

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company ELM RIDGE EXPLORATION CO LLC	Contact Amy Archuleta	
Address PO BOX 156 Bloomfield, NM 87412	Telephone No. 505-632-3476	
Facility Name CBU #4	Facility Type Oil Well	
Surface Owner BLM	Mineral Owner BLM	API No. 30-045-13282

LOCATION OF RELEASE

Unit Letter C	Section 6	Township 25N	Range 12W	Feet from the 660'	North/South Line NORTH	Feet from the 1980'	East/West Line WEST	County SAN JUAN
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Latitude 36.26587 Longitude -108.84351

NATURE OF RELEASE

Type of Release Oil/Water mixture Approx. 80% water 20%oil	Volume of Release 40 bbls	Volume Recovered 40 bbls
Source of Release Hole in the pipeline	Date and Hour of Occu 2-29-16	Date and Hour of Discovery 3-1-16 9AM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Cory Smith (NMOCD) Mike Flaniken (BLM)	
By Whom? TIM DUGGAN	Date and Hour 3-1-16 12:30 pm.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

N/A

OIL CONS. DIV DIST. 3

OCT 14 2016


Describe Cause of Problem and Remedial Action Taken.*

Sometime in the evening of 2-29-16 a small hole, approximately 1/4" in diameter, occurred in the 3" pipe line coming from the CBU #4 well. It was discovered around 9 AM on 3-1-16. The pumper immediately shut the valves off. NRE was sent to dig out the contaminated soil and a clamp was put over the hole.

Describe Area Affected and Cleanup Action Taken.*

Triple P then arrived at the location on 3-1-16 and removed all the standing fluid. On 3-2-16 NRE went to the location and removed all the contaminated soil and moved it to our CBU yard. It was temporarily put on a concrete slab in the yard and will be moved in the next 30 days to a landfarm. On 3-3-16 NRE went to location and replaced the damaged pipe. We will not backfill location until the soil is sampled and approved by the OCD. We moved a 100 yds contaminated soil from the CBU yard to the IEI landfarm on 4-5-16 and 4-6-16. We moved another 400 yds from the site to IEI from 4-6-16 to 8-8-16. We have tested the soil and it passed (see attached). We backfilled the hole on 9-22-16. This location is ready to be released.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:		OIL CONSERVATION DIVISION	
Printed Name: Amy Archuleta		Approved by Environmental Specialist: 	
Title: Sr. Regulatory Supervisor		Approval Date: 11/17/2016	Expiration Date:
E-mail Address: aarchuleta@elmridge.net		Conditions of Approval: NCS11608528209	Attached <input type="checkbox"/>
Date: 10-11-16	Phone: 505-632-3476		

* Attach Additional Sheets If Necessary

15



October 4, 2016

Project Number: 03056-0542

Ms. Nicole Alley
Elm Ridge Exploration
20 Road 5060
Bloomfield, NM 87413

Phone: (505) 320-6917

RE: CONFIRMATION SAMPLING DOCUMENTATION FOR THE CBU 4 SITE

Dear Ms. Alley:

Enclosed please find the *field notes* and *analytical results* for confirmation sampling activities performed at the CBU 4 site located in Section 6, Township 25 North, Range 12 West, San Juan County, New Mexico. Upon Envirotech personnel's arrival on August 9, 2016, a brief site assessment was conducted. The regulatory standards for the site were determined to be 1000 parts per million (ppm) total petroleum hydrocarbons (TPH) and 10 ppm benzene and 50 ppm total BTEX due to a horizontal distance to surface water between 200 and 1000 feet from the location, a depth to groundwater greater than 100 feet, and the well site not being located within a well head protection area, pursuant to New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills, and Releases.

Prior to Envirotech personnel's arrival on August 9, 2016, the area of the release had been excavated to extents of approximately 30 feet by 15 feet, varying in depth from 12 inches to 72 inches below ground surface. The excavated area was divided into four (4) different sections designated as *Area 1*, *Area 2*, *Area 3* and *Area 4*. Four (4) 5-point composite samples were collected from the excavation, one (1) from each section. The samples from *Area 1* and *Area 2* were collected from the bottom of the excavation. The samples collected from *Area 3* and *Area 4* were composed of two (2) aliquots from the walls and three (3) aliquots from the bottom of the excavation; see *Field Notes* for sample locations and excavation dimensions. All sampling activities were observed by NMOCD representative Mr. Cory Smith.

