-080 | New Hampshire | 2975 |
| Arizona | AZ0612 | New Jersey–NELAP | TN002 |
| Arkansas | 88-0469 | New Mexico | TN00003 |
| California | 01157CA | New York | 11742 |
| Colorado | TN00003 | North Carolina | Env375 |
| Conneticut | PH-0197 | North Carolina [1] | DW21704 |
| Florida | E87487 | North Carolina [2] | 41 |
| Georgia | NELAP | North Dakota | R-140 |
| Georgia [1] | 923 | Ohio–VAP | CL0069 |
| Idaho | TN00003 | Oklahoma | 9915 |
| Illinois | 200008 | Oregon | TN200002 |
| Indiana | C-TN-01 | Pennsylvania | 68-02979 |
| Iowa | 364 | Rhode Island | 221 |
| Kansas | E-10277 | South Carolina | 84004 |
| Kentucky [1] | 90010 | South Dakota | n/a |
| Kentucky [2] | 16 | Tennessee [14] | 2006 |
| Louisiana | AI30792 | Texas | T 104704245-07-TX |
| Maine | TN0002 | Texas [5] | LAB0152 |
| Maryland | 324 | Utah | 6157585858 |
| Massachusetts | M-TN003 | Vermont | VT2006 |
| Michigan | 9958 | Virginia | 109 |
| Minnesota | 047-999-395 | Washington | C1915 |
| Mississippi | TN00003 | West Virginia | 233 |
| Missouri | 340 | Wisconsin | 9980939910 |
| Montana | CERT0086 | Wyoming | A2LA |
| Nebraska | NE-OS-15-05 | | |

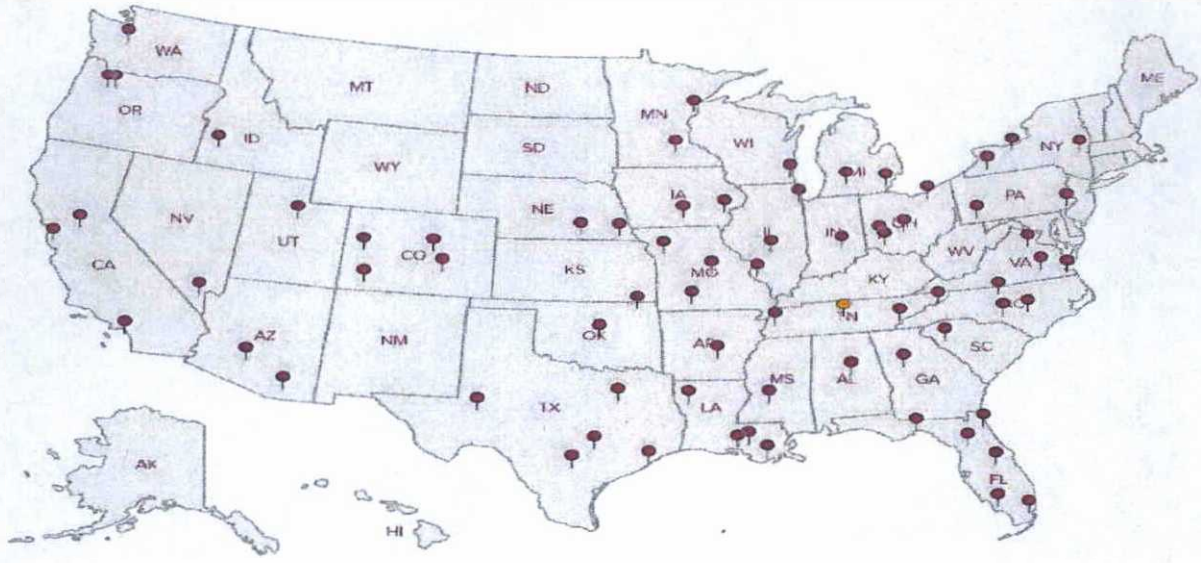
## Third Party & Federal Accreditations

| | | | |
|---|---|---|---|
| A2LA – ISO 17025 | 1461.01 | AIHA | 100789 |
| A2LA – ISO 17025 [5] | 1461.02 | DOD | 1461.01 |
| Canada | 1461.01 | USDA | S-67674 |
| EPA–Crypto | TN00003 | | |

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

## Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



| Company Name/Address: | Billing Information: | Analysis / Container / Preservative | Chain of Custody Page 1 of 1 |
|---|---|---|---|
| Envirotech Inc. -NM<br>5796 US Highway 64<br>Farmington, NM 87401 | Accounts Payable<br>5796 US Highway 64<br>Farmington, NM 87401 | | ESC LABORATORY SCIENCES<br>YOUR LAB OF CHOICE<br>12065 Lebanon Rd<br>Mount Juliet, TN 37122<br>Phone: 615-758-5858<br>Phone: 800-767-5859<br>Fax: 615-758-5859 |
| Report to: Lynn Cook & Tim Cain | Email To: Lynn Cook & Tim Cain | | L# L805353<br>B091 |
| Project Description: Prairie Falcon 19-29-17 | City/State Collected: | | Acctnum: |
| Phone:<br>Fax: | Client Project #: 15090-0002 | Lab Project #: | Template: |
| Collected by (print): A. Parker | Site/Facility ID #: P512014 | P.O. #: 142780 | Prelogin: |
| Collected by (signature): | Rush? (Lab MUST Be Notified)<br>___ Same Day ....200%<br>___ Next Day ....100%<br>___ Two Day ....50%<br>___ Three Day ....25% | Date Results Needed: 12-14-15<br>Email? ___No ✓Yes<br>FAX? ✓No ___Yes | TSR:<br>PB: |
| Immediately Packed on Ice N___ Y✓ | | | Shipped Via: |

