

RECEIVED

By JKeyes at 9:56 am, Dec 16, 2015

APPROVED

By JKeyes at 9:56 am, Dec 16, 2015



Cascade 29 Fed #1 release #2

CLOSURE REPORT

Release Date: 6/6/2015

UL/D Sec 29, T25 south, R33 east, Lea County NM

API # 30-025-40346

December 1, 2015

Prepared by:

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

Table of Contents

- 1 Introduction
- 2 Site Activities
- 3 Conclusion

APPENDICES

Appendix I – Initial C-141

Appendix II – Site Photographs

Appendix III – Site Diagram

Appendix IV – Laboratory Analyses/Field Data/Groundwater Search

Appendix V – Final C-141

Cascade 29 Fed #1

1 INTRODUCTION

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

The site is located south of highway 128 NM and east of County Road 1, in Lea County. The leak occurred on 3/29/2015. The leak site resulted from a rig moving truck striking the line, causing it to rupture. The impacted area is in pasture land and on the lease road. Approximately 300 bbls of produced water was released, and 90 bbls recovered. A C-141 was submitted to the NMOCD on June 26, 2015.

2 SITE ACTIVITIES

On June 9, 2015, DFSI personnel delineated 15 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 results are attached.

On November 18, 2015, DFSI personnel returned to the location to begin excavation. The initial work plan had to be altered due to the fact that an unknown company had raised and leveled the lease road, and widened the lease road, covering parts of the spill path.

The area in the pasture was excavated to 1' BGS. All contaminated soil was hauled to an approved NM state disposal. Native topsoil was brought in for backfill, and the area was seeded with 1.5 acres of BLM #2 seed.

Photos can be viewed in Appendix II.

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. Therefore, no eminent danger of groundwater impact or threat to life is anticipated.

3 CONCLUSION

DFSI, on behalf of Cimarex, respectfully requests the closure of the regulatory file for the site.

Appendix I

INITIAL FORM C-141

Diversified Field Service, Inc.
206 W. Snyder
Hobbs, NM 88240
(575) 964-8394

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

Form C-141
Revised August 8, 2011

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

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 Christine Alderman
Address 600 N Marienfeld Ste 600 Midland TX	Telephone No. 432-853-7059
Facility Name Cascade 29-1	Facility Type production
Surface Owner Federal	Mineral Owner
API No. 30-025-40346	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	29	25S	33E	330	N	350	W	Lea

Latitude 32.10795 Longitude -103.60165

NATURE OF RELEASE

Type of Release Produced water	Volume of Release 300 bbls	Volume Recovered 90 bbls
Source of Release poly flowline	Date and Hour of Occurrence 06/06/2015	Date and Hour of Discovery 06/06/2015 pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Kellie Jones/Jeffery Robertson	
By Whom? Christine Alderman	Date and Hour 06/07/2015 4:40 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.*

Describe Cause of Problem and Remedial Action Taken.*

Trucking company was moving a rig down the pipeline road near location and part of the derrick sliced the polyline open.

Describe Area Affected and Cleanup Action Taken.*

fluids ran approximately 140 yards along the lease road (the trucks kept driving through it and got stuck), and then approximately 320 yards down a dry creek bed 15 feet wide at widest point. Diversified assessed the release and sampled. A work plan will developed.

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>Christine Alderman</i>	OIL CONSERVATION DIVISION	
Printed Name: Christine Alderman	Approved by Environmental Specialist:	
Title: ESH Supervisor	Approval Date:	Expiration Date:
E-mail Address: calderman@cimarex.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 6/26/2015	Phone: 432-853-7059	

* Attach Additional Sheets If Necessary

Appendix II

SITE PHOTOS



Cascade 29 Fed #1

PHOTO PAGE



Initial spill photos around lease road



Initial spill photos around lease road and into arroyo



Initial spill photos into pasture and arroyo area



Initial spill photos into pasture and arroyo area



Initial spill photos into pasture and arroyo area



Photo of raised, leveled and widened lease road



Excavating spill area



Hand digging/excavation around high pressure lines



Seeding backfilled area with BLM #2 seed



Completed, seeded and tilled location

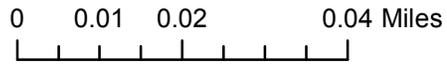
Appendix III

SITE MAP

Diversified Field Service, Inc.
206 W. Snyder
Hobbs, NM 88240
(575) 964-8394

Site Diagram

**Cimarex, Cascade 29 Fed 1H
UL/D, Sec. 11 T26S R32E
Lea County, NM**
Drafted By: Lance Crenshaw, 6-8-15



Legend

Misc_points

Types

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

Pipeline

Type

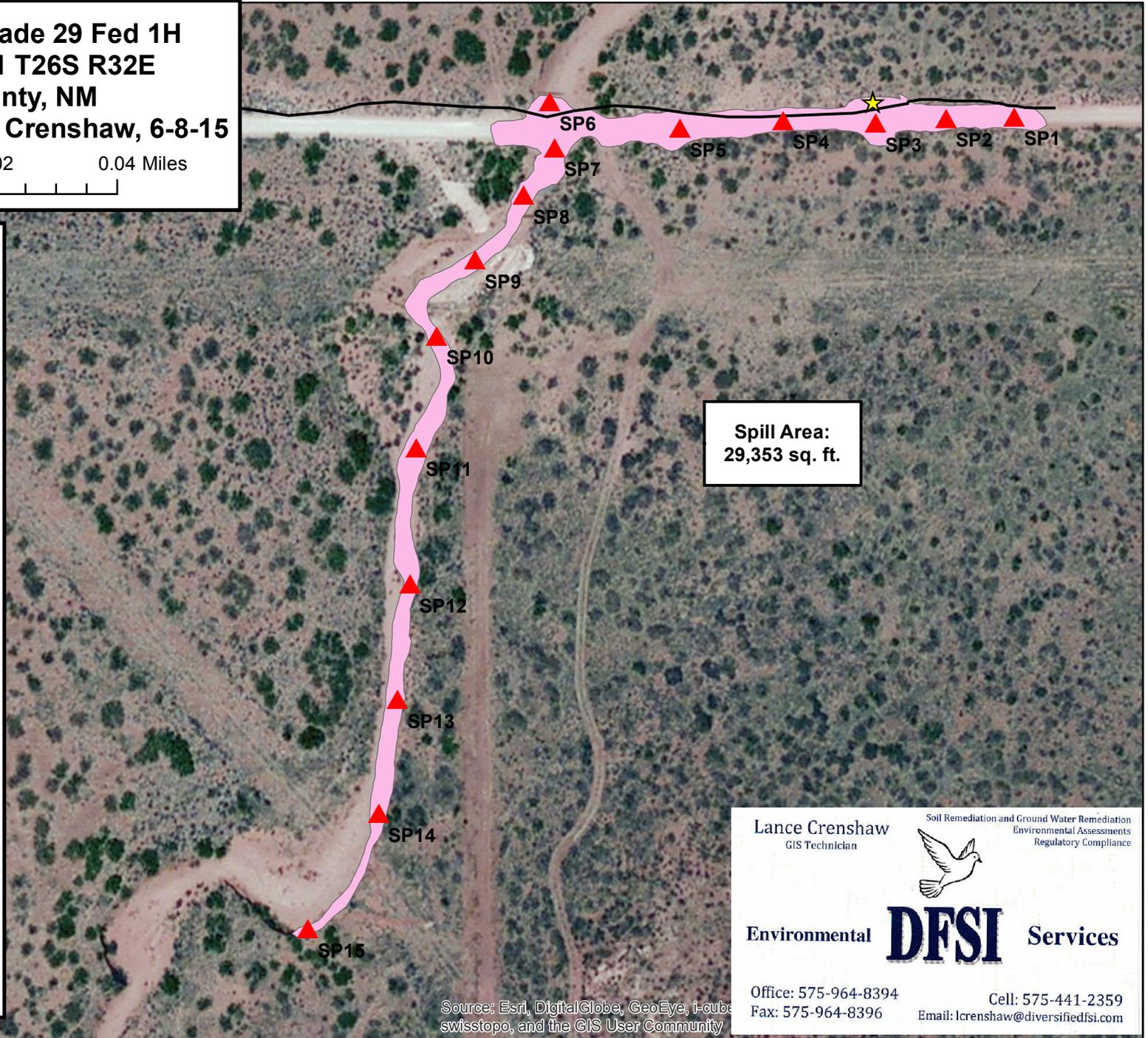
- Above Ground Line
- Buried Line

Spill

- <all other values>

Spill_Media

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



**Spill Area:
29,353 sq. ft.**

Lance Crenshaw
GIS Technician

Soil Remediation and Ground Water Remediation
Environmental Assessments
Regulatory Compliance

