RECEIVED
ELECTRONIC REPORT

Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

JUN 17 2015

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 19-1

2. Name of Operator
BRIDGECREEK RESOURCES COLO LLC
Contact: CARLA S GRAVES
E-Mail: cgraves@palomarnr.com

9. API Well No.
30-045-35628-00-S1

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

3b. Phone No. (include area code)
Ph: 303-945-2643

10. Field and Pool, or Exploratory
VERDE GALLUP

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 19 T31N R14W NWNE 666FNL 1971FEL
36.891898 N Lat, 108.348346 W Lon

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
	☐ 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 (Colorado), L.L.C., submits the attached final pit sampling report prepared by Adkins Consulting, Inc. for the Prairie Falcon 19-1 well. The conclusion after examination of results will allow reserve pit closure that is protective of human health and the environment. Bridgecreek Resources (Colorado), L.L.C., is requesting approval to proceed in the reserve pit closure.

OIL CONS. DIV DIST. 3

JUL 09 2015

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

Electronic Submission #305253 verified by the BLM Well Information System
For BRIDGECREEK RESOURCES COLO LLC, sent to the Durango
Committed to AFMSS for processing by BARBARA TELECKY on 06/22/2015 (15BDT0305SE)

Name *(Printed/Typed)* CARLA S GRAVES — Title REGULATORY ASSISTANT

Signature (Electronic Submission) — Date 06/17/2015

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By — Title MSL — Date 6/24/15

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

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Adkins Consulting, Inc.
180 E. 12th Street, Suite #5 Durango, CO 81303
(505)793-1140

June 14, 2015

Mr. Ryan Joyner
Bureau of Land Management
Tres Rios Field Office
Land and Minerals
15 Burnett Court
Durango, CO 81301

RE: Reserve Pit Sampling. Bridgecreek Resources. Prairie Falcon 19-1. Sec. 19, T31N.R1.
Lease #751-14-1038.

Mr. Joyner:

On the behalf of Bridgecreek Resources (Bridgecreek), Adkins Consulting Inc. (ACI) is pleased to submit this report for Task III – Reserve Pit Sampling and Closure as outlined in the Reclamation Plan dated February 26, 2015.

The reserve pit was sampled by Mr. Andrew Parker and Ms. Maria Adkins of ACI on May 7, 2015. Samples were collected for the analysis of constituents listed in the Utu Mountain Ute (UMU) Tribe's "Standards for Spill Clean-up and Reclamation" table and chloride. The UMU Table standards were adopted from the Colorado Oil and Gas Commission's (COGCCs) Table 910-1 located in COGCC's 900 Series Rule.

Sampling Methodology

Per the reserve pit sampling plan, we obtained six (6) core samples of drill cuttings from the reserve pit; 3 cores samples along the northeast edge and 3 core samples along the southwest edge (see Exhibit 1). Each core sample was collected using a 2-inch PVC sampler. The core sampler was angled at a 45 degrees and penetrated the drill cuttings approximately 1-foot (Figure 1). At 1-foot the core sampler encountered refusal either due to the clay-like consistency of the drill cuttings or the pit liner. Approximately 18-inches of stormwater was present on

Figure 1: Reserve pit sampling with a 2" PVC core sampler.

top of drill cuttings.

The 6 core samples were volumetrically folded into a 5 gallon bucket. Gently folding the composite core samples blended the contents into a homogenous mixture while avoiding agitation and volatilization. One composite sample was collected and submitted to Hall Environmental Analysis Laboratory (HEAL) for the analysis of constituents listed in the UMU Table and chloride.

The background sample used in the mixing ratio, discussed below, was collected from the spoil piles during the well pad sampling program. Please refer to our "Well Pad Sampling" reported dated May 12, 2015 for details.

Analytical Results and Comparison to Soil Evaluation Values and Calculations

A summary of analytical results are presented in Table 1. The laboratory Certificate of Analysis is located in Appendix A. We compared the results to the UMU Table (December 2007), to the Colorado Soil Evaluation Values (which are the basis of the values in the UMU Table), and NMOCD Rule 19.15.17 for chloride. Constituents exceeding standards are highlighted light red.

The reserve pit composite and the background sample were below UMU table concentrations except for Arsenic. Although the reserve pit Arsenic level is non-detect, the laboratory reporting level is above UMU Table standards. Locally, Arsenic concentration is naturally high as exhibited in the background sample (Spoil Pile). Therefore, Arsenic is not further evaluated. Additionally, pH is also naturally high as shown in the background sample (pH=8.1)

A detailed discussion of constituents exceeding UMU table is presented below. To the right of each constituent listed below is a short explanation demonstrating that constituents that exceed standards are not likely to impair human health and the environment when proper reserve pit closure procedures are followed as outlined in the approved APD.

