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Closure Report

Cimarex Energy Company: Silver Charm 12 Unit 1H (TX Well)

|42-109-32648|2RP-3808|

February 23, 2017

Prepared By:

TALON/LPE
408 W. Texas Avenue
Artesia, New Mexico 88210

Prepared For:

Cimarex Energy Company

Ms. Christine Alderman
Cimarex Energy Company
600 N. Marienfeld Ste. 600
Midland, TX 79701

Subject: **Remedial Activities and Closure Report**
Cimarex Energy Co.
Silver Charm 12 Unit 1H (TX) |42-109-32648|2RP-3808|

Dear Ms. Alderman,

Cimarex Energy Company (Cimarex) has contracted Talon/LPE (Talon) to perform soil assessment and consultation services at the above referenced location. The incident description, soil sampling results, remediation activities, revegetation plan, and closure request are submitted herein.

Site Information

The Cimarex Silver Charm 12 Unit 1H release is located approximately thirty-seven (37) miles south of Carlsbad, New Mexico. The legal location for this release is Unit Letter A, Section 31, Township 26S South and Range 28 East in Eddy County, New Mexico. More specifically the latitude and longitude are 32.0000419 North and -104.118808 West. A site plan is presented in [Appendix I](#).

According to the soil survey provided by the United States Department of Agriculture Natural Resources Conservation Service, the soil in this area is made up of the Reeves-Reagan loams with 0 to 3 percent slopes. Drainage courses in this area are normally dry.

Ground Water and Site Ranking

According to the New Mexico Office of the State Engineer database, the ground water in the project vicinity is approximately 120-feet below ground surface (BGS) (the referenced ground water data is presented in [Appendix II](#)). Therefore the ranking for this site is a **0** based on the following

Depth to ground water	>100'
Wellhead Protection Area	>1000'
Distance to surface water body	>1000'

Based upon the site ranking of **0**, NMOCD Recommended Remedial Action Levels (RRAL) are 50 mg/kg for BTEX, 10 mg/kg for Benzene, 5,000 mg/kg for TPH and the recommended guideline for Total Chlorides is 1,000 mg/kg.

Incident Description

A 12-inch poly water transfer line located in Texas just south of the New Mexico/Texas state line ruptured resulting in the release of approximately 20bbls of produced water. The fluid from this release flowed north into New Mexico for approximately 780-feet. The fluid was contained to an erosion ditch which varies between 3-feet and 8-feet wide. Upon discovery of the release the line was immediately shut in and crews responded to begin recovering standing fluid and excavating impacted soil. Approximately 10bbls of fluid were recovered. On January 30, 2017, Talon mobilized personnel to conduct soil sampling within the erosion ditch impacted by the release. The results of this soil sampling event are summarized in the table below.

Laboratory Results

See [Appendix IV](#) for complete report of laboratory results.

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
S-1	0	ND	283.6	ND	ND
S-1	1	--	48.0*	--	--
S-2	0	ND	141.8	ND	112
S-2	1	--	96*	--	--
S-3	0	ND	70.9	ND	22.2
S-3	1	--	48.0*	--	--
S-4	0	ND	70.9	ND	16.2
S-4	1	--	32.0*	--	--
S-5	0	ND	70.9	ND	201
S-5	1	--	16*	--	--

(--) Analyte Not Tested

(ND) Analyte Not Detected

(*) Laboratory Chloride Confirmation

Based upon the site ranking of 0, NMOCD Recommended Remedial Action Levels (RRAL) are 50 mg/kg for BTEX, 10 mg/kg for Benzene, 5,000 mg/kg for TPH and the recommended guideline for Total Chlorides is 1,000 mg/kg.

Initial Remedial Actions

- Immediately following the release vacuum trucks were mobilized to recover standing fluid. Approximately 10bbls of standing fluid were recovered.
- A backhoe was immediately mobilized to the site to scrape up the impacted soil.

Conclusions

- The analytical results from the soil sampling even on January 30, 2017, indicate that all of the impacted soil above NMOCD RRAL's was successfully removed during the initial response to this incident.
- Based on NMOCD guidelines for remediation of leaks, spills and releases, no further soil remediation is necessary at this site.

Revegetation Plan

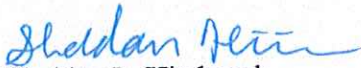
- The impacted erosion ditch will be ripped and left in a "rough" condition to approximate natural surface deviations, control erosion, and promote revegetation.
- New Mexico State Land Office (NMSLO) Loamy (L) seed mixture will be planted utilizing a Culti-Pack seed drill at a rate of 18.0 PLS/acre.
- Following seeding, a copy of the seed label will be provided to NMSLO.
- The site will be periodically monitored for revegetation to insure that revegetation matching or exceeding natural potential plant cover and diversity levels is achieved.
- The site will be monitored for noxious weeds development specifically African Rue.
- Should noxious weed issues occur or revegetation is slow to occur (accounting for precipitation levels) NMSLO will be consulted on the best course of action to reconcile the issue.