Environmental DFSI Services

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

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

Source: Esri, DigitalGlobe, GeoEye, i-cube, swisstopo, and the GIS User Community

Appendix IV

LABORATORY ANALYSES

Diversified Field Service, Inc.
206 W. Snyder
Hobbs, NM 88240
(575) 964-8394



June 15, 2015

CHRISTINE ALDERMAN
CIMAREX ENERGY CO.-MIDLAND
600 N. MARIENFELD ST, SUITE 600
MIDLAND, TX 79701

RE: CASCADE #29-3

Enclosed are the results of analyses for samples received by the laboratory on 06/10/15 14:00.

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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, flowing "C" and "K".

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:	06/10/2015	Sampling Date:	06/09/2015
Reported:	06/15/2015	Sampling Type:	Soil
Project Name:	CASCADE #29-3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 1 @ 2' (H501497-01)

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	06/11/2015	ND	2.02	101	2.00	0.107	
Toluene*	<0.050	0.050	06/11/2015	ND	1.99	99.5	2.00	1.64	
Ethylbenzene*	<0.050	0.050	06/11/2015	ND	2.04	102	2.00	3.74	
Total Xylenes*	<0.150	0.150	06/11/2015	ND	5.60	93.4	6.00	4.04	
Total BTEX	<0.300	0.300	06/11/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	06/11/2015	ND	416	104	400	3.77	

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	06/11/2015	ND	183	91.6	200	0.400	
DRO >C10-C28	<10.0	10.0	06/11/2015	ND	194	97.0	200	3.81	

Surrogate: 1-Chlorooctane 106 % 47.2-157
Surrogate: 1-Chlorooctadecane 133 % 52.1-176

Cardinal Laboratories

* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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:	06/10/2015	Sampling Date:	06/09/2015
Reported:	06/15/2015	Sampling Type:	Soil
Project Name:	CASCADE #29-3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 2 @ 1' (H501497-02)

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	06/11/2015	ND	2.02	101	2.00	0.107		
Toluene*	<0.050	0.050	06/11/2015	ND	1.99	99.5	2.00	1.64		
Ethylbenzene*	<0.050	0.050	06/11/2015	ND	2.04	102	2.00	3.74		
Total Xylenes*	<0.150	0.150	06/11/2015	ND	5.60	93.4	6.00	4.04		
Total BTEX	<0.300	0.300	06/11/2015	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	06/11/2015	ND	416	104	400	3.77		

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	06/11/2015	ND	183	91.6	200	0.400		
DRO >C10-C28	<10.0	10.0	06/11/2015	ND	194	97.0	200	3.81		

Surrogate: 1-Chlorooctane 108 % 47.2-157

Surrogate: 1-Chlorooctadecane 132 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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:	06/10/2015	Sampling Date:	06/09/2015
Reported:	06/15/2015	Sampling Type:	Soil
Project Name:	CASCADE #29-3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 3 @ 1' (H501497-03)

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	06/11/2015	ND	2.02	101	2.00	0.107		
Toluene*	<0.050	0.050	06/11/2015	ND	1.99	99.5	2.00	1.64		
Ethylbenzene*	<0.050	0.050	06/11/2015	ND	2.04	102	2.00	3.74		
Total Xylenes*	<0.150	0.150	06/11/2015	ND	5.60	93.4	6.00	4.04		
Total BTEX	<0.300	0.300	06/11/2015	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	06/11/2015	ND	416	104	400	3.77		

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	06/11/2015	ND	183	91.6	200	0.400		
DRO >C10-C28	<10.0	10.0	06/11/2015	ND	194	97.0	200	3.81		

Surrogate: 1-Chlorooctane 107 % 47.2-157

Surrogate: 1-Chlorooctadecane 133 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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:	06/10/2015	Sampling Date:	06/09/2015
Reported:	06/15/2015	Sampling Type:	Soil
Project Name:	CASCADE #29-3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 4 @ 1' (H501497-04)

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	06/11/2015	ND	2.02	101	2.00	0.107		
Toluene*	<0.050	0.050	06/11/2015	ND	1.99	99.5	2.00	1.64		
Ethylbenzene*	<0.050	0.050	06/11/2015	ND	2.04	102	2.00	3.74		
Total Xylenes*	<0.150	0.150	06/11/2015	ND	5.60	93.4	6.00	4.04		
Total BTEX	<0.300	0.300	06/11/2015	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	06/11/2015	ND	416	104	400	3.77		

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	06/11/2015	ND	183	91.6	200	0.400		
DRO >C10-C28	<10.0	10.0	06/11/2015	ND	194	97.0	200	3.81		

Surrogate: 1-Chlorooctane 104 % 47.2-157
Surrogate: 1-Chlorooctadecane 129 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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:	06/10/2015	Sampling Date:	06/09/2015
Reported:	06/15/2015	Sampling Type:	Soil
Project Name:	CASCADE #29-3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 5 @ 1' (H501497-05)

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	06/11/2015	ND	2.02	101	2.00	0.107	
Toluene*	<0.050	0.050	06/11/2015	ND	1.99	99.5	2.00	1.64	
Ethylbenzene*	<0.050	0.050	06/11/2015	ND	2.04	102	2.00	3.74	
Total Xylenes*	<0.150	0.150	06/11/2015	ND	5.60	93.4	6.00	4.04	
Total BTEX	<0.300	0.300	06/11/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	06/11/2015	ND	416	104	400	3.77	

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	06/11/2015	ND	183	91.6	200	0.400	
DRO >C10-C28	<10.0	10.0	06/11/2015	ND	194	97.0	200	3.81	

Surrogate: 1-Chlorooctane 94.9 % 47.2-157

Surrogate: 1-Chlorooctadecane 122 % 52.1-176

Cardinal Laboratories

* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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:	06/10/2015	Sampling Date:	06/09/2015
Reported:	06/15/2015	Sampling Type:	Soil
Project Name:	CASCADE #29-3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 6 @ 1' (H501497-06)

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	06/11/2015	ND	2.02	101	2.00	0.107		
Toluene*	<0.050	0.050	06/11/2015	ND	1.99	99.5	2.00	1.64		
Ethylbenzene*	<0.050	0.050	06/11/2015	ND	2.04	102	2.00	3.74		
Total Xylenes*	<0.150	0.150	06/11/2015	ND	5.60	93.4	6.00	4.04		
Total BTEX	<0.300	0.300	06/11/2015	ND						

Surrogate: 4-Bromofluorobenzene (PID) 116 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	400	16.0	06/11/2015	ND	416	104	400	3.77		

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	06/11/2015	ND	183	91.6	200	0.400		
DRO >C10-C28	941	10.0	06/11/2015	ND	194	97.0	200	3.81		