pH	A mixing ratio of 3 parts clean to 1 part Reserve Pit Composite (3:1 mixing ratio) shows pH concentrations exceed standards by 0.08. pH is important how easily plants intake nutrients in soil. The drill cuttings will be buried 3 to 4 feet below ground surface and capped with native background soil. The drill cuttings will be below the root zone of plants. The 0.08 pH exceedance of the standard will most likely have no impact on revegetation efforts.
SAR	A mixing ratio of 3 parts clean to 1 part Reserve Pit Composite (3:1 mixing ratio) shows SAR exceeds UMU table standards. We reviewed the SAR Calculation concentrations and conclude the high SAR is the result of the ratio of high sodium (Na) compared to magnesium (Mg) and calcium (Ca). High sodium is not surprising as drill cuttings were in contact with formation water and drilling fluid at the time of drilling. SAR is considered important for cropland and irrigation water as a high SAR ratio inhibits soil permeability. The observed SAR concentration in the reserve pit composite sample is not a threat to human health or the environment as the reserve pit drill cuttings will be buried 3 to 4 feet below ground surface and capped with native background

soil. The drill cuttings will be below the root zone of plants.

To calculate the mixing ratio, we:

1. Multiplied the "Spoil Pile" (clean) concentration by the clean soil mixing ratio. For example, a mixing ratio of "2:1" has a multiplier of "2".
2. Added the clean soil result to the Reserve Pit Composite concentration.
3. Divided by the number of concentrations added in the numerator (mixing ratio plus 1).
4. If the constituent of concentration exhibits non-detect, the laboratory reporting limit was used. This creates a *"worse-case"* scenario for the constituent of concern and is most protective of human health and the environment.

For a mixing ration of 2:1, the equation yields:

$$\frac{(clean\ soil\ X\ 2) + contituent\ of\ concern\ concentraion}{3}$$

Table 2 shows the mixing ratio of 3:1 will slightly exceed UMU Table standards for pH and SAR. As discussed in the above section, the mixed drill cuttings is not likely to impair human health and the environment.

Conclusion

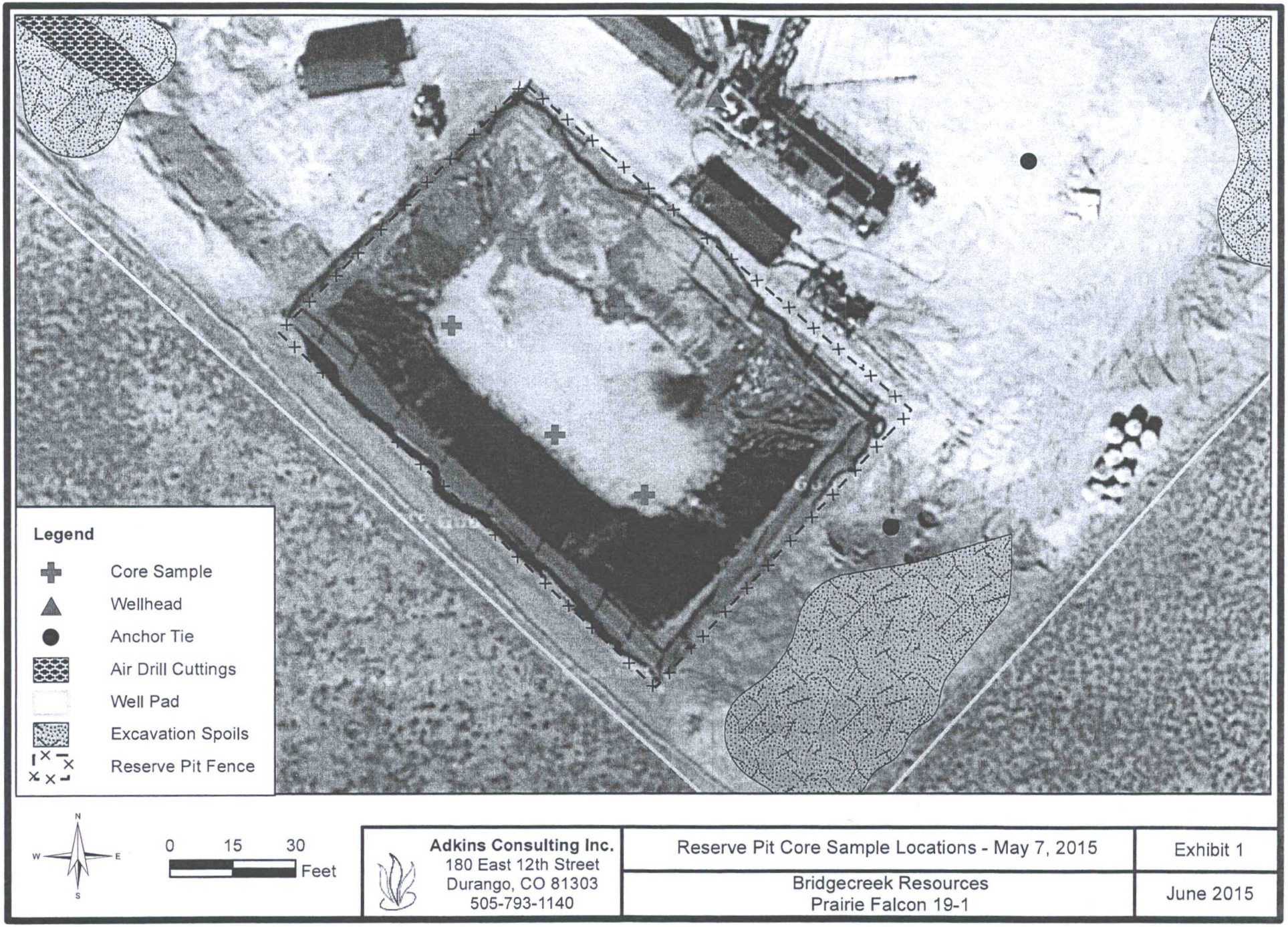
Examination of analytical results and mixing ratios for the reserve pit composite sample, we conclude that mixing 3 parts clean (Spoil Pile) material to 1 part drill cuttings and the reserve it is closed according to the COA attached to the APD will result in a reserve pit closure that is protective of human health and the environment. A mixing ratio of up to 3:1 is permitted in accordance with NMCOD 19.15.17. COGCC Rule 900 Series allows for in place burial of E&P waste so that the waste does not exceed UMU Table standards.

