

HOBBS OCD

JUL 26 2012

RECEIVED

McElvain Energy, Inc.

MCELVAIN #5 PRODUCED WATER TANK RELEASE / LIGHTNING STRIKE

FINAL C141 CLOSURE REPORT

API 30-025-29051

UL-M (SW¼ OF THE SW¼) OF SECTION 25 T18S
R33E LATITUDE: N 32° 42.796' LONGITUDE: W 103°
37.356'

~15.9 MILES W (BEARING 373.3°) OF ARKANSAS
JUNCTION

LEA COUNTY, NEW
MEXICO

July 25, 2012

PREPARED BY: TONY COOPER, SENIOR EHS SPECIALIST

MCELVAIN ENERGY INC.
1050 17TH Street Suite 2500 Denver, Colorado 80265

Table of Contents

1.0 Project Summary.....	3
2.0 Site Description	4
2.1 Geological Description	4
2.2 Ecological Description	4
2.3 Area Ground Water	5
2.4 Area Water Wells	5
2.5 Area Surface Water Features	5
3.0 Contaminant and Size of Area	5
4.0 NMOCD Site Ranking	6
5.0 Remediation Process	6-7

ATTACHMENTS

Plate 1: Site Location Map
Plate 2: Site Topography Map
Plate 3: Site Aerial Photograph
Plate 4: Ground Water Elevation Contour Map
Plate 5: Site Detail Drawing
Cardinal Laboratory Analytical Reports
Photographs
Initial NMOCD C-141(s)
Final NMOCD C-141 Form

1.0 Project Summary

Release Site Name: McElvain #5 (Fiberglass PW Tank)
Operating Company: McElvain Oil & Gas Properties, Inc
Company Representative: E. Reed Fischer, Sr. Operations Engineer Phone: 303-893-0933
Address: 1050 17th St, Suite 2500, Denver, CO 80265 Email: reedf@mcelvain.com

SITE SPECIFIC DATA:

Legal Description: Lea County, New Mexico UL-M Section 25 T18S R33E
General Location: 15.9 miles W (373.3°) of Arkansas Junction, Lea County, NM
Latitude: N32° 42.796' Longitude: W103° 37.356' Elevation: 3,840-ft amsl
Land Ownership: Public – Bureau of Land Management
Ground Water Elevation: 100-ft (Water Contour Map)
Water Wells within 1000-ft: none Surface Water within 1000-ft: none

RELEASE SPECIFIC DATA:

Date and Time of Release(s): 7/3/2012 – discovered on 7/4/2012 AM
Material Released: Produced Water with Trace Crude Oil component
Volume Released: ~160-bbl Volume Recovered: 158-bbl
Cause of Release: Lightning Strike – 400-bbl Fiberglass PW Tank
Release Affected Area: ~1250-ft²
Depth of Contamination: 1-3-(ft bgs)
NMOCD Site Ranking: 10 (ground water >50-ft, <100-ft)

Remediation Action Levels: TPH: 1000-ppm; Benzene: 10-ppm; BTEX: 50-ppm; Chlorides 250-ppm

REMEDIATION SUMMARY:

Remediation of the release affected area consisted of the removal and disposal of 15-yd³ of trace hydrocarbon and chloride contaminated gravel covering the poly liner. The gravel, poly liner, and cutup fiberglass tank was disposed of at the R-360 disposal facility, Hobbs NM. The bottom (1-ft bgs) of the release area was sampled in a five spot grid. All samples were confirmed to be below the NMOCD thresholds for TPH, Benzene, and BTEX through analytical analyses performed by Cardinal Laboratories, Hobbs, NM.

Chloride concentrations at (1-ft bgs) ranged between 575 and 625 ppm between four composite samples. Upon further direction from the NMOCD a chloride field test kit was used to determine the vertical range of the chloride levels. The field test kit showed 300 ppm @ (2-ft bgs) and 200 ppm at (3-ft bgs). A confirmation soil sample was taken @ (3-ft bgs) and sent to Cardinal Labs for analyses of chloride levels. Results confirmed chlorides levels to be @ 240 ppm at the (3-ft

bgs) level which is under the 250 level required by NMOCD. All of the soil sample analysis results from Cardinal Laboratories have been included for your review.

Upon NMOCD approval of this final report the area will be relined with a poly liner and backfilled with gravel purchased from a private source. A new 300 bbl fiberglass open top produced water tank will be set in the area when received from the manufacturer. A new containment berm will then be constructed around the produced water tank battery area. The containment area for the water tank is 34' x 37' (1258 sq ft). McElvain Energy Inc. requests that NMOCD require "no further action" as regards to the July 3rd, 2012 release of produced water at this location.

2.0 Detailed Site Description

2.1 Geological Description

The United States Geological Survey (USGS) Ground-Water Report 6, "Geology and Ground-Water Conditions in Southern Lea County, New Mexico," A. Nicholson and A. Clebsch, 1961, describes the near surface geology of southern Lea County as "an intergrade of the Quaternary Alluvium (QA) sediments, i.e., fine to medium sand, with the mostly eroded Cenozoic Ogallala (CO) formation. Typically, the QA and CO formations in the area are capped by a thick interbed of caliche and generally overlain by sandy soil." The release site is located in the Querecho Plains physiographic subdivision, described by Nicholson & Clebsch as "covered almost entirely by dune sand which is stable or semi- stable over most of the area, but which locally drifts. The surface is very irregular and has no drainage features except at the edges of several playas. The sand is generally underlain by recent alluvium but in several places the sand forms topographic highs where it is underlain by a caliche surface. The thickness of the sand cover ranges from a few inches to a probable maximum of 20 feet."