Surrogate: 1-Chlorooctane 107 % 47.2-157

Surrogate: 1-Chlorooctadecane 157 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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:	06/10/2015	Sampling Date:	06/09/2015
Reported:	06/15/2015	Sampling Type:	Soil
Project Name:	CASCADE #29-3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 7 @ 1' (H501497-07)

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	06/11/2015	ND	1.99	99.5	2.00	0.229		
Toluene*	<0.050	0.050	06/11/2015	ND	1.98	98.9	2.00	0.356		
Ethylbenzene*	<0.050	0.050	06/11/2015	ND	2.10	105	2.00	0.167		
Total Xylenes*	<0.150	0.150	06/11/2015	ND	5.77	96.2	6.00	0.179		
Total BTEX	<0.300	0.300	06/11/2015	ND						

Surrogate: 4-Bromofluorobenzene (PID) 115 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1090	16.0	06/11/2015	ND	416	104	400	3.77		

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	06/11/2015	ND	183	91.6	200	0.400		
DRO >C10-C28	<10.0	10.0	06/11/2015	ND	194	97.0	200	3.81		

Surrogate: 1-Chlorooctane 107 % 47.2-157

Surrogate: 1-Chlorooctadecane 131 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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:	06/10/2015	Sampling Date:	06/09/2015
Reported:	06/15/2015	Sampling Type:	Soil
Project Name:	CASCADE #29-3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 8 @ 2' (H501497-08)

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	06/11/2015	ND	1.99	99.5	2.00	0.229		
Toluene*	<0.050	0.050	06/11/2015	ND	1.98	98.9	2.00	0.356		
Ethylbenzene*	<0.050	0.050	06/11/2015	ND	2.10	105	2.00	0.167		
Total Xylenes*	<0.150	0.150	06/11/2015	ND	5.77	96.2	6.00	0.179		
Total BTEX	<0.300	0.300	06/11/2015	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1620	16.0	06/11/2015	ND	416	104	400	3.77		

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	06/11/2015	ND	183	91.6	200	0.400		
DRO >C10-C28	<10.0	10.0	06/11/2015	ND	194	97.0	200	3.81		

Surrogate: 1-Chlorooctane 108 % 47.2-157

Surrogate: 1-Chlorooctadecane 133 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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:	06/10/2015	Sampling Date:	06/09/2015
Reported:	06/15/2015	Sampling Type:	Soil
Project Name:	CASCADE #29-3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 9 @ 1' (H501497-09)

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	06/11/2015	ND	1.99	99.5	2.00	0.229		
Toluene*	<0.050	0.050	06/11/2015	ND	1.98	98.9	2.00	0.356		
Ethylbenzene*	<0.050	0.050	06/11/2015	ND	2.10	105	2.00	0.167		
Total Xylenes*	<0.150	0.150	06/11/2015	ND	5.77	96.2	6.00	0.179		
Total BTEX	<0.300	0.300	06/11/2015	ND						

Surrogate: 4-Bromofluorobenzene (PID) 115 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	06/11/2015	ND	416	104	400	3.77		

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	06/11/2015	ND	183	91.6	200	0.400		
DRO >C10-C28	<10.0	10.0	06/11/2015	ND	194	97.0	200	3.81		

Surrogate: 1-Chlorooctane 109 % 47.2-157

Surrogate: 1-Chlorooctadecane 132 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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:	06/10/2015	Sampling Date:	06/09/2015
Reported:	06/15/2015	Sampling Type:	Soil
Project Name:	CASCADE #29-3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 10 @ 1' (H501497-10)

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	06/11/2015	ND	1.99	99.5	2.00	0.229	
Toluene*	<0.050	0.050	06/11/2015	ND	1.98	98.9	2.00	0.356	
Ethylbenzene*	<0.050	0.050	06/11/2015	ND	2.10	105	2.00	0.167	
Total Xylenes*	<0.150	0.150	06/11/2015	ND	5.77	96.2	6.00	0.179	
Total BTEX	<0.300	0.300	06/11/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	576	16.0	06/11/2015	ND	416	104	400	3.77	

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	06/11/2015	ND	183	91.6	200	0.400	
DRO >C10-C28	<10.0	10.0	06/11/2015	ND	194	97.0	200	3.81	

Surrogate: 1-Chlorooctane 106 % 47.2-157
Surrogate: 1-Chlorooctadecane 130 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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:	06/10/2015	Sampling Date:	06/09/2015
Reported:	06/15/2015	Sampling Type:	Soil
Project Name:	CASCADE #29-3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 11 @ 1' (H501497-11)

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	06/11/2015	ND	1.99	99.5	2.00	0.229	
Toluene*	<0.050	0.050	06/11/2015	ND	1.98	98.9	2.00	0.356	
Ethylbenzene*	<0.050	0.050	06/11/2015	ND	2.10	105	2.00	0.167	
Total Xylenes*	<0.150	0.150	06/11/2015	ND	5.77	96.2	6.00	0.179	
Total BTEX	<0.300	0.300	06/11/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	480	16.0	06/11/2015	ND	416	104	400	3.77	

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	06/11/2015	ND	183	91.6	200	0.400	
DRO >C10-C28	<10.0	10.0	06/11/2015	ND	194	97.0	200	3.81	

Surrogate: 1-Chlorooctane 108 % 47.2-157

Surrogate: 1-Chlorooctadecane 132 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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:	06/10/2015	Sampling Date:	06/09/2015
Reported:	06/15/2015	Sampling Type:	Soil
Project Name:	CASCADE #29-3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 12 @ 1' (H501497-12)

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	06/11/2015	ND	1.99	99.5	2.00	0.229	
Toluene*	<0.050	0.050	06/11/2015	ND	1.98	98.9	2.00	0.356	
Ethylbenzene*	<0.050	0.050	06/11/2015	ND	2.10	105	2.00	0.167	
Total Xylenes*	<0.150	0.150	06/11/2015	ND	5.77	96.2	6.00	0.179	
Total BTEX	<0.300	0.300	06/11/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	06/11/2015	ND	416	104	400	3.77	

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	06/11/2015	ND	183	91.6	200	0.400	
DRO >C10-C28	<10.0	10.0	06/11/2015	ND	194	97.0	200	3.81	

Surrogate: 1-Chlorooctane 106 % 47.2-157

Surrogate: 1-Chlorooctadecane 134 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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:	06/10/2015	Sampling Date:	06/09/2015
Reported:	06/15/2015	Sampling Type:	Soil
Project Name:	CASCADE #29-3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 13 @ 1' (H501497-13)

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	06/11/2015	ND	1.99	99.5	2.00	0.229	
Toluene*	<0.050	0.050	06/11/2015	ND	1.98	98.9	2.00	0.356	
Ethylbenzene*	<0.050	0.050	06/11/2015	ND	2.10	105	2.00	0.167	
Total Xylenes*	<0.150	0.150	06/11/2015	ND	5.77	96.2	6.00	0.179	
Total BTEX	<0.300	0.300	06/11/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 114 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	416	16.0	06/12/2015	ND	432	108	400	3.77	

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	06/11/2015	ND	183	91.6	200	0.400	
DRO >C10-C28	<10.0	10.0	06/11/2015	ND	194	97.0	200	3.81	

Surrogate: 1-Chlorooctane 105 % 47.2-157

Surrogate: 1-Chlorooctadecane 129 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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:	06/10/2015	Sampling Date:	06/09/2015
Reported:	06/15/2015	Sampling Type:	Soil
Project Name:	CASCADE #29-3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 14 @ 1' (H501497-14)