If you have any questions or comments please contact me at 970-570-9535.

Andrew Parker
Adkins Consulting, Inc
Durango, CO
970-570-9535
andrew@adkinsenvironmental.com

Cc: Christine Campbell, Bridgecreek Resources
John Thompson, Walsh Engineering

Exhibits



Adkins Consulting Inc. 180 East 12th Street Durango, CO 81303 505-793-1140	Reserve Pit Core Sample Locations - May 7, 2015	Exhibit 1
	Bridgecreek Resources Prairie Falcon 19-1	June 2015

Tables

Table 1: Summary of Analytical Results

Sample ID	Date	DRO (8015D)	MRO (8015D)	GRO (8015D)	TPH(EPA 8015)	Benzene	Toluene	Ethylbenzene	Xylenes (total)
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Spoil Pile	3/31/2015	<10	<50	<5.0	<65	<0.050	<0.050	<0.050	<0.099
Reserve Pit	5/7/2015	22	<50	14	36	0.13	0.42	0.22	0.82
UMU Table (COGCC Table 910-1)					500	0.17	85	100	175
CDPHE-HMWMD/EPA SSLs						5.10	4,700	25	250

Notes:

exceeds guidelines

exceeds EPA SSL Standards

Table 1: Summary of Analytical Results

Sample ID	Date	Chloride	Mercury	Arsenic	Barium	Boron	Cadmium	Chromium	Chromium VI	Copper	Lead	Nickel	Selenium	Silver
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Spoil Pile	3/31/2015	23	<0.034	3.8	140	NS	<0.10	7.2	<2	6.2	3.4	7.8	<2.5	<0.25
Reserve Pit	5/7/2015	140	<0.033	<2.6	2800	NS	0.11	6.4	<2	21	4.3	6.1	<2.6	<0.26
UMU Table (COGCC Table 910-1)			23	0.39	15,000	4	70	120,000	23	3,100	400	1,600	390	390
CDPHE-HMWMD/EPA SSLs			35	3.00	22,400		98	180,000	6	4,700	800	2,200	580	580

Notes:

exceeds guidelines

exceeds EPA SSL Standards

Table 1: Summary of Analytical Results

Sample ID	Date	Zinc	pH	Naphthalene	Acenaphthene	Fluorene	Anthracene	Fluoranthene	Pyrene	Benzo(A)anthracene	Chrysene
		mg/kg	--	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Spoil Pile	3/31/2015	27	8.1	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Reserve Pit	5/7/2015	40	12	0.062	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
UMU Table (COGCC Table 910-1)		23,000	6-9	23	1,000	1,000	1,000	1,000	1,000	0.22	22
CDPHE-HMWMD/EPA SSLs		35,000		17	4,500	3,000	23,000	3,000	2,300	2.90	290

Notes:

exceeds guidelines

exceeds EPA SSL Standards

Table 1: Summary of Analytical Results

Sample ID	Date	Benzo(B)fluoranthene	Benzo(K)floranthene	Benzo(A)pyrene	Dibenzo(A,H)anthracene
		mg/kg	mg/kg	mg/kg	mg/kg
Spoil Pile	3/31/2015	<0.020	<0.020	<0.020	<0.020
Reserve Pit	5/7/2015	<0.020	<0.020	<0.020	<0.020
UMU Table (COGCC Table 910-1)		0.22	2.20	0.022	0.022
CDPHE-HMWMD/EPA SSLs		2.90	29.00	0.29	0.290