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | Hexavalent Chromium / 4oz jar / Cool | PAH Sim by 8270 / 4oz jar / Cool | * Free Quote ENVIROFIN10091551 | Rem./Contaminant | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Bin Composite | | SS | | 12/4/15 | 16:15 | 1 | ✓ | ✓ | * | | -01 |
| Background | | SS | | 12/4/15 | 16:30 | 1 | ✓ | ✓ | | | 02 |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

pH _____ Temp _____ (230937377960)

Flow _____ Other _____

Remarks:

Hold #

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ _____ | Condition: (lab use only) |
|---|---|---|---|---|---|
| [signature] | 12-07-15 | 14:15 | | | JW1 (OK) |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Temp: 3.1 °C Bottles Received: 2-4oz | COC Seal Intact: ___Y ___N ___NA |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) [signature] | Date: 12/8/15 Time: 09 00 | pH Checked: NCF: |

## Department Of Interior- Bureau of Land Management -Tres Rios Field Office –SUNDRY 12/23/15

**Well Name/Number:** Prairie Falcon 19-29-17 **Operator:** Bc. Resc. **Surface/Mineral Ownership:** IND/IND (UMU)

**Leases:** ### **Location: (STR, QQ)** S19, T31N, R14W, ###' FNL, ###' FEL,

**API:** 050670- PAD(X), ACCESS (X), PIPELINE ( )

**NEPA DOCUMENT TYPE/I.D.:** EA / DOI-BLM-CO-SO10-##

## REQUIREMENTS AT ALL SITES:

### NOTIFICATION:

- The BLM Minerals Division - Surface Protection Specialist at (970) 385-1242 shall be notified 5 days prior to the onset of pad/road construction.
- The BLM Minerals Division – Physical Scientist/Natural Resources Specialist (970) 385-1242 and the BIA-UMU Agency Realty (970) 565-3716 shall be notified at least 48 hours prior to commencement of drilling or completion activities.
- NO SURFACE DISTURBANCE shall begin until the Edge of Disturbance Corners and Midline markers of the permitted area have been re-established and are clearly marked.

### GENERAL REQUIREMENTS:

- Any cement wash or other fluids should not be mixed with dry cuttings, but placed in a self-contained tank, surrounded by a lined containment dike of 110% of contained volumes for storage and removed for disposal at an approved location off-reservation.
- Polymer additives, Gel fluids, Saline Frac fluids or other non-fresh water based fluids stored on site to facilitate horizontal drilling/frac operations/ completion should have 110-125% containment facilities covered by 35 mil minimum thickness impermeable barrier surrounding and beneath storage tanks to protect against potential spills.

- **Any free liquid accumulating from all earthen lined containment systems should be vacuumed off to insure a minimum of 2ft. of freeboard on all tanks and pits consistently; the contents shall then be transported/disposed-of at an approved facility.**
- **All stormwater mitigations will be in accordance with BLM gold book BMP construction and installation standards and practices.**

**AT THIS PROJECT SPECIFICALLY: Sundry Dated 12/23/2015**

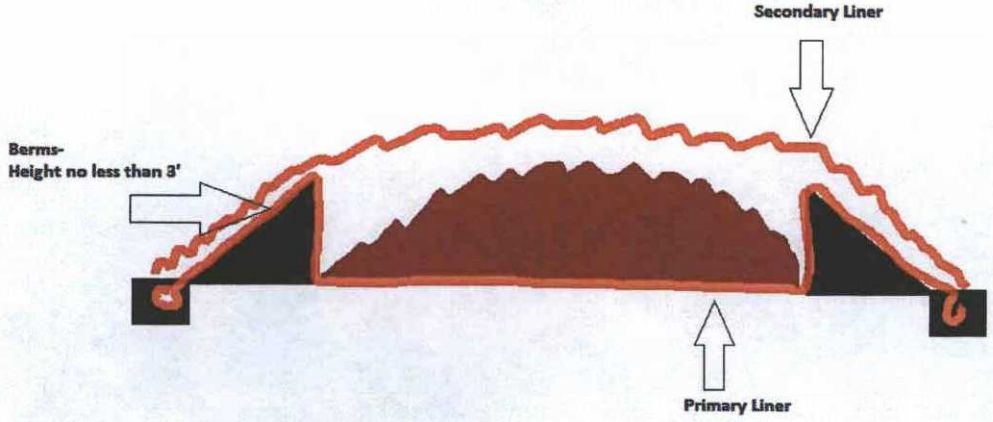
**1. Mixing pads will not be allowed to contain cuttings for more than 14 days.**

**2. Mixing pads will employ liners for no less than 20 mil thickness for primary liner.**

**3. If rips, tares, holes, or abrasion occurs on liners, operator will be required to fix immediately upon discovery, and contact the BLM at 970.285.1242.**

**4. Berm height should be no less than 3' in height.**

**5. Regardless of weather, cuttings will be covered every day they are on location with a liner that encompasses the entire mixing pad, including the berms.**



**6. Permanent metal T-postsl will be installed at the corners of the burial trenches to denote the presence of loosly compacted soils.**

**7. Operator will submit diagrams showing dimensions of the final burial trenches (L,W, H).**

12/30/15

Ryan N.Joyner
Physical Scientist/ Natural Resource Specialist
BLM-Minerals Division

Date: 12/30/2015