All four (4) samples were collected into individual laboratory-provided, four (4)-ounce glass jars, capped headspace free, and transported on ice, under chain of custody, to Envirotech's Analytical Laboratory to be analyzed for TPH using USEPA Method 8015D and for benzene and total BTEX using USEPA Method 8021B. All samples returned results below the regulatory standards for all constituents analyzed; see enclosed *Analytical Report*. Based on the analytical results, Envirotech, Inc. recommends *No Further Action* in regards to this incident.

We appreciate the opportunity to be of service. Should you have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully submitted,
ENVIROTECH, INC.



Garrett Allen
Environmental Field Technician
gallen@envirotech-inc.com

Enclosure(s): Field Notes
 Analytical Report

Cc: Client File Number 03056

Elunkidge

03056-0542

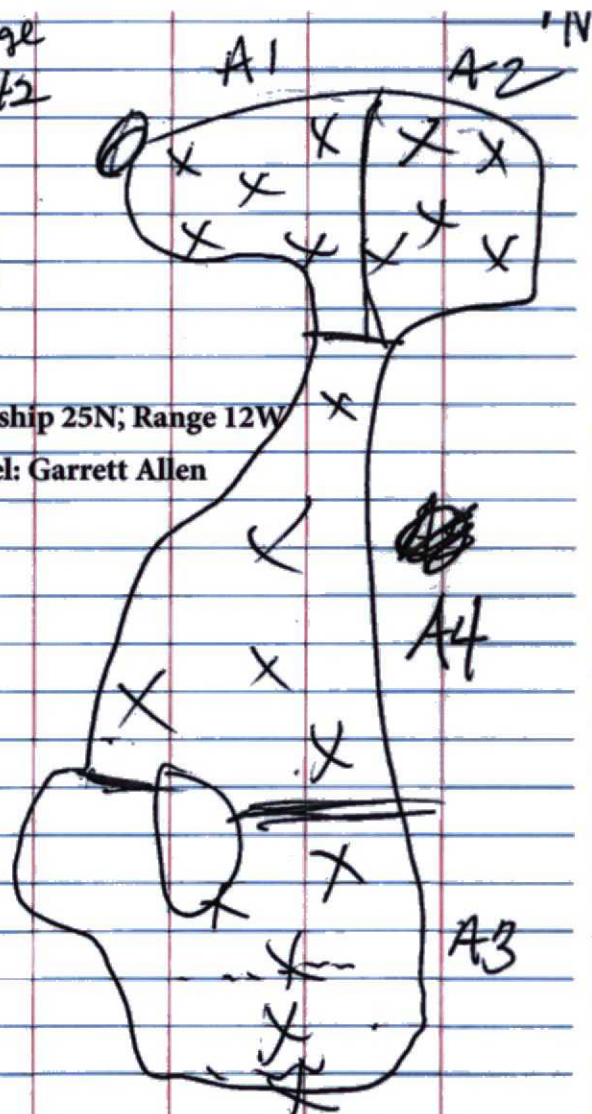
8/7/16

Soil
Sampling

CBU 4

Section 6, Township 25N; Range 12W

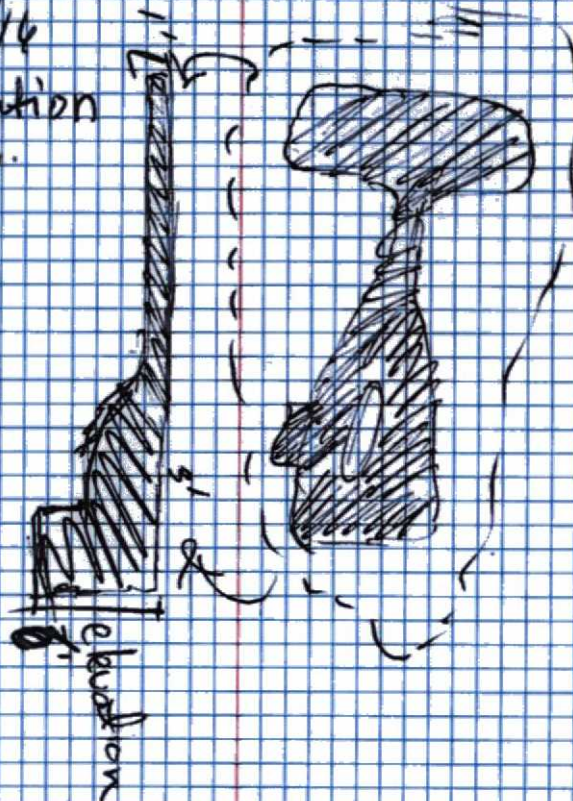
On-Site Personnel: Garrett Allen



03056-0542

8/7/16

Excavation
map.





Analytical Report

Report Summary

Client: Elm Ridge Resources

Chain Of Custody Number:

Samples Received: 8/9/2016 2:45:00PM

Job Number: 03056-0542

Work Order: P608032

Project Name/Location: CBU 4- Soil Sampling at
Well Site

Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Walter Hinchman'.

Date: 8/12/16

Walter Hinchman, Laboratory Director

A handwritten signature in black ink, appearing to read 'Tim Cain'.

Date: 8/12/16

Tim Cain, Quality Assurance Officer

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.



Elm Ridge Resources
PO Box 156
Bloomfield NM, 87413

Project Name: CBU 4- Soil Sampling at Well Site
Project Number: 03056-0542
Project Manager: Garrett Allen

Reported:
12-Aug-16 11:57

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Area 1	P608032-01A	Soil	08/09/16	08/09/16	Glass Jar, 4 oz.
Area 2	P608032-02A	Soil	08/09/16	08/09/16	Glass Jar, 4 oz.
Area 3	P608032-03A	Soil	08/09/16	08/09/16	Glass Jar, 4 oz.
Area 4	P608032-04A	Soil	08/09/16	08/09/16	Glass Jar, 4 oz.

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Ph (970) 259-0615 Fr (800) 362-1879

envirotech-inc.com
laboratory@envirotech-inc.com



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PO Box 156
Bloomfield NM, 87413

Project Name: CBU 4- Soil Sampling at Well Site
Project Number: 03056-0542
Project Manager: Garrett Allen