Notes:

exceeds guidelines

exceeds EPA SSL Standards

Table 1: Summary of Analytical Results

Sample ID	Date	Indeno(1,2,3-cd)pyrene	Sodium Absportion Ratio	Electrical Conductivity	ORP
		mg/kg	–	mmhos/cm	mV
Spoil Pile	3/31/2015	<0.020	5.4	1.32	82
Reserve Pit	5/7/2015	<0.020	49	2.38	16
UMU Table (COGCC Table 910-1)		0.22	<12	<4 or 2x background	
CDPHE-HMWMD/EPA SSLs		2.90			

Notes:

exceeds guidelines
exceeds EPA SSL Standards

Table 2: Mixing Ratio

Mixing Ratio	Sample ID	DRO (8015D)	MRO (8015D)	GRO (8015D)	TPH(EPA 8015)	Benzene	Toluene	Ethylbenzene	Xylenes (total)	Chloride	Mercury	Arsenic	Barium	Boron
clean:actual		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1:1	DT-01	16.00	50.00	9.50	50.50	0.09	0.24	0.14	0.46	81.50	0.03	3.20	1470.00	
2:1	DT-01	14.00	50.00	8.00	55.33	0.08	0.17	0.11	0.34	62.00	0.03	3.40	1026.67	
3:1	DT-01	13.00	50.00	7.25	57.75	0.07	0.14	0.09	0.28	52.25	0.03	3.50	805.00	
UMU Table (COGCC Table 910-1)					500	0.17	85	100	175		23	0.39	15,000	
NMOCD (Rule 19.15.17)										80,000				
COPHE-HMWMD/EPA SSLs						5.10	4,700	25	250		35	3	22,400	

Notes:
exceeds guidelines
exceeds EPA SSL Standards

Table 2: Mixing Ratio

Mixing Ratio	Sample ID	Cadmium	Chromium	Chromium VI	Copper	Lead	Nickel	Selenium	Silver	Zinc	pH	Naphthalene	Acenaphthene	Fluorene	Anthracene
clean:actual		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	--	mg/kg	mg/kg	mg/kg	mg/kg
1:1	DT-01	0.11	6.80	2.00	13.60	3.85	6.95	2.50	0.26	33.50	10.05	0.04	0.02	0.02	0.02
2:1	DT-01	0.10	6.93	2.00	11.13	3.70	7.23	2.47	0.25	31.33	9.40	0.03	0.02	0.02	0.02
3:1	DT-01	0.10	7.00	2.00	9.90	3.63	7.38	2.45	0.25	30.25	9.08	0.03	0.02	0.02	0.02
UMU Table (COGCC Table 910-1)		70	120,000	23	3,100	400	1,600	390	390	23,000	6-9	23	1,000	1,000	1,000
NMOCD (Rule 19.15.17)															
CDPHE-HMWMD/EPA SSLs		98	180,000	6.30	4,700	800	2,200	580	580	35,000		17	4,500	3,000	23,000

Notes:
exceeds guidelines
exceeds EPA SSL Standards

Table 2: Mixing Ratio

Mixing Ratio	Sample ID	Fluoranthene	Pyrene	Benzo(A)anthracene	Chrysene	Benzo(B)fluoranthene	Benzo(K)fluoranthene	Benzo(A)pyrene	Dibenzo(A,H)anthracene
clean:actual		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1:1	DT-01	0.02	0.02	0.02	0.02	0.02	0.02	0.020	0.020
2:1	DT-01	0.02	0.02	0.02	0.02	0.02	0.02	0.020	0.020
3:1	DT-01	0.02	0.02	0.02	0.02	0.02	0.02	0.020	0.020
UMU Table (COGCC Table 910-1)		1,000	1,000	0.22	22	0.22	2.20	0.022	0.022
NMOCD (Rule 19.15.17)									
CDPHE-HMWMD/EPA SSLs		3,000	2,300	2.90	290	2.90	29	0.29	0.29

Notes:
exceeds guidelines
exceeds EPA SSL Standards

Table 2: Mixing Ratio

Mixing Ratio	Sample ID	Indeno(1,2,3-cd)pyrene	Sodium Absportion Ratio	Electrical Conductivity
clean:actual		mg/kg	-	mmhos/cm
1:1	DT-01	0.02	27	1.85
2:1	DT-01	0.02	20	1.67
3:1	DT-01	0.02	16	1.59

UMU Table (CDGCC Table 910-1)		0.22	<12	<4 or 2x background
NMOCD (Rule 19.15.17)				
CDPHE-HMWMD/EPA SSLs		2.9		

Notes:
exceeds guidelines
exceeds EPA SSL Standards

Appendix A

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

June 09, 2015

Andrew Parker
Adkins Consulting Inc
180 E. 12th Street #5
Durango, CO 81303
TEL: (505) 793-1140
FAX

RE: Prairie Falcon 19-1 OrderNo.: 1505363

Dear Andrew Parker:

Hall Environmental Analysis Laboratory received 2 sample(s) on 5/8/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1505363**
Date Reported: **6/9/2015**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Adkins Consulting Inc
Client Sample ID: Reserve Pit
Project: Prairie Falcon 19-1
Collection Date: 5/7/2015 12:30:00 PM
Lab ID: 1505363-001 **Matrix:** SOIL **Received Date:** 5/8/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SAR SOLUBLE CATIONS						Analyst: **ELS**	
Sodium Adsorption Ratio	49	0			1	5/26/2015 9:33:00 AM	19353
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	140	30		mg/Kg	20	5/19/2015 11:34:10 AM	19298
RESISTIVITY AND EC SOIL						Analyst: **JRR**	
Conductivity	2380	1.00		µmhos/cm	1	5/13/2015 10:09:00 AM	19193
EPA METHOD 7471: MERCURY						Analyst: **MED**	
Mercury	ND	0.033		mg/Kg	1	5/29/2015 12:33:49 PM	19445
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**	
Arsenic	ND	2.6		mg/Kg	1	5/20/2015 11:51:16 AM	19279
Barium	2800	2.1		mg/Kg	20	5/20/2015 1:45:16 PM	19279
Cadmium	0.11	0.10		mg/Kg	1	5/20/2015 11:51:16 AM	19279
Chromium	6.4	0.31		mg/Kg	1	5/20/2015 11:51:16 AM	19279
Copper	21	0.31		mg/Kg	1	5/20/2015 11:51:16 AM	19279
Lead	4.3	0.26		mg/Kg	1	5/20/2015 11:51:16 AM	19279
Nickel	6.1	0.52		mg/Kg	1	5/20/2015 11:51:16 AM	19279
Selenium	ND	2.6		mg/Kg	1	5/20/2015 11:51:16 AM	19279
Silver	ND	0.26		mg/Kg	1	5/20/2015 11:51:16 AM	19279
Zinc	40	2.6		mg/Kg	1	5/20/2015 11:51:16 AM	19279
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	22	10		mg/Kg	1	5/12/2015 4:37:11 PM	19138
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/12/2015 4:37:11 PM	19138
Surr: DNOP	108	57.9-140		%REC	1	5/12/2015 4:37:11 PM	19138
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	14	5.0		mg/Kg	1	5/12/2015 3:30:56 PM	19132
Surr: BFB	133	80-120	S	%REC	1	5/12/2015 3:30:56 PM	19132
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.13	0.050		mg/Kg	1	5/12/2015 3:30:56 PM	19132
Toluene	0.42	0.050		mg/Kg	1	5/12/2015 3:30:56 PM	19132
Ethylbenzene	0.22	0.050		mg/Kg	1	5/12/2015 3:30:56 PM	19132
Xylenes, Total	0.82	0.10		mg/Kg	1	5/12/2015 3:30:56 PM	19132
Surr: 4-Bromofluorobenzene	118	80-120		%REC	1	5/12/2015 3:30:56 PM	19132
EPA METHOD 8270C: PAHS						Analyst: **JDC**	
Naphthalene	0.062	0.020		mg/Kg	1	5/20/2015 4:45:09 PM	19300
Acenaphthene	ND	0.020		mg/Kg	1	5/20/2015 4:45:09 PM	19300
Fluorene	ND	0.020		mg/Kg	1	5/20/2015 4:45:09 PM	19300

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Adkins Consulting Inc
Client Sample ID: Reserve Pit
Project: Prairie Falcon 19-1
Collection Date: 5/7/2015 12:30:00 PM
Lab ID: 1505363-001
Matrix: SOIL
Received Date: 5/8/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: PAHS						Analyst: **JDC**	
Anthracene	ND	0.020		mg/Kg	1	5/20/2015 4:45:09 PM	19300
Fluoranthene	ND	0.020		mg/Kg	1	5/20/2015 4:45:09 PM	19300
Pyrene	ND	0.020		mg/Kg	1	5/20/2015 4:45:09 PM	19300
Benz(a)anthracene	ND	0.020		mg/Kg	1	5/20/2015 4:45:09 PM	19300
Chrysene	ND	0.020		mg/Kg	1	5/20/2015 4:45:09 PM	19300
Benzo(b)fluoranthene	ND	0.020		mg/Kg	1	5/20/2015 4:45:09 PM	19300
Benzo(k)fluoranthene	ND	0.020		mg/Kg	1	5/20/2015 4:45:09 PM	19300
Benzo(a)pyrene	ND	0.020		mg/Kg	1	5/20/2015 4:45:09 PM	19300
Dibenz(a,h)anthracene	ND	0.020		mg/Kg	1	5/20/2015 4:45:09 PM	19300
Indeno(1,2,3-cd)pyrene	ND	0.020		mg/Kg	1	5/20/2015 4:45:09 PM	19300
Surr: Benzo(e)pyrene	58.5	32.5-200		%REC	1	5/20/2015 4:45:09 PM	19300
Surr: N-hexadecane	103	46.4-117		%REC	1	5/20/2015 4:45:09 PM	19300

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Analytical Report
Lab Order **1505363**
Date Reported: **6/9/2015**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Adkins Consulting Inc
Project: Prairie Falcon 19-1
Lab ID: 1505363-002 **Matrix:** SOIL