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	06/11/2015	ND	1.99	99.5	2.00	0.229	
Toluene*	<0.050	0.050	06/11/2015	ND	1.98	98.9	2.00	0.356	
Ethylbenzene*	<0.050	0.050	06/11/2015	ND	2.10	105	2.00	0.167	
Total Xylenes*	<0.150	0.150	06/11/2015	ND	5.77	96.2	6.00	0.179	
Total BTEX	<0.300	0.300	06/11/2015	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	06/12/2015	ND	432	108	400	3.77	

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	06/11/2015	ND	183	91.6	200	0.400	
DRO >C10-C28	<10.0	10.0	06/11/2015	ND	194	97.0	200	3.81	

Surrogate: 1-Chlorooctane 101 % 47.2-157
Surrogate: 1-Chlorooctadecane 125 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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:	06/10/2015	Sampling Date:	06/09/2015
Reported:	06/15/2015	Sampling Type:	Soil
Project Name:	CASCADE #29-3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 15 @ 1' (H501497-15)

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	06/11/2015	ND	1.99	99.5	2.00	0.229	
Toluene*	<0.050	0.050	06/11/2015	ND	1.98	98.9	2.00	0.356	
Ethylbenzene*	<0.050	0.050	06/11/2015	ND	2.10	105	2.00	0.167	
Total Xylenes*	<0.150	0.150	06/11/2015	ND	5.77	96.2	6.00	0.179	
Total BTEX	<0.300	0.300	06/11/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	06/12/2015	ND	432	108	400	3.77	

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	06/11/2015	ND	183	91.6	200	0.400	
DRO >C10-C28	<10.0	10.0	06/11/2015	ND	194	97.0	200	3.81	

Surrogate: 1-Chlorooctane 103 % 47.2-157

Surrogate: 1-Chlorooctadecane 131 % 52.1-176

Cardinal Laboratories

* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

BILL TO

ANALYSIS REQUEST

Company Name: Cimax P.O. #:
 Project Manager: Lance Crumshaw Company: Cimax
 Address: State: NM Zip: Attn: Christine Alderman
 City: Address:
 Phone #: Fax #: City:
 Project #: Project Owner: State: Zip:
 Project Name: Cascade 29 Fed 3 (2nd Spill) Phone #: Zip:
 Project Location: Fax #:
 Sampler Name: Lance Crumshaw

Lab I.D.	Sample I.D.	FOR LAB USE ONLY		MATRIX	PRESERV	SAMPLING	REMARKS
		(G)RAB OR (C)OMP.	# CONTAINERS				
<u>HS01497</u>	<u>SP122'</u>	<input checked="" type="checkbox"/>	<u>1</u>	GROUNDWATER	<input checked="" type="checkbox"/>	<u>6-9</u>	<u>9:10</u>
	<u>SP221'</u>	<input checked="" type="checkbox"/>	<u>1</u>	WASTEWATER	<input checked="" type="checkbox"/>	<u>6-9</u>	<u>9:20</u>
	<u>SP321'</u>	<input checked="" type="checkbox"/>	<u>1</u>	SOIL	<input checked="" type="checkbox"/>	<u>6-9</u>	<u>9:30</u>
	<u>SP421'</u>	<input checked="" type="checkbox"/>	<u>1</u>	SOIL	<input checked="" type="checkbox"/>	<u>6-9</u>	<u>9:45</u>
	<u>SP521'</u>	<input checked="" type="checkbox"/>	<u>1</u>	SLUDGE	<input checked="" type="checkbox"/>	<u>6-9</u>	<u>10:00</u>
	<u>SP621'</u>	<input checked="" type="checkbox"/>	<u>1</u>	OTHER :	<input checked="" type="checkbox"/>	<u>6-9</u>	<u>10:07</u>
	<u>SP721'</u>	<input checked="" type="checkbox"/>	<u>1</u>	ACID/BASE:	<input checked="" type="checkbox"/>	<u>6-9</u>	<u>10:15</u>
	<u>SP821'</u>	<input checked="" type="checkbox"/>	<u>1</u>	ICE / COOL	<input checked="" type="checkbox"/>	<u>6-9</u>	<u>10:35</u>
	<u>SP921'</u>	<input checked="" type="checkbox"/>	<u>1</u>	OTHER :	<input checked="" type="checkbox"/>	<u>6-9</u>	<u>10:40</u>
	<u>SP1021'</u>	<input checked="" type="checkbox"/>	<u>1</u>		<input checked="" type="checkbox"/>	<u>6-9</u>	<u>10:50</u>

PLEASE NOTE: Liability and Damages: Cardinal's liability and client's exclusive remedy for any claim arising hereunder is limited to the amount paid by the client for the service. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, 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: [Signature] Date: 6-10-15 Received By: [Signature]
 Time: 14:00
 Date: 6-10-15
 Time: 14:00

Delivered By: (Circle One) 4.60e Sample Condition: Intact Cool Yes No
 Sampler - UPS - Bus - Other: 4.60e Checked By: [Signature]

Phone Result: Yes No Add'l Phone #:
 Fax Result: Yes No Add'l Fax #:
 REMARKS: 10:50

E-mail Results To: mburton@diversifiedfsi.com
lcrumshaw@diversifiedfsi.com



June 15, 2015

CHRISTINE ALDERMAN
CIMAREX ENERGY CO.-MIDLAND
600 N. MARIENFELD ST, SUITE 600
MIDLAND, TX 79701

RE: CASCADE #29-3

Enclosed are the results of analyses for samples received by the laboratory on 06/10/15 14:00.

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,

A handwritten signature in black ink that reads "Celey D. Keene".

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:	06/10/2015	Sampling Date:	06/10/2015
Reported:	06/15/2015	Sampling Type:	Soil
Project Name:	CASCADE #29-3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 1 @ 3' (H501498-01)

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	06/12/2015	ND	1.99	99.5	2.00	0.229	
Toluene*	<0.050	0.050	06/12/2015	ND	1.98	98.9	2.00	0.356	
Ethylbenzene*	<0.050	0.050	06/12/2015	ND	2.10	105	2.00	0.167	
Total Xylenes*	<0.150	0.150	06/12/2015	ND	5.77	96.2	6.00	0.179	
Total BTEX	<0.300	0.300	06/12/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	656	16.0	06/12/2015	ND	432	108	400	3.77	

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	06/11/2015	ND	185	92.3	200	3.51	
DRO >C10-C28	<10.0	10.0	06/11/2015	ND	202	101	200	5.08	

Surrogate: 1-Chlorooctane 99.3 % 47.2-157
Surrogate: 1-Chlorooctadecane 124 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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:	06/10/2015	Sampling Date:	06/10/2015
Reported:	06/15/2015	Sampling Type:	Soil
Project Name:	CASCADE #29-3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 2 @ 2' (H501498-02)

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	06/12/2015	ND	1.99	99.5	2.00	0.229	
Toluene*	<0.050	0.050	06/12/2015	ND	1.98	98.9	2.00	0.356	
Ethylbenzene*	<0.050	0.050	06/12/2015	ND	2.10	105	2.00	0.167	
Total Xylenes*	<0.150	0.150	06/12/2015	ND	5.77	96.2	6.00	0.179	
Total BTEX	<0.300	0.300	06/12/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2200	16.0	06/12/2015	ND	432	108	400	3.77	

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	06/11/2015	ND	185	92.3	200	3.51	
DRO >C10-C28	<10.0	10.0	06/11/2015	ND	202	101	200	5.08	

Surrogate: 1-Chlorooctane 90.8 % 47.2-157

Surrogate: 1-Chlorooctadecane 117 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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:	06/10/2015	Sampling Date:	06/10/2015
Reported:	06/15/2015	Sampling Type:	Soil
Project Name:	CASCADE #29-3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 3 @ 2' (H501498-03)

