Corrective Action Report

For The:

Cimarron River Spill
Near Horseshoe Mine,
Cimarron Canyon State Park
New Mexico

Date of Spill: December 27, 2016

For:

Surface Water Quality Bureau
New Mexico Environment Department
1190 S. Saint Francis Dr., Santa Fe, NM 87505
PO Box 5469, Santa Fe, NM 87502

Prepared By:



Environmental Department 1221 Tower Trail Ln El Paso, Texas 79907

June 22, 2017



June 22, 2017

Ms. Sarah Holcomb
Program Manager
Point Source Regulation Section
Surface Water Quality Bureau
New Mexico Environmental Department
PO Box 5469
1190 St. Francis Dr.
Santa Fe, NM 87502

Re: Corrective Action Report for the Cimarron River Spill on State Highway 64

Near the Horseshoe Mine, Cimarron Canyon State Park, New Mexico

Dear Ms. Holcomb:

On behalf of Fronk Oil Co. Inc. D&H United Fueling Solutions, Inc. (D&H) is providing you with this Corrective Action Report (CAR) related to the Cimarron River Spill and cleanup activities which occurred from March 24, 2017 through April 1, 2017.

Background

ALBUQUERQUE

On December 27, 2016, a Fronk Oil tanker truck transporting unleaded gasoline and diesel fuel was involved in an accident near mile marker 290 on Highway 64, approximately 5 miles east of Eagle Nest. The accident caused a release of approximately 1100 gallons of diesel fuel (from the saddle tanks) and unleaded gasoline to the Cimarron River. Subsequent to the spill, D&H has performed spill response actions including removal of fuel, installation of sorbent booms, pads, and soil and surface water sampling (See Site Location Map, Figure 1, Attachment 1)

Since the release, D&H has mobilized to the spill site on seven occasions (January 3, 2017 thru March 9, 2017) to replace booms, pads, and perform soil and water sampling. Approximately 32 drums of spent absorbent material have been removed from the spill site for disposal. Analytical results from soil samples taken on January 20, 2017 showed TPH DRO present at sites SB2 (6000 mg/kg) and SB3 (25,000 mg/kg) along the Cimarron River. Water sampling were collected on March 13, 2017 from above the Beaver Dam (2 ft west and east of bank area), at the Springer Ditch Diversion point, and at the Raton Diversion point for monitoring any hydrocarbons from the release site.

Analytical results of the beaver dam samples were detected below the laboratory detection levels for TPH 8015 DRO <1.0 mg/L, GRO <0.050 mg/L, and MRO <5.0 mg/L. Volatile organic compounds (VOCs) were also detected below the laboratory detection limits for BTEX EPA Method 8021B.

N ANTONIO \ AUSTIN

Results show Benzene compounds were detected <1.0 $\mu g/L$, Toluene <1.0 $\mu g/L$, Ethylbenzene <1.0 $\mu g/L$, and Total Xylenes <2.0 $\mu g/L$. The diversion point samples were also detected below the laboratory detection limits for TPH and BTEX respectively. TPH DRO results were <1.0 mg/L, GRO <0.050 mg/L, and <5.0 mg/L for MRO. The BTEX compounds were all analyzed <1.0 $\mu g/L$.

On March 10, 2017 D&H, representatives from the New Mexico Office of the State Engineer (NMOSE), New Mexico Environmental Department (NMED) Surface Water Quality Bureau (SWQB), E-Risk Solutions, Inc., and the US Army Corp of Engineers (USACE), met on-site to discuss future corrective actions. Soil screening heated headspace monitoring of areas of concern by the NMED/SWQB were conducted.

Data collected from the site was summarized and was provided in a site map in Figure 2 (Attachment 1). The samples were screened using a photo-ionization detector (PID) MiniRae 3000 instrument. Results show at least five distinct areas of concern that required soil removal (Figure 3 and Figure 4).

A preconstruction notification form (PCN) was submitted to USACE on March 16, 2017 to provide access and entry to the Cimarron River. A Corrective Action Plan (CAP) was prepared using data collected on March 10, 2017 and submitted on March 20, 2017 to NMED for approval. Additionally, a NMDOT Traffic Control/Roadwork Permit was submitted on March 30, 2017 for access to the road ROW and for traffic control along a portion of Highway 64 (area of the spill).

Approval was granted for the CAP by NMED on March 20, 2017 and for the PCN from the USACE on March 21, 2017. Approval of the work permit was granted from NMDOT on March 31, 2017. Copies of the approval letters are provided under Attachment 2.

AREA #1

On March 24, 2017 through March 28, 2017, D&H arrived on-site and began performing soil removal in Area #1 and removing existing booms along the river. In addition to removing soil from Area#1, D&H also removed soil from an area identified from the road shoulder to the river's wetted edge per NMDGF and upon obtaining access from NMDOT. Refer to Attachment 3 for photo documentation of the remedial activities. Additionally, pre remedial water samples were collected at the request of NMED along the river bank near Area #5 and below the beaver dam on March 24, 2017. The samples were analyzed for Semi-VOCs and VOCs using EPA Methods 8270 and 8260.

Hand tools and a Dry-Vac truck were used to remove contaminated soil in this area. A confirmation sample was collected on March 26, 2017 for the analysis of BTEX using EPA Method 8260, and TPH GRO/DRO/MRO using EPA Method 8015. Analytical results showed TPH GRO was ND (<4.8 mg/Kg) and MRO was also ND (<47 mg/Kg). TPH DRO was analyzed with a concentration of 88 mg/Kg, and BTEX was non-detected.

D&H proceeded with backfilling of this area with river rock and screens upon receiving approval from NMED and NMDGF. Copies of laboratory reports and populated laboratory results are provided under Attachment 4 and in Tables 1 through 4.

AREA #2

On March 26, 2017, D&H crew proceeded to perform excavation activities on area #2. Excavation activities were performed using shovels, picks, and buckets. One confirmation sample was collected on March 26, 2017 and submitted to Hall Environmental Laboratory. Analytical results showed BTEX concentrations were analyzed non-detected. TPH GRO was also analyzed ND (<4.8 mg/Kg) and DRO was analyzed with a concentration of 19 mg/Kg. After receiving approval to backfill on March 28, 2017, D&H proceeded with backfilling activities in this area with river rock.

AREA #3

On March 26, 2017, excavation activities were performed by D&H Crew. Hand digging along this area was the preferred choice of soil removal. One confirmation sample was collected and submitted to Hall Environmental for analysis. Analytical results showed TPH GRO was 5.7 mg/Kg, DRO was 800 mg/Kg and MRO was ND (<47 mg/Kg). BTEX was analyzed non-detected and below the laboratory reporting limits.

On March 28, 2017, D&H personnel return to Area #3 to perform additional over-excavation activities as requested by NMED. Upon completing additional excavation activities, another confirmation sample was collected and analyzed for BTEX and TPH. Analytical results showed GRO was ND, DRO was 220 mg/Kg, and MRO was ND. BTEX was also analyzed ND.

On March 29, through March 30, 2017, D&H crew returned to Area #3 and continued over-excavation activities. A third confirmation sample was collected on March 30, 2017 with TPH GRO/DRO/MRO analyzed as non-detected. BTEX compounds were also analyzed as non-detected and below the laboratory reporting limits. Upon receiving approval and confirmation from NMED and NMDGF, D&H proceeded with backfilling activities on April 1, 2017.

AREA #4

On March 26, 2017, excavation activities were performed on this area. Area #4 was subdivided into two areas; Area #4-1 (east bank) and area #4-2 (west bank). Upon completing excavation activities, confirmation samples were collected and submitted for laboratory analysis. Analytical results showed Area #4-1 was reported with non-detected results for TPH GRO/DRO/MRO and for the BTEX compounds. Area #4-2 showed non-detected results for GRO (<4.6 mg/Kg), DRO was 550 mg/Kg, and MRO was non-detected (<49 mg/Kg). BTEX compounds were also non-detected.

On March 28, 2017, D&H personnel returned to Area #4-2 and proceeded with additional excavation activities as requested by NMED. After excavation and removal of soils were completed, an additional confirmation sample was collected and submitted for analysis. Analytical results showed GRO was non-detected (<5.0 mg/Kg), DRO was 45 mg/Kg, and MRO was analyzed with non-detected levels (<50 mg/Kg). On March 30, 2017, D&H received approval to backfill this area.

AREA #5

As previously stated above, water samples were collected near the river bank in Area #5 and below the beaver dam on March 24, 2017 to confirm the presence of hydrocarbons, based on prior sampling data. The water samples were analyzed for semi-volatiles organic compounds (SVOCs) using EPA Method 8270C and Volatile Organic Compounds (VOCs) using EPA Method 8260B. Results of the analysis showed all compounds (SVOCs and VOCs) were analyzed non-detected and below the laboratory reporting limits.

On March 26, 2017, D&H proceeded with excavation activities in this area. One confirmation sample was collected and analyzed for TPH 8015 GRO/DRO/MRO and for BTEX 8260. Results of the analysis showed TPH GRO/DRO/MRO were analyzed non-detected and BTEX was also analyzed non-detected and below the laboratory reporting limits. On March 28, 2017, D&H received approval to backfill this area.

Water Sampling

At the request of NMED, D&H collected water samples at the following locations to confirm the non-presence of hydrocarbons in the river upon completion of the remedial activities:

- Below the culverts under Hwy 64
- Below the beaver dam
- At the Raton drinking water intake (Diversion Point), and
- At the Springer drinking water intake (Diversion Point).

On April 7, 2017, D&H proceeded with the water sampling and submitted the samples for the analysis of TPH GRO/DRO/MRO and BTEX. Results of the analyses showed all compounds for TPH and BTEX were analyzed non-detected and below the laboratory reporting limits.

Housekeeping

On April 13, 2017, NMDGF requested D&H to conduct a walkthrough of the area and along both sides of the river banks to collect any debris and trash left behind from the spill incident and remedial activities. On April 17, 2016 D&H conducted housekeeping activities of the site, along both sides of the bank, and around the ingress/egress areas.

Monitoring Reports

As part of the requirements of the USACE approval letter (Permit Action No. SPA-2016-00411). Photo-documentation of each general removal area shall be submitted via email to monitor any erosion effects of the remedial activities.

On May 1, 2017 and June 1 2017, D&H mobilized to the site and collected photographs of the soil removal areas (Areas #1 through #5). The photographs were prepared in document format and submitted to USACE via email as required. Refer to Attachment 5 for copies of the photo documentation.

Re-vegetation Plan

A revegetation plan was submitted to the USACE via email on May 3, 2017 as required by the approved letter dated March 21, 2017. As of the date of the report, a response has not been received by D&H. A copy of the plan is provided under Attachment 6.

Waste Management

Approximately ten (10) cubic yards of soil was removed from the river banks. Four cubic yard boxes were used for the containment of used booms and pads. Eleven (11) drums were also used for the storage of water generated during the dewatering process of the soils. Upon receiving approval for the disposal of the wastes, manifests were prepared for the off-site disposal of the waste generated during the remedial activities. Copies of the waste manifests are provided under Attachment 7.

Conclusions and Recommendations

Based on the water and soil sampling results collected during the remedial activities, it can concluded that the site is considered clean. Additionally, NMED/NMDGF has also reported that fish tissue results show the site is considered clean. Therefore, it is recommended that this project be considered closed with no further actions from NMED/NMDGF.

Should you have any questions on this corrective action report, please do not hesitate to give us a call at 1-800-351-2227 ext. 129. We look forward in completing this project with NMED and NMDGF.

Sincerely,

Rosalio Guillen, P.G. Project Manager

Enclosures

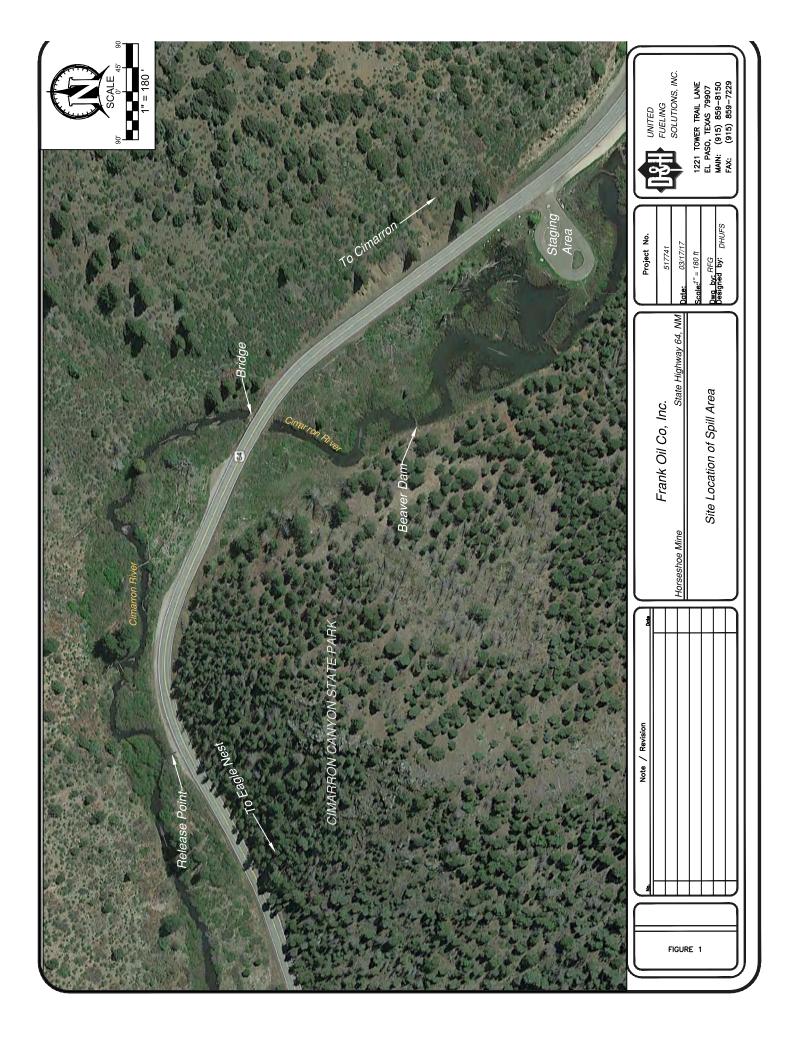
cc: Keith Fronk – Fronk Oil Co., Inc.

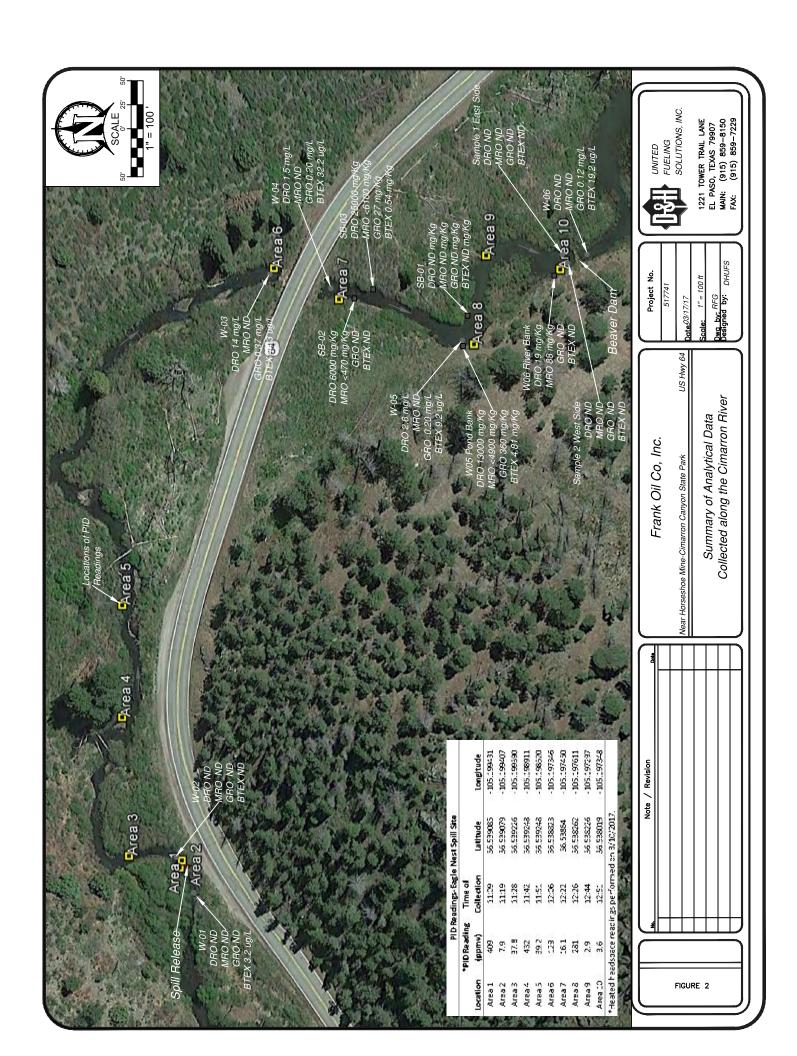
ATTACHMENT 1

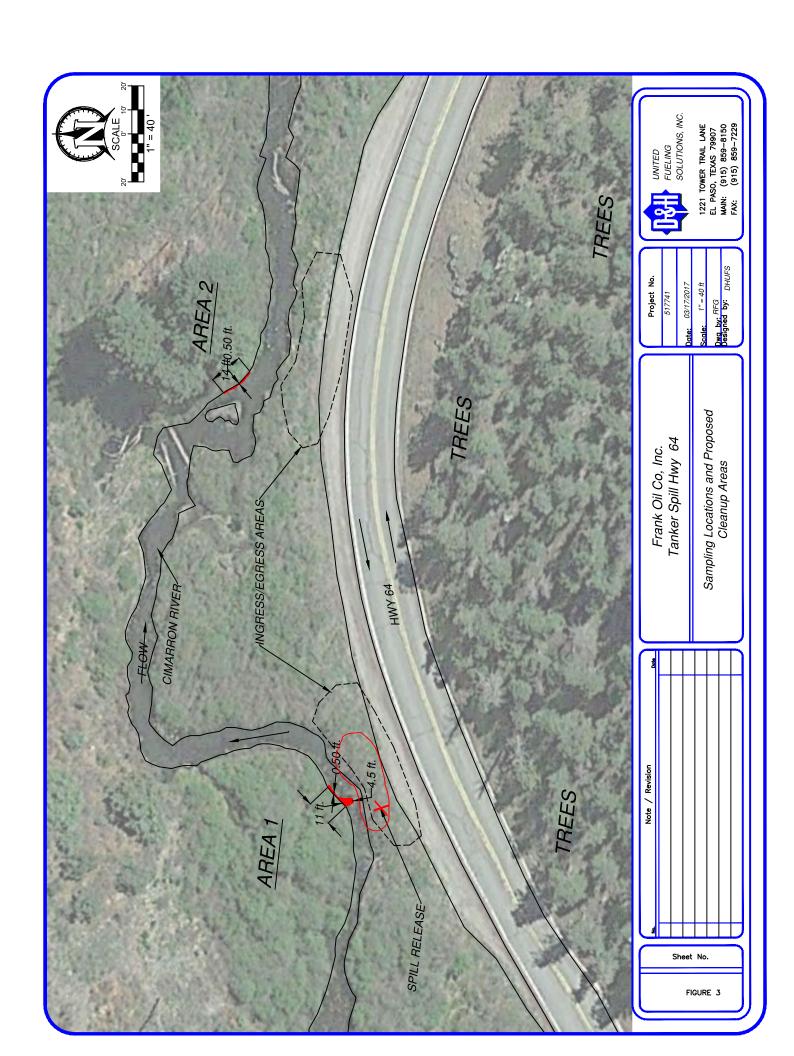
Site Location Map – Figure 1

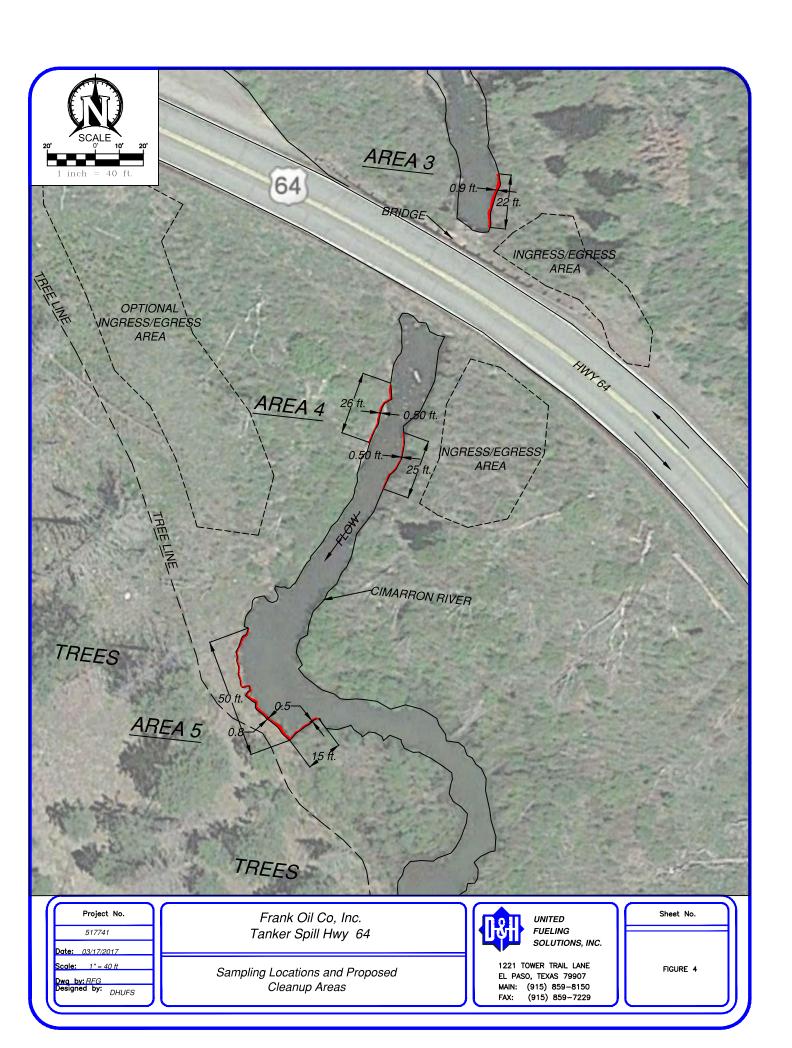
Summary of Analytical Data Collected Map - Figure 2

Areas of Soil Removal Figure 3 & 4









ATTACHMENT 2

USACE Approval Letter
NMED Approval Letter
NMDOT Approval TCP/Roadwork Permit



DEPARTMENT OF THE ARMY

ALBUQUERQUE DISTRICT, CORPS OF ENGINEERS 4101 JEFFERSON PLAZA NE ALBUQUERQUE, NM 87109

March 21, 2017

Regulatory Division

SUBJECT: Nationwide Permit (NWP) Verification – Action No. SPA-2016-00411, Diesel spill, Cimarron River, Ute Park, Colfax County, NM

Keith Fronk Fronk Oil Co., Inc P.O. Box F Booker, TX 79005

Dear Mr. Fronk:

I am writing this letter in response to your pre-construction notification for your proposed diesel spill contaminated soil removal along the Cimarron River, located at approximately latitude 36.545431, longitude -105.133202, in Colfax County, New Mexico. The work, as described in your application, includes removal of contaminated soil by hand and by heavy equipment along the Cimarron River in five areas where contamination has been noted. The property where the contamination occurred is owned by the New Mexico Department of Game and Fish (NMDGF) and the spill cleanup is being overseen by the New Mexico Environment Department (NMED). We have assigned Action No. SPA-2016-00411 to this project. Please reference this number in all future correspondence concerning the project.

Based on the information provided, we have determined that the project is authorized by NWP 38 Cleanup of Hazardous and Toxic Waste. A summary of this permit and the New Mexico Regional Conditions are available on our website at www.spa.usace.army.mil/reg/myp. Please refer to our website at www.spa.usace.army.mil/reg/wqc for specific information regarding compliance with water quality certification (WQC) requirements. You must ensure that the work complies with the terms and conditions of the permit, including New Mexico Regional Conditions and conditions of the WQC and the special conditions listed below.

1. You shall submit a revegetation plan with monitoring for Area 5 and other removal areas additionally identified by NMDGF and/or NMED no later than April 3, 2017. Revegetation monitoring and performance standards shall comply with the South Pacific Division Regional Compensatory Mitigation and Monitoring Guidelines and Uniform Performance Standards. These documents may be found at: http://www.spd.usace.army.mil/Portals/13/docs/regulatory/mitigation/MitMon.pdf and http://www.spa.usace.army.mil/Portals/16/docs/civilworks/regulatory/Mitigation/12505.1-SPD Table of Uniform Performance Standards.pdf

- 2. Monitoring reports shall be submitted by December 31 of each year until performance standards have been met and the Corps has concurred with your written request to be released from further monitoring. Copies shall be submitted to NMDGF and NMED.
- 3. For the first four months after contaminated material removal has occurred, photo-documentation of each general removal area shall be submitted via email. Photo points should be established that allow the greatest visibility of removal areas. All photographs shall be taken at the same photo points in months 2 through 4. Should erosion greater than a foot in any direction occur in any removal location, the Corps may require adaptive measures to further ensure stability.
- 4. Pursuant to Part 11 of Appendix C of 33 CFR 325, if buried cultural deposits are encountered during construction, work shall cease immediately and the permittee shall contact the Corps and avoid further impacts to the area until a determination of significance can be made. If necessary, consultation will take place with the State Historic Preservation Officer and Tribes with ties to the area to determine the best course of action. Locations for fill/gravel borrow areas may require additional evaluation under Section 106 of the National Historic Preservation Act.