Client Sample ID: Spoil Pile
Collection Date: 5/7/2015 12:40:00 PM
Received Date: 5/8/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	23	1.5		mg/Kg	1	5/19/2015 11:46:34 AM	19298

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
O	RSD is greater than RSDlimit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
RL	Reporting Detection Limit

Wet Chemistry by Method 2580 B-2011

	Result	Qualifier	Dilution	Analysis	Batch
Analyte	mV			date / time	
ORP	16		1	05/14/2015 15:54	WG788555

Wet Chemistry by Method 3060A/7196A

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg		date / time	
Chromium,Hexavalent	ND		2.00	1	05/14/2015 02:57	WG788333

Wet Chemistry by Method 9045D

	Result	Qualifier	Dilution	Analysis	Batch
Analyte	su			date / time	
pH	12.0		1	05/13/2015 10:11	WG788331

Sample Narrative:

9045D L764418-01 WG788331: 12 AT 19.4C

L764620-23 Original Sample (OS) • Duplicate (DUP)

(OS) 05/14/15 15:54 • (DUP) 05/14/15 15:54

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mV	mV		%		%
ORP	200	201	1	0.50		20

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

(LCS) 05/14/15 15:54 • (LCSD) 05/14/15 15:54

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	107	106	107	106	90.0-110			0.939	20

Method Blank (MB)

(MB) 05/14/15 02:42

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

L763764-01 Original Sample (OS) • Duplicate (DUP)

(OS) 05/14/15 02:48 • (DUP) 05/14/15 02:48

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/kg	mg/kg		%		%
Chromium,Hexavalent	ND	ND	1	0.00		20

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

(LCS) 05/14/15 02:46 • (LCSD) 05/14/15 02:46

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Chromium,Hexavalent	59.8	68.4	69.0	114	115	80.0-120			0.873	20

L763764-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 05/14/15 02:48 • (MS) 05/14/15 02:51 • (MSD) 05/14/15 02:52

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Chromium,Hexavalent	20.0	1.10	20.5	20.8	103	104	1	75.0-125			1.45	20

L763661-01 Original Sample (OS) • Duplicate (DUP)

(OS) 05/13/15 10:11 • (DUP) 05/13/15 10:11

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.6	7.6	1	0.00		1

L764435-1 Original Sample (OS) • Duplicate (DUP)

(OS) 05/13/15 10:11 • (DUP) 05/13/15 10:11

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.9	7.9	1	0.25		1

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

(LCS) 05/13/15 10:11 • (LCSD) 05/13/15 10:11

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	su	su	su	%	%	%			%	%
pH	7.84	7.79	7.79	99.4	99.4	98.3-102			0.000	20

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1505363**

09-Jun-15

Client: Adkins Consulting Inc

Project: Prairie Falcon 19-1

Sample ID	**MB-19298**	SampType:	**MBLK**		TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**19298**		RunNo:	**26305**					
Prep Date:	**5/19/2015**	Analysis Date:	**5/19/2015**		SeqNo:	**781402**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	**LCS-19298**	SampType:	**LCS**		TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**19298**		RunNo:	**26305**					
Prep Date:	**5/19/2015**	Analysis Date:	**5/19/2015**		SeqNo:	**781403**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	14	1.5	15.00	0	92.6	90	110				

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1505363**

09-Jun-15

Client: Adkins Consulting Inc

Project: Prairie Falcon 19-1

Sample ID **MB-19138**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **19138**	RunNo: **26122**
Prep Date: **5/8/2015**	Analysis Date: **5/12/2015**	SeqNo: **775123** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.9		10.00		99.0	57.9	140			

Sample ID **LCS-19138**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **19138**	RunNo: **26122**
Prep Date: **5/8/2015**	Analysis Date: **5/12/2015**	SeqNo: **775138** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	86.5	67.8	130			
Surr: DNOP	5.7		5.000		114	57.9	140			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505363

09-Jun-15

Client: Adkins Consulting Inc

Project: Prairie Falcon 19-1

Sample ID **MB-19132**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **19132**	RunNo: **26157**
Prep Date: **5/8/2015**	Analysis Date: **5/13/2015**	SeqNo: **776451** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	960		1000		95.6	80	120			

Sample ID **LCS-19132**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **19132**	RunNo: **26157**
Prep Date: **5/8/2015**	Analysis Date: **5/13/2015**	SeqNo: **776452** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.9	64	130			
Surr: BFB	1000		1000		101	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505363

09-Jun-15

Client: Adkins Consulting Inc

Project: Prairie Falcon 19-1

Sample ID **MB-19132**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **19132**	RunNo: **26157**
Prep Date: **5/8/2015**	Analysis Date: **5/13/2015**	SeqNo: **776482** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		112	80	120			