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	06/12/2015	ND	1.99	99.5	2.00	0.229		
Toluene*	<0.050	0.050	06/12/2015	ND	1.98	98.9	2.00	0.356		
Ethylbenzene*	<0.050	0.050	06/12/2015	ND	2.10	105	2.00	0.167		
Total Xylenes*	<0.150	0.150	06/12/2015	ND	5.77	96.2	6.00	0.179		
Total BTEX	<0.300	0.300	06/12/2015	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	544	16.0	06/12/2015	ND	432	108	400	3.77		

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	06/11/2015	ND	185	92.3	200	3.51		
DRO >C10-C28	<10.0	10.0	06/11/2015	ND	202	101	200	5.08		

Surrogate: 1-Chlorooctane 99.9 % 47.2-157

Surrogate: 1-Chlorooctadecane 120 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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:	06/10/2015	Sampling Date:	06/10/2015
Reported:	06/15/2015	Sampling Type:	Soil
Project Name:	CASCADE #29-3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 4 @ 2' (H501498-04)

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	06/12/2015	ND	1.99	99.5	2.00	0.229		
Toluene*	<0.050	0.050	06/12/2015	ND	1.98	98.9	2.00	0.356		
Ethylbenzene*	<0.050	0.050	06/12/2015	ND	2.10	105	2.00	0.167		
Total Xylenes*	<0.150	0.150	06/12/2015	ND	5.77	96.2	6.00	0.179		
Total BTEX	<0.300	0.300	06/12/2015	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	784	16.0	06/12/2015	ND	432	108	400	3.77		

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	06/11/2015	ND	185	92.3	200	3.51		
DRO >C10-C28	<10.0	10.0	06/11/2015	ND	202	101	200	5.08		

Surrogate: 1-Chlorooctane 89.0 % 47.2-157

Surrogate: 1-Chlorooctadecane 115 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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:	06/10/2015	Sampling Date:	06/10/2015
Reported:	06/15/2015	Sampling Type:	Soil
Project Name:	CASCADE #29-3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 5 @ 2' (H501498-05)

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	06/12/2015	ND	1.99	99.5	2.00	0.229		
Toluene*	<0.050	0.050	06/12/2015	ND	1.98	98.9	2.00	0.356		
Ethylbenzene*	<0.050	0.050	06/12/2015	ND	2.10	105	2.00	0.167		
Total Xylenes*	<0.150	0.150	06/12/2015	ND	5.77	96.2	6.00	0.179		
Total BTEX	<0.300	0.300	06/12/2015	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	06/12/2015	ND	432	108	400	3.77		

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	06/11/2015	ND	185	92.3	200	3.51		
DRO >C10-C28	<10.0	10.0	06/11/2015	ND	202	101	200	5.08		

Surrogate: 1-Chlorooctane 88.3 % 47.2-157

Surrogate: 1-Chlorooctadecane 106 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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:	06/10/2015	Sampling Date:	06/10/2015
Reported:	06/15/2015	Sampling Type:	Soil
Project Name:	CASCADE #29-3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 6 @ 2' (H501498-06)

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	06/12/2015	ND	1.99	99.5	2.00	0.229	
Toluene*	<0.050	0.050	06/12/2015	ND	1.98	98.9	2.00	0.356	
Ethylbenzene*	<0.050	0.050	06/12/2015	ND	2.10	105	2.00	0.167	
Total Xylenes*	0.614	0.150	06/12/2015	ND	5.77	96.2	6.00	0.179	
Total BTEX	0.614	0.300	06/12/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 132 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	944	16.0	06/12/2015	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS						S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	98.2	10.0	06/11/2015	ND	185	92.3	200	3.51		
DRO >C10-C28	4070	10.0	06/11/2015	ND	202	101	200	5.08		

Surrogate: 1-Chlorooctane 114 % 47.2-157

Surrogate: 1-Chlorooctadecane 186 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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:	06/10/2015	Sampling Date:	06/10/2015
Reported:	06/15/2015	Sampling Type:	Soil
Project Name:	CASCADE #29-3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 7 @ 2' (H501498-07)

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	06/12/2015	ND	1.99	99.5	2.00	0.229		
Toluene*	<0.050	0.050	06/12/2015	ND	1.98	98.9	2.00	0.356		
Ethylbenzene*	<0.050	0.050	06/12/2015	ND	2.10	105	2.00	0.167		
Total Xylenes*	<0.150	0.150	06/12/2015	ND	5.77	96.2	6.00	0.179		
Total BTEX	<0.300	0.300	06/12/2015	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	400	16.0	06/12/2015	ND	432	108	400	3.77		

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	06/11/2015	ND	185	92.3	200	3.51		
DRO >C10-C28	10.3	10.0	06/11/2015	ND	202	101	200	5.08		

Surrogate: 1-Chlorooctane 90.4 % 47.2-157

Surrogate: 1-Chlorooctadecane 111 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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:	06/10/2015	Sampling Date:	06/10/2015
Reported:	06/15/2015	Sampling Type:	Soil
Project Name:	CASCADE #29-3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 8 @ 3' (H501498-08)

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	06/12/2015	ND	1.99	99.5	2.00	0.229		
Toluene*	<0.050	0.050	06/12/2015	ND	1.98	98.9	2.00	0.356		
Ethylbenzene*	<0.050	0.050	06/12/2015	ND	2.10	105	2.00	0.167		
Total Xylenes*	<0.150	0.150	06/12/2015	ND	5.77	96.2	6.00	0.179		
Total BTEX	<0.300	0.300	06/12/2015	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1220	16.0	06/12/2015	ND	432	108	400	3.77		

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	06/11/2015	ND	185	92.3	200	3.51		
DRO >C10-C28	<10.0	10.0	06/11/2015	ND	202	101	200	5.08		

Surrogate: 1-Chlorooctane 95.1 % 47.2-157
Surrogate: 1-Chlorooctadecane 119 % 52.1-176

Cardinal Laboratories

* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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:	06/10/2015	Sampling Date:	06/10/2015
Reported:	06/15/2015	Sampling Type:	Soil
Project Name:	CASCADE #29-3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 9 @ 2' (H501498-09)

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	06/12/2015	ND	1.99	99.5	2.00	0.229		
Toluene*	<0.050	0.050	06/12/2015	ND	1.98	98.9	2.00	0.356		
Ethylbenzene*	<0.050	0.050	06/12/2015	ND	2.10	105	2.00	0.167		
Total Xylenes*	<0.150	0.150	06/12/2015	ND	5.77	96.2	6.00	0.179		
Total BTEX	<0.300	0.300	06/12/2015	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	06/12/2015	ND	432	108	400	3.77		

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	06/11/2015	ND	185	92.3	200	3.51		
DRO >C10-C28	<10.0	10.0	06/11/2015	ND	202	101	200	5.08		

Surrogate: 1-Chlorooctane 96.8 % 47.2-157

Surrogate: 1-Chlorooctadecane 117 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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:	06/10/2015	Sampling Date:	06/10/2015
Reported:	06/15/2015	Sampling Type:	Soil
Project Name:	CASCADE #29-3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 10 @ 2' (H501498-10)

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	06/12/2015	ND	1.99	99.5	2.00	0.229	
Toluene*	<0.050	0.050	06/12/2015	ND	1.98	98.9	2.00	0.356	
Ethylbenzene*	<0.050	0.050	06/12/2015	ND	2.10	105	2.00	0.167	
Total Xylenes*	<0.150	0.150	06/12/2015	ND	5.77	96.2	6.00	0.179	
Total BTEX	<0.300	0.300	06/12/2015	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	816	16.0	06/12/2015	ND	432	108	400	3.77	

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	06/11/2015	ND	185	92.3	200	3.51	
DRO >C10-C28	<10.0	10.0	06/11/2015	ND	202	101	200	5.08	