Under Section 401 of the Clean Water Act, certification of compliance with state or tribal water quality standards by the state water quality agency or tribal water quality certifying authority is required for any discharge of dredged and fill material into waters of the United States under Section 404 of the Clean Water Act.

In the State of New Mexico, the New Mexico Environment Department (NMED) has issued WQC for activities that occur in waters of the U.S. You shall comply with all conditions of the attached certification, including notification to NMED five days prior to initiation of construction. To contact NMED, please use the information below:

Neal Schaeffer, Watershed Protection Section NMED - Surface Water Quality Bureau 1190 South St. Francis Drive P.O. Box 5469 Santa Fe, New Mexico 87502 (505) 476-3017

Our review of this project also addressed its effects on threatened and endangered species and historic properties in accordance with general conditions 18 and 20. Based on the information provided, we have determined that this project will not affect any federally listed threatened or endangered species or any historic

properties. However, please note that the permittee is responsible for meeting the requirements of general condition 18 on endangered species and general condition 20 on historic properties.

This letter does not constitute approval of the project design features, nor does it imply that the construction is adequate for its intended purpose. This permit does not authorize any injury to property or invasion of rights or any infringement of federal, state or local laws or regulations. You and/or any contractors acting on your behalf must possess the authority and any other approvals required by law, including property rights, in order to undertake the proposed work.

This permit verification is valid until March 18, 2022 (33 CFR 330.6), unless the NWP is modified, suspended, revoked or reissued prior to that date. Continued confirmation that an activity complies with the terms and conditions, and any changes to the NWP, is your responsibility. Activities that have commenced, or are under contract to commence, in reliance on a NWP will remain authorized provided the activity is completed within 12 months of the date of the NWPs expiration, modification, or revocation.

Within 30 days of project completion, you must fill out the enclosed Certification of Compliance form and return it to our office. The landowner (NMDGF) must allow Corps representatives to inspect the authorized activity at any time deemed necessary to ensure that it is being, or has been, accomplished in accordance with the terms and conditions of the NWP.

I am forwarding a copy of this letter to Neal Schaeffer and Sarah Holcomb, NMED, and Malia Volke, NMDGF. If you have any questions, please contact me at 505-342-3280 or by e-mail at Deanna.L.Cummings@usace.army.mil. At your convenience, please complete a Customer Service Survey on-line available at http://corpsmapu.usace.army.mil/cm_apex/f?p=136:4:0.

Sincerely,

Deanna L. Cummings Senior Regulatory Project Manager

Enclosure(s)

Certification of Compliance with Department of the Army Nationwide Permit

Action Number: SPA-2016-00411

Name of Permittee: Keith Fronk, Fronk Oil Co., Inc
Nationwide Permit: NWP 38 Cleanup of Hazardous and Toxic Waste.
Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:
Deanna L. Cummings Albuquerque District, U.S. Army Corps of Engineers 4101 Jefferson Plaza NE Albuquerque, NM 87109
Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit, you are subject to permit suspension, modification, or revocation.
Please enclose photographs showing the completed project (if available).
I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit conditions.
Date Work Started
Date Work Completed
Signature of Permittee Date



NEW MEXICO ENVIRONMENT DEPARTMENT



SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

Harold Runnels Building 1190 South St. Francis Drive (87505) P.O. Box 5469, Santa Fe, NM 87502-5469 Phone (505) 827-0187 Fax (505) 827-0160 www.env.nm.gov

BUTCH TONGATE Cabinet Secretary

J. C. BORREGO
Deputy Secretary

March 20, 2017

Mr. Keith Fronk President Fronk Oil 14950 TX-23 Booker, TX 79005

RE: Corrective Action Report for the Cimarron River Spill on State Highway 64 Near the Horseshoe Mine, Cimarron Canyon State Park, New Mexico

Dear Mr. Fronk:

NMED received your corrective action plan for the spill cleanup and assessment of the unleaded gasoline and diesel fuel spill into the Cimarron River on December 27, 2016.

NMED approves your plan with the following conditions:

- NMED requires that after you have conducted removal actions on the river banks, you must collect confirmation soil samples as composites for laboratory analyses.
- NMED requires that water samples are analyzed for volatile organic compounds with EPA
 Method 8260, not EPA Method 8021. Additionally, water samples should also be analyzed for
 semi-volatile organic compounds with EPA Method 8270. All detection limits must be
 BELOW standards and screening levels.
- Your cleanup contractor, D&H United Fueling Solutions (D&H), requests NMED guidance
 on criteria levels for Total Petroleum Hydrocarbon (TPH) analysis. NMED requires EPA
 Method 8015 for GRO/DRO/MRO for analysis of TPH in water or soil. NMED expects that
 samples will be at non-detect concentrations to consider closing the environmental file for this
 site.
- Fronk Oil and its contractor must be cognizant of the timeframes for other agencies' action in the area. Due to the water needs of agricultural communities in the area, the Office of the State Engineer (OSE) must release water from Eagle Nest Lake. OSE anticipates releasing a large volume of water, and it is imperative that Fronk Oil take preventative measures to prevent excessive erosion of the banks. NMED anticipates special conditions in the USACE Section 404 permit to address stabilization and revegetation of the remediation area. Please include preventative measures during implementation of this corrective action plan.

- Additionally, D&H notes that booms will be replaced after soil removal activities, and NMED
 cautions that due to higher volumes of water from releases from Eagle Nest Lake, and spring
 runoff in general, booms should be very secure or removed.
- In addition to the noted soil confirmation samples taken at each soil removal site, confirmation water samples shall be taken at the following locations after soil removal actions are complete:
 - Below the culvert beneath Highway 64
 - Below the beaver dam
 - At the Raton Water Works intake
 - At the Springer Water intake
- Samples shall be expedited as noted in your plan (within 24 hours), and analytical data shall be sent to NMED immediately upon receipt.
- If D&H anticipates a need to haul water to affected communities due to interruptions in the cleanup schedule, you must notify NMED immediately.

With these modifications, NMED approves your Corrective Action Report and instructs you to begin soil removal actions immediately upon receipt of the USACE 404 permit.

NMED impresses upon you the importance and needed timeliness of this cleanup action, as many communities downstream of the impacted area depend on this water for drinking and agricultural needs.

If you have any questions, please do not hesitate to contact Sarah Holcomb, Program Manager, Point Source Regulation Section, NMED SWQB at 505-827-2798 or sarah.holcomb@state.nm.us.

Sincerely,

Shelly Lemon, Bureau Chief Surface Water Quality Bureau

New Mexico Environment Department

Michelle Hunter, Bureau Chief Ground-Water Quality Bureau

New Mexico Environment Department

CC: Rosalio Guillen, D&H (by email)

Wyatt Medley, USACE (by email)

Deanna Cummings, USACE (by email)

Eric Frey, NMDGF (by email)

Malia Volke, NMDGF (by email)

Tim Farmer, NM OSE (by email)

Jill Turner, NMED Drinking Water Bureau (by email)

Jeff Lewellin, NMED Ground Water Quality Bureau (by email)

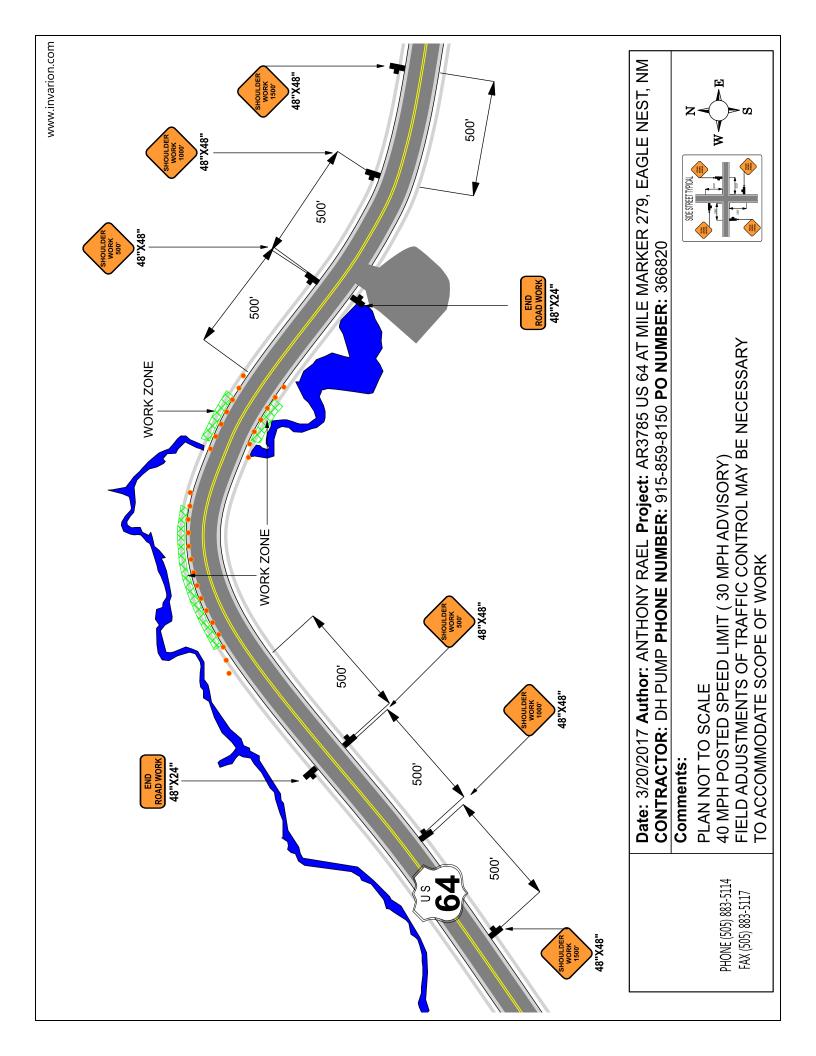


NEW MEXICO DEPARTMENT OF TRANSPORTATION (NMDOT)



TRAFFIC CONTROL/ROADWAY WORK PERMIT

NMDOT Project Number	r (If applicable):	Control Number:	
Originating Party (contract	cting party/utility permit holder): Fronk Oil C	Co., Inc.	
General Scope of work:	Remove soil along shoulder contaminated	by petroleum hydrocarbons.	
Contractor Name: D&H U	United Fueling Solutions, Inc.		
	00 Anaheim NE Albuquerque, NM 87113		
Contact Person: Steve Mira	abel		
Contact Telephone: ()	(505) 259-9447	Fax: _() -	
Traffic Control Firm: Ad	lvantage Barricade & Roadmarks, LLC		
Certified Traffic Control Su	ipervisor:		
Contact Telephone: ((505) 883-5114	Fax: () - (505) 883-5117	
Work Zone Location Info			
	S Route #: US Highway 64, approximately 5		
Mile Post: From	Mile Marker Post 290 To	o: 291	
Or Intersection:	Dir	rection (NB, SB, EB, WB, or both):	
	🗌 4 lane Road 📋 6 lane Road 🔲 8 Lane I		
	nit in area: 30 MPH or Ranges from		
Proposed Speed L	imit reduction within work zone (If Applicable	e): No Reduction Required MPH	
Working Duratio	0/00/0017		
Start Date: / /			Daily Start
Time::	A.M. 8:00 AM End Time: :	P.M. 5:00 PM	
Purpose of Permit:	Roadway Construction/Rehab. Signal and Lighting Work Drainage/Excavation Work Signing and Striping Placement Other: Excavation work along show	Shoulder Work Utility Work Soil Testing	
TCP Plan Enclosed: XX	(TC Permit will not be processed without a		
If no, describe why:			
Annual is analis	land - Ala C. Harris A	accepted by the Contractor upon submission of (
Traffic Control for operation The Contractor agrees to it any negligent act of the Contractor to work pursuants. The Contractor shall provide insurance the NMDOT as a	ons under this permit shall conform with the Manindemnify and hold harmless the NMDOT and in Contractor, the Contractor's employees, any age not to this permit. Ide the NMDOT a certified copy of its insurance	nual on Uniform Traffic Control Devices (MUTCD) its employees from liability, claims, damages, losse ent acting on the Contractor's behalf, and anyone policy and certificate of insurance and shall includ coverage is primary over any other valid insurance.	es or expenses due to else engaged by the
A	For Official	l Use:	
7	ditions below) Approved As Am tractor must adhere to the attached notes.	nended Not Approved	
Permit Number:	4-036-17		
Approved By	3/31/	/17	
	District Four Office - Traffic Section		
1	MILIPLE WORK ZONS in Should	Cr	



ATTACHMENT 3

Photo Documentation of Remedial Activities



Photo 1 Removal of soil by Dry Vac truck at Area #1.



Photo 2 Removal of soil at Area #2 using hand tools.



Photo 3 Use of buckets to transfer removed soils from the river bank at Area 2.



Photo 4 Use of hand tools and buckets to remove and transfer soils from the river bank at Area #3.



Photo 5 Use of bobcat to transfer soils to rolloff boxes.



Photo 6 Staging area of rolloff box and drums.



Photo 7 Backfill of area between edge of road shoulder and river south of Area #1.



Photo 8 Backfill of Area #1 with river rock.



Photo 9 Backfill of Area #2 with river rock.



Photo 10 Backfill of Area #3 with river rock.



Photo 11 Backfill of Area #4 with river rock.



Photo 12 Backfill of Area #5 with river rock.



Photo 13 Staging area of cubic yard boxes.

ATTACHMENT 4 Summary Laboratory Tables and Copies of Laboratory Reports

Summary Soil Analytical Results for TPH and BTEX Remedial Activities of the Cimarron River Spill Eagle Nest, New Mexico

				All Units in mg/Kg	g/Kg			
Sample Name	Area #1	Area #2		Area #3		Area #4-1	Area #4-2	Area #4-2
Sampled Date 03,	03/26/17	03/26/17	03/26/17	03/28/17 03/30/17	03/30/17	03/26/17	03/26/17	03/28/17
les 8260B								
ne	<0.024	<0.024	<0.023	<0.025	<0.024	<0.024	<0.023	<0.025
ле	<0.048	<0.048	<0.047	<0.050	<0.048	<0.048	<0.046	<0.050
enzene	<0.048	<0.048	<0.047	<0.050	<0.048	<0.048	<0.046	<0.050

Volatiles 8260B

Benzene Toluene

Area #5 03/26/17 <0.047 <0.095

<0.10

<0.092

<0.096

<0.095

<0.10

<0.094

<0.095

<0.096

Ethylbenzene

TPH 8015D

Xylenes

<4.7

<5.0

<4.6

<4.8

<4.8

<5.0

5.7

<4.8

<4.8

TPH 8015M/D

GRO

<9.1 <46

45 <50

550 <49

9.6 <48

9.6> <48

220 61

800 <45

19 <47

<46 88

<0.024 <0.047

NA: Not Analyzed

MRO

Table 2
Summary Water Analytical Results for TPH and BTEX
Remeidal Activities of the Cimarron River Spill
Eagle Nest, New Mexico

					0000	200000000000000000000000000000000000000					
	Sample Name	*Sample 1 East Side	*Sample 1 *Sample 2 East Side West Side	*Sample 1 SD Diversion	*Sample 2 Raton Diversion	**Sample 1 River Bank Area	**Sample 2 Below Beaver Dam	#Below Culvert	#Below Beaver Dam	#S.D. Diversion	#Raton Diversion
	Sampled Date 03/13/17	03/13/17	03/13/17	03/13/17	03/13/17	03/24/17	03/24/17	04/07/17	04/07/17	04/07/17	04/07/17
Volatiles 8260 (ug/L)	30 (ug/L)										
MTBE		<2.5	<2.5	ΑN	ΑN	<1.0	<1.0	NA	ΑN	ΝΑ	ΑN
Benzene		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	Ф	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes		<2.0	<2.0	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
TPH 8015D (mg/L)	mg/L)										
GRO		<0.050	<0.050	<0.050	<0.050	NA	Ν	<0.050	<0.050	<0.050	<0.050
TPH 8015M/D (mg/L)	'D (mg/L)										
DRO		<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<1.0	<1.0
MRO		<5.0	<5.0	<5.0	<5.0	NA	NA	<5.0	<5.0	<5.0	<5.0
borydea A to N A M	1,4204										

NA: Not Analyzed

tes.

#Post remedial activities.

 $^{^{\}ast}$ Collected during exchange of booms and absorbent pads in March 2017.

^{**} Pre remedial activities sampling.

Table 3
Summary Water Analytical Results for VOCs
Remedial Activities of the Cimarron River
Eagle Nest, New Mexico
All Units ug/L

All Ollic	Sample 1	Sample 2
Sample Name	River Bank	Below Beaver
	Area	Dam
Sampled Date	03/24/17	03/24/17
Volatiles 8260B		55, = 1, = 1
Benzene	<1.0	<1.0
Toluene	<1.0	<1.0
Ethylbenzene	<1.0	<1.0
Methyl tert-butyl ether (MTBE)	<1.0	<1.0
1,2,4-Trimethylbenzene	<1.0	<1.0
1,3,5-Trimethylbenzene	<1.0	<1.0
1,2-Dichloroethane (EDC)	<1.0	<1.0
1,2-Dibromoethane (EDB)	<1.0	<1.0
Naphthalene	<2.0	<2.0
1-Methylnaphthalene	<4.0	<4.0
2-Methylnaphthalene	<4.0	<4.0
Acetone	<10	<10
Bromobenzene	<1.0	<1.0
Bromodichloromethane	<1.0	<1.0
Bromoform	<1.0	<1.0
Bromomethane	<3.0	<3.0
2-Butanone	<10	<10
Carbon disulfide	<10	<10
Carbon Tetrachloride	<1.0	<1.0
Chlorobenzene	<1.0	<1.0
Chloroethane	<2.0	<2.0
Chloroform	<1.0	<1.0
Chloromethane	<3.0	<3.0
2-Chlorotoluene	<1.0	<1.0
4-Chlorotoluene	<1.0	<1.0
cis-1,2-DCE	<1.0	<1.0
cis-1,3-Dichloropropene	<1.0	<1.0
1,2-Dibromo-3-chloropropane	<2.0	<2.0
Dibromochloromethane	<1.0	<1.0
Dibromomethane	<1.0	<1.0
1,2-Dichlorobenzene	<1.0	<1.0
1,3-Dichlorobenzene	<1.0	<1.0
1,4-Dichlorobenzene	<1.0	<1.0
Dichlorodifluoromethane	<1.0	<1.0
1,1-Dichloroethane	<1.0	<1.0
1,1-Dichloroethene	<1.0	<1.0
1,2-Dichloropropane	<1.0	<1.0
1,3-Dichloropropane	<1.0	<1.0
2,2-Dichloropropane	<2.0	<2.0
1,1-Dichloropropene	<1.0	<1.0
Hexachlorobutadiene	<1.0	<1.0
2-Hexanone	<10	<10
Isopropylbenzene	<1.0	<1.0
4-Isopropyltoluene	<1.0	<1.0
4-Methyl-2-pentanone	<10	<10

Table 3
Summary Water Analytical Results for VOCs
Remedial Activities of the Cimarron River
Eagle Nest, New Mexico
All Units ug/L

All olli	Sample 1	Sample 2
Sample Name	River Bank	Below Beaver
	Area	Dam
Sampled Date	03/24/17	03/24/17
Volatiles 8260B		
Methylene Chloride	<3.0	<3.0
n-Butylbenzene	<3.0	<3.0
n-Propylbenzene	<1.0	<1.0
sec-Butylbenzene	<1.0	<1.0
Styrene	<1.0	<1.0
tert-Butylbenzene	<1.0	<1.0
1,1,1,2-Tetrachloroethane	<1.0	<1.0
1,1,2,2-Tetrachloroethane	<2.0	<2.0
Tetrachloroethene (PCE)	<1.0	<1.0
trans-1,2-DCE	<1.0	<1.0
trans-1,3-Dichloropropene	<1.0	<1.0
1,2,3-Trichlorobenzene	<1.0	<1.0
1,2,4-Trichlorobenzene	<1.0	<1.0
1,1,1-Trichloroethane	<1.0	<1.0
1,1,2-Trichloroethane	<1.0	<1.0
Trichloroethene (TCE)	<1.0	<1.0
Trichlorofluoromethane	<1.0	<1.0
1,2,3-Trichloropropane	<2.0	<2.0
Vinyl chloride	<1.0	<1.0
Xylenes, Total	<1.5	<1.5

Table 4
Summary Water Analytical Results for Semi-VOCs
Remedial Activities of the Cimarron River
Eagle Nest, New Mexico
All Units ug/L

	Samula 1 Diver	Comple 2 Bolow
Sample Name	Sample 1 River Bank Area	Sample 2 Below Beaver Dam
Sampled Date	03/24/17	03/24/17
Semivolatiles 8270C	4.0	4.0
Acenaphthene	<10	<10
Acenaphthylene	<10	<10
Aniline	<10	<10
Anthracene	<10	<10
Azobenzene	<10	<10
Benz(a)anthracene	<10	<10
Benzo(a)pyrene	<10	<10
Benzo(b)fluoranthene	<10	<10
Benzo(g,h,i)perylene	<10	<10
Benzo(k)fluoranthene	<10	<10
Benzoic acid	<20	<20
Benzyl alcohol	<10	<10
Bis(2-chloroethoxy)methane	<10	<10
Bis(2-chloroethyl)ether	<10	<10
Bis(2-chloroisopropyl)ether	<10	<10
Bis(2-ethylhexyl)phthalate	<10	<10
4-Bromophenyl phenyl ether	<10	<10
Butyl benzyl phthalate	<10	<10
Carbazole	<10	<10
4-Chloro-3-methylphenol	<10	<10
4-Chloroaniline	<10	<10
2-Chloronaphthalene	<10	<10
2-Chlorophenol	<10	<10
4-Chlorophenyl phenyl ether	<10	<10
Chrysene	<10	<10
Di-n-butyl phthalate	<10	<10
Di-n-octyl phthalate	<10	<10
Dibenz(a,h)anthracene	<10	<10
Dibenzofuran	<10	<10
1,2-Dichlorobenzene	<10	<10
1,3-Dichlorobenzene	<10	<10
1,4-Dichlorobenzene	<10	<10
3,3´-Dichlorobenzidine	<10	<10
Diethyl phthalate	<10	<10
Dimethyl phthalate	<10	<10
2,4-Dichlorophenol	<10	<10
2,4-Dimethylphenol	<10	<10
4,6-Dinitro-2-methylphenol	<10	<20
2,4-Dinitrophenol	<10	<20
2,4-Dinitrotoluene	<10	<10
2,6-Dinitrotoluene	<10	<10
Fluoranthene	<10	<10
Fluorene	<10	<10
Hexachlorobenzene	<10	<10
Hexachlorobutadiene	<10	<10

Table 4
Summary Water Analytical Results for Semi-VOCs
Remedial Activities of the Cimarron River
Eagle Nest, New Mexico
All Units ug/L

	1	T
Sample Name	Sample 1 River Bank Area	Sample 2 Below Beaver Dam
Sampled Date	03/24/17	03/24/17
Semivolatiles 8270C		
Hexachlorocyclopentadiene	<10	<10
Hexachloroethane	<10	<10
Indeno(1,2,3-cd)pyrene	<10	<10
Isophorone	<10	<10
1-Methylnaphthalene	<10	<10
2-Methylnaphthalene	<10	<10
2-Methylphenol	<10	<10
3+4-Methylphenol	<10	<10
N-Nitrosodi-n-propylamine	<10	<10
N-Nitrosodimethylamine	<10	<10
N-Nitrosodiphenylamine	<10	<10
Naphthalene	<10	<10
2-Nitroaniline	<10	<10
3-Nitroaniline	<10	<10
4-Nitroaniline	<10	<10
Nitrobenzene	<10	<10
2-Nitrophenol	<10	<10
4-Nitrophenol	<10	<10
Pentachlorophenol	<20	<20
Phenanthrene	<10	<10
Phenol	<10	<10
Pyrene	<10	<10
Pyridine	<10	<10
1,2,4-Trichlorobenzene	<10	<10
2,4,5-Trichlorophenol	<10	<10
2,4,6-Trichlorophenol	<10	<10



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

March 16, 2017

Rosalio Guillen
D & H Petroleum & Environmental
PO Box 92407
Albuquerque, NM 87199

TEL: (505) 342-2024 FAX (505) 342-2109

RE: Eagles Nest/ Beaver Dam OrderNo.: 1703679

Dear Rosalio Guillen:

Hall Environmental Analysis Laboratory received 2 sample(s) on 3/14/2017 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

andel

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1703679

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/16/2017

CLIENT: D & H Petroleum & Environmental

Client Sample ID: Sample 1 East Side

 Project:
 Eagles Nest/ Beaver Dam
 Collection Date: 3/13/2017 2:50:00 PM

 Lab ID:
 1703679-001
 Matrix: AQUEOUS
 Received Date: 3/14/2017 8:50:00 AM

Analyses	Result	PQL Q	Qual Units	DF Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE			Analy	st: TOM
Diesel Range Organics (DRO)	ND	1.0	mg/L	1 3/14/2017 3:49:28 PI	M 30684
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1 3/14/2017 3:49:28 PI	M 30684
Surr: DNOP	127	98.8-141	%Rec	1 3/14/2017 3:49:28 PI	M 30684
EPA METHOD 8015D: GASOLINE RAM	NGE			Analy	/st: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1 3/15/2017 2:28:39 PI	M R41384
Surr: BFB	88.5	52.3-138	%Rec	1 3/15/2017 2:28:39 PI	M R41384
EPA METHOD 8021B: VOLATILES				Analy	/st: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1 3/15/2017 2:28:39 PI	M B41384
Benzene	ND	1.0	μg/L	1 3/15/2017 2:28:39 PI	M B41384
Toluene	ND	1.0	μg/L	1 3/15/2017 2:28:39 PI	M B41384
Ethylbenzene	ND	1.0	μg/L	1 3/15/2017 2:28:39 PI	M B41384
Xylenes, Total	ND	2.0	μg/L	1 3/15/2017 2:28:39 PI	M B41384
1,2,4-Trimethylbenzene	ND	1.0	μg/L	1 3/15/2017 2:28:39 PI	M B41384
1,3,5-Trimethylbenzene	ND	1.0	μg/L	1 3/15/2017 2:28:39 PI	M B41384
Surr: 4-Bromofluorobenzene	120	80-120	S %Rec	1 3/15/2017 2:28:39 PI	M B41384

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

Qualifiers: * Value exceeds Maximum Contaminant Level.

- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 6
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order **1703679**

Date Reported: 3/16/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: D & H Petroleum & Environmental

Client Sample ID: Sample 2 West Side

Project: Eagles Nest/ Beaver Dam

Collection Date: 3/13/2017 2:54:00 PM

Lab ID: 1703679-002 Matrix: AQUEOUS

Received Date: 3/14/2017 8:50:00 AM

Analyses	Result	PQL (Qual Units	DF Date Analyzed Batch
EPA METHOD 8015M/D: DIESEL RANG	E			Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0	mg/L	1 3/14/2017 4:56:25 PM 30684
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1 3/14/2017 4:56:25 PM 30684
Surr: DNOP	127	98.8-141	%Rec	1 3/14/2017 4:56:25 PM 30684
EPA METHOD 8015D: GASOLINE RANG	GE .			Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1 3/15/2017 3:39:01 PM R41384
Surr: BFB	88.4	52.3-138	%Rec	1 3/15/2017 3:39:01 PM R41384
EPA METHOD 8021B: VOLATILES				Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5	μg/L	1 3/15/2017 3:39:01 PM B41384
Benzene	ND	1.0	μg/L	1 3/15/2017 3:39:01 PM B41384
Toluene	ND	1.0	μg/L	1 3/15/2017 3:39:01 PM B41384
Ethylbenzene	ND	1.0	μg/L	1 3/15/2017 3:39:01 PM B41384
Xylenes, Total	ND	2.0	μg/L	1 3/15/2017 3:39:01 PM B41384
1,2,4-Trimethylbenzene	ND	1.0	μg/L	1 3/15/2017 3:39:01 PM B41384
1,3,5-Trimethylbenzene	ND	1.0	μg/L	1 3/15/2017 3:39:01 PM B41384
Surr: 4-Bromofluorobenzene	122	80-120	S %Rec	1 3/15/2017 3:39:01 PM B41384

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

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 6
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#: **1703679**

16-Mar-17

Client: D & H Petroleum & Environmental

Project: Eagles Nest/ Beaver Dam

Sample ID 1703679-001BMS SampType: MS TestCode: EPA Method 8015M/D: Diesel Range Client ID: Sample 1 East Side Batch ID: 30684 RunNo: 41352 Prep Date: 3/14/2017 Analysis Date: 3/14/2017 SeqNo: 1296584 Units: mg/L Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Diesel Range Organics (DRO) 1.0 0 6.1 5.000 121 87.2 145 Surr: DNOP 0.62 0.5000 125 98.8 141

Sample ID 1703679-001BMSD SampType: MSD TestCode: EPA Method 8015M/D: Diesel Range Sample 1 East Side Batch ID: 30684 RunNo: 41352 SeqNo: 1296585 Prep Date: 3/14/2017 Analysis Date: 3/14/2017 Units: mg/L Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Diesel Range Organics (DRO) 6.0 1.0 5.000 119 87.2 145 1.55 20 Surr: DNOP 0.62 0.5000 98.8 0 125 141

Sample ID LCS-30684 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Client ID: LCSW Batch ID: 30684 RunNo: 41352 SeqNo: 1296589 Prep Date: 3/14/2017 Analysis Date: 3/14/2017 Units: mg/L %RPD Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit **RPDLimit** Qual Diesel Range Organics (DRO) 5.6 1.0 5.000 0 112 82.8 146 Surr: DNOP 0.58 0.5000 98.8 141 117

Sample ID MB-30684 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Client ID: **PBW** Batch ID: 30684 RunNo: 41352 Prep Date: 3/14/2017 Analysis Date: 3/14/2017 SeqNo: 1296590 Units: mg/L Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Diesel Range Organics (DRO) ND 1.0

 Diesel Range Organics (DRO)
 ND
 1.0

 Motor Oil Range Organics (MRO)
 ND
 5.0

 Surr: DNOP
 1.2
 1.000
 119
 98.8
 141

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

Reporting Detection Limit

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL.

W Sample container temperature is out of limit as specified

Page 3 of 6

Hall Environmental Analysis Laboratory, Inc.

WO#: **1703679**

16-Mar-17

Client: D & H Petroleum & Environmental

Project: Eagles Nest/ Beaver Dam

Sample ID RB SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBW Batch ID: R41384 RunNo: 41384

Prep Date: Analysis Date: 3/15/2017 SeqNo: 1297716 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Gasoline Range Organics (GRO) ND 0.050

Surr: BFB 18 20.00 89.1 52.3 138

Sample ID 2.5UG GRO LCSB SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSW Batch ID: R41384 RunNo: 41384

Prep Date: Analysis Date: 3/15/2017 SeqNo: 1297717 Units: mg/L

Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 0.51 0.050 0.5000 102 79.1 123

Surr: BFB 19 20.00 96.1 52.3 138

Sample ID 1703679-001AMS SampType: MS TestCode: EPA Method 8015D: Gasoline Range

Client ID: Sample 1 East Side Batch ID: R41384 RunNo: 41384

Prep Date: Analysis Date: 3/15/2017 SeqNo: 1297720 Units: mg/L

%RPD Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit **RPDLimit** Qual 0.51 0.050 0.5000 101 64.8 129

 Gasoline Range Organics (GRO)
 0.51
 0.050
 0.5000
 0
 101
 64.8
 129

 Surr: BFB
 19
 20.00
 94.9
 52.3
 138

Sample ID 1703679-001AMSD SampType: MSD TestCode: EPA Method 8015D: Gasoline Range

Client ID: Sample 1 East Side Batch ID: R41384 RunNo: 41384

Prep Date: Analysis Date: 3/15/2017 SeqNo: 1297721 Units: mg/L

Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 0.49 0.050 0.5000 97.5 64.8 129 3.59 20 Surr: BFB 19 20.00 93.9 52.3 138 0 0

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

ected below quantitation limits Page 4

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Page 4 of 6

Hall Environmental Analysis Laboratory, Inc.

WO#: **1703679**

16-Mar-17

Client: D & H Petroleum & Environmental

Project: Eagles Nest/ Beaver Dam

Sample ID RB SampType: MBLK TestCode: EPA Method 8021B: Volatiles

Client ID: PBW Batch ID: B41384 RunNo: 41384

Prep Date: Analysis Date: 3/15/2017 SeqNo: 1297742 Units: µg/L Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Methyl tert-butyl ether (MTBE) ND 2.5 ND Benzene 1.0 ND Toluene 1.0 Ethylbenzene ND 1.0 Xylenes, Total ND 2.0 1,2,4-Trimethylbenzene ND 1.0 1,3,5-Trimethylbenzene ND 1.0 120 Surr: 4-Bromofluorobenzene 20.00 23 116 80

Sample ID 100NG BTEX LCS	SampT	ype: LC	s	Tes	tCode: El	PA Method	8021B: Volati	iles		
Client ID: LCSW	Batch	ID: B4	1384	F	RunNo: 4	1384				
Prep Date:	Analysis D	ate: 3/	15/2017	S	SeqNo: 1	297743	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	21	2.5	20.00	0	105	66.3	115			
Benzene	22	1.0	20.00	0	109	71.7	126			
Toluene	22	1.0	20.00	0	110	73.3	119			
Ethylbenzene	23	1.0	20.00	0	113	80	120			
Xylenes, Total	69	2.0	60.00	0	115	80	120			
1,2,4-Trimethylbenzene	23	1.0	20.00	0	117	64.7	133			
1,3,5-Trimethylbenzene	23	1.0	20.00	0	114	80	120			
Surr: 4-Bromofluorobenzene	24		20.00		118	80	120			

Sample ID 1703679-002AMS	SampT	ype: MS	;	Test	tCode: El	PA Method	8021B: Volati	les		
Client ID: Sample 2 West Si	de Batch	ID: B4	1384	R	RunNo: 4 ′	1384				
Prep Date:	Analysis D	ate: 3/	15/2017	S	SeqNo: 12	297797	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	22	2.5	20.00	0	111	63.4	127			
Benzene	23	1.0	20.00	0	113	63	126			
Toluene	23	1.0	20.00	0.2902	116	80	120			
Ethylbenzene	24	1.0	20.00	0	120	80	120			
Xylenes, Total	74	2.0	60.00	0	123	80	120			S
1,2,4-Trimethylbenzene	24	1.0	20.00	0.2522	121	80	120			S
1,3,5-Trimethylbenzene	24	1.0	20.00	0	120	80	120			S
Surr: 4-Bromofluorobenzene	25		20.00		124	80	120			S

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Page 5 of 6

Hall Environmental Analysis Laboratory, Inc.

WO#: 1703679

16-Mar-17

Client: D & H Petroleum & Environmental

Project: Eagles Nest/ Beaver Dam

Sample ID 1703679-002AMSD SampType: MSD TestCode: EPA Method 8021B: Volatiles Client ID: Sample 2 West Side Batch ID: **B41384** RunNo: 41384 SeqNo: 1297798 Prep Date: Analysis Date: 3/15/2017 Units: µg/L Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Methyl tert-butyl ether (MTBE) 22 2.5 20.00 0 109 63.4 2.11 20 127 22 20.00 0 110 Benzene 1.0 63 126 2.89 20 Toluene 23 20.00 0.2902 80 120 20 1.0 113 2.27 Ethylbenzene 24 1.0 20.00 0 118 80 120 1.55 20 Xylenes, Total 72 2.0 60.00 0 120 80 120 1.79 20 S 1,2,4-Trimethylbenzene 24 1.0 20.00 0.2522 120 80 120 0.629 20 S 1,3,5-Trimethylbenzene 24 1.0 20.00 118 80 120 1.83 20 25 20.00 S Surr: 4-Bromofluorobenzene 125 80 120 0 0

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 6 of 6



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: DH Petro ALBUQUER	QU Work Order Numbe	er: 1703679		RcptNo: 1	
Received by/date:	PS12117				
Logged By: Lindsay Mangin	3/14/2017 8:50:00 AI	M	Judy Hloggo		
Completed By: Lindsay Mangin	3/14/2017 10:16:40		Juney Happy		:
Reviewed By:	3/14/17		000		
Chain of Custody	7 7 7				
Custody seals intact on sample bottle	es?	Yes 🗹	No 🗌	Not Present	
2. Is Chain of Custody complete?		Yes 🗹	No 🗌	Not Present	
3. How was the sample delivered?		Client			
<u>Log In</u>					
4. Was an attempt made to cool the sa	mples?	Yes 🗹	No 🗆	na 🗆	
5. Were all samples received at a temp	erature of >0° C to 6.0°C	Yes 🗹	No 🗌	NA 🗌	
6. Sample(s) in proper container(s)?		Yes 🗹	No 🗆		
7. Sufficient sample volume for indicate	d 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 receive	d broken?	Yes 📙	No ☑ □	# of preserved bottles checked	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custo		Yes 🗹	No 🗔	for pH: (<2 or >	12 unless noted)
13. Are matrices correctly identified on C	hain of Custody?	Yes 🗹	No 🗆	Adjusted?	
14. Is it clear what analyses were reques	ted?	Yes 🗸	No 🗌		
15. Were all holding times able to be med (If no, notify customer for authorization		Yes 🗹	No 🗆	Checked by:	<u> </u>
Special Handling (if applicable)					
16. Was client notified of all discrepancie	s with this order?	Yes	No 🗆	NA 🗹	
Person Notified:	Date				
By Whom:	Via:	, eMail	Phone Fax	☐ In Person	
Regarding:		*************************	**************************************		
Client Instructions:	i ini kananini kanan	nai kandaldai karkalan kandan kan	kanna kanakan kanaka katakat katakat kanaka takat kataka kanaka takat kataka takat kanaka takat kanaka takat k	CONTRACTOR	
17. Additional remarks:					
18. Cooler Information Cooler No Temp °C Condition 1 1.3 Good	n Seal Intact Seal No Not Present	Seal Date	Signed By		



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

March 17, 2017

Rosalio Guillen
D & H Petroleum & Environmental
PO Box 92407
Albuquerque, NM 87199

TEL: (505) 342-2024 FAX (505) 342-2109

RE: Cimarron and Raton Diversions Eagles Nest Spill OrderNo.: 1703681

Dear Rosalio Guillen:

Hall Environmental Analysis Laboratory received 2 sample(s) on 3/14/2017 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

andel

4901 Hawkins NE

Albuquerque, NM 87109

Analytical ReportLab Order **1703681**

Date Reported: 3/17/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT:D & H Petroleum & EnvironmentalClient Sample ID: Sample 1 SD DiversionProject:Cimarron and Raton Diversions Eagles NCollection Date: 3/13/2017 12:44:00 PMLab ID:1703681-001Matrix: AQUEOUSReceived Date: 3/14/2017 8:50:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RA	ANGE				Analys	:: ТОМ
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	3/14/2017 5:18:37 PM	30684
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	3/14/2017 5:18:37 PM	30684
Surr: DNOP	127	98.8-141	%Rec	1	3/14/2017 5:18:37 PM	30684
EPA METHOD 8015D: GASOLINE R	ANGE				Analys	: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	3/15/2017 10:41:49 AM	R41384
Surr: BFB	89.0	52.3-138	%Rec	1	3/15/2017 10:41:49 AM	R41384
EPA METHOD 8260: VOLATILES SE	HORT LIST				Analys	: DJF
Benzene	ND	1.0	μg/L	1	3/15/2017 11:37:57 AM	SL41385
Toluene	ND	1.0	μg/L	1	3/15/2017 11:37:57 AM	SL41385
Ethylbenzene	ND	1.0	μg/L	1	3/15/2017 11:37:57 AM	SL41385
Methyl tert-butyl ether (MTBE)	ND	1.0	μg/L	1	3/15/2017 11:37:57 AM	SL41385
1,2,4-Trimethylbenzene	ND	1.0	μg/L	1	3/15/2017 11:37:57 AM	SL41385
1,3,5-Trimethylbenzene	ND	1.0	μg/L	1	3/15/2017 11:37:57 AM	SL41385
Xylenes, Total	ND	1.5	μg/L	1	3/15/2017 11:37:57 AM	SL41385
Surr: 1,2-Dichloroethane-d4	116	70-130	%Rec	1	3/15/2017 11:37:57 AM	SL41385
Surr: 4-Bromofluorobenzene	93.7	70-130	%Rec	1	3/15/2017 11:37:57 AM	SL41385
Surr: Dibromofluoromethane	112	70-130	%Rec	1	3/15/2017 11:37:57 AM	SL41385
Surr: Toluene-d8	101	70-130	%Rec	1	3/15/2017 11:37:57 AM	SL41385

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

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- 8 % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 6
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1703681

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/17/2017

CLIENT: D & H Petroleum & Environmental
 Project: Cimarron and Raton Diversions Eagles N
 Lab ID: 1703681-002
 Matrix: AQUEOUS
 Client Sample ID: Sample 2 Raton Diversion
 Collection Date: 3/13/2017 1:36:00 PM
 Received Date: 3/14/2017 8:50:00 AM

Analyses	Result	PQL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	SE				Analyst:	ТОМ
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	3/14/2017 5:40:54 PM	30684
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	3/14/2017 5:40:54 PM	30684
Surr: DNOP	129	98.8-141	%Rec	1	3/14/2017 5:40:54 PM	30684
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	3/15/2017 11:04:20 AM	R41384
Surr: BFB	87.3	52.3-138	%Rec	1	3/15/2017 11:04:20 AM	R41384
EPA METHOD 8260: VOLATILES SHO	RT LIST				Analyst	DJF
Benzene	ND	1.0	μg/L	1	3/15/2017 12:06:20 PM	SL41385
Toluene	ND	1.0	μg/L	1	3/15/2017 12:06:20 PM	SL41385
Ethylbenzene	ND	1.0	μg/L	1	3/15/2017 12:06:20 PM	SL41385
Methyl tert-butyl ether (MTBE)	ND	1.0	μg/L	1	3/15/2017 12:06:20 PM	SL41385
1,2,4-Trimethylbenzene	ND	1.0	μg/L	1	3/15/2017 12:06:20 PM	SL41385
1,3,5-Trimethylbenzene	ND	1.0	μg/L	1	3/15/2017 12:06:20 PM	SL41385
Xylenes, Total	ND	1.5	μg/L	1	3/15/2017 12:06:20 PM	SL41385
Surr: 1,2-Dichloroethane-d4	111	70-130	%Rec	1	3/15/2017 12:06:20 PM	SL41385
Surr: 4-Bromofluorobenzene	91.4	70-130	%Rec	1	3/15/2017 12:06:20 PM	SL41385
Surr: Dibromofluoromethane	110	70-130	%Rec	1	3/15/2017 12:06:20 PM	SL41385
Surr: Toluene-d8	101	70-130	%Rec	1	3/15/2017 12:06:20 PM	SL41385

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

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 6
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#: **1703681**

17-Mar-17

Client: D & H Petroleum & Environmental

Project: Cimarron and Raton Diversions Eagles Nest Spil

Sample ID LCS-30684 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Client ID: LCSW Batch ID: 30684 RunNo: 41352 Prep Date: 3/14/2017 Analysis Date: 3/14/2017 SeqNo: 1296589 Units: mg/L Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Diesel Range Organics (DRO) 1.0 0 112 82.8 5.6 5.000 146 Surr: DNOP 0.58 0.5000 98.8 117 141

Sample ID MB-30684 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Client ID: PBW Batch ID: 30684 RunNo: 41352 Prep Date: 3/14/2017 Analysis Date: 3/14/2017 SeqNo: 1296590 Units: mg/L **RPDLimit** Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD Qual

Diesei Range Organics (DRO)	ND	1.0				
Motor Oil Range Organics (MRO)	ND	5.0				
Surr: DNOP	1.2	•	1.000	119	98.8	141

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 3 of 6

Hall Environmental Analysis Laboratory, Inc.

WO#: 1703681

17-Mar-17

Client: D & H Petroleum & Environmental

Project: Cimarron and Raton Diversions Eagles Nest Spil

Sample ID RB SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBW Batch ID: **R41384** RunNo: 41384

Prep Date: Analysis Date: 3/15/2017 SeqNo: 1297716 Units: mg/L

Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual

Gasoline Range Organics (GRO) ND 0.050

Surr: BFB 20.00 89.1 18 52.3 138

Sample ID 2.5UG GRO LCSB SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSW RunNo: 41384 Batch ID: R41384

19

Prep Date: Analysis Date: 3/15/2017 SeqNo: 1297717 Units: mg/L

20.00

RPDLimit Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD Qual Gasoline Range Organics (GRO) 0.51 0.050 0.5000 0 102 79.1 123

52.3

138

96.1

Qualifiers:

Surr: BFB

- D Sample Diluted Due to Matrix
- Η Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- Е Value above quantitation range
- J
- P Sample pH Not In Range
- RLReporting Detection Limit
- W Sample container temperature is out of limit as specified

Value exceeds Maximum Contaminant Level. В Analyte detected in the associated Method Blank

Analyte detected below quantitation limits

Page 4 of 6

Hall Environmental Analysis Laboratory, Inc.

WO#: 1703681

17-Mar-17

Client: D & H Petroleum & Environmental

Project: Cimarron and Raton Diversions Eagles Nest Spil

Sample ID rb	SampT	SampType: MBLK TestCode: EPA Method 8260: Volatiles Short List								
Client ID: PBW	Batch	n ID: SL	41385	F	RunNo: 4	1385				
Prep Date:	Analysis D	ate: 3/	15/2017	\$	SeqNo: 1	297400	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	11		10.00		112	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		95.4	70	130			
Surr: Dibromofluoromethane	11		10.00		114	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			
Sample ID 100ng Ics	SampT	ype: LC	s	Tes	tCode: E	PA Method	8260: Volatil	es Short L	_ist	
Client ID: LCSW	Batch	n ID: SL	41385	F	RunNo: 4	1385				

Campio ib Toolig ios	Cump i	, po. 		100	.coac. L	Amenioa	ozoo. Volutile		-101	
Client ID: LCSW	Batcl	h ID: SL	.41385	F	RunNo: 4	1385				
Prep Date:	Analysis D	Date: 3 /	15/2017	8	SeqNo: 1	297401	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	110	70	130			
Toluene	19	1.0	20.00	0	96.5	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		108	70	130			
Surr: 4-Bromofluorobenzene	9.3		10.00		93.4	70	130			
Surr: Dibromofluoromethane	11		10.00		110	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID 1703681-001a ms	SampT	ype: MS	3	Tes	tCode: El	PA Method	8260: Volatile	s Short L	.ist	
Client ID: Sample 1 SD Dive	rs Batch	ID: SL	41385	F	RunNo: 4	1385				
Prep Date:	Analysis D	ate: 3/	15/2017	8	SeqNo: 1	297799	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	117	70	130			
Toluene	20	1.0	20.00	0	102	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		112	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		94.6	70	130			
Surr: Dibromofluoromethane	11		10.00		107	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

Η Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RPD outside accepted recovery limits R

% Recovery outside of range due to dilution or matrix

В Analyte detected in the associated Method Blank

Е Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

Reporting Detection Limit RL

Sample container temperature is out of limit as specified

Page 5 of 6

Surr: Dibromofluoromethane

Surr: Toluene-d8

Hall Environmental Analysis Laboratory, Inc.