Sample ID **LCS-19132**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **19132**	RunNo: **26157**
Prep Date: **5/8/2015**	Analysis Date: **5/13/2015**	SeqNo: **776483** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	103	76.6	128			
Toluene	0.99	0.050	1.000	0	98.9	75	124			
Ethylbenzene	1.0	0.050	1.000	0	102	79.5	126			
Xylenes, Total	3.0	0.10	3.000	0	100	78.8	124			
Surr: 4-Bromofluorobenzene	1.2		1.000		115	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1505363**

09-Jun-15

Client: Adkins Consulting Inc

Project: Prairie Falcon 19-1

Sample ID **mb-19300**	SampType: **MBLK**	TestCode: **EPA Method 8270C: PAHs**
Client ID: **PBS**	Batch ID: **19300**	RunNo: **26326**
Prep Date: **5/19/2015**	Analysis Date: **5/20/2015**	SeqNo: **782381** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	ND	0.020								
Acenaphthene	ND	0.020								
Fluorene	ND	0.020								
Anthracene	ND	0.020								
Fluoranthene	ND	0.020								
Pyrene	ND	0.020								
Benz(a)anthracene	ND	0.020								
Chrysene	ND	0.020								
Benzo(b)fluoranthene	ND	0.020								
Benzo(k)fluoranthene	ND	0.020								
Benzo(a)pyrene	ND	0.020								
Dibenz(a,h)anthracene	ND	0.020								
Indeno(1,2,3-cd)pyrene	ND	0.020								
Surr: N-hexadecane	1.5		1.460		103	46.4	117			
Surr: Benzo(e)pyrene	0.25		0.3300		74.9	32.5	200			

Sample ID **lcs-19300**	SampType: **LCS**	TestCode: **EPA Method 8270C: PAHs**
Client ID: **LCSS**	Batch ID: **19300**	RunNo: **26326**
Prep Date: **5/19/2015**	Analysis Date: **5/20/2015**	SeqNo: **782382** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	0.31	0.020	0.3300	0	92.9	40.7	111			
Acenaphthene	0.30	0.020	0.3300	0	92.2	41.4	120			
Fluorene	0.32	0.020	0.3300	0	95.9	47	116			
Anthracene	0.33	0.020	0.3300	0	100	49.3	114			
Fluoranthene	0.32	0.020	0.3300	0	96.3	54.3	113			
Pyrene	0.25	0.020	0.3300	0	75.7	43.7	118			
Benz(a)anthracene	0.24	0.020	0.3300	0	71.4	43.7	118			
Chrysene	0.23	0.020	0.3300	0	69.0	43.8	108			
Benzo(b)fluoranthene	0.22	0.020	0.3300	0	66.7	46.5	120			
Benzo(k)fluoranthene	0.24	0.020	0.3300	0	72.4	50	111			
Benzo(a)pyrene	0.22	0.020	0.3300	0	67.3	47.8	109			
Dibenz(a,h)anthracene	0.22	0.020	0.3300	0	67.7	57.8	117			
Indeno(1,2,3-cd)pyrene	0.23	0.020	0.3300	0	68.9	46.4	121			
Surr: N-hexadecane	1.6		1.460		110	46.4	117			
Surr: Benzo(e)pyrene	0.27		0.3300		82.3	32.5	200			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505363

09-Jun-15

Client: Adkins Consulting Inc

Project: Prairie Falcon 19-1

Sample ID 1505363-001Ams	SampType: MS	TestCode: EPA Method 8270C: PAHs
Client ID: Reserve Pit	Batch ID: 19300	RunNo: 26326
Prep Date: 5/19/2015	Analysis Date: 5/20/2015	SeqNo: 782384 Units: mg/Kg

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	0.38	0.020	0.3291	0.06194	97.1	33.9	104			
Acenaphthene	0.29	0.020	0.3291	0	86.9	33.3	113			
Fluorene	0.30	0.020	0.3291	0.006327	90.0	40.7	111			
Anthracene	0.31	0.020	0.3291	0	95.1	39.1	116			
Fluoranthene	0.31	0.020	0.3291	0	94.6	43	124			
Pyrene	0.22	0.020	0.3291	0	66.7	41.9	143			
Benz(a)anthracene	0.22	0.020	0.3291	0	66.4	42.3	140			
Chrysene	0.23	0.020	0.3291	0	68.5	28.7	146			
Benzo(b)fluoranthene	0.20	0.020	0.3291	0	61.3	22.9	172			
Benzo(k)fluoranthene	0.20	0.020	0.3291	0	62.1	18.9	172			
Benzo(a)pyrene	0.21	0.020	0.3291	0	62.4	24.6	166			
Dibenz(a,h)anthracene	0.22	0.020	0.3291	0	65.6	22.8	172			
Indeno(1,2,3-cd)pyrene	0.22	0.020	0.3291	0	66.4	17.4	175			
Surr: N-hexadecane	1.8		1.456		124	46.4	117			S
Surr: Benzo(e)pyrene	0.24		0.3291		72.0	32.5	200			