Surrogate: 1-Chlorooctane 95.7 % 47.2-157

Surrogate: 1-Chlorooctadecane 117 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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:	06/10/2015	Sampling Date:	06/10/2015
Reported:	06/15/2015	Sampling Type:	Soil
Project Name:	CASCADE #29-3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 11 @ 2' (H501498-11)

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	06/12/2015	ND	2.06	103	2.00	1.09	
Toluene*	<0.050	0.050	06/12/2015	ND	2.08	104	2.00	2.48	
Ethylbenzene*	<0.050	0.050	06/12/2015	ND	2.17	108	2.00	2.36	
Total Xylenes*	<0.150	0.150	06/12/2015	ND	5.99	99.8	6.00	2.88	
Total BTEX	<0.300	0.300	06/12/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	704	16.0	06/12/2015	ND	432	108	400	3.77	

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	06/11/2015	ND	185	92.3	200	3.51	
DRO >C10-C28	<10.0	10.0	06/11/2015	ND	202	101	200	5.08	

Surrogate: 1-Chlorooctane 91.0 % 47.2-157

Surrogate: 1-Chlorooctadecane 111 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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:	06/10/2015	Sampling Date:	06/10/2015
Reported:	06/15/2015	Sampling Type:	Soil
Project Name:	CASCADE #29-3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 12 @ 2' (H501498-12)

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	06/12/2015	ND	2.06	103	2.00	1.09	
Toluene*	<0.050	0.050	06/12/2015	ND	2.08	104	2.00	2.48	
Ethylbenzene*	<0.050	0.050	06/12/2015	ND	2.17	108	2.00	2.36	
Total Xylenes*	<0.150	0.150	06/12/2015	ND	5.99	99.8	6.00	2.88	
Total BTEX	<0.300	0.300	06/12/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	06/12/2015	ND	432	108	400	3.77	

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	06/11/2015	ND	185	92.3	200	3.51	
DRO >C10-C28	<10.0	10.0	06/11/2015	ND	202	101	200	5.08	

Surrogate: 1-Chlorooctane 94.2 % 47.2-157
Surrogate: 1-Chlorooctadecane 118 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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:	06/10/2015	Sampling Date:	06/10/2015
Reported:	06/15/2015	Sampling Type:	Soil
Project Name:	CASCADE #29-3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 13 @ 2' (H501498-13)

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	06/12/2015	ND	2.06	103	2.00	1.09		
Toluene*	<0.050	0.050	06/12/2015	ND	2.08	104	2.00	2.48		
Ethylbenzene*	<0.050	0.050	06/12/2015	ND	2.17	108	2.00	2.36		
Total Xylenes*	<0.150	0.150	06/12/2015	ND	5.99	99.8	6.00	2.88		
Total BTEX	<0.300	0.300	06/12/2015	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	320	16.0	06/12/2015	ND	432	108	400	3.77		

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	06/11/2015	ND	185	92.3	200	3.51		
DRO >C10-C28	<10.0	10.0	06/11/2015	ND	202	101	200	5.08		

Surrogate: 1-Chlorooctane 100 % 47.2-157

Surrogate: 1-Chlorooctadecane 121 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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:	06/10/2015	Sampling Date:	06/10/2015
Reported:	06/15/2015	Sampling Type:	Soil
Project Name:	CASCADE #29-3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 14 @ 2' (H501498-14)

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	06/12/2015	ND	2.06	103	2.00	1.09	
Toluene*	<0.050	0.050	06/12/2015	ND	2.08	104	2.00	2.48	
Ethylbenzene*	<0.050	0.050	06/12/2015	ND	2.17	108	2.00	2.36	
Total Xylenes*	<0.150	0.150	06/12/2015	ND	5.99	99.8	6.00	2.88	
Total BTEX	<0.300	0.300	06/12/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	06/12/2015	ND	432	108	400	3.77	

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	06/11/2015	ND	185	92.3	200	3.51	
DRO >C10-C28	<10.0	10.0	06/11/2015	ND	202	101	200	5.08	

Surrogate: 1-Chlorooctane 89.3 % 47.2-157

Surrogate: 1-Chlorooctadecane 116 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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:	06/10/2015	Sampling Date:	06/10/2015
Reported:	06/15/2015	Sampling Type:	Soil
Project Name:	CASCADE #29-3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 15 @ 2' (H501498-15)

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	06/12/2015	ND	2.06	103	2.00	1.09	
Toluene*	<0.050	0.050	06/12/2015	ND	2.08	104	2.00	2.48	
Ethylbenzene*	<0.050	0.050	06/12/2015	ND	2.17	108	2.00	2.36	
Total Xylenes*	<0.150	0.150	06/12/2015	ND	5.99	99.8	6.00	2.88	
Total BTEX	<0.300	0.300	06/12/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	06/12/2015	ND	432	108	400	3.77	

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	06/11/2015	ND	185	92.3	200	3.51	
DRO >C10-C28	<10.0	10.0	06/11/2015	ND	202	101	200	5.08	

Surrogate: 1-Chlorooctane 86.9 % 47.2-157

Surrogate: 1-Chlorooctadecane 113 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- 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 SM450Cl-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

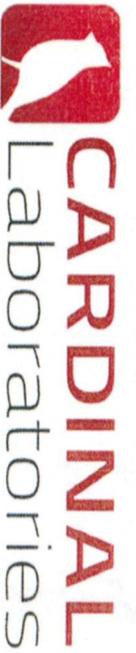
Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Caley D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240
 (575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Cimarex P.O. #: BILL TO ANALYSIS REQUEST

Project Manager: Lance Cranshaw

Address: _____

City: _____ State: _____ Zip: _____

Phone #: _____ Fax #: _____

Project #: _____ Project Owner: _____

Project Name: Cascade 29 Fed 3 (Old soil)

Project Location: _____

Sampler Name: Lance Cranshaw Fax #: _____

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX	PRESERV.	SAMPLING	DATE	TIME	REMARKS
<u>H5D1498</u>	<u>SP1E3'</u>	<u>G</u>	<u>1</u>	<u>SOIL</u>	<u>✓</u>	<u>6-10</u>	<u>9:36</u>	<u>X</u>	<u>BTX HOT</u>
	<u>SP2E2'</u>	<u>G</u>	<u>1</u>	<u>SOIL</u>	<u>✓</u>	<u>6-10</u>	<u>9:35</u>	<u>X</u>	
	<u>SP3E2'</u>	<u>G</u>	<u>1</u>	<u>SOIL</u>	<u>✓</u>	<u>6-10</u>	<u>9:40</u>	<u>X</u>	
	<u>SP4E2'</u>	<u>G</u>	<u>1</u>	<u>SOIL</u>	<u>✓</u>	<u>6-10</u>	<u>9:45</u>	<u>X</u>	
	<u>SP5E2'</u>	<u>G</u>	<u>1</u>	<u>SOIL</u>	<u>✓</u>	<u>6-10</u>	<u>9:50</u>	<u>X</u>	
	<u>SP6E2'</u>	<u>G</u>	<u>1</u>	<u>SOIL</u>	<u>✓</u>	<u>6-10</u>	<u>9:55</u>	<u>X</u>	
	<u>SP7E2'</u>	<u>G</u>	<u>1</u>	<u>SOIL</u>	<u>✓</u>	<u>6-10</u>	<u>10:00</u>	<u>X</u>	
	<u>SP8E3'</u>	<u>G</u>	<u>1</u>	<u>SOIL</u>	<u>✓</u>	<u>6-10</u>	<u>10:05</u>	<u>X</u>	
	<u>SP9E2'</u>	<u>G</u>	<u>1</u>	<u>SOIL</u>	<u>✓</u>	<u>6-10</u>	<u>10:10</u>	<u>X</u>	
	<u>SP10E2'</u>	<u>G</u>	<u>1</u>	<u>SOIL</u>	<u>✓</u>	<u>6-10</u>	<u>10:15</u>	<u>X</u>	

PLEASE NOTE: Liability and Damages: Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates, or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claims are based upon any of the above stated reasons or otherwise.