Reported:
12-Aug-16 11:57

Area 1
P608032-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1633012	08/11/16	08/11/16	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1633012	08/11/16	08/11/16	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1633012	08/11/16	08/11/16	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1633012	08/11/16	08/11/16	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1633012	08/11/16	08/11/16	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1633012	08/11/16	08/11/16	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1633012	08/11/16	08/11/16	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		100 %		50-150	1633012	08/11/16	08/11/16	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1633012	08/11/16	08/11/16	EPA 8015D	
Diesel Range Organics (C10-C28)	27.3	25.0	mg/kg	1	1633013	08/10/16	08/11/16	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		106 %		50-150	1633012	08/11/16	08/11/16	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1633013	08/10/16	08/11/16	EPA 8015D	
Surrogate: n-Nonane		85.2 %		50-200	1633013	08/10/16	08/11/16	EPA 8015D	

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Elm Ridge Resources
PO Box 156
Bloomfield NM, 87413

Project Name: CBU 4- Soil Sampling at Well Site
Project Number: 03056-0542
Project Manager: Garrett Allen

Reported:
12-Aug-16 11:57

Area 2
P608032-02 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1633012	08/11/16	08/11/16	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1633012	08/11/16	08/11/16	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1633012	08/11/16	08/11/16	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1633012	08/11/16	08/11/16	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1633012	08/11/16	08/11/16	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1633012	08/11/16	08/11/16	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1633012	08/11/16	08/11/16	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		100 %		50-150	1633012	08/11/16	08/11/16	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1633012	08/11/16	08/11/16	EPA 8015D	
Diesel Range Organics (C10-C28)	27.3	25.0	mg/kg	1	1633013	08/10/16	08/11/16	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		107 %		50-150	1633012	08/11/16	08/11/16	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1633013	08/10/16	08/11/16	EPA 8015D	
Surrogate: n-Nonane		88.3 %		50-200	1633013	08/10/16	08/11/16	EPA 8015D	