WO#: 1703681

17-Mar-17

Client: D & H Petroleum & Environmental

Project: Cimarron and Raton Diversions Eagles Nest Spil

11

10

Sample ID 1703681-001a msd SampType: MSD TestCode: EPA Method 8260: Volatiles Short List Client ID: Sample 1 SD Divers Batch ID: SL41385 RunNo: 41385 SeqNo: 1297800 Prep Date: Analysis Date: 3/15/2017 Units: µg/L Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual 23 20.00 0 70 130 0.709 20 Benzene 1.0 117 21 20.00 0 103 70 Toluene 1.0 130 0.754 20 114 70 0 Surr: 1,2-Dichloroethane-d4 11 10.00 130 0 Surr: 4-Bromofluorobenzene 8.9 10.00 89.4 70 130 0 0

111

102

70

70

130

130

0

0

0

0

10.00

10.00

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 6 of 6



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: DH Petro ALBUQUERQU Wor	rk Order Number: 170	03681	-	RcptNo:	1
Received by/date:	IHA				
Logged By: Lindsay Mangin 3/14/2	017 8:50:00 AM		Judy Hlygo		
Completed By: Lindsay Mangin 3/14/2	:017 10:27:52 AM		Street House		
Reviewed By:	1/17		000		
Chain of Custody	. / - (····		
1. Custody seals intact on sample bottles?	Ye	es 🗸	No 🗌	Not Present	
2. Is Chain of Custody complete?	Ye	es 🗹	No 🗌	Not Present	
3. How was the sample delivered?	<u>CI</u>	<u>lient</u>			
<u>Log In</u>					
4. Was an attempt made to cool the samples?	Y	es 🗸	No 🗌	na 🗆	
5. Were all samples received at a temperature of >0°	C to 6.0°C Ye	es 🗸	No \square	na 🗆	
6. Sample(s) in proper container(s)?	Y	es 🗹	No 🗌		
7. Sufficient sample volume for indicated test(s)?	Ye	es 🗹	No 🗌		
8. Are samples (except VOA and ONG) properly prese	erved? Ye	es 🗸	No 🗌		
9. Was preservative added to bottles?	Ye	es 🗌	No 🗹	NA 🗌	
10.VOA vials have zero headspace?	Υє	es 🗸	No 🗌	No VOA Vials	
11. Were any sample containers received broken?	Y	es 🗆	No 🗹 🛚	# of preserved	
				bottles checked	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Y€	es 🗸	No ∐	for pH: (<2 c	or >12 unless noted)
13. Are matrices correctly identified on Chain of Custod	ly? Ye	es 🗹	No 🗌	Adjusted?	
14. Is it clear what analyses were requested?	Ye	es 🗸	No 🗆		
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Υ€	es 🗸	No 🗆	Checked by:	
Special Handling (if applicable)					
16. Was client notified of all discrepancies with this order	er? Ye	es 🗆	No 🗆	NA 🗹	-
Person Notified:	Date				
By Whom:	Via: ☐ e	Mail 🗌 Pl	none 🗌 Fax [In Person	
Regarding:			AVANTAL (2002)		
Client Instructions:					
17. Additional remarks:					
18. Cooler Information		_			
Cooler No Temp °C Condition Seal Intact 1 1.3 Good Not Preser		Date	Signed By		
1 1.3 Good Not Presen	ıı		I		

ANALYSIS LABORATORY ANALYSIS LABORATORY www.hallenvironmental.com 4901 Hawkins NE - Albuquenque, NM 87109 Tel. 505-345-3975 Fax 505-345-4107 Analysis Request	8270 SIMS)	ETEX + MTBE TPH 8015BdG TPH (Method 6 EDB (Method 5 EDB (Method 9 PAH's (8310 0		XX	ime Remarks:
Project #: Project #: Nor Stone Const. Const.	1 D/V	Sample Temperature: 1/3 Container Preservative HEAL No. Type and # Type	40 mc (6) 1Ce -001	gonder for ice -002	Racelved by: Cl3 H 17 88 Received by: Eate Time
Client D& H winted Fulling Solutions 4400 Anthon Ave No. E. Hora user ave 1000	dh' united . Con.	97		Struple & Tuston Angle Palm Division	Mis 8:50 Relinquished by: Date Time: Relinquished by: Relinquished by: Relinquished by: Relinquished by:



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

March 29, 2017

Rosalio Guillen
D & H Petroleum & Environmental
PO Box 92407
Albuquerque, NM 87199

TEL: (505) 342-2024 FAX (505) 342-2109

RE: Cimarron River/Eagles Nest OrderNo.: 1703D13

Dear Rosalio Guillen:

Hall Environmental Analysis Laboratory received 2 sample(s) on 3/25/2017 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

andel

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order **1703D13**Date Reported: **3/29/2017**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: D & H Petroleum & Environmental

Client Sample ID: Sample 1 River Bank Area

Project:Cimarron River/Eagles NestCollection Date: 3/24/2017 2:53:00 PMLab ID:1703D13-001Matrix: AQUEOUSReceived Date: 3/25/2017 8:38:00 AM

Analyses	Result	PQL Qua	al Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATIL	.ES				Analyst	: DAM
Acenaphthene	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Acenaphthylene	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Aniline	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Anthracene	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Azobenzene	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Benz(a)anthracene	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Benzo(a)pyrene	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Benzo(b)fluoranthene	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Benzo(g,h,i)perylene	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Benzo(k)fluoranthene	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Benzoic acid	ND	20	μg/L	1	3/28/2017 9:32:02 PM	30932
Benzyl alcohol	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Bis(2-chloroethoxy)methane	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Bis(2-chloroethyl)ether	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Bis(2-chloroisopropyl)ether	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Bis(2-ethylhexyl)phthalate	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
4-Bromophenyl phenyl ether	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Butyl benzyl phthalate	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Carbazole	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
4-Chloro-3-methylphenol	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
4-Chloroaniline	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
2-Chloronaphthalene	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
2-Chlorophenol	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
4-Chlorophenyl phenyl ether	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Chrysene	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Di-n-butyl phthalate	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Di-n-octyl phthalate	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Dibenz(a,h)anthracene	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Dibenzofuran	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
1,2-Dichlorobenzene	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
1,3-Dichlorobenzene	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
1,4-Dichlorobenzene	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
3,3'-Dichlorobenzidine	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Diethyl phthalate	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Dimethyl phthalate	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
2,4-Dichlorophenol	ND	20	μg/L	1	3/28/2017 9:32:02 PM	30932
2,4-Dimethylphenol	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
4,6-Dinitro-2-methylphenol	ND	20	μg/L	1	3/28/2017 9:32:02 PM	30932
2,4-Dinitrophenol	ND	20	μg/L	1	3/28/2017 9:32:02 PM	30932

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

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 15
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order **1703D13**Date Reported: **3/29/2017**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: D & H Petroleum & Environmental

Project: Cimarron River/Eagles Nest

Lab ID: 1703D13-001

Matrix: AQUEOUS

Client Sample ID: Sample 1 River Bank Area

Collection Date: 3/24/2017 2:53:00 PM

Received Date: 3/25/2017 8:38:00 AM

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLAT	TILES				Analysi	:: DAM
2,4-Dinitrotoluene	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
2,6-Dinitrotoluene	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Fluoranthene	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Fluorene	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Hexachlorobenzene	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Hexachlorobutadiene	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Hexachlorocyclopentadiene	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Hexachloroethane	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Indeno(1,2,3-cd)pyrene	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Isophorone	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
1-Methylnaphthalene	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
2-Methylnaphthalene	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
2-Methylphenol	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
3+4-Methylphenol	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
N-Nitrosodi-n-propylamine	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
N-Nitrosodimethylamine	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
N-Nitrosodiphenylamine	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Naphthalene	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
2-Nitroaniline	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
3-Nitroaniline	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
4-Nitroaniline	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Nitrobenzene	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
2-Nitrophenol	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
4-Nitrophenol	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Pentachlorophenol	ND	20	μg/L	1	3/28/2017 9:32:02 PM	30932
Phenanthrene	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Phenol	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Pyrene	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Pyridine	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
1,2,4-Trichlorobenzene	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
2,4,5-Trichlorophenol	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
2,4,6-Trichlorophenol	ND	10	μg/L	1	3/28/2017 9:32:02 PM	30932
Surr: 2-Fluorophenol	43.5	15-98.1	%Rec	1	3/28/2017 9:32:02 PM	30932
Surr: Phenol-d5	29.5	15-80.7	%Rec	1	3/28/2017 9:32:02 PM	30932
Surr: 2,4,6-Tribromophenol	52.8	15-112	%Rec	1	3/28/2017 9:32:02 PM	30932
Surr: Nitrobenzene-d5	56.0	27.2-90.7	%Rec	1	3/28/2017 9:32:02 PM	30932
Surr: 2-Fluorobiphenyl	49.7	23.3-85.6	%Rec	1	3/28/2017 9:32:02 PM	30932
Surr: 4-Terphenyl-d14	47.9	27.6-107	%Rec	1	3/28/2017 9:32:02 PM	30932

EPA METHOD 8260B: VOLATILES Analyst: rde

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

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 15
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order **1703D13**Date Reported: **3/29/2017**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: D & H Petroleum & Environmental

Project: Cimarron River/Eagles Nest

Client Sample ID: Sample 1 River Bank Area

Collection Date: 3/24/2017 2:53:00 PM

Lab ID: 1703D13-001 **Matrix:** AQUEOUS **Received Date:** 3/25/2017 8:38:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst	∷ rde
Benzene	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
Toluene	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
Ethylbenzene	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
Methyl tert-butyl ether (MTBE)	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
1,2,4-Trimethylbenzene	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
1,3,5-Trimethylbenzene	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
1,2-Dichloroethane (EDC)	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
1,2-Dibromoethane (EDB)	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
Naphthalene	ND	2.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
1-Methylnaphthalene	ND	4.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
2-Methylnaphthalene	ND	4.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
Acetone	ND	10	μg/L	1	3/27/2017 4:23:00 PM	R41692
Bromobenzene	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
Bromodichloromethane	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
Bromoform	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
Bromomethane	ND	3.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
2-Butanone	ND	10	μg/L	1	3/27/2017 4:23:00 PM	R41692
Carbon disulfide	ND	10	μg/L	1	3/27/2017 4:23:00 PM	R41692
Carbon Tetrachloride	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
Chlorobenzene	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
Chloroethane	ND	2.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
Chloroform	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
Chloromethane	ND	3.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
2-Chlorotoluene	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
4-Chlorotoluene	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
cis-1,2-DCE	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
cis-1,3-Dichloropropene	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
1,2-Dibromo-3-chloropropane	ND	2.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
Dibromochloromethane	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
Dibromomethane	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
1,2-Dichlorobenzene	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
1,3-Dichlorobenzene	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
1,4-Dichlorobenzene	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
Dichlorodifluoromethane	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
1,1-Dichloroethane	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
1,1-Dichloroethene	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
1,2-Dichloropropane	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
1,3-Dichloropropane	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
2,2-Dichloropropane	ND	2.0	μg/L	1	3/27/2017 4:23:00 PM	R41692

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

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 3 of 15
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Analytical Report Lab Order 1703D13

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/29/2017

CLIENT: D & H Petroleum & Environmental

Project: Cimarron River/Eagles Nest

Lab ID: 1703D13-001

Matrix: AQUEOUS

Client Sample ID: Sample 1 River Bank Area

Collection Date: 3/24/2017 2:53:00 PM

Received Date: 3/25/2017 8:38:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst	: rde
1,1-Dichloropropene	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
Hexachlorobutadiene	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
2-Hexanone	ND	10	μg/L	1	3/27/2017 4:23:00 PM	R41692
Isopropylbenzene	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
4-Isopropyltoluene	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
4-Methyl-2-pentanone	ND	10	μg/L	1	3/27/2017 4:23:00 PM	R41692
Methylene Chloride	ND	3.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
n-Butylbenzene	ND	3.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
n-Propylbenzene	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
sec-Butylbenzene	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
Styrene	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
tert-Butylbenzene	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
1,1,1,2-Tetrachloroethane	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
1,1,2,2-Tetrachloroethane	ND	2.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
Tetrachloroethene (PCE)	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
trans-1,2-DCE	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
trans-1,3-Dichloropropene	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
1,2,3-Trichlorobenzene	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
1,2,4-Trichlorobenzene	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
1,1,1-Trichloroethane	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
1,1,2-Trichloroethane	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
Trichloroethene (TCE)	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
Trichlorofluoromethane	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
1,2,3-Trichloropropane	ND	2.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
Vinyl chloride	ND	1.0	μg/L	1	3/27/2017 4:23:00 PM	R41692
Xylenes, Total	ND	1.5	μg/L	1	3/27/2017 4:23:00 PM	R41692
Surr: 1,2-Dichloroethane-d4	92.5	70-130	%Rec	1	3/27/2017 4:23:00 PM	R41692
Surr: 4-Bromofluorobenzene	102	70-130	%Rec	1	3/27/2017 4:23:00 PM	R41692
Surr: Dibromofluoromethane	106	70-130	%Rec	1	3/27/2017 4:23:00 PM	R41692
Surr: Toluene-d8	102	70-130	%Rec	1	3/27/2017 4:23:00 PM	R41692

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

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 4 of 15
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order **1703D13**Date Reported: **3/29/2017**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: D & H Petroleum & Environmental

Client Sample ID: Sample 2 Below Beaver Dam

Project:Cimarron River/Eagles NestCollection Date: 3/24/2017 3:04:00 PMLab ID:1703D13-002Matrix: AQUEOUSReceived Date: 3/25/2017 8:38:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATI	LES				Analyst	:: DAM
Acenaphthene	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Acenaphthylene	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Aniline	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Anthracene	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Azobenzene	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Benz(a)anthracene	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Benzo(a)pyrene	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Benzo(b)fluoranthene	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Benzo(g,h,i)perylene	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Benzo(k)fluoranthene	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Benzoic acid	ND	20	μg/L	1	3/28/2017 9:59:28 PM	30932
Benzyl alcohol	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Bis(2-chloroethoxy)methane	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Bis(2-chloroethyl)ether	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Bis(2-chloroisopropyl)ether	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Bis(2-ethylhexyl)phthalate	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
4-Bromophenyl phenyl ether	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Butyl benzyl phthalate	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Carbazole	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
4-Chloro-3-methylphenol	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
4-Chloroaniline	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
2-Chloronaphthalene	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
2-Chlorophenol	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
4-Chlorophenyl phenyl ether	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Chrysene	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Di-n-butyl phthalate	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Di-n-octyl phthalate	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Dibenz(a,h)anthracene	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Dibenzofuran	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
1,2-Dichlorobenzene	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
1,3-Dichlorobenzene	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
1,4-Dichlorobenzene	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
3,3'-Dichlorobenzidine	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Diethyl phthalate	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Dimethyl phthalate	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
2,4-Dichlorophenol	ND	20	μg/L	1	3/28/2017 9:59:28 PM	30932
2,4-Dimethylphenol	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
4,6-Dinitro-2-methylphenol	ND	20	μg/L	1	3/28/2017 9:59:28 PM	30932
2,4-Dinitrophenol	ND	20	μg/L	1	3/28/2017 9:59:28 PM	30932

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

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 5 of 15
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order **1703D13**Date Reported: 3/29/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: D & H Petroleum & Environmental

Client Sample ID: Sample 2 Below Beaver Dam

Project:Cimarron River/Eagles NestCollection Date: 3/24/2017 3:04:00 PMLab ID:1703D13-002Matrix: AQUEOUSReceived Date: 3/25/2017 8:38:00 AM

Analyses	Result	PQL Qua	al Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES	3				Analyst	: DAM
2,4-Dinitrotoluene	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
2,6-Dinitrotoluene	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Fluoranthene	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Fluorene	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Hexachlorobenzene	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Hexachlorobutadiene	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Hexachlorocyclopentadiene	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Hexachloroethane	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Indeno(1,2,3-cd)pyrene	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Isophorone	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
1-Methylnaphthalene	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
2-Methylnaphthalene	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
2-Methylphenol	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
3+4-Methylphenol	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
N-Nitrosodi-n-propylamine	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
N-Nitrosodimethylamine	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
N-Nitrosodiphenylamine	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Naphthalene	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
2-Nitroaniline	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
3-Nitroaniline	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
4-Nitroaniline	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Nitrobenzene	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
2-Nitrophenol	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
4-Nitrophenol	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Pentachlorophenol	ND	20	μg/L	1	3/28/2017 9:59:28 PM	30932
Phenanthrene	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Phenol	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Pyrene	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Pyridine	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
1,2,4-Trichlorobenzene	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
2,4,5-Trichlorophenol	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
2,4,6-Trichlorophenol	ND	10	μg/L	1	3/28/2017 9:59:28 PM	30932
Surr: 2-Fluorophenol	45.7	15-98.1	%Rec	1	3/28/2017 9:59:28 PM	30932
Surr: Phenol-d5	33.1	15-80.7	%Rec	1	3/28/2017 9:59:28 PM	30932
Surr: 2,4,6-Tribromophenol	56.5	15-112	%Rec	1	3/28/2017 9:59:28 PM	30932
Surr: Nitrobenzene-d5	60.2	27.2-90.7	%Rec	1	3/28/2017 9:59:28 PM	30932
Surr: 2-Fluorobiphenyl	51.8	23.3-85.6	%Rec	1	3/28/2017 9:59:28 PM	30932
Surr: 4-Terphenyl-d14	53.1	27.6-107	%Rec	1	3/28/2017 9:59:28 PM	30932

EPA METHOD 8260B: VOLATILES Analyst: rde

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

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 6 of 15
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order **1703D13**Date Reported: **3/29/2017**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: D & H Petroleum & Environmental

Client Sample ID: Sample 2 Below Beaver Dam

Project:Cimarron River/Eagles NestCollection Date: 3/24/2017 3:04:00 PMLab ID:1703D13-002Matrix: AQUEOUSReceived Date: 3/25/2017 8:38:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst	∷rde
Benzene	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
Toluene	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
Ethylbenzene	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
Methyl tert-butyl ether (MTBE)	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
1,2,4-Trimethylbenzene	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
1,3,5-Trimethylbenzene	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
1,2-Dichloroethane (EDC)	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
1,2-Dibromoethane (EDB)	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
Naphthalene	ND	2.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
1-Methylnaphthalene	ND	4.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
2-Methylnaphthalene	ND	4.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
Acetone	ND	10	μg/L	1	3/27/2017 5:34:00 PM	R41692
Bromobenzene	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
Bromodichloromethane	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
Bromoform	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
Bromomethane	ND	3.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
2-Butanone	ND	10	μg/L	1	3/27/2017 5:34:00 PM	R41692
Carbon disulfide	ND	10	μg/L	1	3/27/2017 5:34:00 PM	R41692
Carbon Tetrachloride	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
Chlorobenzene	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
Chloroethane	ND	2.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
Chloroform	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
Chloromethane	ND	3.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
2-Chlorotoluene	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
4-Chlorotoluene	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
cis-1,2-DCE	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
cis-1,3-Dichloropropene	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
1,2-Dibromo-3-chloropropane	ND	2.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
Dibromochloromethane	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
Dibromomethane	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
1,2-Dichlorobenzene	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
1,3-Dichlorobenzene	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
1,4-Dichlorobenzene	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
Dichlorodifluoromethane	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
1,1-Dichloroethane	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
1,1-Dichloroethene	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
1,2-Dichloropropane	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
1,3-Dichloropropane	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
2,2-Dichloropropane	ND	2.0	μg/L	1	3/27/2017 5:34:00 PM	R41692

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

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 7 of 15
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Analytical Report Lab Order 1703D13

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/29/2017

CLIENT: D & H Petroleum & Environmental

Client Sample ID: Sample 2 Below Beaver Dam

Project:Cimarron River/Eagles NestCollection Date: 3/24/2017 3:04:00 PMLab ID:1703D13-002Matrix: AQUEOUSReceived Date: 3/25/2017 8:38:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst	∶rde
1,1-Dichloropropene	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
Hexachlorobutadiene	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
2-Hexanone	ND	10	μg/L	1	3/27/2017 5:34:00 PM	R41692
Isopropylbenzene	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
4-Isopropyltoluene	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
4-Methyl-2-pentanone	ND	10	μg/L	1	3/27/2017 5:34:00 PM	R41692
Methylene Chloride	ND	3.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
n-Butylbenzene	ND	3.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
n-Propylbenzene	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
sec-Butylbenzene	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
Styrene	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
tert-Butylbenzene	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
1,1,1,2-Tetrachloroethane	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
1,1,2,2-Tetrachloroethane	ND	2.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
Tetrachloroethene (PCE)	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
trans-1,2-DCE	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
trans-1,3-Dichloropropene	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
1,2,3-Trichlorobenzene	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
1,2,4-Trichlorobenzene	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
1,1,1-Trichloroethane	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
1,1,2-Trichloroethane	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
Trichloroethene (TCE)	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
Trichlorofluoromethane	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
1,2,3-Trichloropropane	ND	2.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
Vinyl chloride	ND	1.0	μg/L	1	3/27/2017 5:34:00 PM	R41692
Xylenes, Total	ND	1.5	μg/L	1	3/27/2017 5:34:00 PM	R41692
Surr: 1,2-Dichloroethane-d4	91.8	70-130	%Rec	1	3/27/2017 5:34:00 PM	R41692
Surr: 4-Bromofluorobenzene	104	70-130	%Rec	1	3/27/2017 5:34:00 PM	R41692
Surr: Dibromofluoromethane	107	70-130	%Rec	1	3/27/2017 5:34:00 PM	R41692
Surr: Toluene-d8	99.8	70-130	%Rec	1	3/27/2017 5:34:00 PM	R41692

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

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 8 of 15
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#: 1703D13

29-Mar-17

D & H Petroleum & Environmental **Client:**

Project: Cimarron River/Eagles Nest

Sample ID rb	SampT	уре: МВ	LK	TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R41692			F						
Prep Date:	Analysis D	ate: 3/2	27/2017	5	SeqNo: 1308248			Units: μg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
. 1 1										

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix D
- Η Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range

RL

Reporting Detection Limit Sample container temperature is out of limit as specified Page 9 of 15

Hall Environmental Analysis Laboratory, Inc.

WO#: **1703D13**

29-Mar-17

Client: D & H Petroleum & Environmental

Project: Cimarron River/Eagles Nest

Sample ID rb	SampT	SampType: MBLK TestCode: EPA Method 8260B: VOLATILES						ATILES					
Client ID: PBW	Batch	1D: R4	1692	F	RunNo: 41692								
Prep Date:	Analysis D	ate: 3/	27/2017	S	SeqNo: 1308248			Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
1,1-Dichloropropene	ND	1.0											
Hexachlorobutadiene	ND	1.0											
2-Hexanone	ND	10											
Isopropylbenzene	ND	1.0											
4-Isopropyltoluene	ND	1.0											
4-Methyl-2-pentanone	ND	10											
Methylene Chloride	ND	3.0											
n-Butylbenzene	ND	3.0											
n-Propylbenzene	ND	1.0											
sec-Butylbenzene	ND	1.0											
Styrene	ND	1.0											
tert-Butylbenzene	ND	1.0											
1,1,1,2-Tetrachloroethane	ND	1.0											
1,1,2,2-Tetrachloroethane	ND	2.0											
Tetrachloroethene (PCE)	ND	1.0											
trans-1,2-DCE	ND	1.0											
trans-1,3-Dichloropropene	ND	1.0											
1,2,3-Trichlorobenzene	ND	1.0											
1,2,4-Trichlorobenzene	ND	1.0											
1,1,1-Trichloroethane	ND	1.0											
1,1,2-Trichloroethane	ND	1.0											
Trichloroethene (TCE)	ND	1.0											
Trichlorofluoromethane	ND	1.0											
1,2,3-Trichloropropane	ND	2.0											
Vinyl chloride	ND	1.0											
Xylenes, Total	ND	1.5											
Surr: 1,2-Dichloroethane-d4	9.0		10.00		90.0	70	130						
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130						
Surr: Dibromofluoromethane	10		10.00		102	70	130						
Surr: Toluene-d8	10		10.00		102	70	130						
Sample ID 100ng Ics	SampT	ype: LC	s	Tes	Code: El	PA Method	8260B: VOL	ATILES					
Client ID: LCSW	Batch	1D: R4	1692	F	tunNo: 4	1692							
Prep Date:	Analysis D	ate: 3/	27/2017	S	SeqNo: 1	308249	Units: µg/L						

Qualifiers:

Chlorobenzene

Analyte

Benzene Toluene

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded

Result

21

20

21

PQL

1.0

1.0

1.0

SPK value SPK Ref Val

20.00

20.00

20.00

- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank

LowLimit

70

70

70

HighLimit

130

130

130

%RPD

E Value above quantitation range

%REC

104

102

106

0

0

0

- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 10 of 15

RPDLimit

Qual

Hall Environmental Analysis Laboratory, Inc.

WO#: **1703D13**

29-Mar-17

Client: D & H Petroleum & Environmental

Project: Cimarron River/Eagles Nest

Sample ID 100ng Ics SampType: LCS TestCode: EPA Method 8260B: VOLATILES Client ID: LCSW Batch ID: R41692 RunNo: 41692 Prep Date: Analysis Date: 3/27/2017 SeqNo: 1308249 Units: µg/L Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual 1,1-Dichloroethene 0 23 1.0 20.00 113 70 130 21 0 103 Trichloroethene (TCE) 1.0 20.00 70 130 92.8 70 Surr: 1,2-Dichloroethane-d4 9.3 10.00 130 Surr: 4-Bromofluorobenzene 11 10.00 105 70 130 Surr: Dibromofluoromethane 11 10.00 106 70 130 Surr: Toluene-d8 10 10.00 102 70 130

Sample ID 1703D13-001AMS SampType: MS TestCode: EPA Method 8260B: VOLATILES Sample 1 River Ban Client ID: Batch ID: R41692 RunNo: 41692 Prep Date: Analysis Date: 3/27/2017 SeqNo: 1308511 Units: µg/L **PQL** SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Analyte Result LowLimit Qual Benzene 21 1.0 20.00 105 70 130 20 20.00 0.2120 100 70 130 Toluene 1.0 21 104 70 Chlorobenzene 1.0 20.00 0 130 22 70 1,1-Dichloroethene 1.0 20.00 0 112 130 Trichloroethene (TCE) 21 1.0 20.00 0 103 70 130 Surr: 1,2-Dichloroethane-d4 9.0 10.00 90.1 70 130 104 70 Surr: 4-Bromofluorobenzene 10 10.00 130 Surr: Dibromofluoromethane 11 10.00 108 70 130 Surr: Toluene-d8 10 10.00 101 70 130

Sample ID 1703D13-001AMSI	D SampT	ype: MS	D	Test	tCode: EI	Code: EPA Method 8260B: VOLATILES					
Client ID: Sample 1 River Ba	an Batch	n ID: R4	1692	R	RunNo: 4	1692					
Prep Date:	Analysis D	ate: 3/2	27/2017	S	SeqNo: 1	308512	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	20	1.0	20.00	0	102	70	130	2.96	20		
Toluene	20	1.0	20.00	0.2120	97.8	70	130	2.28	20		
Chlorobenzene	20	1.0	20.00	0	101	70	130	2.78	20		
1,1-Dichloroethene	22	1.0	20.00	0	109	70	130	3.30	20		
Trichloroethene (TCE)	20	1.0	20.00	0	99.3	70	130	3.83	20		
Surr: 1,2-Dichloroethane-d4	9.0		10.00		90.0	70	130	0	0		
Surr: 4-Bromofluorobenzene	11		10.00		105	70	130	0	0		
Surr: Dibromofluoromethane	11		10.00		106	70	130	0	0		
Surr: Toluene-d8	10		10.00		100	70	130	0	0		

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Page 11 of 15

Hall Environmental Analysis Laboratory, Inc.