Relinquished By: Jawadul Date: 6-10-15 Received By: Theresa Lopez

Relinquished By: _____ Date: _____ Received By: _____

Delivered By: (Circle One) UPS Sample Condition: Cool Intact

Sampler - UPS - Bus - Other: 4602 Yes No

Checked By: [Signature] (Initials)

Phone Result: Yes No Add'l Phone #: _____

Fax Result: Yes No Add'l Fax #: _____

REMARKS: _____

E-mail Results To: mborbn@diversifiedsi.com

~~Attn: lcranshaw@diversifiedsi.com~~

~~Phone: 505-251-1111~~

* Cardinal cannot accept verbal change. Please for written change in ICFR 202-7326



CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

BILL TO

ANALYSIS REQUEST

Company Name: Cimarex
Project Manager: Lance Crumhar

P.O. #: _____
Company: Cimarex
Attn: Christie Alderman

Address: _____
City: _____ State: _____ Zip: _____
Phone #: _____ Fax #: _____
Project #: _____ Project Owner: _____

Address: _____
City: _____ State: _____ Zip: _____
Phone #: _____ Fax #: _____

Project Name: Cascade 99 Fed 3 (2nd Spill)
Project Location: _____

Sampler Name: Lance Crumhar

FOR LAB USE ONLY

Lab I.D. _____ Sample I.D. _____

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	REMARKS
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :			
11	SP11021	G	1			X			6-10	10:30		
12	SP12021	G	1			X			6-10	10:35		
13	SP13021	G	1			X			6-10	10:36		
14	SP14021	G	1			X			6-10	10:35		
15	SP15021	G	1			X			6-10	10:46		

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising from this contract or test, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, 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 provisions or otherwise.

Relinquished By: _____

Date: 6-10-05

Received By: _____

Checked By: _____

Relinquished By: Jennellink

Date: 7-4-05

Received By: Janet G. [Signature]

Delivered By: (Circle One)

UPS

Sample Condition
Cool Intact
Yes No

Checked By: _____

Phone Result: Yes No
Fax Result: Yes No
Add'l Phone #: _____
Add'l Fax #: _____
E-mail Results To: NgLadden@diversifiedfsi.com
Rpons@diversifiedfsi.com

* Cardinal cannot warrant without charge. Please fax written change in (575) 393-2326



June 22, 2015

MIKE BURTON

DIVERSIFIED FIELD SERVICES, INC.

P. O. BOX 5966

HOBBS, NM 88241

RE: CASCADE 2A FED #3

Enclosed are the results of analyses for samples received by the laboratory on 06/16/15 16:30.

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,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

 DIVERSIFIED FIELD SERVICES, INC.
 MIKE BURTON
 P. O. BOX 5966
 HOBBS NM, 88241
 Fax To: (575) 393-2981

Received:	06/16/2015	Sampling Date:	06/16/2015
Reported:	06/22/2015	Sampling Type:	Soil
Project Name:	CASCADE 2A FED #3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

Sample ID: SP 2 @ 3' (H501569-01)

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	06/19/2015	ND	1.74	86.8	2.00	1.25	
Toluene*	<0.050	0.050	06/19/2015	ND	1.73	86.6	2.00	1.70	
Ethylbenzene*	<0.050	0.050	06/19/2015	ND	1.82	91.2	2.00	2.34	
Total Xylenes*	<0.150	0.150	06/19/2015	ND	5.01	83.5	6.00	2.12	
Total BTEX	<0.300	0.300	06/19/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	06/22/2015	ND	432	108	400	3.77	

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	06/18/2015	ND	177	88.7	200	3.58	
DRO >C10-C28	<10.0	10.0	06/18/2015	ND	175	87.6	200	3.54	

Surrogate: 1-Chlorooctane 88.2 % 47.2-157
Surrogate: 1-Chlorooctadecane 93.6 % 52.1-176

Cardinal Laboratories

* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 DIVERSIFIED FIELD SERVICES, INC.
 MIKE BURTON
 P. O. BOX 5966
 HOBBS NM, 88241
 Fax To: (575) 393-2981

Received:	06/16/2015	Sampling Date:	06/16/2015
Reported:	06/22/2015	Sampling Type:	Soil
Project Name:	CASCADE 2A FED #3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

Sample ID: SP 6 @ 3' (H501569-02)

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	06/19/2015	ND	1.74	86.8	2.00	1.25	
Toluene*	<0.050	0.050	06/19/2015	ND	1.73	86.6	2.00	1.70	
Ethylbenzene*	<0.050	0.050	06/19/2015	ND	1.82	91.2	2.00	2.34	
Total Xylenes*	<0.150	0.150	06/19/2015	ND	5.01	83.5	6.00	2.12	
Total BTEX	<0.300	0.300	06/19/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	06/22/2015	ND	432	108	400	3.77	

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	06/18/2015	ND	177	88.7	200	3.58	
DRO >C10-C28	<10.0	10.0	06/18/2015	ND	175	87.6	200	3.54	

Surrogate: 1-Chlorooctane 84.2 % 47.2-157

Surrogate: 1-Chlorooctadecane 90.0 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 DIVERSIFIED FIELD SERVICES, INC.
 MIKE BURTON
 P. O. BOX 5966
 HOBBS NM, 88241
 Fax To: (575) 393-2981

Received:	06/16/2015	Sampling Date:	06/16/2015
Reported:	06/22/2015	Sampling Type:	Soil
Project Name:	CASCADE 2A FED #3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

Sample ID: SP 8 @ 5' (H501569-03)

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	06/19/2015	ND	1.74	86.8	2.00	1.25	
Toluene*	<0.050	0.050	06/19/2015	ND	1.73	86.6	2.00	1.70	
Ethylbenzene*	<0.050	0.050	06/19/2015	ND	1.82	91.2	2.00	2.34	
Total Xylenes*	<0.150	0.150	06/19/2015	ND	5.01	83.5	6.00	2.12	
Total BTEX	<0.300	0.300	06/19/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	352	16.0	06/22/2015	ND	432	108	400	3.77	

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	06/18/2015	ND	177	88.7	200	3.58	
DRO >C10-C28	<10.0	10.0	06/18/2015	ND	175	87.6	200	3.54	

Surrogate: 1-Chlorooctane 98.3 % 47.2-157
Surrogate: 1-Chlorooctadecane 103 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 DIVERSIFIED FIELD SERVICES, INC.
 MIKE BURTON
 P. O. BOX 5966
 HOBBS NM, 88241
 Fax To: (575) 393-2981

Received:	06/16/2015	Sampling Date:	06/16/2015
Reported:	06/22/2015	Sampling Type:	Soil
Project Name:	CASCADE 2A FED #3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

Sample ID: SP 2 @ 4' (H501569-04)

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	06/19/2015	ND	1.74	86.8	2.00	1.25	
Toluene*	<0.050	0.050	06/19/2015	ND	1.73	86.6	2.00	1.70	
Ethylbenzene*	<0.050	0.050	06/19/2015	ND	1.82	91.2	2.00	2.34	
Total Xylenes*	<0.150	0.150	06/19/2015	ND	5.01	83.5	6.00	2.12	
Total BTEX	<0.300	0.300	06/19/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	06/22/2015	ND	432	108	400	3.77	

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	06/18/2015	ND	177	88.7	200	3.58	
DRO >C10-C28	<10.0	10.0	06/18/2015	ND	175	87.6	200	3.54	