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Project Name: CBU 4- Soil Sampling at Well Site
Project Number: 03056-0542
Project Manager: Garrett Allen

Reported:
12-Aug-16 11:57

Area 3
P608032-03 (Solid)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Volatile Organics by EPA 8021										
Benzene	ND	0.10	mg/kg	1		1633012	08/11/16	08/11/16	EPA 8021B	
Toluene	ND	0.10	mg/kg	1		1633012	08/11/16	08/11/16	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1		1633012	08/11/16	08/11/16	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1		1633012	08/11/16	08/11/16	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1		1633012	08/11/16	08/11/16	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1		1633012	08/11/16	08/11/16	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1		1633012	08/11/16	08/11/16	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		101 %		50-150		1633012	08/11/16	08/11/16	EPA 8021B	
Nonhalogenated Organics by 8015										
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1		1633012	08/11/16	08/11/16	EPA 8015D	
Diesel Range Organics (C10-C28)	57.5	25.0	mg/kg	1		1633013	08/10/16	08/11/16	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		103 %		50-150		1633012	08/11/16	08/11/16	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1		1633013	08/10/16	08/11/16	EPA 8015D	
Surrogate: n-Nonane		88.5 %		50-200		1633013	08/10/16	08/11/16	EPA 8015D	

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Project Name: CBU 4- Soil Sampling at Well Site
Project Number: 03056-0542
Project Manager: Garrett Allen

Reported:
12-Aug-16 11:57

Area 4
P608032-04 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatiles Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1633012	08/11/16	08/11/16	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1633012	08/11/16	08/11/16	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1633012	08/11/16	08/11/16	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1633012	08/11/16	08/11/16	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1633012	08/11/16	08/11/16	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1633012	08/11/16	08/11/16	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1633012	08/11/16	08/11/16	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		101 %	50-150		1633012	08/11/16	08/11/16	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1633012	08/11/16	08/11/16	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1633013	08/10/16	08/11/16	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		103 %	50-150		1633012	08/11/16	08/11/16	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1633013	08/10/16	08/11/16	EPA 8015D	
Surrogate: n-Nonane		88.1 %	50-200		1633013	08/10/16	08/11/16	EPA 8015D	

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Elm Ridge Resources	Project Name:	CBU 4- Soil Sampling at Well Site	Reported:
PO Box 156	Project Number:	03056-0542	12-Aug-16 11:57
Bloomfield NM, 87413	Project Manager:	Garrett Allen	

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1633012 - Purge and Trap EPA 5030A

Blank (1633012-BLK1)

Prepared: 09-Aug-16 Analyzed: 10-Aug-16

Benzene	ND	0.10	mg/kg							
Toluene	ND	0.10	"							
Ethylbenzene	ND	0.10	"							
p,m-Xylene	ND	0.20	"							
o-Xylene	ND	0.10	"							
Total Xylenes	ND	0.10	"							
Total BTEX	ND	0.10	"							

Surrogate: 4-Bromochlorobenzene-PID	0.159		"	0.160		99.4	50-150			
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LCS (1633012-BS1)

Prepared: 09-Aug-16 Analyzed: 10-Aug-16

Benzene	10.4	0.10	mg/kg	10.0		104	70-130			
Toluene	10.4	0.10	"	10.0		104	70-130			
Ethylbenzene	10.2	0.10	"	10.0		102	70-130			
p,m-Xylene	20.4	0.20	"	20.0		102	70-130			
o-Xylene	9.99	0.10	"	10.0		99.9	70-130			

Surrogate: 4-Bromochlorobenzene-PID	0.161		"	0.160		101	50-150			
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Matrix Spike (1633012-MS1)