WO#: **1703D13**

29-Mar-17

Client: D & H Petroleum & Environmental

Project: Cimarron River/Eagles Nest

Sample ID Ics-30932	SampType: LCS TestCode: EPA Method 8270C: Semivolatiles									
Client ID: LCSW	Batch	n ID: 30	932	F	1712					
Prep Date: 3/28/2017	Analysis D	ate: 3 /	28/2017	S	SeqNo: 1	309158	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	63	10	100.0	0	63.5	42.9	100			
4-Chloro-3-methylphenol	130	10	200.0	0	65.0	36.2	110			
2-Chlorophenol	120	10	200.0	0	58.2	33.4	97.8			
1,4-Dichlorobenzene	42	10	100.0	0	42.0	32.8	79.3			
2,4-Dinitrotoluene	54	10	100.0	0	54.1	34.9	107			
N-Nitrosodi-n-propylamine	68	10	100.0	0	67.9	30.7	111			
4-Nitrophenol	60	10	200.0	0	30.2	15	91.9			
Pentachlorophenol	100	20	200.0	0	50.1	33.3	93.5			
Phenol	67	10	200.0	0	33.6	20.9	86.4			
Pyrene	65	10	100.0	0	64.7	45.6	111			
1,2,4-Trichlorobenzene	46	10	100.0	0	46.3	38.7	88.2			
Surr: 2-Fluorophenol	89		200.0		44.5	15	98.1			
Surr: Phenol-d5	65		200.0		32.4	15	80.7			
Surr: 2,4,6-Tribromophenol	140		200.0		67.9	15	112			
Surr: Nitrobenzene-d5	60		100.0		59.7	27.2	90.7			
Surr: 2-Fluorobiphenyl	62		100.0		61.5	23.3	85.6			
Surr: 4-Terphenyl-d14	59		100.0		59.0	27.6	107			

Sample ID Icsd-30932	SampType: LCSD TestCode: EPA Method 8270C: Semivolatiles									
Client ID: LCSS02	Batch	1D: 30 9	932	F	RunNo: 4	1712				
Prep Date: 3/28/2017	Analysis D	ate: 3/ 2	28/2017	S	SeqNo: 1	309159	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	74	10	100.0	0	73.6	42.9	100	14.8	37.4	
4-Chloro-3-methylphenol	160	10	200.0	0	81.7	36.2	110	22.8	26.8	
2-Chlorophenol	160	10	200.0	0	78.4	33.4	97.8	29.6	30.3	
1,4-Dichlorobenzene	50	10	100.0	0	50.5	32.8	79.3	18.4	32	
2,4-Dinitrotoluene	68	10	100.0	0	67.6	34.9	107	22.3	36.7	
N-Nitrosodi-n-propylamine	80	10	100.0	0	80.3	30.7	111	16.7	29.9	
4-Nitrophenol	81	10	200.0	0	40.6	15	91.9	29.3	28.8	R
Pentachlorophenol	120	20	200.0	0	60.8	33.3	93.5	19.2	38.2	
Phenol	89	10	200.0	0	44.7	20.9	86.4	28.4	39.8	
Pyrene	79	10	100.0	0	78.7	45.6	111	19.5	28.3	
1,2,4-Trichlorobenzene	54	10	100.0	0	54.2	38.7	88.2	15.7	39.8	
Surr: 2-Fluorophenol	110		200.0		57.1	15	98.1	0	0	
Surr: Phenol-d5	85		200.0		42.4	15	80.7	0	0	
Surr: 2,4,6-Tribromophenol	160		200.0		81.0	15	112	0	0	
Surr: Nitrobenzene-d5	80		100.0		79.8	27.2	90.7	0	0	
Surr: 2-Fluorobiphenyl	69		100.0		69.0	23.3	85.6	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1703D13**

29-Mar-17

Client: D & H Petroleum & Environmental

Project: Cimarron River/Eagles Nest

Sample ID Icsd-30932 SampType: LCSD TestCode: EPA Method 8270C: Semivolatiles

Client ID: LCSS02 Batch ID: 30932 RunNo: 41712

Prep Date: 3/28/2017 Analysis Date: 3/28/2017 SeqNo: 1309159 Units: µg/L

Analyte Result SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Surr: 4-Terphenyl-d14 71 100.0 71.4 27.6 107 0 0

Sample ID mb-30932	SampT	ype: MBLK	TestCode: E	PA Method	8270C: Semi	volatiles		
Client ID: PBW	Batch	n ID: 30932	RunNo: 4	1712				
Prep Date: 3/28/2017	Analysis D	ate: 3/28/2017	SeqNo: 1	309160	Units: µg/L			
Analyte	Result	PQL SPK value	SPK Ref Val %REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10						
Acenaphthylene	ND	10						
Aniline	ND	10						
Anthracene	ND	10						
Azobenzene	ND	10						
Benz(a)anthracene	ND	10						
Benzo(a)pyrene	ND	10						
Benzo(b)fluoranthene	ND	10						
Benzo(g,h,i)perylene	ND	10						
Benzo(k)fluoranthene	ND	10						
Benzoic acid	ND	20						
Benzyl alcohol	ND	10						
Bis(2-chloroethoxy)methane	ND	10						
Bis(2-chloroethyl)ether	ND	10						
Bis(2-chloroisopropyl)ether	ND	10						
Bis(2-ethylhexyl)phthalate	ND	10						
4-Bromophenyl phenyl ether	ND	10						
Butyl benzyl phthalate	ND	10						
Carbazole	ND	10						
4-Chloro-3-methylphenol	ND	10						
4-Chloroaniline	ND	10						
2-Chloronaphthalene	ND	10						
2-Chlorophenol	ND	10						
4-Chlorophenyl phenyl ether	ND	10						
Chrysene	ND	10						
Di-n-butyl phthalate	ND	10						
Di-n-octyl phthalate	ND	10						
Dibenz(a,h)anthracene	ND	10						
Dibenzofuran	ND	10						
1,2-Dichlorobenzene	ND	10						
1,3-Dichlorobenzene	ND	10						
1,4-Dichlorobenzene	ND	10						

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1703D13**

29-Mar-17

Client: D & H Petroleum & Environmental

Project: Cimarron River/Eagles Nest

Sample ID mb-30932	SampTy _l	oe: MBL	K	Tes	tCode: El	PA Method	8270C: Semi	volatiles		
Client ID: PBW	Batch I	D: 3093	2	F	RunNo: 4	1712				
Prep Date: 3/28/2017	Analysis Da				SeqNo: 1		Units: µg/L			
Analyte			SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
3,3´-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
2, 1 ,0-1110111010phtch01	ND	10								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1703D13**

29-Mar-17

Client: D & H Petroleum & Environmental

Project: Cimarron River/Eagles Nest

Sample ID mb-30932	SampTy	/pe: ME	BLK	Tes	tCode: El	volatiles				
Client ID: PBW	Batch	ID: 30	932	F	RunNo: 4	1712				
Prep Date: 3/28/2017	Analysis Da	ate: 3/	28/2017	S	SeqNo: 1	309160	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	110		200.0		52.8	15	98.1			
Surr: Phenol-d5	73		200.0		36.6	15	80.7			
Surr: 2,4,6-Tribromophenol	140		200.0		70.0	15	112			
Surr: Nitrobenzene-d5	72		100.0		72.4	27.2	90.7			
Surr: 2-Fluorobiphenyl	65		100.0		65.3	23.3	85.6			
Surr: 4-Terphenyl-d14	64		100.0		63.5	27.6	107			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

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Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

Sample Log-In Check List

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

DH Petro ALBUQUERQU Client Name: Work Order Number: 1703D13 RcptNo: 1 U3/25/17 Received by/date: an Il Logged By: **Anne Thorne** 3/25/2017 8:38:00 AM anne Sham Completed By: **Anne Thorne** 3/27/2017 11:08:28 AM Ar 03/27/17 Reviewed By: Chain of Custody Yes No 🗌 Not Present 🗹 1. Custody seals intact on sample bottles? 2. Is Chain of Custody complete? Yes 🗸 No \square Not Present 3. How was the sample delivered? Log In Yes 🗸 No 🗌 NA 🗔 4. Was an attempt made to cool the samples? NA 🗌 No 🗆 5. Were all samples received at a temperature of >0° C to 6.0°C Yes 🗸 Yes 🗸 No 🗌 Sample(s) in proper container(s)? 7. Sufficient sample volume for indicated test(s)? Yes 🗸 No 🗀 No 8. Are samples (except VOA and ONG) properly preserved? Yes No 🗹 NA 🗌 Yes 🗌 9. Was preservative added to bottles? Yes 🗸 No 🗌 No VOA Vials 📖 10. VOA vials have zero headspace? Yes \square No 🗸 11. Were any sample containers received broken? # of preserved bottles checked Yes 🗸 No 🗌 for pH: 12. Does paperwork match bottle labels? (<2 or >12 unless noted) (Note discrepancies on chain of custody) Adjusted? Yes 🗸 No 🗌 13. Are matrices correctly identified on Chain of Custody? Yes 🗸 No 🗌 14. Is it clear what analyses were requested? Checked by: Yes 🗸 No 🗌 15. Were all holding times able to be met? (If no, notify customer for authorization.) Special Handling (if applicable) Yes 🗌 NA 🔽 16. Was client notified of all discrepancies with this order? No 🗔 Person Notified: Date By Whom: Via: eMail Phone Fax In Person Regarding: Client Instructions: Sample #1 @ 1453 15 Kiven Bank Area 17. Additional remarks: 18. Cooler Information 1503/27117 Cooler No Temp °C Condition Seal Intact | Seal No | Seal Date Signed By 1.1 Good Yes

 	HALL ENVIKONMENTAL ANALYSTS LABODATODY		17109	20.) səlqqn											
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Turn-Around Time:	☐ Standard	Project Name:	7	Project #:		Project Manager:	,		Sampler:	Sample Température	Container	i ype allu #		466ss	S						Received by:	Received by:
Chain-of-Custody Record	Freding	0	tuthom Ave, NE.		h	2dh-waited. com - or -	DA/OC Package, rguillen @dh-united.com	☐ Level 4 (Full Validation)		1.1941	Sample Request ID	River Zank Ara	Struple O Beton Beare LAN	Sample (2) Piver Back then	Balan Bearen Da							, / / :/q
-of-Cus	Clients & H winted Fueling	V	Mailing Address: 4400 Anthum	mv,	343-3024	sliddenta	rguillen				Matrix										Relinquierfed by	Relinquished by:
;hain	H\$(Solutions	y Address	Albauerane	#: (50S)	ır Fax#: (Package:1	Standard	litation AP	EDD (Type)	Time		2:53an Weder	3:04m horter							Time: 9':34h	Time:
	Client	. v	Mailing	41be	Phone #: (email c	QA/QC	□ Star	Accreditation		Date		1/8/17	£1/80	÷						Pate: /	Jate:

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.



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

March 30, 2017

Rosalio Guillen
D & H Petroleum & Environmental
PO Box 92407
Albuquerque, NM 87199

TEL: (505) 342-2024 FAX (505) 342-2109

RE: Eagle Nest/Cimarron River OrderNo.: 1703D14

Dear Rosalio Guillen:

Hall Environmental Analysis Laboratory received 6 sample(s) on 3/27/2017 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

andel

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/30/2017

CLIENT: D & H Petroleum & Environmental Client Sample ID: Area #1

 Project:
 Eagle Nest/Cimarron River
 Collection Date: 3/26/2017 3:15:00 PM

 Lab ID:
 1703D14-001
 Matrix: SOIL
 Received Date: 3/27/2017 9:58:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLI	NE RANGE				Analyst	DJF
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	3/28/2017 11:27:10 AM	30918
Surr: BFB	95.0	70-130	%Rec	1	3/28/2017 11:27:10 AM	30918
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS	3			Analyst	TOM
Diesel Range Organics (DRO)	88	9.2	mg/Kg	1	3/28/2017 9:14:37 AM	30908
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	3/28/2017 9:14:37 AM	30908
Surr: DNOP	110	70-130	%Rec	1	3/28/2017 9:14:37 AM	30908
EPA METHOD 8260B: VOLATILES S	HORT LIST				Analyst	DJF
Benzene	ND	0.024	mg/Kg	1	3/28/2017 11:27:10 AM	30918
Toluene	ND	0.048	mg/Kg	1	3/28/2017 11:27:10 AM	30918
Ethylbenzene	ND	0.048	mg/Kg	1	3/28/2017 11:27:10 AM	30918
Xylenes, Total	ND	0.096	mg/Kg	1	3/28/2017 11:27:10 AM	30918
Surr: 1,2-Dichloroethane-d4	113	70-130	%Rec	1	3/28/2017 11:27:10 AM	30918
Surr: 4-Bromofluorobenzene	89.7	70-130	%Rec	1	3/28/2017 11:27:10 AM	30918
Surr: Dibromofluoromethane	116	70-130	%Rec	1	3/28/2017 11:27:10 AM	30918
Surr: Toluene-d8	101	70-130	%Rec	1	3/28/2017 11:27:10 AM	30918

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 10
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/30/2017

CLIENT: D & H Petroleum & Environmental Client Sample ID: Area #2

Project:Eagle Nest/Cimarron RiverCollection Date: 3/26/2017 4:00:00 PMLab ID:1703D14-002Matrix: SOILReceived Date: 3/27/2017 9:58:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analyst	: DJF
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	3/28/2017 11:56:03 AM	30918
Surr: BFB	90.2	70-130	%Rec	1	3/28/2017 11:56:03 AM	30918
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS	3			Analyst	: TOM
Diesel Range Organics (DRO)	19	9.3	mg/Kg	1	3/28/2017 9:38:52 AM	30908
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	3/28/2017 9:38:52 AM	30908
Surr: DNOP	94.1	70-130	%Rec	1	3/28/2017 9:38:52 AM	30908
EPA METHOD 8260B: VOLATILES S	SHORT LIST				Analyst	DJF
Benzene	ND	0.024	mg/Kg	1	3/28/2017 11:56:03 AM	30918
Toluene	ND	0.048	mg/Kg	1	3/28/2017 11:56:03 AM	30918
Ethylbenzene	ND	0.048	mg/Kg	1	3/28/2017 11:56:03 AM	30918
Xylenes, Total	ND	0.095	mg/Kg	1	3/28/2017 11:56:03 AM	30918
Surr: 1,2-Dichloroethane-d4	115	70-130	%Rec	1	3/28/2017 11:56:03 AM	30918
Surr: 4-Bromofluorobenzene	86.4	70-130	%Rec	1	3/28/2017 11:56:03 AM	30918
Surr: Dibromofluoromethane	117	70-130	%Rec	1	3/28/2017 11:56:03 AM	30918
Surr: Toluene-d8	95.1	70-130	%Rec	1	3/28/2017 11:56:03 AM	30918

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 10
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/30/2017

CLIENT: D & H Petroleum & Environmental Client Sample ID: Area #3

Project:Eagle Nest/Cimarron RiverCollection Date: 3/26/2017 4:30:00 PMLab ID:1703D14-003Matrix: SOILReceived Date: 3/27/2017 9:58:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analyst	: DJF
Gasoline Range Organics (GRO)	5.7	4.7	mg/Kg	1	3/28/2017 12:24:56 PM	30918
Surr: BFB	96.1	70-130	%Rec	1	3/28/2017 12:24:56 PM	30918
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS	3			Analyst	: TOM
Diesel Range Organics (DRO)	800	9.1	mg/Kg	1	3/28/2017 10:03:19 AM	30908
Motor Oil Range Organics (MRO)	ND	45	mg/Kg	1	3/28/2017 10:03:19 AM	30908
Surr: DNOP	93.5	70-130	%Rec	1	3/28/2017 10:03:19 AM	30908
EPA METHOD 8260B: VOLATILES S	SHORT LIST				Analyst	DJF
Benzene	ND	0.023	mg/Kg	1	3/28/2017 12:24:56 PM	30918
Toluene	ND	0.047	mg/Kg	1	3/28/2017 12:24:56 PM	30918
Ethylbenzene	ND	0.047	mg/Kg	1	3/28/2017 12:24:56 PM	30918
Xylenes, Total	ND	0.094	mg/Kg	1	3/28/2017 12:24:56 PM	30918
Surr: 1,2-Dichloroethane-d4	115	70-130	%Rec	1	3/28/2017 12:24:56 PM	30918
Surr: 4-Bromofluorobenzene	90.3	70-130	%Rec	1	3/28/2017 12:24:56 PM	30918
Surr: Dibromofluoromethane	117	70-130	%Rec	1	3/28/2017 12:24:56 PM	30918
Surr: Toluene-d8	97.5	70-130	%Rec	1	3/28/2017 12:24:56 PM	30918

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

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 3 of 10
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/30/2017

CLIENT: D & H Petroleum & Environmental Client Sample ID: Area #4-1

 Project:
 Eagle Nest/Cimarron River
 Collection Date: 3/26/2017 5:11:00 PM

 Lab ID:
 1703D14-004
 Matrix: SOIL
 Received Date: 3/27/2017 9:58:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analyst	: DJF
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	3/28/2017 12:53:58 PM	30918
Surr: BFB	91.7	70-130	%Rec	1	3/28/2017 12:53:58 PM	30918
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS	3			Analyst	: TOM
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	3/28/2017 10:27:34 AM	30908
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	3/28/2017 10:27:34 AM	30908
Surr: DNOP	96.9	70-130	%Rec	1	3/28/2017 10:27:34 AM	30908
EPA METHOD 8260B: VOLATILES S	SHORT LIST				Analyst	DJF
Benzene	ND	0.024	mg/Kg	1	3/28/2017 12:53:58 PM	30918
Toluene	ND	0.048	mg/Kg	1	3/28/2017 12:53:58 PM	30918
Ethylbenzene	ND	0.048	mg/Kg	1	3/28/2017 12:53:58 PM	30918
Xylenes, Total	ND	0.096	mg/Kg	1	3/28/2017 12:53:58 PM	30918
Surr: 1,2-Dichloroethane-d4	112	70-130	%Rec	1	3/28/2017 12:53:58 PM	30918
Surr: 4-Bromofluorobenzene	84.7	70-130	%Rec	1	3/28/2017 12:53:58 PM	30918
Surr: Dibromofluoromethane	115	70-130	%Rec	1	3/28/2017 12:53:58 PM	30918
Surr: Toluene-d8	95.7	70-130	%Rec	1	3/28/2017 12:53:58 PM	30918

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

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 4 of 10
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/30/2017

CLIENT: D & H Petroleum & Environmental Client Sample ID: Area #4-2

 Project:
 Eagle Nest/Cimarron River
 Collection Date: 3/26/2017 5:17:00 PM

 Lab ID:
 1703D14-005
 Matrix: SOIL
 Received Date: 3/27/2017 9:58:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analyst	: DJF
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	3/28/2017 1:23:05 PM	30918
Surr: BFB	94.7	70-130	%Rec	1	3/28/2017 1:23:05 PM	30918
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS	3			Analyst	: TOM
Diesel Range Organics (DRO)	550	9.9	mg/Kg	1	3/28/2017 10:51:56 AM	30908
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	3/28/2017 10:51:56 AM	30908
Surr: DNOP	97.3	70-130	%Rec	1	3/28/2017 10:51:56 AM	30908
EPA METHOD 8260B: VOLATILES S	SHORT LIST				Analyst	: DJF
Benzene	ND	0.023	mg/Kg	1	3/28/2017 1:23:05 PM	30918
Toluene	ND	0.046	mg/Kg	1	3/28/2017 1:23:05 PM	30918
Ethylbenzene	ND	0.046	mg/Kg	1	3/28/2017 1:23:05 PM	30918
Xylenes, Total	ND	0.092	mg/Kg	1	3/28/2017 1:23:05 PM	30918
Surr: 1,2-Dichloroethane-d4	110	70-130	%Rec	1	3/28/2017 1:23:05 PM	30918
Surr: 4-Bromofluorobenzene	89.8	70-130	%Rec	1	3/28/2017 1:23:05 PM	30918
Surr: Dibromofluoromethane	115	70-130	%Rec	1	3/28/2017 1:23:05 PM	30918
Surr: Toluene-d8	97.4	70-130	%Rec	1	3/28/2017 1:23:05 PM	30918

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

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- 8 % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 5 of 10
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/30/2017

CLIENT: D & H Petroleum & Environmental Client Sample ID: Area #5

 Project:
 Eagle Nest/Cimarron River
 Collection Date: 3/26/2017 6:37:00 PM

 Lab ID:
 1703D14-006
 Matrix: SOIL
 Received Date: 3/27/2017 9:58:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analyst	: DJF
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	3/28/2017 1:51:50 PM	30918
Surr: BFB	91.1	70-130	%Rec	1	3/28/2017 1:51:50 PM	30918
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS	3			Analyst	: TOM
Diesel Range Organics (DRO)	ND	9.1	mg/Kg	1	3/28/2017 11:16:11 AM	30908
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	3/28/2017 11:16:11 AM	30908
Surr: DNOP	94.8	70-130	%Rec	1	3/28/2017 11:16:11 AM	30908
EPA METHOD 8260B: VOLATILES S	SHORT LIST				Analyst	: DJF
Benzene	ND	0.024	mg/Kg	1	3/28/2017 1:51:50 PM	30918
Toluene	ND	0.047	mg/Kg	1	3/28/2017 1:51:50 PM	30918
Ethylbenzene	ND	0.047	mg/Kg	1	3/28/2017 1:51:50 PM	30918
Xylenes, Total	ND	0.095	mg/Kg	1	3/28/2017 1:51:50 PM	30918
Surr: 1,2-Dichloroethane-d4	115	70-130	%Rec	1	3/28/2017 1:51:50 PM	30918
Surr: 4-Bromofluorobenzene	86.7	70-130	%Rec	1	3/28/2017 1:51:50 PM	30918
Surr: Dibromofluoromethane	120	70-130	%Rec	1	3/28/2017 1:51:50 PM	30918
Surr: Toluene-d8	96.9	70-130	%Rec	1	3/28/2017 1:51:50 PM	30918

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 6 of 10
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#: **1703D14**

30-Mar-17

Client: D & H Petroleum & Environmental

Project: Eagle Nest/Cimarron River

Sample ID LCS-30908 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: LCSS Batch ID: 30908 RunNo: 41689 SeqNo: 1307961 Prep Date: 3/27/2017 Analysis Date: 3/28/2017 Units: mg/Kg Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Diesel Range Organics (DRO) 10 42 50.00 0 84.1 63.8 116 Surr: DNOP 5.000 83.0 4.2 70 130

Sample ID MB-30908 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: PBS Batch ID: 30908 RunNo: 41689 Prep Date: 3/27/2017 Analysis Date: 3/28/2017 SeqNo: 1307962 Units: mg/Kg **RPDLimit** Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD Qual

Diesel Range Organics (DRO)	ND	10			
Motor Oil Range Organics (MRO)	ND	50			
Surr: DNOP	9.1	10.00	90.9	70	130

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1703D14**

30-Mar-17

Client: D & H Petroleum & Environmental

Project: Eagle Nest/Cimarron River

Sample ID mb-30945	SampTy	/pe: ME	BLK	Test	tCode: El	PA Method	8260B: Volat	tiles Short	List	
Client ID: PBS	Batch	ID: 30	945	R	lunNo: 4	1730				
Prep Date: 3/28/2017	Analysis Da	ate: 3/	29/2017	S	SeqNo: 1	310415	Units: %Re	С		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.54		0.5000		108	70	130			
Surr: 4-Bromofluorobenzene	0.43		0.5000		85.2	70	130			
Surr: Dibromofluoromethane	0.55		0.5000		110	70	130			
Surr: Toluene-d8	0.49		0.5000		97.2	70	130			
Sample ID Ics-30945	SampTy	/pe: LC	s	Test	Code: El	PA Method	8260B: Volat	tiles Short	List	
Client ID: LCSS	Batch	ID: 30	945	R	tunNo: 4	1730				
Prep Date: 3/28/2017	Analysis Da	ate: 3/	29/2017	S	SeqNo: 1	310416	Units: %Re	С		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.57		0.5000		113	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		92.4	70	130			
Surr: Dibromofluoromethane	0.54		0.5000		109	70	130			
Surr: Toluene-d8	0.48		0.5000		95.1	70	130			
Sample ID mb-30918	SampTy	/pe: ME	BLK	Test	tCode: El	PA Method	8260B: Volat	tiles Short	List	
Client ID: PBS	Batch	ID: 30	918	R	tunNo: 4	1730				
Prep Date: 3/27/2017	Analysis Da	ate: 3/	29/2017	S	eqNo: 1	310430	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.55		0.5000		110	70	130			
Surr: 4-Bromofluorobenzene	0.43		0.5000		86.2	70	130			

Sample ID Ics-30918	SampT	ype: LC	s	TestCode: EPA Method 8260B: Volatiles Short List						
Client ID: LCSS	Batch	n ID: 30	918	RunNo: 41730						
Prep Date: 3/27/2017	Analysis D	oate: 3/	29/2017	S	SeqNo: 1	310431	Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.3	0.025	1.000	0	128	70	130			
Toluene	1.1	0.050	1.000	0	105	70	130			
Surr: 1,2-Dichloroethane-d4	0.57		0.5000		115	70	130			
Surr: 4-Bromofluorobenzene	0.44		0.5000		88.8	70	130			
Surr: Dibromofluoromethane	0.56		0.5000		112	70	130			
Surr: Toluene-d8	0.47		0.5000		93.2	70	130			

0.5000

0.5000

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix

Surr: Dibromofluoromethane

Surr: Toluene-d8

H Holding times for preparation or analysis exceeded

0.57

0.47

- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range

114

94.7

70

70

130

130

- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
 W Sample container temperature is out of limit as specified

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1703D14**

30-Mar-17

Client: D & H Petroleum & Environmental

Project: Eagle Nest/Cimarron River

Sample ID 1703d14-001ams SampType: MS TestCode: EPA Method 8260B: Volatiles Short List Client ID: Area #1 Batch ID: 30918 RunNo: 41730 SeqNo: 1310432 Prep Date: 3/27/2017 Analysis Date: 3/29/2017 Units: mg/Kg Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual 1.3 0.025 0.9852 136 61.9 146 Benzene 0.9852 0.005394 115 70 Toluene 1.1 0.049 130 0.4926 70 Surr: 1,2-Dichloroethane-d4 0.56 113 130 Surr: 4-Bromofluorobenzene 0.42 0.4926 84.6 70 130 Surr: Dibromofluoromethane 0.55 0.4926 112 70 130 Surr: Toluene-d8 0.48 0.4926 98.4 70 130

Sample ID 1703d14-001amsd	I SampT	SampType: MSD TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: Area #1	Batch	Batch ID: 30918 RunNo: 41730								
Prep Date: 3/27/2017	Analysis D	ate: 3/	29/2017	\$	SeqNo: 1	310433	Units: mg/h	K g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.3	0.024	0.9634	0	137	61.9	146	1.79	20	
Toluene	1.1	0.048	0.9634	0.005394	115	70	130	2.36	20	
Surr: 1,2-Dichloroethane-d4	0.52		0.4817		108	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.43		0.4817		88.9	70	130	0	0	
Surr: Dibromofluoromethane	0.52		0.4817		108	70	130	0	0	
Surr: Toluene-d8	0.46		0.4817		94.5	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

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Hall Environmental Analysis Laboratory, Inc.