Closure

On behalf of Cimarex Energy we respectfully request that no further actions be required and that closure with regard to this release be granted.

If we can provide additional information or be of further assistance, please contact our office at (575)-746-8768.

TALON/LPE



Sheldon L. Hitchcock
Project Manager



David J. Adkins
District Manager

Attachments

Appendix I	Site Plan
Appendix II	Groundwater Data
Appendix III	Initial C-141 & Final C-141
Appendix IV	Laboratory Results

APPENDIX I

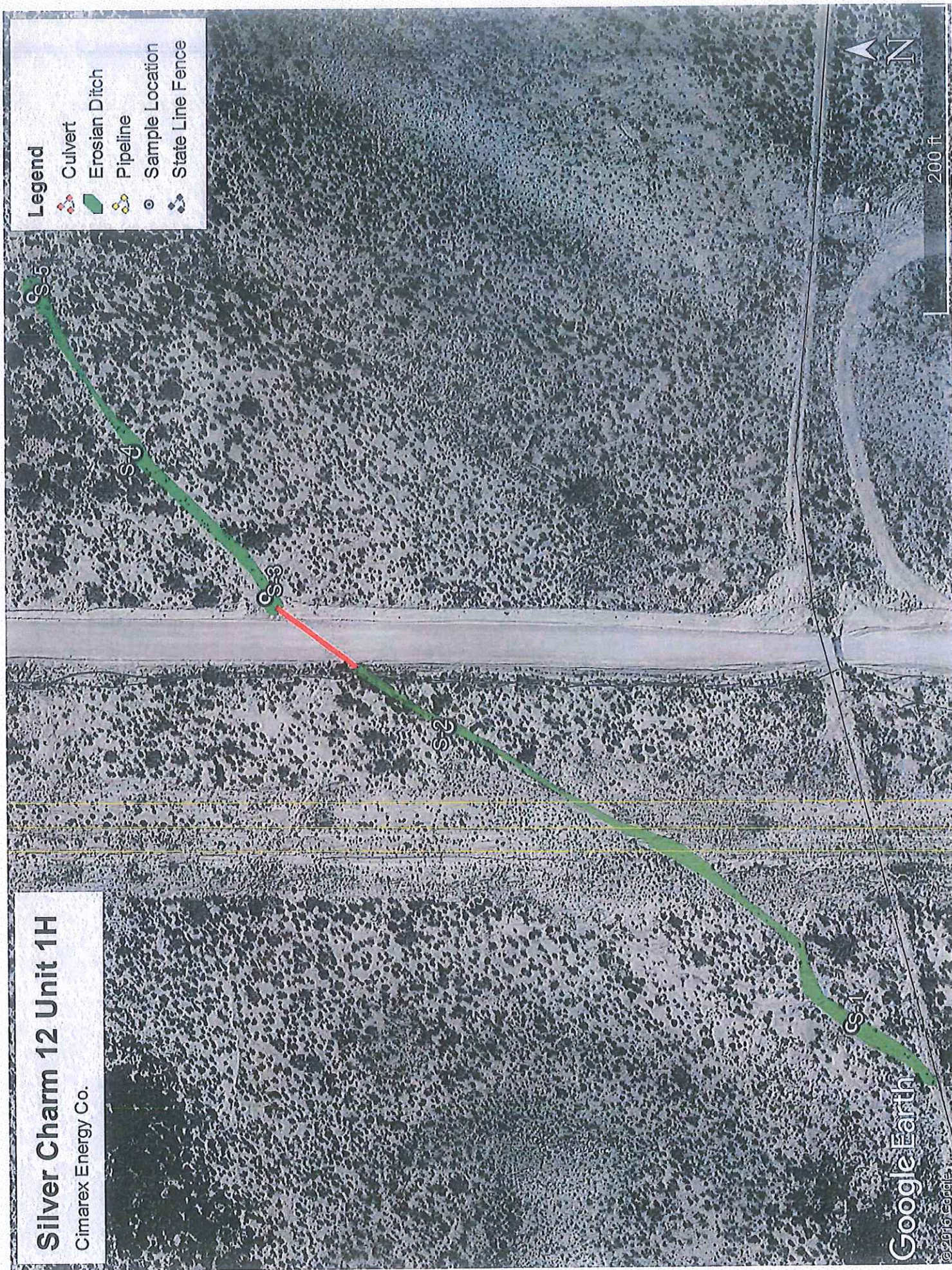
SITE PLAN

Silver Charm 12 Unit 1H

Cimarex Energy Co.