Source: P608016-01

Prepared: 09-Aug-16 Analyzed: 10-Aug-16

Benzene	10.5	0.10	mg/kg	10.0	ND	105	54.3-133			
Toluene	10.4	0.10	"	10.0	ND	104	61.4-130			
Ethylbenzene	10.2	0.10	"	10.0	ND	102	61.4-133			
p,m-Xylene	20.4	0.20	"	20.0	ND	102	63.3-131			
o-Xylene	10.0	0.10	"	10.0	ND	100	63.3-131			

Surrogate: 4-Bromochlorobenzene-PID	0.160		"	0.160		100	50-150			
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Matrix Spike Dup (1633012-MSD1)

Source: P608016-01

Prepared: 09-Aug-16 Analyzed: 10-Aug-16

Benzene	10.8	0.10	mg/kg	10.0	ND	108	54.3-133	3.04	20	
Toluene	10.7	0.10	"	10.0	ND	107	61.4-130	3.03	20	
Ethylbenzene	10.5	0.10	"	10.0	ND	106	61.4-133	3.08	20	
p,m-Xylene	21.0	0.20	"	20.0	ND	105	63.3-131	3.18	20	
o-Xylene	10.3	0.10	"	10.0	ND	103	63.3-131	2.93	20	

Surrogate: 4-Bromochlorobenzene-PID	0.159		"	0.160		99.3	50-150			
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Elm Ridge Resources
PO Box 156
Bloomfield NM, 87413

Project Name: CBU 4- Soil Sampling at Well Site
Project Number: 03056-0542
Project Manager: Garrett Allen

Reported:
12-Aug-16 11:57

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1633012 - Purge and Trap EPA 5030A										
Blank (1633012-BLK1)				Prepared: 09-Aug-16 Analyzed: 10-Aug-16						
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	0.170		"	0.160		106	50-150			
LCS (1633012-BS1)				Prepared: 09-Aug-16 Analyzed: 10-Aug-16						
Gasoline Range Organics (C6-C10)	134	20.0	mg/kg	106		127	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	0.169		"	0.160		105	50-150			
Matrix Spike (1633012-MS1)				Source: P608016-01		Prepared: 09-Aug-16 Analyzed: 10-Aug-16				
Gasoline Range Organics (C6-C10)	132	20.0	mg/kg	106	ND	125	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	0.167		"	0.160		104	50-150			
Matrix Spike Dup (1633012-MSD1)				Source: P608016-01		Prepared: 09-Aug-16 Analyzed: 10-Aug-16				
Gasoline Range Organics (C6-C10)	134	20.0	mg/kg	106	ND	127	70-130	1.20	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	0.163		"	0.160		102	50-150			

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Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1633013 - DRO Extraction EPA 3570										
Blank (1633013-BLK1)				Prepared & Analyzed: 10-Aug-16						
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40+)	ND	50.0	"							
Surrogate: n-Nonane	39.8		"	50.0		79.6	50-200			
LCS (1633013-BS1)				Prepared & Analyzed: 10-Aug-16						
Diesel Range Organics (C10-C28)	376	25.0	mg/kg	500		75.1	38-132			
Surrogate: n-Nonane	40.4		"	50.0		80.8	50-200			
Matrix Spike (1633013-MS1)				Source: P608016-01	Prepared & Analyzed: 10-Aug-16					
Diesel Range Organics (C10-C28)	435	25.0	mg/kg	500	63.8	74.3	38-132			
Surrogate: n-Nonane	40.9		"	50.0		81.7	50-200			
Matrix Spike Dup (1633013-MSD1)				Source: P608016-01	Prepared & Analyzed: 10-Aug-16					
Diesel Range Organics (C10-C28)	440	25.0	mg/kg	500	63.8	75.2	38-132	1.03	20	
Surrogate: n-Nonane	39.8		"	50.0		79.5	50-200			

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Elm Ridge Resources
PO Box 156
Bloomfield NM, 87413

Project Name: CBU 4- Soil Sampling at Well Site
Project Number: 03056-0542
Project Manager: Garrett Allen

Reported:
12-Aug-16 11:57

Notes and Definitions

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

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