WO#: 1703D14

30-Mar-17

Client: D & H Petroleum & Environmental

Project: Eagle Nest/Cimarron River

Sample ID mb-30918 SampType: MBLK TestCode: EPA Method 8015D Mod: Gasoline Range

Client ID: PBS Batch ID: 30918 RunNo: 41730

Prep Date: 3/27/2017 Analysis Date: 3/29/2017 SeqNo: 1310441 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 460 500.0 91.8 70 130

Sample ID Ics-30918 SampType: LCS TestCode: EPA Method 8015D Mod: Gasoline Range

Client ID: LCSS Batch ID: 30918 RunNo: 41730

Analysis Date: 3/29/2017 SeqNo: 1310442 Prep Date: 3/27/2017 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual

Gasoline Range Organics (GRO) 26 5.0 25.00 0 103 70 130 470 500.0 93.7 70 Surr: BFB 130

Sample ID 1703d14-002ams SampType: MS TestCode: EPA Method 8015D Mod: Gasoline Range

Client ID: Area #2 Batch ID: 30918 RunNo: 41730

Prep Date: 3/27/2017 Analysis Date: 3/29/2017 SeqNo: 1310450 Units: mg/Kg

%RPD %REC Analyte Result PQL SPK value SPK Ref Val LowLimit HighLimit **RPDLimit** Qual

Gasoline Range Organics (GRO) 27 5.0 24.90 108 63.2 128 Surr: BFB 480 97.1 70 498.0 130

SampType: MSD TestCode: EPA Method 8015D Mod: Gasoline Range Sample ID 1703d14-002amsd

Client ID: Batch ID: 30918 Area #2 RunNo: 41730

Analysis Date: 3/29/2017 Prep Date: 3/27/2017 SeqNo: 1310460 Units: mg/Kg

Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 30 4.9 24.63 120 63.2 128 9.25 20 Surr: BFB 460 492.6 94.3 70 130 0 0

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Η Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

% Recovery outside of range due to dilution or matrix

В Analyte detected in the associated Method Blank

Е Value above quantitation range

J Analyte detected below quantitation limits

Reporting Detection Limit

P Sample pH Not In Range

RL.

W Sample container temperature is out of limit as specified

Page 10 of 10



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

DH Petro ALBUQUERQU Work Order Number: 1703D14 Client Name: RcptNo: 1 03/27/17 Received by/date: an Il 3/27/2017 9:58:00 AM Logged By: Anne Thorne an In Completed By: 3/27/2017 11:15:48 AM Anne Thorne Reviewed By: A- 03/27//7 Chain of Custody Yes 🗹 No 🗆 Not Present 1. Custody seals intact on sample bottles? Yes 🗹 No 🗆 Not Present 2. Is Chain of Custody complete? 3. How was the sample delivered? Client Log In No 🗔 Yes 🗹 NA 🗀 4. Was an attempt made to cool the samples? No 🗌 NA 🗌 Were all samples received at a temperature of >0° C to 6.0°C Yes 🗸 Yes 🗸 No 🗌 Sample(s) in proper container(s)? Yes 🗹 No \square 7. Sufficient sample volume for indicated test(s)? Yes 🗸 Nο 8. Are samples (except VOA and ONG) properly preserved? No 🗸 NA 🗆 Yes 9. Was preservative added to bottles? No VOA Vials Yes 🗌 No 🗔 10.VOA vials have zero headspace? Yes No 🔽 11. Were any sample containers received broken? # of preserved bottles checked No 🗌 for pH: 12. Does paperwork match bottle labels? (<2 or >12 unless noted) (Note discrepancies on chain of custody) Adjusted? Yes 🗸 No 🗌 13. Are matrices correctly identified on Chain of Custody? 14. Is it clear what analyses were requested? Yes 🗸 No No 🗌 Checked by: Yes 🗹 15. Were all holding times able to be met? (If no, notify customer for authorization.) 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 1.9 Good Not Present

HALL ENVIRONMENTAL ANALYSIS LABORATORY www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109 Tel. 505-345-3975 Fax 505-345-4107 Analysis Request	BTEX + MTBE + TPH (Gas only) TPH 8015B (GRG DRO MRO) TPH (Method 418.1) EDB (Method 504.1) PAH's (8310 or 8270 SIMS) Anions (F,CI,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄) 8081 Pesticides \ 8082 PCB's 8260B (VOA) 8260B (VOA) 8270 (Semi-VOA) 8270 (Semi-VOA) 877 ESA Methal 8260				Time: Reinquished by: Received by: Time: Reinquished by: Received by: The serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.
Turn-Around Time: □ Standard ★ Rush Q4 Hurs Project Name: EASIe Nest / Cimarran River Project #:	Project Manager: Resulto Guillen Sampler: Fine ENG Sample Temperature: Container Type and # Type Project Manager: Festive Fine Fine Fine Fine Fine Fine Fine Fin	192		402 Jac 700 - 006	Received by Received by Date Time Received by Date Time Date Time Date Time
Chain-of-Custody Record Client: D&H Whited Fueling Solutions Mailing Address: 4400 Hanheim Ave N.E. Albuquerane, MM Phone #: \$33,342-2024	r Fax#: rgw ten adh - kwitch canged and backage: dard	3/26/17 3:50 Soil AreA#() Hisopu Soil Area#(2)	Soil Area #3 (9)	6:37pm Soil Aren #(9) d	Pate: Time: Refinquished by: Date: Time: Refinquished by: Refinduished by: Refinduished by: Refinduished by: Refinemental may be subcontained by: Refinemental may be subcontained by: Refine Submitted to Hall Environmental may be subcontained by: Refine Submitted to Hall Environmental may be subcontained.



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

March 31, 2017

Rosalio Guillen
D & H Petroleum & Environmental
PO Box 92407
Albuquerque, NM 87199

TEL: (505) 342-2024 FAX (505) 342-2109

RE: Eagle Nest / Cimarron River OrderNo.: 1703E06

Dear Rosalio Guillen:

Hall Environmental Analysis Laboratory received 2 sample(s) on 3/29/2017 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

andel

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order **1703E06**Date Reported: **3/31/2017**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: D & H Petroleum & Environmental

Client Sample ID: Area #3 Sample

Project: Eagle Nest /Cimarron River **Collection Date:** 3/28/2017 4:00:00 PM

Lab ID: 1703E06-003 **Matrix:** SOIL **Received Date:** 3/29/2017 8:13:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	E ORGANIC:	S			Analyst	: TOM
Diesel Range Organics (DRO)	220	9.9	mg/Kg	1	3/30/2017 10:20:20 AM	30959
Motor Oil Range Organics (MRO)	61	50	mg/Kg	1	3/30/2017 10:20:20 AM	30959
Surr: DNOP	117	70-130	%Rec	1	3/30/2017 10:20:20 AM	30959
EPA METHOD 8015D: GASOLINE RANG	SE .				Analyst	: NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	3/30/2017 10:55:15 AM	30956
Surr: BFB	75.4	54-150	%Rec	1	3/30/2017 10:55:15 AM	30956
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10	mg/Kg	1	3/30/2017 10:55:15 AM	30956
Benzene	ND	0.025	mg/Kg	1	3/30/2017 10:55:15 AM	30956
Toluene	ND	0.050	mg/Kg	1	3/30/2017 10:55:15 AM	30956
Ethylbenzene	ND	0.050	mg/Kg	1	3/30/2017 10:55:15 AM	30956
Xylenes, Total	ND	0.10	mg/Kg	1	3/30/2017 10:55:15 AM	30956
Surr: 4-Bromofluorobenzene	85.2	66.6-132	%Rec	1	3/30/2017 10:55:15 AM	30956

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

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 6
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Analytical Report

Lab Order **1703E06**Date Reported: **3/31/2017**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: D & H Petroleum & Environmental Client Sample ID: Area #4 Sample

 Project:
 Eagle Nest / Cimarron River
 Collection Date: 3/28/2017 4:20:00 PM

 Lab ID:
 1703E06-004
 Matrix: SOIL
 Received Date: 3/29/2017 8:13:00 AM

Analyses Result **PQL Qual Units DF** Date Analyzed Batch **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: TOM Diesel Range Organics (DRO) 3/30/2017 10:42:21 AM 30959 10 mg/Kg 1 Motor Oil Range Organics (MRO) ND 50 mg/Kg 3/30/2017 10:42:21 AM 30959 Surr: DNOP 113 70-130 %Rec 3/30/2017 10:42:21 AM 30959 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) 3/30/2017 11:21:35 AM 30956 ND 5.0 mg/Kg 1 3/30/2017 11:21:35 AM 30956 Surr: BFB 73.2 54-150 %Rec **EPA METHOD 8021B: VOLATILES** Analyst: NSB Methyl tert-butyl ether (MTBE) 3/30/2017 11:21:35 AM 30956 ND 0.10 mg/Kg 1 Benzene ND 0.025 mg/Kg 3/30/2017 11:21:35 AM 30956 1 Toluene ND 0.050 mg/Kg 3/30/2017 11:21:35 AM 30956 Ethylbenzene ND 0.050 mg/Kg 3/30/2017 11:21:35 AM 30956 Xylenes, Total ND 0.10 mg/Kg 3/30/2017 11:21:35 AM 30956 Surr: 4-Bromofluorobenzene 83.3 %Rec 3/30/2017 11:21:35 AM 30956 66.6-132

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

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 6
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#: 1703E06

31-Mar-17

Client: D & H Petroleum & Environmental

Project: Eagle Nest /Cimarron River

Sample ID LCS-30959	SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 30959	RunNo: 41755						
Prep Date: 3/29/2017	Analysis Date: 3/30/2017	SeqNo: 1310572 Units: mg/Kg						
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual						
Diesel Range Organics (DRO)	50 10 50.00	0 100 63.8 116						
Surr: DNOP	5.00 5.000	101 70 130						
Sample ID MB-30959	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: PBS	Batch ID: 30959	RunNo: 41755						
Prep Date: 3/29/2017	Analysis Date: 3/30/2017	SeqNo: 1310575 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	10 10.00	104 70 130						
Sample ID LCS-30969	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: LCSS	Batch ID: 30969	RunNo: 41755						
Prep Date: 3/29/2017	Analysis Date: 3/30/2017	SeqNo: 1311683 Units: %Rec						
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual						
Surr: DNOP	5.2 5.000	104 70 130						

Sample ID MB-30969	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID: PBS	Batch ID: 30969	RunNo: 41755					
Prep Date: 3/29/2017	Analysis Date: 3/30/2017	SeqNo: 1311684 Units: %Rec					
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual					
Surr: DNOP	10 10.00	101 70 130					

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix D
- Η Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits R
- % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- Reporting Detection Limit RL
- Sample container temperature is out of limit as specified

Page 3 of 6

Hall Environmental Analysis Laboratory, Inc.

WO#: **1703E06**

31-Mar-17

Client: D & H Petroleum & Environmental

Project: Eagle Nest /Cimarron River

Sample ID MB-30956 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS Batch ID: 30956 RunNo: 41768

Prep Date: 3/29/2017 Analysis Date: 3/30/2017 SeqNo: 1311406 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 780 1000 78.0 54 150

Sample ID LCS-30956 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Batch ID: 30956 RunNo: 41768

Prep Date: 3/29/2017 Analysis Date: 3/30/2017 SeqNo: 1311407 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

 Gasoline Range Organics (GRO)
 27
 5.0
 25.00
 0
 108
 76.4
 125

 Surr: BFB
 830
 1000
 83.2
 54
 150

Sample ID 1703E06-004AMS SampType: MS TestCode: EPA Method 8015D: Gasoline Range

Client ID: Area #4 Sample Batch ID: 30956 RunNo: 41768

Prep Date: 3/29/2017 Analysis Date: 3/30/2017 SeqNo: 1311408 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

 Gasoline Range Organics (GRO)
 28
 4.6
 23.15
 0
 123
 61.3
 150

 Surr: BFB
 930
 925.9
 100
 54
 150

Sample ID 1703E06-004AMSD SampType: MSD TestCode: EPA Method 8015D: Gasoline Range

Client ID: Area #4 Sample Batch ID: 30956 RunNo: 41768

Prep Date: 3/29/2017 Analysis Date: 3/30/2017 SeqNo: 1311409 Units: mg/Kg

Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 29 4.7 23.58 0 123 61.3 150 2.00 20 Surr: BFB 920 943.4 98.0 54 150 0 0

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Page 4 of 6

Hall Environmental Analysis Laboratory, Inc.

WO#: **1703E06**

31-Mar-17

Client: D & H Petroleum & Environmental

Project: Eagle Nest /Cimarron River

Sample ID MB-30956	SampType: MBLK TestCode: EPA Method 8021B: Volatiles										
Client ID: PBS	Batch	n ID: 30	956	F	RunNo: 4	1768					
Prep Date: 3/29/2017	Analysis D	ate: 3/	30/2017	8	SeqNo: 1	311441	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Methyl tert-butyl ether (MTBE)	ND	0.10									
Benzene	ND	0.025									
Toluene	ND	0.050									
Ethylbenzene	ND	0.050									
Xylenes, Total	ND	0.10									
Surr: 4-Bromofluorobenzene	0.88		1.000		87.7	66.6	132				

Sample ID LCS-30956	Samp1	SampType: LCS TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batcl	h ID: 30 9	956	F	RunNo: 4	1768				
Prep Date: 3/29/2017	Analysis D	Date: 3/	30/2017	8	SeqNo: 1	311442	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.86	0.10	1.000	0	86.3	66.5	120			
Benzene	0.99	0.025	1.000	0	99.2	80	120			
Toluene	1.0	0.050	1.000	0	100	80	120			
Ethylbenzene	1.0	0.050	1.000	0	103	80	120			
Xylenes, Total	3.2	0.10	3.000	0	106	80	120			
Surr: 4-Bromofluorobenzene	0.84		1.000		84.4	66.6	132			

Sample ID 1703E06-003AMS	SampT	Type: MS TestCode: EPA Method 8021B: Volatiles										
Client ID: Area #3 Sample	Area #3 Sample Batch ID: 30956 RunNo: 41768											
Prep Date: 3/29/2017	Analysis D)ate: 3/	30/2017	S	SeqNo: 1	311454	Units: mg/K	(g				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Methyl tert-butyl ether (MTBE)	0.86	0.095	0.9524	0	89.9	42.5	143					
Benzene	0.99	0.024	0.9524	0	103	61.5	138					
Toluene	1.0	0.048	0.9524	0.005900	106	71.4	127					
Ethylbenzene	1.0	0.048	0.9524	0	109	70.9	132					
Xylenes, Total	3.2	0.095	2.857	0	113	76.2	123					
Surr: 4-Bromofluorobenzene	0.85		0.9524		89.0	66.6	132					

Sample ID 1703E06-003AMSD SampType: MSD TestCode: EPA Method 8021B: Volatiles										
Client ID: Area #3 Sample Batch ID: 30956 RunNo: 41768										
Prep Date: 3/29/2017	Analysis D	ate: 3 /	30/2017	8	SeqNo: 1	311455	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.83	0.096	0.9569	0	86.3	42.5	143	3.60	20	
Benzene	0.97	0.024	0.9569	0	102	61.5	138	1.25	20	
Toluene	1.0	0.048	0.9569	0.005900	104	71.4	127	1.51	20	
Ethylbenzene	1.0	0.048	0.9569	0	107	70.9	132	1.89	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1703E06**

31-Mar-17

Client: D & H Petroleum & Environmental

Project: Eagle Nest /Cimarron River

Sample ID 1703E06-003AMSD SampType: MSD TestCode: EPA Method 8021B: Volatiles

Client ID: Area #3 Sample Batch ID: 30956 RunNo: 41768

Prep Date: 3/29/2017 Analysis Date: 3/30/2017 SeqNo: 1311455 Units: mg/Kg

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Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Xylenes, Total	3.2	0.096	2.871	0	111	76.2	123	0.982	20	
Surr: 4-Bromofluorobenzene	0.89		0.9569		93.2	66.6	132	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Page 6 of 6



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: DH Petro ALBUQUERQU Work Order Number	er: 1703E	06		RcptNo:	1
Received by/date: (3 29 17					
Logged By: Lindsay Mangin 3/29/2017 8:13:00 Al	М		July Allyso		
Completed By: Lindsay Mangin 3/29/2017 8:22:44 Al	М		July Hypo		
Reviewed By: SKE 03/29/17			000		
Chain of Custody					J
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?	Clien	<u>t</u>			
<u>Log In</u>					
4. Was an attempt made to cool the samples?	Yes	V	No 🗆	NA \square	
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes	✓	No 🗌	NA \square	
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	LJ	No 🗹	# of preserved	
12. Does paperwork match bottle labels?	Yes		No 🗆	bottles checked for pH:	
(Note discrepancies on chain of custody)	100			(<2 0	r >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes		No 🗌	Adjusted? _	
14. Is it clear what analyses were requested?		~	No 🗆	01 - 1 - 1 - 1	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes	✓	No □	Checked by:	i
On soid the efficient (If south a black)					
Special Handling (if applicable)					
16. Was client notified of all discrepancies with this order?	Yes		No 🗆	NA 🗹	7
Person Notified: Date	'	_	_		1
By Whom: Via:	eMa	il [_]	Phone 🗌 Fax	In Person	
Regarding: Client Instructions:	TATATAYAYYAY AT ABA AAYAAY.	************	(318 2011 119 119 119 119 119 119 119 119 119		
17. Additional remarks;					<u>i</u>
18. Cooler Information					
Cooler No Temp °C Condition Seal Intact Seal No	Seal Da	te	Signed By		
1 2.1 Good Not Present					

O The	hain	-of-C	Chain-of-Custody Record	Turn-Around Time:	Time:	24 House		 	AL	EN	VIE	2	HALL ENVIRONMENTAL	TAL	
Se	Solutions	4 WA	Solutions	☐ Standard Project Name:	Engle Nest	Jest / Cimarran			AN.	NALYSIS LABO	IS L	AB	ANALYSIS LABORATORY	TOR	-
Mailing	Addres	24400	Mailing Address: 4400 Anathern ave, WE.			Fiver	4904	Hawki	ns NE	- Albu	nbuent	e. NN	4901 Hawkins NE - Albuquerque, NM 87109		
Mh	Who were we	ane	NM	Project#:			Tel	Tel, 505-345-3975	5-397	Fax	× 505-	505-345-4107	107		
Phone	# CALL	illen (a	Phone # ramillen @ dh-united.com							Ana	is Req	Request			
cavac	email or Fax#	rguille	email or Faxit: navillen @ dhr united .com	Project Mana	Manager Rosalio Guillen	o Guillen	(Vino a	TONIN	(5		- 6				
☐ Standard	dard		☐ Level 4 (Full Validation)				(Cas	ars	SWIS	-					
Accreditation III NELAP	itation AP	□ Other	or .	Sampler On los:	Z Yes	oN C	HdI -						()		(N)
□ EDD (Type)	(Type)			Sample Temberature:	perature: 7		38	_		siei	- Y.Y		(OA)		o Y)
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO.	BTEX + MT	aaroa H9T odiaM) H9T	EDB (Wetho	RCRA 8 Me	O,4) anoinA 8081 Pestic	8260B (VO	irne2) 0728		Air Bubbles
Topage	323 8	1:5	Aire a # @ Sommy	402 Jay	Fee	100-		ÿ	_						
tiful	3 49. 50	1:05	Arch 46 Sample	402 Jar	Her	-002	х ×	,							
£1/87/	13 4 cope	Soil	W X	yor Jar	201	500-	×								
428/17 4.20pm	4.20pm	201/	Aren # (92 Sample	yor Jak	Ice	h00-	×								
									+						
Date:	8:30x	Reingu	shed by: Well	Received by:	₹ (38/2)	29 17 0x13 Date Time	Remarks:	Stev	5	Canal	Avec 152	3	1	18 13/2sm	Chi

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 desay notated on the analytical report.



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

April 04, 2017

Rosalio Guillen

D & H Petroleum & Environmental
PO Box 92407

Albuquerque, NM 87199

TEL: (505) 342-2024 FAX (505) 342-2109

RE: Eagle Nest OrderNo.: 1703F45

Dear Rosalio Guillen:

Hall Environmental Analysis Laboratory received 1 sample(s) on 3/31/2017 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

andel

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order **1703F45**Date Reported: **4/4/2017**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: D & H Petroleum & Environmental Client Sample ID: Area #3

 Project:
 Eagle Nest
 Collection Date: 3/30/2017 3:30:00 PM

 Lab ID:
 1703F45-001
 Matrix: SOIL
 Received Date: 3/31/2017 9:30:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	E ORGANIC:	S			Analyst	: TOM
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	3/31/2017 3:12:25 PM	31008
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	3/31/2017 3:12:25 PM	31008
Surr: DNOP	114	70-130	%Rec	1	3/31/2017 3:12:25 PM	31008
EPA METHOD 8015D: GASOLINE RANG	E				Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	4/3/2017 11:30:38 AM	31013
Surr: BFB	72.9	54-150	%Rec	1	4/3/2017 11:30:38 AM	31013
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Methyl tert-butyl ether (MTBE)	ND	0.095	mg/Kg	1	4/3/2017 11:30:38 AM	31013
Benzene	ND	0.024	mg/Kg	1	4/3/2017 11:30:38 AM	31013
Toluene	ND	0.048	mg/Kg	1	4/3/2017 11:30:38 AM	31013
Ethylbenzene	ND	0.048	mg/Kg	1	4/3/2017 11:30:38 AM	31013
Xylenes, Total	ND	0.095	mg/Kg	1	4/3/2017 11:30:38 AM	31013
Surr: 4-Bromofluorobenzene	83.4	66.6-132	%Rec	1	4/3/2017 11:30:38 AM	31013

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded

% Recovery outside of range due to dilution or matrix

- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 4
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#: 1703F45

04-Apr-17

Client: D & H Petroleum & Environmental

Project: Eagle Nest

Sample ID LCS-31008 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics LCSS Client ID: Batch ID: 31008 RunNo: 41755 Prep Date: 3/31/2017 Analysis Date: 3/31/2017 SeqNo: 1312226 Units: mg/Kg Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Diesel Range Organics (DRO) 10 50 50.00 0 99.7 63.8 116 Surr: DNOP 5.000 98.7 4.9 70 130

Sample ID MB-31008 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: PBS Batch ID: 31008 RunNo: 41755 Prep Date: 3/31/2017 Analysis Date: 3/31/2017 SeqNo: 1312227 Units: mg/Kg Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Diesel Range Organics (DRO) ND 10 ND 50 Motor Oil Range Organics (MRO) Surr: DNOP 11 10.00 106 70 130

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

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Page 2 of 4

Hall Environmental Analysis Laboratory, Inc.