Legend

- Culvert
- Erosion Ditch
- Pipeline
- Sample Location
- State Line Fence



Google Earth

© 2016 Google

APPENDIX II

GROUNDWATER DATA



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

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

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

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 02476	CUB	ED		4	1	24	26S	27E		580653	3544032*	3762	150		
C 02475	CUB	ED		2	4	13	26S	27E		581450	3545252*	4380	100		
C 02160 S7		ED		3	3	1	22	26S	28E	586638	3543998*	4470	300	120	180

Average Depth to Water: 120 feet

Minimum Depth: 120 feet

Maximum Depth: 120 feet

Record Count: 3

Basin/County Search:

County: Eddy

UTMNAD83 Radius Search (in meters):

Easting (X): 583142

Northing (Y): 3541211

Radius: 5000

*UTM location was derived from PLSS - see Help

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

APPENDIX III
INITIAL C-141
&
Final C-141

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

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NM OIL CONSERVATION

ARTESIA DISTRICT

JUL 27 2016

Form C-141
Revised August 8, 2011

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

RECEIVED

Release Notification and Corrective Action

PAB1621435409
NAB1421435551

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	Silver Charm 12 Unit 1H (TX)	Facility Type	production
Surface Owner	private	Mineral Owner	
		API No. TX drilling permit #769545	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
								Eddy

Latitude 31.999852 Longitude -104.117886

NATURE OF RELEASE

Type of Release	produced water	Volume of Release	20 bbls	Volume Recovered	10 bbls
Source of Release	12" poly water transfer line	Date and Hour of Occurrence	7/26/2016	Date and Hour of Discovery	7/26/2016
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Shelly Tucker/ Heather Patterson		
By Whom?	Christine Alderman	Date and Hour	7/27/2016		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully

Describe Cause of Problem and Remedial Action Taken. A 12" poly water transfer line ruptured near the TX/NM state line. The water is from a TXRRRC lease (Silver Charm 12 unit 1H). Some of the fluids followed an erosion ditch approximately 3' wide onto the NM side. The fluids traveled approximately 500 yards.

Describe Area Affected and Cleanup Action Taken. Upon obtaining an Arc/Palco clearance, we will develop a work plan for approval and cleanup.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOC 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 NMOC 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, NMOC 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.

OIL CONSERVATION DIVISION

Signature: Christine Alderman	Approved by Environmental Specialist: <i>Hobbs</i>
Printed Name: Christine Alderman	Approval Date: 7/28/16 Expiration Date: N/A
Title: ESII Supervisor	Conditions of Approval: Remediation per O.C.D. Rules & Guidelines
E-mail Address: caldorman@cimarex.com	Attached <input type="checkbox"/>
Date: 7/27/2016 Phone: 432-853-7059	SUBMIT REMEDIATION PROPOSAL NO
* Attach Additional Sheets If Necessary	LATER THAN: 9/1/16 2RP-3808

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

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Cimarex Energy Company	Contact: Christine Alderman
Address: 600 N Marienfeld Ste. 600 Midland, TX 79701	Telephone No. 432-853-7059
Facility Name: Silver Charm Unit 1H (TX)	Facility Type: Production

Surface Owner: State	Mineral Owner: N/A	API No. 42-109-32648
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LOCATION OF RELEASE

Unit Letter A	Section 31	Township 26S	Range 28E	Feet from the	North/South Line	Feet from the	East/West Line	County Eddy
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Latitude 32.0000419 Longitude -104.118808

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 20bbls	Volume Recovered: 20bbls
Source of Release: 12" water transfer line	Date and Hour of Occurrence: 7/26/2016	Date and Hour of Discovery: 7/26/2016
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Shelly Tucker-BLM, Heather Patterson-NMOCD	
By Whom? Christine Alderman	Date and Hour: 7/27/2016	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

A 12" poly water transfer line just in Texas just south of the New Mexico/Texas state line ruptured resulting in the release of approximately 20bbls of produced water. Vacuum trucks were utilized to recover approximately 10bbls of standing fluids. A backhoe was mobilized to the site to begin scraping up impacted soil.