Sample ID 1505363-001Amsd	SampType: MSD	TestCode: EPA Method 8270C: PAHs
Client ID: Reserve Pit	Batch ID: 19300	RunNo: 26326
Prep Date: 5/19/2015	Analysis Date: 5/20/2015	SeqNo: 782385 Units: mg/Kg

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	0.39	0.020	0.3282	0.06194	99.4	33.9	104	1.72	26.5	
Acenaphthene	0.28	0.020	0.3282	0	85.6	33.3	113	1.79	32.5	
Fluorene	0.31	0.020	0.3282	0.006327	92.9	40.7	111	2.87	30.6	
Anthracene	0.33	0.020	0.3282	0	99.6	39.1	116	4.41	31.1	
Fluoranthene	0.33	0.020	0.3282	0	101	43	124	6.04	36.1	
Pyrene	0.23	0.020	0.3282	0	70.6	41.9	143	5.47	31.6	
Benz(a)anthracene	0.22	0.020	0.3282	0	65.8	42.3	140	1.18	32.5	
Chrysene	0.22	0.020	0.3282	0	66.9	28.7	146	2.65	33.6	
Benzo(b)fluoranthene	0.21	0.020	0.3282	0	63.6	22.9	172	3.45	33	
Benzo(k)fluoranthene	0.22	0.020	0.3282	0	67.5	18.9	172	8.00	30.8	
Benzo(a)pyrene	0.21	0.020	0.3282	0	64.6	24.6	166	3.23	34.3	
Dibenz(a,h)anthracene	0.21	0.020	0.3282	0	63.4	22.8	172	3.55	27.9	
Indeno(1,2,3-cd)pyrene	0.21	0.020	0.3282	0	63.1	17.4	175	5.26	30.9	
Surr: N-hexadecane	1.7		1.452		120	46.4	117	0	0	S
Surr: Benzo(e)pyrene	0.22		0.3282		67.6	32.5	200	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1505363**

09-Jun-15

Client: Adkins Consulting Inc

Project: Prairie Falcon 19-1

Sample ID	MB-19445	SampType:	MBLK		TestCode:	EPA Method 7471: Mercury				
Client ID:	PBS	Batch ID:	19445		RunNo:	26497				
Prep Date:	5/28/2015	Analysis Date:	5/29/2015		SeqNo:	787358	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	LCS-19445	SampType:	LCS		TestCode:	EPA Method 7471: Mercury				
Client ID:	LCSS	Batch ID:	19445		RunNo:	26497				
Prep Date:	5/28/2015	Analysis Date:	5/29/2015		SeqNo:	787359	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1667	0	99.7	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1505363**

09-Jun-15

Client: Adkins Consulting Inc

Project: Prairie Falcon 19-1

Sample ID **MB-19279**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS**	Batch ID: **19279**	RunNo: **26309**
Prep Date: **5/18/2015**	Analysis Date: **5/20/2015**	SeqNo: **781613** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	2.5								
Barium	ND	0.10								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Copper	ND	0.30								
Lead	ND	0.25								
Nickel	ND	0.50								
Selenium	ND	2.5								
Silver	ND	0.25								
Zinc	ND	2.5								

Sample ID **LCS-19279**	SampType: **LCS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS**	Batch ID: **19279**	RunNo: **26309**
Prep Date: **5/18/2015**	Analysis Date: **5/20/2015**	SeqNo: **781614** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	25	2.5	25.00	0	99.0	80	120			
Barium	25	0.10	25.00	0	100	80	120			
Cadmium	25	0.10	25.00	0	100	80	120			
Chromium	25	0.30	25.00	0	101	80	120			
Copper	27	0.30	25.00	0	106	80	120			
Lead	25	0.25	25.00	0	99.1	80	120			
Nickel	25	0.50	25.00	0	99.1	80	120			
Selenium	25	2.5	25.00	0	101	80	120			
Silver	5.1	0.25	5.000	0	103	80	120			
Zinc	25	2.5	25.00	0	100	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **ADKINS CONSULTING I** Work Order Number: **1505363** RcptNo: **1**

Received by/date: [signature] 05/08/15

Logged By: **Lindsay Mangin** **5/8/2015 7:00:00 AM** [signature]

Completed By: **Lindsay Mangin** **5/8/2015 9:02:57 AM** [signature]

Reviewed By: CS 05/08/15

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good	Yes			

Chain-of-Custody Record

Client: Adkins Consulting

Mailing Address: on file

Phone #: 970 · 570 · 9555

email or Fax#: andrew@adkinsenvironmental.com

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____
☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name: Prairie Falcon 14-1

Project #:

Project Manager: Andrew Parker

Sampler: Andrew Parker

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.6

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1505363	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Analysis Request: Table 910-1	Analysis Request: Cl			Air Bubbles (Y or N)
5.7.15	12:30	Soil	Reserve Pit	8oz. / 3	Ice	-001												X	X			
↓	12:40	↓	Spoil Pile	↓ / 1	ice	-002													X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
5/7	14:54			5/7/14	1454
5/7/15	1800			05/08/15	0700

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.