Surrogate: 1-Chlorooctane 92.9 % 47.2-157
Surrogate: 1-Chlorooctadecane 98.0 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 DIVERSIFIED FIELD SERVICES, INC.
 MIKE BURTON
 P. O. BOX 5966
 HOBBS NM, 88241
 Fax To: (575) 393-2981

Received:	06/16/2015	Sampling Date:	06/16/2015
Reported:	06/22/2015	Sampling Type:	Soil
Project Name:	CASCADE 2A FED #3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

Sample ID: SP 6 @ 4' (H501569-05)

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	06/19/2015	ND	1.74	86.8	2.00	1.25	
Toluene*	<0.050	0.050	06/19/2015	ND	1.73	86.6	2.00	1.70	
Ethylbenzene*	<0.050	0.050	06/19/2015	ND	1.82	91.2	2.00	2.34	
Total Xylenes*	<0.150	0.150	06/19/2015	ND	5.01	83.5	6.00	2.12	
Total BTEX	<0.300	0.300	06/19/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	06/22/2015	ND	432	108	400	3.77	

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	06/18/2015	ND	177	88.7	200	3.58	
DRO >C10-C28	<10.0	10.0	06/18/2015	ND	175	87.6	200	3.54	

Surrogate: 1-Chlorooctane 90.7 % 47.2-157

Surrogate: 1-Chlorooctadecane 96.5 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 DIVERSIFIED FIELD SERVICES, INC.
 MIKE BURTON
 P. O. BOX 5966
 HOBBS NM, 88241
 Fax To: (575) 393-2981

Received:	06/16/2015	Sampling Date:	06/16/2015
Reported:	06/22/2015	Sampling Type:	Soil
Project Name:	CASCADE 2A FED #3	Sampling Condition:	Cool & Intact
Project Number:	2ND SPILL	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

Sample ID: SP 8 @ 6' (H501569-06)

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	06/19/2015	ND	1.74	86.8	2.00	1.25	
Toluene*	<0.050	0.050	06/19/2015	ND	1.73	86.6	2.00	1.70	
Ethylbenzene*	<0.050	0.050	06/19/2015	ND	1.82	91.2	2.00	2.34	
Total Xylenes*	<0.150	0.150	06/19/2015	ND	5.01	83.5	6.00	2.12	
Total BTEX	<0.300	0.300	06/19/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	512	16.0	06/22/2015	ND	432	108	400	3.77	

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	06/18/2015	ND	177	88.7	200	3.58	
DRO >C10-C28	<10.0	10.0	06/18/2015	ND	175	87.6	200	3.54	

Surrogate: 1-Chlorooctane 87.5 % 47.2-157
Surrogate: 1-Chlorooctadecane 91.7 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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



Celey D. Keene, Lab Director/Quality Manager



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

No records found.

Basin/County Search:

County: Lea

PLSS Search:

Section(s): 26

Township: 26S

Range: 32E

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.

DIVERSIFIED FIELD SERVICES, INC.

Project: Cascade 79 Feed Corn

Date Started: 11/24/15

Seed and lbs. used: 1.5 acres of BLM #2

Date Completed: 11/24/15

Curtis and Curtis, Inc.

4500 North Prince
Clovis, NM 88130
Phone: (575) 762-4759
www.curtisseed.com

Diversified Construction
1.5 Acre BLM #2, Broadcast Rate
1 - 1 Acre Bag @ 39.63 Bulk Pounds
1 - 1/2 Acre Bag @ 19.82 Bulk Pounds

Lot# M-13398

Item	Origin	Purity	Germ	Dormant	Total Germination	Test Date	Total PLS Pounds
Sand Dropseed VNS	New Mexico	10.51%	34.00%	62.00%	96.00%	06/15	6.00
Little Bluestem Aldous	Missouri	15.93%	91.00%	4.00%	95.00%	09/15	9.00
Coreopsis Plains	Colorado	11.22%	84.00%	6.00%	90.00%	09/15	6.00
Plains Bristlegrass VNS	Oklahoma	26.28%	15.00%	81.00%	96.00%	03/15	15.00
Sideoats Grama El Reno	New Mexico	16.46%	35.00%	57.00%	92.00%	06/15	9.00
Other Crop:	0.17%	There Are 2 Bags For This Mix		Total Bulk Pounds:		59	
Weed Seed:	0.08%	This Bag Weighs 19.82 Bulk Pounds					
Inert Matter:	19.35%	Use This Bag For 1/2 Acres					

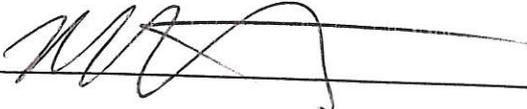
Curtis and Curtis, Inc.

4500 North Prince
Clovis, NM 88130
Phone: (575) 762-4759
www.curtisseed.com

Diversified Construction
1.5 Acre BLM #2, Broadcast Rate
1 - 1 Acre Bag @ 39.63 Bulk Pounds
1 - 1/2 Acre Bag @ 19.82 Bulk Pounds

Lot# M-13398

Item	Origin	Purity	Germ	Dormant	Total Germination	Test Date	Total PLS Pounds
Sand Dropseed VNS	New Mexico	10.51%	34.00%	62.00%	96.00%	06/15	6.00
Little Bluestem Aldous	Missouri	15.93%	91.00%	4.00%	95.00%	09/15	9.00
Coreopsis Plains	Colorado	11.22%	84.00%	6.00%	90.00%	09/15	6.00
Plains Bristlegrass VNS	Oklahoma	26.28%	15.00%	81.00%	96.00%	03/15	15.00
Sideoats Grama El Reno	New Mexico	16.46%	35.00%	57.00%	92.00%	06/15	9.00
Other Crop:	0.17%	There Are 2 Bags For This Mix		Total Bulk Pounds:		59	
Weed Seed:	0.08%	This Bag Weighs 39.63 Bulk Pounds					
Inert Matter:	19.35%	Use This Bag For 1 Acres					

Supervisor: 

Appendix V

FINAL C-141

Diversified Field Service, Inc.
206 W. Snyder
Hobbs, NM 88240
(575) 964-8394

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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 October 10, 2003
Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company	Cimarex Energy	Contact	Christine Alderman
Address	600 N Marienfeld Ste 600 Midland TX	Telephone No.	432-853-7059
Facility Name	Cascade 29-1	Facility Type	Production
Surface Owner	Federal	Mineral Owner	
		Lease No.	30-025-40346

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	29	25S	33E	330	N	350	W	Lea

Latitude 32.10795 Longitude -103.60165

NATURE OF RELEASE

Type of Release	Produced Water	Volume of Release	300 bbls	Volume Recovered	90 bbls
Source of Release	Poly Flowline	Date and Hour of Occurrence	6/6/15	Date and Hour of Discovery	6/6/15
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Kellie Jones/Jeffery Robertson		
By Whom?	Christine Alderman	Date and Hour	6/7/15 4:40 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.*

Describe Cause of Problem and Remedial Action Taken.*
Trucking company was moving a rig down the pipeline road near location and part of the derrick sliced the poly line open.

Describe Area Affected and Cleanup Action Taken.*
Fluids ran approximately 140 yards along lease road, and then approximately 320 yards down a dry creek bed. DESI samples the spill area and excavated the pasture area to 1' BGS. Native topsoil was brought in and the area was seeded with BLM #2 seed. The location was restored to its previous state.

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>Christine Alderman</i>	OIL CONSERVATION DIVISION		
Printed Name: Christine Alderman	Approved by District Supervisor: <i>[Signature]</i>		
Title: ESH Supervisor	Approval Date: 12/16/2015	Expiration Date: ///	
E-mail Address: calderman@cimarex.com	Conditions of Approval: ///		Attached <input type="checkbox"/> IRP 3701
Date: 12/3/2015	Phone: 432-853-7059		

* Attach Additional Sheets If Necessary