Describe Area Affected and Cleanup Action Taken.*

The release occurred in Texas and flowed north into New Mexico for approximately 780'. The fluid was contained within an erosion ditch which varies between 3 and 8' wide. A backhoe was immediately dispatched to the site to scrape up impacted soil. On January 30, 2017 soil samples were taken within the impacted erosion ditch. The results of the soil sampling indicated that all of the soil above NMOCD RRAL's was successfully removed.

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.

OIL CONSERVATION DIVISION

Signature: *Christine Alderman*

Printed Name: Christine Alderman

Title: ESH Supervisor

E-mail Address: calderman@cimarex.com

Date: 3/1/2017

Phone: 432-853-7059

Approved by Environmental Specialist:

Approval Date:

Expiration Date:

Conditions of Approval:

Attached ☐

* Attach Additional Sheets If Necessary

APPENDIX IV

LABORATORY RESULTS



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

February 06, 2017

SHELDON HITCHCOCK

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: SILVER CHARM WATER LINE

Enclosed are the results of analyses for samples received by the laboratory on 01/30/17 14:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

TALON LPE
SHELDON HITCHCOCK
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received: 01/30/2017
Reported: 02/06/2017
Project Name: SILVER CHARM WATER LINE
Project Number: NONE GIVEN
Project Location: CIMAREX

Sampling Date: 01/30/2017
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-1 0' (H700221-01)

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	02/01/2017	ND	1.80	90.2	2.00	0.0822		
Toluene*	<0.050	0.050	02/01/2017	ND	1.87	93.4	2.00	0.314		
Ethylbenzene*	<0.050	0.050	02/01/2017	ND	1.92	96.0	2.00	0.650		
Total Xylenes*	<0.150	0.150	02/01/2017	ND	5.45	90.9	6.00	0.777		
Total BTEX	<0.300	0.300	02/01/2017	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 103 % 73.6-140

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	02/01/2017	ND	199	99.4	200	2.90			
DRO >C10-C28	<10.0	10.0	02/01/2017	ND	218	109	200	2.21			

Surrogate: 1-Chlorooctane 108 % 35-147

Surrogate: 1-Chlorooctadecane 98.2 % 28-171

Sample ID: S-1 1' (H700221-02)

Chloride, SM4500Cl-B			mg/kg							Analyzed By: AC	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	48.0	16.0	02/03/2017	ND	416	104	400	0.00			

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

TALON LPE
SHELDON HITCHCOCK
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received: 01/30/2017
Reported: 02/06/2017
Project Name: SILVER CHARM WATER LINE
Project Number: NONE GIVEN
Project Location: CIMAREX

Sampling Date: 01/30/2017
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-2 0' (H700221-03)

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	02/01/2017	ND	1.80	90.2	2.00	0.0822	
Toluene*	<0.050	0.050	02/01/2017	ND	1.87	93.4	2.00	0.314	
Ethylbenzene*	<0.050	0.050	02/01/2017	ND	1.92	96.0	2.00	0.650	
Total Xylenes*	<0.150	0.150	02/01/2017	ND	5.45	90.9	6.00	0.777	
Total BTEX	<0.300	0.300	02/01/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 104 % 73.6-140

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	02/01/2017	ND	199	99.4	200	2.90	
DRO >C10-C28	112	10.0	02/01/2017	ND	218	109	200	2.21	

Surrogate: 1-Chlorooctane 82.9 % 35-147

Surrogate: 1-Chlorooctadecane 75.5 % 28-171

Sample ID: S-2 1' (H700221-04)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	02/03/2017	ND	416	104	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

TALON LPE
SHELDON HITCHCOCK
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received: 01/30/2017
Reported: 02/06/2017
Project Name: SILVER CHARM WATER LINE
Project Number: NONE GIVEN
Project Location: CIMAREX

Sampling Date: 01/30/2017
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-3 0' (H700221-05)

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	02/01/2017	ND	1.80	90.2	2.00	0.0822	
Toluene*	<0.050	0.050	02/01/2017	ND	1.87	93.4	2.00	0.314	
Ethylbenzene*	<0.050	0.050	02/01/2017	ND	1.92	96.0	2.00	0.650	
Total Xylenes*	<0.150	0.150	02/01/2017	ND	5.45	90.9	6.00	0.777	
Total BTEX	<0.300	0.300	02/01/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.6-140

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	02/01/2017	ND	199	99.4	200	2.90	
DRO >C10-C28	22.2	10.0	02/01/2017	ND	218	109	200	2.21	

Surrogate: 1-Chlorooctane 102 % 35-147

Surrogate: 1-Chlorooctadecane 89.4 % 28-171

Sample ID: S-3 1' (H700221-06)

Chloride, SM4500Cl-B			mg/kg Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/03/2017	ND	416	104	400	0.00	

