



Bonnie Fed Com

REMEDIATION WORK PLAN

Release Date: 6/18/2015

UL/P Sec 35, T25 south, R26 east, Eddy county NM

API # 30-015-42956

June 29, 2015

Prepared by:

Environmental Department
Diversified Field Service, Inc.
206 West Snyder
Hobbs, NM 88240
Phone: (575)964-8394
Fax: (575)393-8396

Mike Bratcher
Environmental Specialist
NM Oil Conservation District-Division 2
Artesia, NM 88210

RE: Cimarex, Bonnie 35 Fed Com – Remediation Work Plan
UL/P, Section 35, T25S, R26E
API No. 30-015-42956

Mr. Bratcher,

Cimarex has retained Diversified Field Service, Inc. (DFSI) to address environmental issues for the site detailed herein.

The site is located southeast of Whites City NM, in Eddy County. The leak site resulted from a hammer union coming loose due to vibration. The impacted area is on the back side of the battery. Approximately 15 bbls of produced water was released, and 5 bbls recovered. A C-141 was submitted to the NMOCD on June 19th, 2015. The C-141 is attached.

Site Assessment and Delineation

On June 23rd, 2015 DFSI personnel delineated 3 sample points of the leak area. Each sample was tested for chloride levels as well as BTEX. The BTEX samples were performed using a Mini Rae Photoionization Detector (PID). The clean 1' samples were taken to a lab for confirmation. The results are attached.

DFSI has conducted a groundwater study of the area and has determined that according to the New Mexico Office of the State Engineer the average depth to groundwater for this area is 260+ foot below ground surface. According to the BLM this area is a high potential Cave/Karst area.

Conclusion

After careful review DFSI on behalf of Cimarex would like to propose the following:

Remove 1' bgs of the contaminated soil on the backside of the facility. Haul all contaminated material to an approved NM state disposal. Then backfill with caliche.

Following the approval of the above plan, DFSI will submit all proper closure documentation to the NMOCD and BLM in accordance to the State and Federal Guidelines set forth.

Please feel free to contact me with any questions concerning this remediation plan request.

Sincerely,



Michael Burton
Environmental Operations Director
Diversified Field Service, Inc.
206 West Snyder
Hobbs, NM 88240
Office: (575)964-8394
Mobile: (575)390-5454
Fax: (575)964-8396
Email: Mburton@diversifiedfsi.com

cc Jeff Robertson

Attachments: Initial Form C-141
Site/Sample Map
Sample Data
Photo Page



Bonnie Fed Com

PHOTO PAGE

6/23/2015





Site Diagram

Cimarex, Bonnie 35 Federal Com
UL/P, Sec. 35 T25S R26E
Eddy County, NM
Drafted By: Lance Crenshaw, 6-22-15

0 0.004 0.008 0.016 Miles

Legend

Misc_points

Types

- Electrical Box
- Power Pole
- Headers
- Injection
- Pumpjacks
- Tanks
- Valves
- Other
- Soil Bores
- sample_pts
- Source

Pipeline

Type

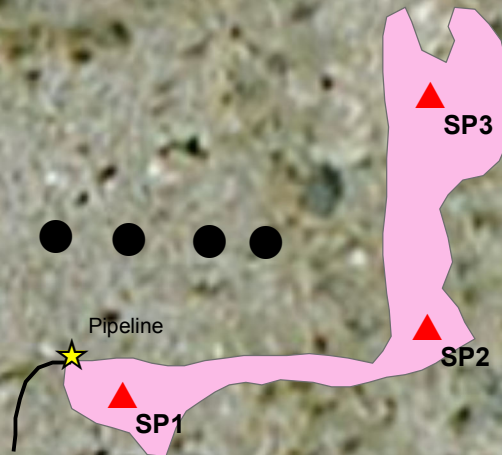
- Above Ground Line
- Buried Line

Spill

- <all other values>

Spill_Media

- Oil and Produced H2O
- Oil
- Other
- Produced Water



Spill Area:
2,842 sq. ft.

Lance Crenshaw
 GIS Technician

Soil Remediation and Ground Water Remediation
 Environmental Assessments
 Regulatory Compliance



Environmental

DFSI

Services

Source: Esri, DigitalGlobe, GeoEye, I-cubed, US
 swisstopo, and the GIS User Community

Office: 575-964-8394
 Fax: 575-964-8396

Cell: 575-441-2359
 Email: lcrenshaw@diversifiedfsi.com

Diversified Environmental Services

Company Name:	CIMAREX
Location Name:	BONNIE 35 FED COM

SP Date: 6/23/2015
Rel Date: 6/18/2015

[illegible]

	Lab Confirmation Sample
	Field Sampling
	Needs Delineation and confirmation samples



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
C 01013	C	ED		4	25	25S	26E			571505	3551456*	245		
C 02220	CUB	ED		3	1	2	26	25S	26E	569598	3552352*	35		
C 02221	CUB	ED		4	3	2	25	25S	26E	571412	3551961*	35		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 3

Basin/County Search:

County: Eddy

PLSS Search:

Section(s): 35, 34, 25, 26

Township: 25S

Range: 26E

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

June 26, 2015

CHRISTINE ALDERMAN

CIMAREX ENERGY CO.-MIDLAND

600 N. MARIENFELD ST, SUITE 600

MIDLAND, TX 79701

RE: BONNIE 35 FED COM

Enclosed are the results of analyses for samples received by the laboratory on 06/25/15 8:06.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