WO#: 1703F45

04-Apr-17

Client: D & H Petroleum & Environmental

Project: Eagle Nest

Sample ID MB-31013 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS Batch ID: 31013 RunNo: 41843

Prep Date: 3/31/2017 Analysis Date: 4/3/2017 SeqNo: 1313891 Units: mg/Kg

Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual

Gasoline Range Organics (GRO) ND 5.0

1000 79.1 Surr: BFB 790 54 150

Sample ID LCS-31013 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Batch ID: 31013 RunNo: 41843

Analysis Date: 4/3/2017 SeqNo: 1313892 Prep Date: 3/31/2017 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual

Gasoline Range Organics (GRO) 5.0 25.00 0 107 76.4 125 820 1000 82.5 54 150 Surr: BFB

Sample ID 1703F45-001AMS SampType: MS TestCode: EPA Method 8015D: Gasoline Range

Client ID: Area #3 Batch ID: 31013 RunNo: 41843

Prep Date: 3/31/2017 Analysis Date: 4/3/2017 SeqNo: 1313893 Units: mg/Kg

%RPD **RPDLimit** Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit Qual Gasoline Range Organics (GRO) 21 4.8 24.18 85.5 61.3 150

Surr: BFB 840 967.1 87.1 54 150

SampType: MSD TestCode: EPA Method 8015D: Gasoline Range Sample ID 1703F45-001AMSD

Client ID: Batch ID: 31013 Area #3 RunNo: 41843

Analysis Date: 4/3/2017 Prep Date: 3/31/2017 SeqNo: 1313894 Units: mg/Kg

Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 25 4.8 23.90 0 103 61.3 150 17.6 20 Surr: BFB 850 956.0 88.8 54 150 0 0

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Η Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

% Recovery outside of range due to dilution or matrix

В Analyte detected in the associated Method Blank

Е Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

Reporting Detection Limit RL.

W Sample container temperature is out of limit as specified

Page 3 of 4

Hall Environmental Analysis Laboratory, Inc.

WO#: 1703F45

04-Apr-17

Client: D & H Petroleum & Environmental

Project: Eagle Nest

Sample ID MB-31013 SampType: MBLK TestCode: EPA Method 8021B: Volatiles Client ID: PBS Batch ID: 31013 RunNo: 41843 Analysis Date: 4/3/2017 Prep Date: 3/31/2017 SeqNo: 1313925 Units: mg/Kg Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Methyl tert-butyl ether (MTBE) 0.10 ND ND 0.025 Benzene Toluene ND 0.050 0.050 Ethylbenzene ND Xylenes, Total ND 0.10 Surr: 4-Bromofluorobenzene 0.91 1.000 91.0 66.6 132

Sample ID LCS-31013	Samp1	ype: LC	S	Tes	TestCode: EPA Method 8021B: Volatiles					
Client ID: LCSS	Batcl	h ID: 31 0	013	RunNo: 41843						
Prep Date: 3/31/2017	Analysis Date: 4/3/2017		S	SeqNo: 1	313926	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.88	0.10	1.000	0	88.3	66.5	120			
Benzene	1.0	0.025	1.000	0	104	80	120			
Toluene	1.1	0.050	1.000	0	105	80	120			
Ethylbenzene	1.1	0.050	1.000	0	105	80	120			
Xylenes, Total	3.2	0.10	3.000	0	108	80	120			
Surr: 4-Bromofluorobenzene	0.75		1.000		75.4	66.6	132			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Page 4 of 4



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3075 F4Y: 505-345-4107

Sample Log-in Check List

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Client Name:	DH Petro ALBUQUERQU	Work Order Number:	1703F45		RcptNo:	1
Received By:	Lindsay Mangin	3/31/2017 9:30:00 AM		July Hlygo		
Completed By:	Lindsay Mangin	3/31/2017 9:42:16 AM		James House		
Reviewed By:	A	03/31/1-)			
Chain of Cus	tody					
1. Custody sea	Is intact on sample bottles?		Yes 🗹	No 🗆	Not Present	
2. Is Chain of C	Custody complete?		Yes 🗹	No 🗀	Not Present	
3. How was the	e sample delivered?		Client			
<u>Log In</u>						
4. Was an atte	mpt made to cool the sample	es?	Yes 🗹	No \square	NA 🗆	
5. Were all sar	nples received at a temperati	ure of >0° C to 6.0°C	Yes 🗸	No 🗌	na 🗆	
6. Sample(s) is	n proper container(s)?		Yes 🗸	No 🗌		
7. Sufficient sa	mple volume for indicated tes	st(s)?	Yes 🗸	No 🗆		
8. Are samples	(except VOA and ONG) prop	perly preserved?	Yes 🗸	No 🗌		
9. Was preserv	rative added to bottles?		Yes 🗌	No 🗹	NA 🗌	
10.VOA vials ha	ave zero headspace?		Yes \square	No 🗆	No VOA Vials 🗹	
11. Were any sa	ample containers received bro	oken?	Yes	No 🗹	# of preserved	
	vork match bottle labels? pancies on chain of custody)		Yes 🗹	No 🗆	bottles checked for pH: (<2 or	>12 unless noted)
	correctly identified on Chain	of Custody?	Yes 🗹	No 🗆	Adjusted?	
14, Is it clear wh	at analyses were requested?		Yes 🗸	No 🗌		
	ding times able to be met? customer for authorization.)		Yes 🗹	No 🗆	Checked by:	
Special Hand	ling (if applicable)					
16. Was client n	otified of all discrepancies wit	th this order?	Yes 🗌	No 🗆	NA 🗹	
Persor	Notified:	Date	reniesie (filipie (filipie)), prieste (filipie)			
By Wh	om:	Via: [eMail	Phone 🗌 Fax	☐ In Person	
Regard	ling:					
Client	Instructions:		**************************************			
17. Additional re	emarks:					
18. <u>Cooler Info</u>	<u>rmation</u>					
Cooler No			Seal Date	Signed By		
1 	3.0 Good N	Not Present	- <u></u>	 		

HALL ENVIRONMENTAL ANALYSIS LABORATORY www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109 Tel. 505-345-3975 Fax 505-345-4107 Analysis Request	BTEX + MTBE + TMB's (8021) BTEX + MTBE + TPH (Gas only) TPH 80158 (GRO DORO LMRO) TPH 80158 (GRO DORO LMRO) FDB (Method 418.1) PAH's (8310 or 8270 SIMS) RCRA 8 Metals Anions (F,CI,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄) 8260B (VOA) 8250 (Semi-VOA) Air Bubbles (Y or N)	larks:
Turn-Around Time: ☐ Standard Kush Huvr Project Name: Engle Nes+ Project #: On Filt	Project Manager: [Oxliv] Sampler: Edgatv On Ice: Edgatv On Ice: Edgatv On Ice: Edgatv Type and # Type Type and # Type I TOZELIO	Seceived by: Received by: Bate Time Faceived by: Acceived by: Bate Time Faceived by: Date Time Faceived by: Acceived by:
Client: Set H winted Fueling Solutions Mailing Address: 4400 ANT ham ANE ALE. Albuquerane, MM. Phone #: 505-347-2024	evel 4 (Full Validation) ample Request ID	Time: Relinquished by: Time: Relinquished by: Time: Relinquished by:



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

April 13, 2017

Rosalio Guillen
D & H Petroleum & Environmental
PO Box 92407
Albuquerque, NM 87199

TEL: (505) 342-2024 FAX (505) 342-2109

RE: Eagle Nest/Cimarron River OrderNo.: 1704321

Dear Rosalio Guillen:

Hall Environmental Analysis Laboratory received 4 sample(s) on 4/8/2017 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

andel

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order **1704321**Date Reported: **4/13/2017**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: D & H Petroleum & Environmental Client Sample ID: S.D. Diversion

Project:Eagle Nest/Cimarron RiverCollection Date: 4/7/2017 11:30:00 AMLab ID:1704321-001Matrix: AQUEOUSReceived Date: 4/8/2017 8:50:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RA	ANGE				Analyst	: AG
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	4/11/2017 1:23:34 PM	A42040
Surr: BFB	95.2	70-130	%Rec	1	4/11/2017 1:23:34 PM	A42040
EPA METHOD 8015M/D: DIESEL RA	NGE				Analyst	: MAB
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	4/12/2017 10:53:30 AM	31196
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	4/12/2017 10:53:30 AM	31196
Surr: DNOP	112	72.4-157	%Rec	1	4/12/2017 10:53:30 AM	31196
EPA METHOD 8260: VOLATILES SH	ORT LIST				Analyst	: AG
Benzene	ND	1.0	μg/L	1	4/11/2017 1:23:34 PM	R42040
Toluene	ND	1.0	μg/L	1	4/11/2017 1:23:34 PM	R42040
Ethylbenzene	ND	1.0	μg/L	1	4/11/2017 1:23:34 PM	R42040
Xylenes, Total	ND	1.5	μg/L	1	4/11/2017 1:23:34 PM	R42040
Surr: 1,2-Dichloroethane-d4	83.0	70-130	%Rec	1	4/11/2017 1:23:34 PM	R42040
Surr: 4-Bromofluorobenzene	110	70-130	%Rec	1	4/11/2017 1:23:34 PM	R42040
Surr: Dibromofluoromethane	95.1	70-130	%Rec	1	4/11/2017 1:23:34 PM	R42040
Surr: Toluene-d8	100	70-130	%Rec	1	4/11/2017 1:23:34 PM	R42040

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

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 8
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1704321 Date Reported: 4/13/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: D & H Petroleum & Environmental **Client Sample ID:** Raton Diversion

Project: Eagle Nest/Cimarron River **Collection Date:** 4/7/2017 12:14:00 PM 1704321-002 Lab ID: Matrix: AQUEOUS **Received Date:** 4/8/2017 8:50:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE R	ANGE				Analyst	:: AG
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	4/11/2017 1:52:47 PM	A42040
Surr: BFB	96.3	70-130	%Rec	1	4/11/2017 1:52:47 PM	A42040
EPA METHOD 8015M/D: DIESEL RA	ANGE				Analyst	:: MAB
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	4/12/2017 11:21:52 AM	I 31196
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	4/12/2017 11:21:52 AM	I 31196
Surr: DNOP	114	72.4-157	%Rec	1	4/12/2017 11:21:52 AM	I 31196
EPA METHOD 8260: VOLATILES SI	HORT LIST				Analyst	: AG
Benzene	ND	1.0	μg/L	1	4/11/2017 1:52:47 PM	R42040
Toluene	ND	1.0	μg/L	1	4/11/2017 1:52:47 PM	R42040
Ethylbenzene	ND	1.0	μg/L	1	4/11/2017 1:52:47 PM	R42040
Xylenes, Total	ND	1.5	μg/L	1	4/11/2017 1:52:47 PM	R42040
Surr: 1,2-Dichloroethane-d4	85.4	70-130	%Rec	1	4/11/2017 1:52:47 PM	R42040
Surr: 4-Bromofluorobenzene	107	70-130	%Rec	1	4/11/2017 1:52:47 PM	R42040
Surr: Dibromofluoromethane	97.2	70-130	%Rec	1	4/11/2017 1:52:47 PM	R42040
Surr: Toluene-d8	99.0	70-130	%Rec	1	4/11/2017 1:52:47 PM	R42040

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

Value exceeds Maximum Contaminant Level. Е D Sample Diluted Due to Matrix

- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits Page 2 of 8 J
- P Sample pH Not In Range
- RLReporting Detection Limit
- Sample container temperature is out of limit as specified

Qualifiers:

Analytical Report

Lab Order **1704321**Date Reported: 4/13/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: D & H Petroleum & Environmental Client Sample ID: Below Culvert

Project: Eagle Nest/Cimarron River **Collection Date:** 4/7/2017 1:20:00 PM

Lab ID: 1704321-003 **Matrix:** AQUEOUS **Received Date:** 4/8/2017 8:50:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RA	ANGE				Analyst	:: AG
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	4/11/2017 2:21:56 PM	A42040
Surr: BFB	96.5	70-130	%Rec	1	4/11/2017 2:21:56 PM	A42040
EPA METHOD 8015M/D: DIESEL RA	NGE				Analyst	:: MAB
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	4/12/2017 11:49:55 AM	I 31196
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	4/12/2017 11:49:55 AM	I 31196
Surr: DNOP	114	72.4-157	%Rec	1	4/12/2017 11:49:55 AM	I 31196
EPA METHOD 8260: VOLATILES SH	ORT LIST				Analyst	: AG
Benzene	ND	1.0	μg/L	1	4/11/2017 2:21:56 PM	R42040
Toluene	ND	1.0	μg/L	1	4/11/2017 2:21:56 PM	R42040
Ethylbenzene	ND	1.0	μg/L	1	4/11/2017 2:21:56 PM	R42040
Xylenes, Total	ND	1.5	μg/L	1	4/11/2017 2:21:56 PM	R42040
Surr: 1,2-Dichloroethane-d4	86.9	70-130	%Rec	1	4/11/2017 2:21:56 PM	R42040
Surr: 4-Bromofluorobenzene	112	70-130	%Rec	1	4/11/2017 2:21:56 PM	R42040
Surr: Dibromofluoromethane	97.3	70-130	%Rec	1	4/11/2017 2:21:56 PM	R42040
Surr: Toluene-d8	99.9	70-130	%Rec	1	4/11/2017 2:21:56 PM	R42040

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 3 of 8
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Analytical Report

Lab Order **1704321**

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 4/13/2017

CLIENT: D & H Petroleum & Environmental

Project: Eagle Nest/Cimarron River

Lab ID: 1704321-004

Matrix: AQUEOUS

Client Sample ID: Below Beaver Dam

Collection Date: 4/7/2017 1:30:00 PM

Received Date: 4/8/2017 8:50:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE R	ANGE				Analys	st: AG
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	4/11/2017 12:25:16 PM	M A42040
Surr: BFB	100	70-130	%Rec	1	4/11/2017 12:25:16 PI	M A42040
EPA METHOD 8015M/D: DIESEL RA	NGE				Analys	t: MAB
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	4/12/2017 12:17:45 PM	И 31196
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	4/12/2017 12:17:45 PM	И 31196
Surr: DNOP	119	72.4-157	%Rec	1	4/12/2017 12:17:45 PI	M 31196
EPA METHOD 8260: VOLATILES SH	IORT LIST				Analys	st: AG
Benzene	ND	1.0	μg/L	1	4/11/2017 12:25:16 PM	M R42040
Toluene	ND	1.0	μg/L	1	4/11/2017 12:25:16 PM	M R42040
Ethylbenzene	ND	1.0	μg/L	1	4/11/2017 12:25:16 PM	M R42040
Xylenes, Total	ND	1.5	μg/L	1	4/11/2017 12:25:16 PI	M R42040
Surr: 1,2-Dichloroethane-d4	88.5	70-130	%Rec	1	4/11/2017 12:25:16 PI	M R42040
Surr: 4-Bromofluorobenzene	118	70-130	%Rec	1	4/11/2017 12:25:16 Pf	M R42040
Surr: Dibromofluoromethane	103	70-130	%Rec	1	4/11/2017 12:25:16 Pf	M R42040
Surr: Toluene-d8	96.9	70-130	%Rec	1	4/11/2017 12:25:16 PI	M R42040

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 4 of 8
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#: **1704321**

13-Apr-17

Client: D & H Petroleum & Environmental

Project: Eagle Nest/Cimarron River

Sample ID LCS-31196 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range LCSW Client ID: Batch ID: 31196 RunNo: 42044 Prep Date: 4/12/2017 Analysis Date: 4/12/2017 SeqNo: 1321150 Units: mg/L Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Diesel Range Organics (DRO) 5.4 1.0 5.000 0 109 82.8 146

 Surr: DNOP
 0.53
 0.5000
 105
 72.4
 157

 Sample ID MB-31196
 SampType: MBLK
 TestCode: EPA Method 8015M/D: Dies

TestCode: EPA Method 8015M/D: Diesel Range SampType: MBLK Client ID: PBW Batch ID: 31196 RunNo: 42044 Prep Date: 4/12/2017 Analysis Date: 4/12/2017 SeqNo: 1321151 Units: mg/L **RPDLimit** Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD Qual

Diesel Range Organics (DRO) ND 1.0

Motor Oil Range Organics (MRO) ND 5.0

Surr: DNOP 1.1 1.000 108 72.4 157

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 5 of 8

Hall Environmental Analysis Laboratory, Inc.

WO#: 1704321

13-Apr-17

D & H Petroleum & Environmental **Client:**

Project: Eagle Nest/Cimarron River

Sample ID rb	SampT	ype: ME	BLK	Tes	PA Method	l 8260: Volatiles Short List				
Client ID: PBW	Batch	Batch ID: R42040 RunNo: 42040								
Prep Date:	Analysis D	ate: 4/	11/2017	S	SeqNo: 1	320599	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.9	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		111	70	130			
Surr: Dibromofluoromethane	11		10.00		106	70	130			
Surr: Toluene-d8	9.8		10.00		97.6	70	130			
Sample ID 100ng Ics	SampT	ype: LC	s	Tes	TestCode: EPA Method 8260: Volatiles Short List				_ist	
Client ID: LCSW	Batch	n ID: R4	2040	F	RunNo: 4	2040				

Client ID: LCSW	Batch	n ID: R4	2040	F	RunNo: 4 2	2040				
Prep Date:	Analysis D	ate: 4 /	11/2017	8	SeqNo: 1	320600	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	94.0	70	130			
Toluene	18	1.0	20.00	0	90.3	70	130			
Surr: 1,2-Dichloroethane-d4	8.7		10.00		86.6	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		114	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	9.5		10.00		94.9	70	130			

Sample ID 1704321-002ams	SampT	SampType: MS TestCode: EPA Method 8260: Volatiles Short List								
Client ID: Raton Diversion	Batch	ID: R4	2040	RunNo: 42040						
Prep Date:	Analysis D	ate: 4/	11/2017	S	SeqNo: 1	320603	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.4	70	130			
Toluene	19	1.0	20.00	0	95.1	70	130			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		91.1	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		114	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID	1704321-002amsd	SampT	SampType: MSD TestCode: EPA Method 8260: Volatiles Short List								
Client ID:	Raton Diversion	Batch	ID: R4	2040	R	RunNo: 4	2040				
Prep Date:		Analysis D	ate: 4/	11/2017	S	SeqNo: 1	320604	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		19	1.0	20.00	0	92.6	70	130	4.03	20	
Toluene		18	1.0	20.00	0	90.5	70	130	5.01	20	

Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

Η Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RPD outside accepted recovery limits R

% Recovery outside of range due to dilution or matrix

В Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

Reporting Detection Limit RL

Sample container temperature is out of limit as specified

Page 6 of 8

Hall Environmental Analysis Laboratory, Inc.

WO#: **1704321**

13-Apr-17

Client: D & H Petroleum & Environmental

Project: Eagle Nest/Cimarron River

Sample ID 1704321-002amsd SampType: MSD TestCode: EPA Method 8260: Volatiles Short List

Client ID: Raton Diversion Batch ID: R42040 RunNo: 42040

Prep Date: Analysis Date: 4/11/2017 SeqNo: 1320604 Units: µg/L

Analyte Result SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Surr: 1,2-Dichloroethane-d4 9.0 10.00 89.8 70 130 0 0 10.00 109 70 0 Surr: 4-Bromofluorobenzene 11 130 0 Surr: Dibromofluoromethane 10.00 98.3 70 130 0 9.8 0 103 Surr: Toluene-d8 10 10.00 70 130 0 0

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 7 of 8

Hall Environmental Analysis Laboratory, Inc.

WO#: 1704321

13-Apr-17

Client: D & H Petroleum & Environmental

Project: Eagle Nest/Cimarron River

Sample ID rb

Sample ID 2.5 gro lcs SampType: LCS TestCode: EPA Method 8015D: Gasoline Range Client ID: LCSW Batch ID: A42040 RunNo: 42040 Prep Date: Analysis Date: 4/11/2017 SeqNo: 1320389 Units: mg/L Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 0.050 0.5000 0 0.54 108 75.9 120 Surr: BFB 10 10.00 102 70 130

SampType: MBLK Client ID: PBW Batch ID: A42040 RunNo: 42040 Analysis Date: 4/11/2017 Prep Date: SeqNo: 1320390 Units: mg/L Analyte SPK value SPK Ref Val Result **PQL** %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) ND 0.050 Surr: BFB 9.4 10.00 70 94.4 130

TestCode: EPA Method 8015D: Gasoline Range

Sample ID 1704321-001ams SampType: MS TestCode: EPA Method 8015D: Gasoline Range Client ID: S.D. Diversion Batch ID: A42040 RunNo: 42040 Prep Date: Analysis Date: 4/11/2017 SeqNo: 1320393 Units: mg/L %RPD Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit **RPDLimit** Qual Gasoline Range Organics (GRO) 0.53 0.050 0.5000 106 70 130 Surr: BFB 10 101 70 10.00 130

SampType: MSD TestCode: EPA Method 8015D: Gasoline Range Sample ID 1704321-001amsd Client ID: S.D. Diversion Batch ID: A42040 RunNo: 42040 Analysis Date: 4/11/2017 Prep Date: SeqNo: 1320394 Units: mg/L Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 0.49 0.050 0.5000 97.4 70 130 8.04 20 Surr: BFB 9.5 10.00 94.9 70 130 0 0

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Holding times for preparation or analysis exceeded Η

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

% Recovery outside of range due to dilution or matrix

В Analyte detected in the associated Method Blank

Е Value above quantitation range

J Analyte detected below quantitation limits

Page 8 of 8

P Sample pH Not In Range

Reporting Detection Limit RL.

W Sample container temperature is out of limit as specified



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Sample Log-In Check List

Website: www.hallenvironmental.com Client Name: DH Petro ALBUQUERQU Work Order Number: 1704321 RcptNo: 1 Received By: **Anne Thorne** 4/8/2007 8:50:00 AM anne Am Completed By: **Anne Thorne** 4/10/2017 8:18:08 AM Reviewed By: 04/10/17 Chain of Custody No 🗆 Yes 🗌 Not Present 🗹 1. Custody seals intact on sample bottles? No 🗌 Yes 🗸 Not Present 2. Is Chain of Custody complete? 3. How was the sample delivered? Client Log In No 🗌 NA 🗌 Yes 🗹 4. Was an attempt made to cool the samples? No 🗀 NA 🗌 5. Were all samples received at a temperature of >0° C to 6.0°C Yes 🗸 Yes 🗸 No \square 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? No 🗸 NA 🗆 9. Was preservative added to bottles? Yes Yes 🗸 No 🗌 10. VOA vials have zero headspace? No VOA Vials Yes 🗆 No 🗹 11. Were any sample containers received broken? # of preserved bottles checked Yes 🗸 No 🗌 for pH: 12. Does paperwork match bottle labels? (<2 or >12 unless noted) (Note discrepancies on chain of custody) Adjusted? Yes 🔽 No 🗌 13. Are matrices correctly identified on Chain of Custody? 14. Is it clear what analyses were requested? No No 🗌 Yes 🗸 Checked by: 15. Were all holding times able to be met? (If no, notify customer for authorization.) Special Handling (if applicable) 16. Was client notified of all discrepancies with this order? Yes No \square NA 🗹 Person Notified: Date By Whom: Via: eMail Phone Fax In Person Regarding: Client Instructions: 17. Additional remarks: 18. Cooler Information Cooler No | Temp ºC | Seal Intact | Seal No Condition Seal Date Signed By 1.4 Not Present Good

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ATTACHMENT 5

Photo Documentation of Monthly Monitoring



Photo 1 View of Area #1 taken on May 1, 2017 from the south bank facing north.



Photo 2 View of Area #2 taken on May 1, 2017 from the south bank facing northwest.



Photo 3 View of Area #3 taken on May 1, 2017 from the west bank facing east.



Photo 4 View of Area 4-1 taken on May 1, 2017 from the east bank facing west.

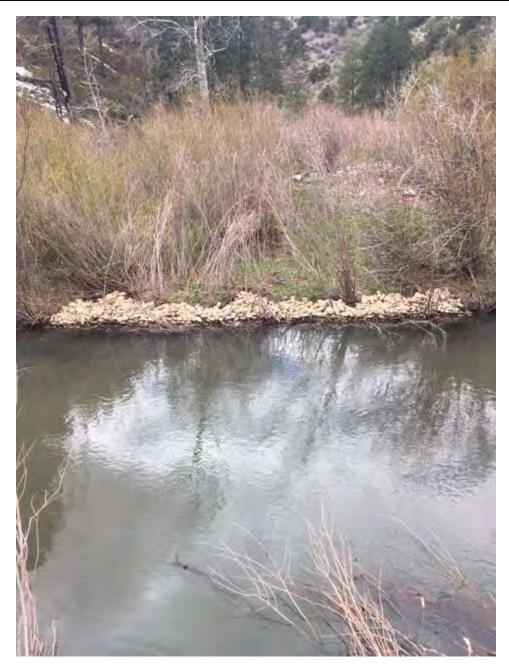


Photo 5 View of Area 4-2 taken on May 1, 2017 from the west bank facing east.



Photo 6 View of Area #5 taken on May 1, 2017 from the west bank facing towards the south.



Photo 1 View of Area #1 taken on June 1, 2017 from the south bank facing north.