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

TALON LPE
SHELDON HITCHCOCK
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received: 01/30/2017
Reported: 02/06/2017
Project Name: SILVER CHARM WATER LINE
Project Number: NONE GIVEN
Project Location: CIMAREX

Sampling Date: 01/30/2017
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-4 0' (H700221-07)

BTX 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	02/01/2017	ND	1.80	90.2	2.00	0.0822	
Toluene*	<0.050	0.050	02/01/2017	ND	1.87	93.4	2.00	0.314	
Ethylbenzene*	<0.050	0.050	02/01/2017	ND	1.92	96.0	2.00	0.650	
Total Xylenes*	<0.150	0.150	02/01/2017	ND	5.45	90.9	6.00	0.777	
Total BTX	<0.300	0.300	02/01/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 105 % 73.6-140

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	02/01/2017	ND	199	99.4	200	2.90	
DRO >C10-C28	16.2	10.0	02/01/2017	ND	218	109	200	2.21	

Surrogate: 1-Chlorooctane 95.8 % 35-147

Surrogate: 1-Chlorooctadecane 103 % 28-171

Sample ID: S-4 1' (H700221-08)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/03/2017	ND	416	104	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

TALON LPE
SHELDON HITCHCOCK
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received: 01/30/2017
Reported: 02/06/2017
Project Name: SILVER CHARM WATER LINE
Project Number: NONE GIVEN
Project Location: CIMAREX

Sampling Date: 01/30/2017
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-5 0' (H700221-09)

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	02/01/2017	ND	1.80	90.2	2.00	0.0822	
Toluene*	<0.050	0.050	02/01/2017	ND	1.87	93.4	2.00	0.314	
Ethylbenzene*	<0.050	0.050	02/01/2017	ND	1.92	96.0	2.00	0.650	
Total Xylenes*	<0.150	0.150	02/01/2017	ND	5.45	90.9	6.00	0.777	
Total BTEX	<0.300	0.300	02/01/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 102 % 73.6-140

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	02/01/2017	ND	199	99.4	200	2.90	
DRO >C10-C28	201	10.0	02/01/2017	ND	218	109	200	2.21	

Surrogate: 1-Chlorooctane 86.8 % 35-147

Surrogate: 1-Chlorooctadecane 97.7 % 28-171


Sample ID: S-5 1. (H700221-10)

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	02/03/2017	ND	416	104	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
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

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Celey 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: Talon/LE		P.O. #: Cinda rex		ANALYSIS REQUEST																					
Project Manager: S. Hitchcock		Company: Talon/LE																							
Address: 408 W. Texas Ave.		Attn: Christine Hildner																							
City: Artesia		Address:																							
Phone #: 575-746-8768		City:																							
State: NM Zip: 88210		State:																							
Fax #: 575-746-8905		Zip:																							
Project #:		Project Owner: Cinda rex																							
Project Name: Silver Charm Water Line		City:																							
Project Location:		State:																							
Sampler Name: S. Hitchcock		Phone #:																							
Fax #:		SAMPLING																							
FOR LAB USE ONLY		PRESERV																							
Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP.		# CONTAINERS		MATRIX		DATE		TIME													
								GROUNDWATER																	
								WASTEWATER																	
								SOIL																	
								OIL																	
								SLUDGE																	
								OTHER :																	
								ACID/BASE:																	
								ICE / COOL																	
								OTHER :																	
H100221		5-10'		G		1		1/30/17		9:30		TPH													
1		5-11'		G		1		4:35				BTEX													
2		5-20'		G		1		4:40																	
3		5-21'		G		1		4:45																	
4		5-30'		G		1		4:50																	
5		5-40'		G		1		4:55																	
6		5-41'		G		1		10:00																	
7		5-50'		G		1		10:05																	
8		5-51'		G		1		10:10																	
9		5-52'		G		1		10:15																	
10																									
PLEASE NOTE: Liability and identity exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. 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. If the event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruption, 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 remedies or otherwise.																									
Relinquished By: <u>Sheldon Hildner</u>																									
Received By: <u>Christine Hildner</u>																									
Date: <u>1/30/17</u>																									
Time: <u>4:40</u>																									
Delivered By: (Circle One) <u>#75 4.60</u>																									
Sampler - UPS - Bus - Other: <u>#75 4.60</u>																									
Sample Condition: <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Cool <input type="checkbox"/> Yes <input type="checkbox"/> No																									
CHECKED BY: <u>[Signature]</u>																									
REMARKS:																									
Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No																									
Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No																									
Add'l Phone #:																									
Add'l Fax #:																									

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