CIMAREX ENERGY CO.-MIDLAND
CHRISTINE ALDERMAN
600 N. MARIENFELD ST, SUITE 600
MIDLAND TX, 79701
Fax To: UNK-NOWN

Received:	06/25/2015	Sampling Date:	06/23/2015
Reported:	06/26/2015	Sampling Type:	Soil
Project Name:	BONNIE 35 FED COM	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP.1 @ 1' (H501646-01)

BTEX 8021B			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/26/2015	ND	1.96	98.1	2.00	3.40	
Toluene*	<0.050	0.050	06/26/2015	ND	2.00	100	2.00	1.61	
Ethylbenzene*	<0.050	0.050	06/26/2015	ND	2.03	102	2.00	3.17	
Total Xylenes*	<0.150	0.150	06/26/2015	ND	5.73	95.5	6.00	2.41	
Total BTEX	<0.300	0.300	06/26/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 61-154

Chloride, SM4500Cl-B			mg/kg		Analyzed By: CK				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	480	16.0	06/26/2015	ND	416	104	400	3.92	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/25/2015	ND	166	82.8	200	3.75	
DRO >C10-C28	45.0	10.0	06/25/2015	ND	194	97.2	200	2.72	

Surrogate: 1-Chlorooctane 110 % 47.2-157

Surrogate: 1-Chlorooctadecane 135 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

CIMAREX ENERGY CO.-MIDLAND
CHRISTINE ALDERMAN
600 N. MARIENFELD ST, SUITE 600
MIDLAND TX, 79701
Fax To: UNK-NOWN

Received: 06/25/2015
Reported: 06/26/2015
Project Name: BONNIE 35 FED COM
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 06/23/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP.2 @ 1' (H501646-02)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/26/2015	ND	1.96	98.1	2.00	3.40	
Toluene*	<0.050	0.050	06/26/2015	ND	2.00	100	2.00	1.61	
Ethylbenzene*	<0.050	0.050	06/26/2015	ND	2.03	102	2.00	3.17	
Total Xylenes*	<0.150	0.150	06/26/2015	ND	5.73	95.5	6.00	2.41	
Total BTEx	<0.300	0.300	06/26/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	06/26/2015	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/25/2015	ND	166	82.8	200	3.75	
DRO >C10-C28	<10.0	10.0	06/25/2015	ND	194	97.2	200	2.72	

Surrogate: 1-Chlorooctane 111 % 47.2-157

Surrogate: 1-Chlorooctadecane 132 % 52.1-176

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

CIMAREX ENERGY CO.-MIDLAND
CHRISTINE ALDERMAN
600 N. MARIENFELD ST, SUITE 600
MIDLAND TX, 79701
Fax To: UNK-NOWN

Received: 06/25/2015
Reported: 06/26/2015
Project Name: BONNIE 35 FED COM
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 06/23/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP.3 @ 1' (H501646-03)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/26/2015	ND	1.96	98.1	2.00	3.40	
Toluene*	<0.050	0.050	06/26/2015	ND	2.00	100	2.00	1.61	
Ethylbenzene*	<0.050	0.050	06/26/2015	ND	2.03	102	2.00	3.17	
Total Xylenes*	<0.150	0.150	06/26/2015	ND	5.73	95.5	6.00	2.41	
Total BTEx	<0.300	0.300	06/26/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	384	16.0	06/26/2015	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/25/2015	ND	166	82.8	200	3.75	
DRO >C10-C28	33.6	10.0	06/25/2015	ND	194	97.2	200	2.72	

Surrogate: 1-Chlorooctane 115 % 47.2-157

Surrogate: 1-Chlorooctadecane 140 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.	
Relinquished By: <i>Patricia Lopez</i>	Received By: <i>Judith Garcia</i>
Date: _____	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No
Time: _____	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No
	Add'l Phone #: _____
	Add'l Fax #: _____
REMARKS: _____	

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

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: Cimarex Energy	Contact: Gloria Garza
Address: 600 N Marienfeld Ste 600 Midland TX	Telephone No. 432-234-3204
Facility Name: Bonnie 35 Federal Com	Facility Type: Tank Battery

Surface Owner: Federal	Mineral Owner	API No.: 30-015-42956
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LOCATION OF RELEASE

Unit Letter P	Section 35	Township 25S	Range 26E	Feet from the 200	North/South Line FSL	Feet from the 970	East/West Line FEL	County Eddy
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Latitude: 32.0795801765834 Longitude: -104.258295270376

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 15 BBLS	Volume Recovered: 5 BBLS
Source of Release: Water transfer line	Date and Hour of Occurrence: 6/18/2015 7:30 PM	Date and Hour of Discovery: 6/18/2015 7:30 PM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher/Jeff Robertson	
By Whom? Gloria Garza	Date and Hour: 6/19/2015 9:26 AM	
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.*

Describe Cause of Problem and Remedial Action Taken.*

A hammer union on the water transfer line came loose due to vibration from pressure.

Describe Area Affected and Cleanup Action Taken.*

Diversified Environmental Services will remediate the impacted soil.

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: <i>Gloria Garza</i>		<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Gloria Garza		Approved by Environmental Specialist:	
Title: ESH Tech	Approval Date:	Expiration Date:	
E-mail Address: ggarza@cimarex.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 6/19/15	Phone: 432-234-3204		

* Attach Additional Sheets If Necessary