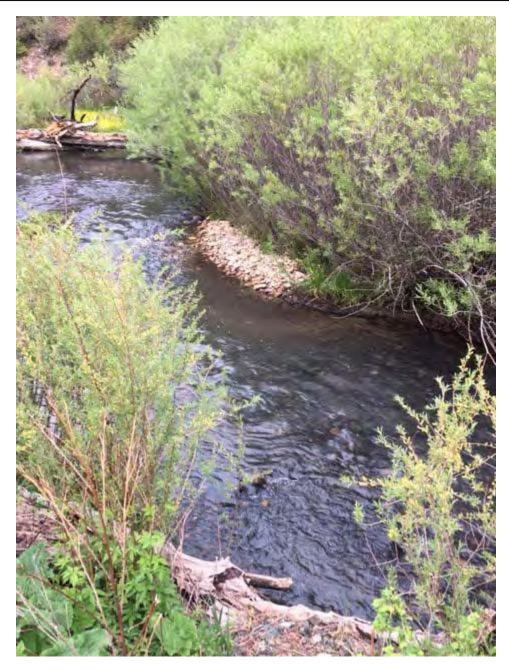


Photo 2 View of Area #2 taken on June 1, 2017 from the south bank facing northwest.



Photo 3 View of Area #3 taken on June 1, 2017 from the west bank facing east.



Photo 4 View of Area 4-1 taken on June 1, 2017 from the east bank facing west.



Photo 5 View of Area 4-2 taken on June 1, 2017 from the west bank facing east.



Photo 6 View of Area #5 taken on June 1, 2017 from the west bank facing towards the south.

ATTACHMENT 6

Copy of Revegetation Plan



May 3, 2017

Ms. Deanna L. Cummings Senior Regulatory Project Manager Regulatory Program U.S. Army Corps of Engineers Albuquerque District 4101 Jefferson Plaza NE Albuquerque, NM 87109

Re: SPA-2016-00411 Cimarron River, Ute, Park, Colfax County, NM

Dear Ms. Cummings:

On behalf of Fronk Oil Company, please find a plan to reseed and/or transplant native species at areas disturbed by the remedial activities at the Cimarron River Spill in Cimarron Canyon State Park, New Mexico.

Thank you,

Rosalio Guillen, P.G. Project Manager

Enclosures

Revegetation Plan Cimarron River, Ute, Park, Colfax County, NM SPA-2016-00411

A. Site Description

On December 27, 2016, a Fronk Oil tanker truck transporting unleaded gasoline and diesel fuel was involved in an accident near mile marker 290 on Highway 64, approximately 5 miles east of Eagle Nest, New Mexico. The accident caused a release of approximately 1100 gallons of diesel fuel (from the saddle tanks) and unleaded gasoline to the Cimarron River. Subsequent to the spill, D&H has performed spill response actions including removal of fuel, installation of sorbent booms, pads, and soil and surface water sampling and removal contaminated soils along the bank of the Cimarron River in five distinct areas.

This document provides a plan to address the impacts of disturbance to native vegetation in areas that were remediated and in particular to Area #4 (See Attachment A). The proposed revegetation plan is to provide a strategy to restore the disturbed project area east of Area #4 to pre-project grade and to revegetate this area with the purpose of minimizing soil erosion. According to the USDA Soil Conservation Service the underlying soils of the disturbed area are part of the Ustochrepts-Rock outcrop complex. Typical profile depth of the soils consists of: 0 to 10 inches: cobbly loam; 10 to 30 inches: very gravelly sandy clay loam and 30 to 34 inches: bedrock.

B. Selection of Plant Material

The selection of plant is the willow "whips", which can be collected on site in the immediate adjacent area. Willows are proposed to be sourced from live willow shrubs on-site, ensuring that no more than 10 percent of the total stems from a given area are removed.

C. Site Preparation

The areas will prepared by removing plants that have been cut and perform a lightly irrigating and mulching the site to improve plant establishment. Soil loosening will be performed to depths of 1 to 3 inches but not turned or inverted with hand tools (such as a pick mattock or Pulaski) or other means of hand tools.

D. Installation of Plant Materials

Cuttings of whips are proposed to be taken at ground level to maximize the length of willow whips. To improve survival of willow plantings, willows WILL be collected AND planted while dormant. Collection and planting of willows will NOT be done if there is any evidence of spring flowering, bud break, or leaf out to ensure willow planting viability and survival. The guidance document in Attachment B will be used to guide in the planting of the willows.

If willow planting is not possible within the next week, and/or if there is ANY evidence of spring bud break, it is suggested applying sterile triticale (Triticum aestivum X Secale cereale 'Quickguard') seeds for initial erosion control. The application rate of 15 lbs/acre is recommended using manually operated cyclone-type bucket spreaders. After broadcasting the seeds, raking the seed will be performed into the soil to minimize bird depredation.

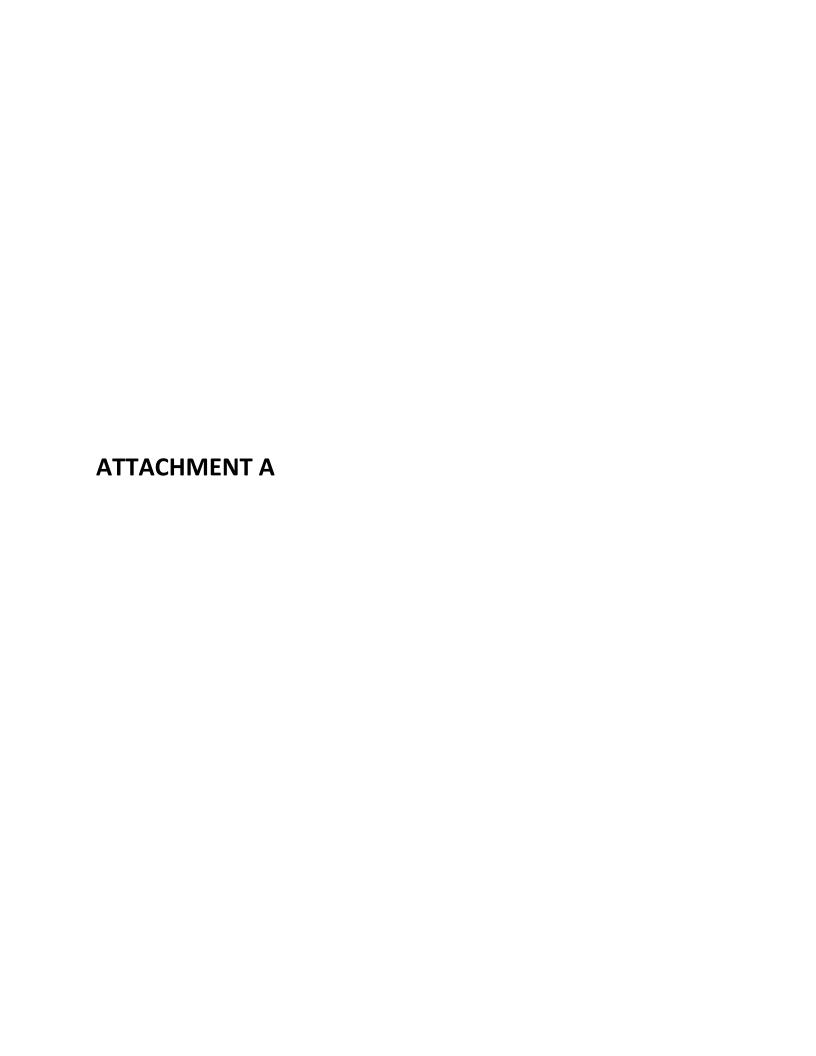
E. Revegetation Maintenance/Monitoring

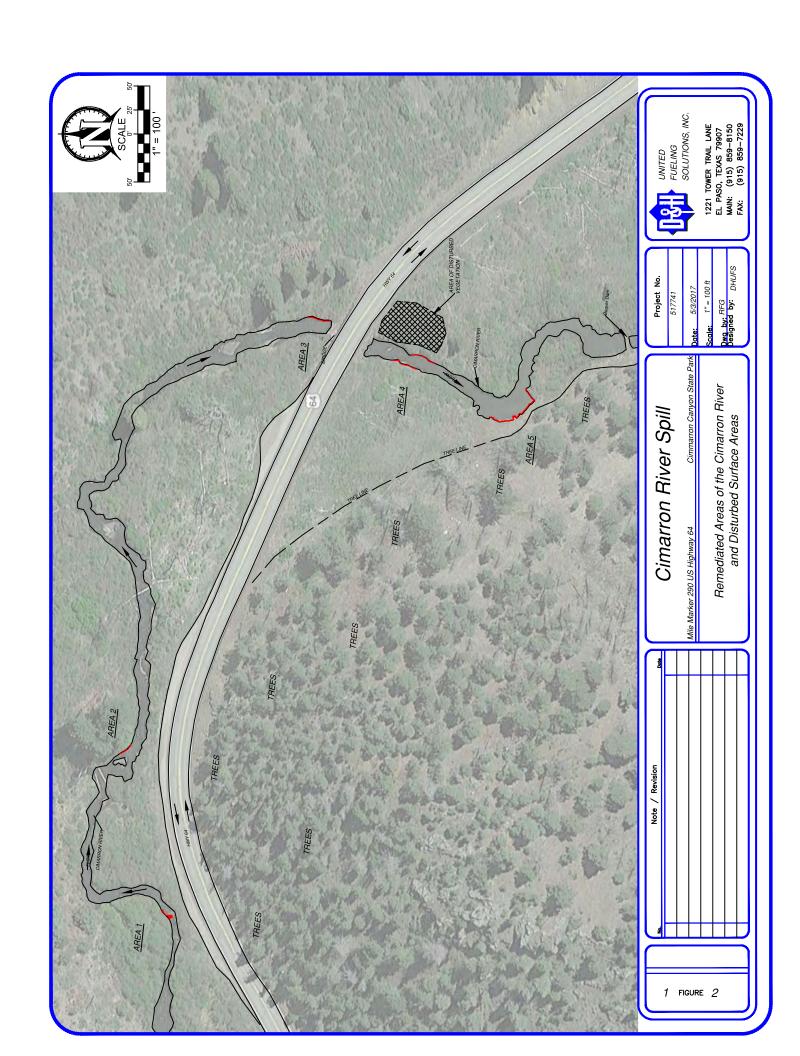
Post-seeding and transplanting monitoring will be yearly and will continue for a period of no less than 2 years or until the defined success criteria are achieved. Initial monitoring during the establishment period will coincide with maintenance activities. Adjustments to trash removal and exotic plant control will be guided by the monitoring observations.

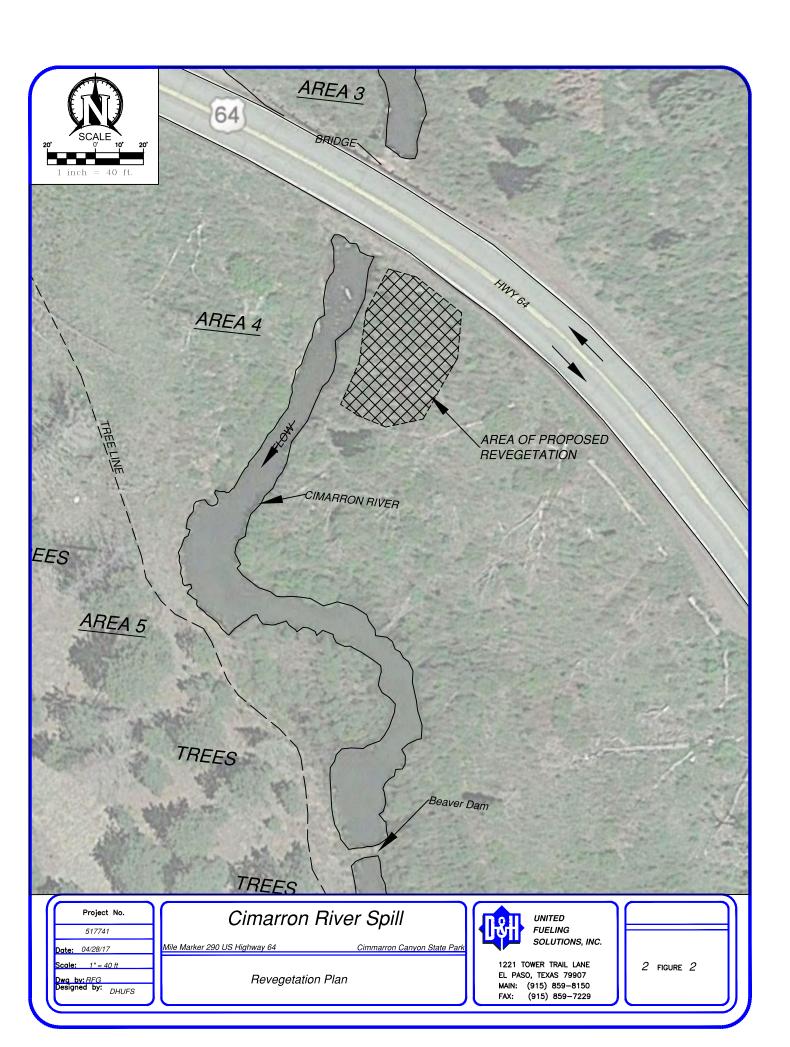
Maintenance will be proposed for vegetation establishment, such as replacing dead plant material, and removing trash and debris. No irrigation is needed for the area since the high altitude provides sufficient moisture. Photographic record of the area during monitoring visits shall be performed.

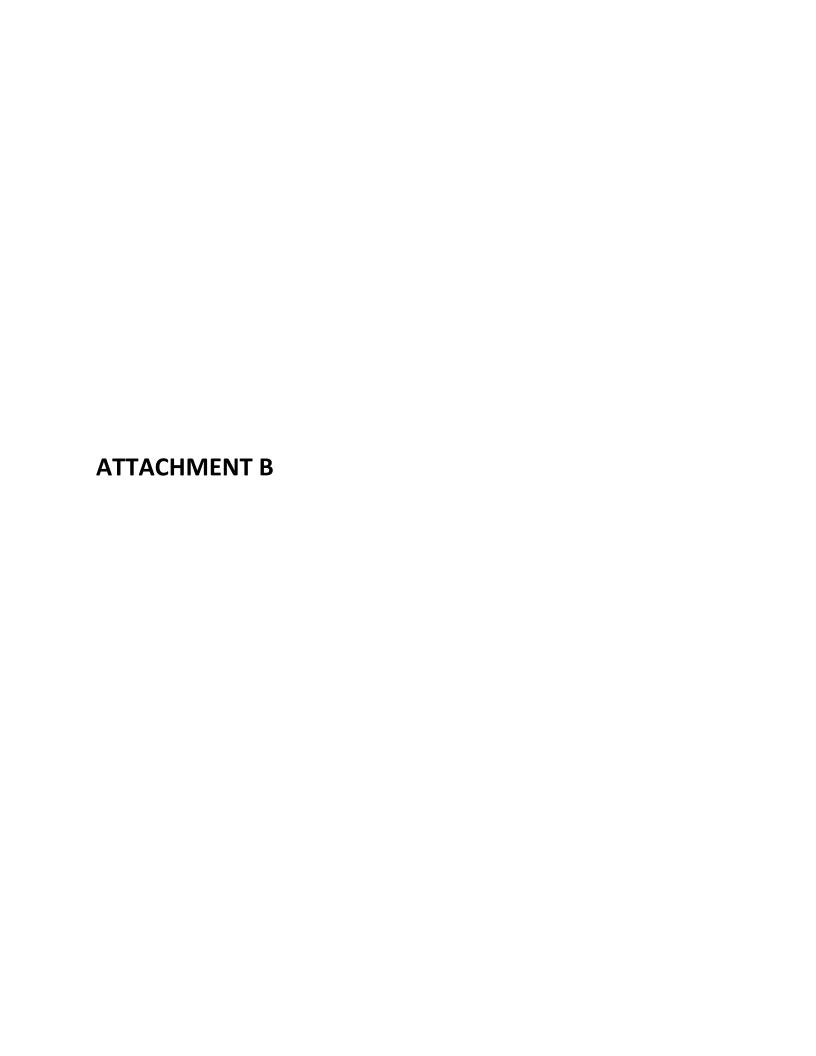
F. Performance Standard

The performance standard shall be based on percent species richness and cover and density relative to adjacent areas of the project site. This plan shall ensure the disturbed area east of Area #4 is dominated by native vegetation and has undisturbed soils. The performance standard shall be met when cover and density of non-native plant species within the temporarily disturbed area will be no greater than in comparable surrounding areas that have not been disturbed by the remedial activities. By December 31 of each year a monitoring report shall be submitted to show if the performance standard has been met. Copies shall be submitted to NMDGF and NMED.









The Los Lunas Plant Materials Center (LLPMC) has developed revegetation techniques involving "deep planting" for disturbed riparian areas; these methodologies allow rapid root extension into the capillary fringe which is the permanent soil moisture above the water table. These deep-planting techniques allow the establishment of obligate riparian species (phreatophytes) with little or no need for follow-up irrigation.

Dormant pole cuttings of riparian overstory trees, typically cottonwood and willow stems 12 to 16 feet long, and longstem container stock of understory shrubs have been successfully established by deep planting them into the capillary fringe. The capillary fringe provides moist but unsaturated soil for root proliferation.

Streambanks prone to erosion during high-flow events can be stabilized by establishing a dense, woody cover to armor the banks, and prolific root systems to stabilize the streambank soils.

In lower elevations of the southwestern United States, the following native species frequently serve this role:

- coyote (narrowleaf) willow (Salix exigua)
- seepwillow baccharis (mule's fat) (Baccharis salici-
- desert false indigo (Amorpha fruticosa)
- occasionally arrowweed (Pluchea sericea)

At higher elevations, a variety of shrub willows (Salix sp.), redosier dogwood (Comus sericea), thinleaf alder (Alnus incana), and occasionally water birch (Betula occidentalis) serve the same purpose.

Some of these species will root readily from dormant cuttings including most willows and dogwood. Baccharis and false indigo will root from cutings but not consistently. The remaining species do not root from cuttings or their rooting propensity is

unknown. Those species that root easily are good candidates for planting as dormant cuttings for streambank stabilization.

The key to successful establishment is to place the base of the dormant cutting into the water table to assure the cutting is well hydrated while it forms adventitious roots that will extend into the capillary fringe. Another crucial factor is that the dormant cutting is planted deep into the alluvium to resist extraction by flood

Attributes of shrub willow and dogwood whip cutings include small base diameter (less than 1-inch caliper) and relatively short length (5 to 8 feet) compared with dormant pole cuttings. This is the natural growth form of young vigorous shoots (whips) which are the most likely to root readily.

The LLPMC's typical method of augering the holes to can penetrate several inches of frozen surface soil that is trial and error to auger deep holes if care is taken to not eter to accept most whip cuttings. A portable generator rupters. A team of two persons, one doing the augering plant dormant whip cuttings is to use a spline drive rota long. The 30-inch-plus deep holes have a sufficient diamextension cords outfitted with ground fault circuit interexert excessive lateral force on the bit which may result spring planting window for dormant cuttings. If cobbles are present in moderate numbers, it is possible through cuttings per day provided the soil is cohesive sand with much longer to auger because it is often difficult to pull frequently encountered during the late-winter or earlyry hammer with a 1-inch diameter bit that is 36 inches and one planting the cuttings, can plant up to 800 whip only small amounts gravel or cobble. Heavy soils take can provide sufficient power for several hammers via the bit from the wet clay sediments. Rotary hammers in breakage. If the soil contains dense cobble or has a riprap cover, using a long, sharpened rod (referred to as a stinger) attached to a backhoe or excavator arm often can be successful in driving holes of sufficient depth. For fine-





Before and after: Coyote willows "deep planted" along drainage ditch

textured soils, you can use a jet of high pressure water to excavate a hole; this method requires a pump and an easily accessible water source because appreciable water is consumed to jet each hole.

Another successful method for planting whip cuttings is to use a large diameter auger to reach the water table and place several whips in each hole to assure survival. This produces a clump of plants rather than an individual stem.

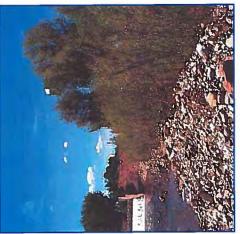
The following factors may influence the success of a planting:

- Hydration—As with all dormant cuttings, it is important to keep the whips hydrated by storing newly harvested cuttings in water and minimizing desiccation during transport.
- Beaver damage—Willow whip cuttings can be damaged by beaver predation. Even though the entire aboveground portion of a newly planted whip might be consumed, the belowground stem often has sufficient reserves to sprout and form new shoots.
- Groundwater fluctuation—In situations where the groundwater depth fluctuates significantly, planting along the streambank at different elevations above the water level may be advisable as long as the base of the cutting is in contact with the capillary fringe or preferably in the saurated zone. Those cuttings close to the water's edge and inserted into very shallow groundwater may endure if the water level recedes drastically. However, if water levels stay elevated for long periods of time, the higher cuttings may be the only ones to survive.

The density of a planting depends on these factors:

- The urgency of stabilizing the streambank
- The spreading potential of the species planted
- The cost per unit area





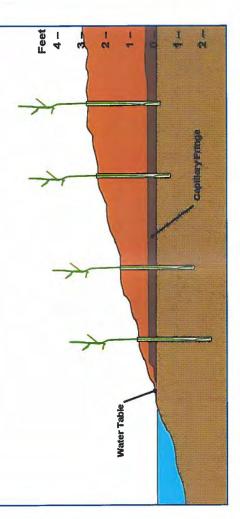
Before and after: Streambank stabilization is achieved by "deep planting" coyote willow whips; planting holes were augered in the rocky soil by using rotary hammers.

Coyote willow can form dense stands from root sprouts. Because low density plantings can fill in rapidly, coyote willow can be very useful for streambank stabilization on lower elevation sites. On higher elevation sites, most willow species are multi-stem shrubs which can resprout from root crowns, but they do not root sprout to form thickets. For this reason, higher density plantings of these willow species may be necessary to rapidly stabilize eroding streambanks in montane environments. One montane species, red osier dogwood, does propagate by stem layering which allows rapid spread on streambanks.

If additional information is needed regarding planting dormant whip cuttings for streambank revegetation, contact the Los Lunas Plant Materials Center at 505-865-4684.



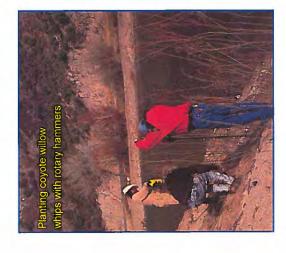
Dormant Whip Cuttings – Holes Augered with Rotary Hammer Plant Location Dependent on Anticipated Water Table Fluctuation



Deep Planting

March 2007

The Ground Water Connection



Guidelines for Planting Dormant Whip Cuttings to Revegetate and Stabilize Streambanks



The USDA is an equal opportunity provider and employer

ATTACHMENT 7

Copies of Waste Manifests

SPECIAL WASTE SHIPMENT RECORD Rio Rancho Sanitary Landfill Valencia Regional Landfill Recycling Facility

	I I COO WE I LINE WATER CO.	
P.O. Box 15700 33rd St. & Northern Blvd. Rio Rancho, NM 87174 Rio Rancho, NM 87144	1600 W. Highway 6 Los Lunas, NM 87031	
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government regulations.		
I hereby certify that the above named material doe	es not contain free liquid as define	ed by 40CFR Part 258.28 and is
not a hazardous waste as defined by 40CFR 261 of	or any applicable state law.	
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Form Approved. OMB No. 2050-0039 Please print or type. (Form designed for use on elite (12-pitch) typewriter.) 4. Manifest Tracking Number 2. Page 1 of 3. Emergency Response Phone UNIFORM HAZARDOUS 1. Generator ID Number 016570628 **WASTE MANIFEST** 1-900-785-7225 5. Generator's Name and Mailing Address Generator's Site Address (if different than mailing address) Fronk Oll Company D & H Unked Fueling Solutions, LLC 14950 Hwy 23 / PO Box F 1221 Tower Trail Lane 79905 8 090 a Generalors Phone: El Paso, YX 70907 U.S. EPA ID Number Advenced Chemical Transport Inc. (CHP) MMR000021102 7. Transporter 2 Company Name U.S. EPA ID Number Advanced Chemical Transport, Inc. (CA) CARDOMO70540 8. Designated Facility Name and Site Address U.S. EPA ID Number Advenced Chemical Treatment 6133 Edith Blvd NE Albanquarqua, NM 87107 s Phone: Eyra san 1920 MMD(0)2206627 10. Containers 9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, 11. Total 12. Unit 9a. 13. Wasto Codes and Packing Group (if any)) Quantity Wt.Not. HM No. Туре E51 MARI UN3077, Environmentally Hazardous Substances, Solid, GENERATOR DA 800 n.o.s., (Absorbents with Diesel), 9, PGIII 14. Special Handling Instructions and Additional Information Document #: 0 151713 Ememency Hama: Advanced Chemical Transport ACTESTES: 4x55 = 68066 1) ERGHNR: GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. Leartify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true. Generalor's/Offeror's Printed/Typed Name Date leaving U.S. Transporter signature (for exports only): 17. Transporter Acknowledgment of Receipt of Materials Fransporter 1 Printed/Typed Name W. Avel Transporter 2 Printed/Typed Name 18. Discrepancy 18a. Discrepancy Indication Space **___**Туре Residue Partial Rejection Full Rejection U.S. EPA ID Number 18b. Alternate Facility (or Generator) 18c. Signature of Alternate Facility (or Generator) 20. Designated Facility Owner or Operator, Certification of receigt of hazardous materials covered by the manifest except as noted to them 18a Printed/Typed Name