2.2 Ecological Description

The area is typical of the Upper Chihuahuan Desert Biome consisting primarily of hummocky sand hills covered with Harvard Shin Oak (*Quercus harvardi*) interspersed with Honey Mesquite (*Prosopis glandulosa*) along with typical desert grasses, flowering annuals and flowering perennials. Mammals represented, include Orrd's and Merriam's Kangaroo Rat, Deer Mouse, White Throated Wood Rat, Cottontail Rabbit, Black Tailed Jackrabbit, Mule Deer, Bobcat, Red Fox and Coyote. Reptiles, Amphibians, and Birds are numerous and typical of the area. A survey of Listed,

Threatened, or Endangered species was not conducted.

2.3 Area Ground Water

The Chevron-Texaco water contour map (*Plate 4 of Attachments*) indicates that water in this area is 100-ft bgs.

2.4 Area Water Wells

There are no recorded or observed water wells within 1000 horizontal feet of the site.

2.5 Area Surface Water Features

No permanent surface water bodies exist within 1000 horizontal feet of the site.

3.0 Contaminant and Size of Area

The primary Contaminants of Concern (COC's) were chlorides and possible trace amounts of TPH and BTEX resulting from the produced water release on 7/3/2012. The extent of the release was contained within the bermed produced water tank containment area ~34' x 37' (~1258-ft²).

4.0 NMOCD Site Ranking

Contaminant delineation and site evaluation work done at this site indicate that the chemical parameters of the soil and the physical parameters of the ground water were characterized consistent with the characterization and remediation/abatement goals and objectives set forth in the following New Mexico Oil Conservation Division (NMOCD) publications:

- *Guidelines for Remediation of Leaks, Spills and Releases (August 13, 1993)*

Acceptable thresholds for contaminants/constituents of concern (CoCs), i.e., TPH^{8015m}, Benzene, and the mass sum of Benzene, Toluene, Ethyl Benzene, and total Xylenes (BTEX⁸²⁶⁰), was determined based on the NMOCD Ranking Criteria as follows:

- *Depth to Ground water, i.e., distance from the lower most acceptable concentration to the ground water.*
- *Wellhead Protection Area, i.e., distance from fresh water supply wells.*
- *Distance to Surface Water Body, i.e., horizontal distance to all down gradient surface water bodies.*

Based on the proximity of the site to area water wells, surface water bodies, and depth to ground water from the lower most contamination, the NMOCD ranking score for the site is 10 points

with the soil remedial goals highlighted in the Site Ranking Table.

SITE RANKING TABLE			
1. GROUND WATER		2. WELLHEAD PROTECTION	3. DISTANCE TO SURFACE WATER
DEPTH TO GW <50 FEET: 20 POINTS		IF <1000' FROM WATER SOURCE, OR; <200' FROM PRIVATE DOMESTIC WATER SOURCE: 20 POINTS	<200 HORIZONTAL FEET: 20 POINTS
DEPTH TO GW 50 TO 99 FEET: 10 POINTS			200-1000 HORIZONTAL FEET: 10 POINTS
DEPTH TO GW >100 FEET: 0 POINTS		IF >1000' FROM WATER SOURCE, OR; >200' FROM PRIVATE DOMESTIC WATER SOURCE: 0 POINTS	>1000 HORIZONTAL FEET: 0 POINTS
GROUND WATER SCORE = 0		WELLHEAD PROTECTION SCORE= 0	SURFACE WATER SCORE= 0
SITE RANK (1+2+3)=10 + 0 + 0 = 0 POINTS			
TOTAL SITE RANKING SCORE AND ACCEPTABLE REMEDIAL GOAL CONCENTRATIONS			
PARAMETER	201	10	0
BENZENE	10 PPM	10 PPM	10 PPM
BTEX	50 PPM	50 PPM	50 PPM
TPH	100 PPM	1000 PPM	5000 PPM

5.0 Remediation Process

REMEDIATION SUMMARY:

Remediation of the release affected area consisted of the removal and disposal of 15-yd³ of trace hydrocarbon and chloride contaminated gravel covering the poly liner. The gravel, poly liner, and cutup fiberglass tank was disposed of at the R-360 disposal facility, Hobbs NM. The bottom (1-ft bgs) of the release area was sampled in a five spot grid. All samples were confirmed to be below the NMOCD thresholds for TPH, Benzene, and BTEX through analytical analyses performed by Cardinal Laboratories, Hobbs, NM.

Chloride concentrations at (1-ft bgs) ranged between 575 and 625 ppm between four composite samples. Upon further direction from the NMOCD a chloride field test kit was used to determine the vertical range of the chloride levels. The field test kit showed 300 ppm @ (2-ft bgs) and 200 ppm at (3-ft bgs). A confirmation soil sample was taken @ (3-ft bgs) and sent to Cardinal Labs for analyses of chloride levels. Results confirmed chlorides levels to be @ 240 ppm at the (3-ft bgs) level which is under the 250 level required by NMOCD. All of the soil sample analysis results from Cardinal Laboratories have been included for your review.

Upon NMOCD approval of this final report the area will be relined with a poly liner and backfilled with gravel purchased from a private source. A new 300 bbl fiberglass open top produced water tank will be set in the area when received from the manufacturer. A new containment berm

backfilled with gravel purchased from a private source. A new 300 bbl fiberglass open top produced water tank will be set in the area when received from the manufacturer. A new containment berm will then be constructed around the produced water tank battery area. The containment area for the water tank is 34' x 37' (1258 sq ft). McElvain Energy Inc. requests that NMOCD require "no further action" as regards to the July 3rd, 2012 release of produced water at this location.

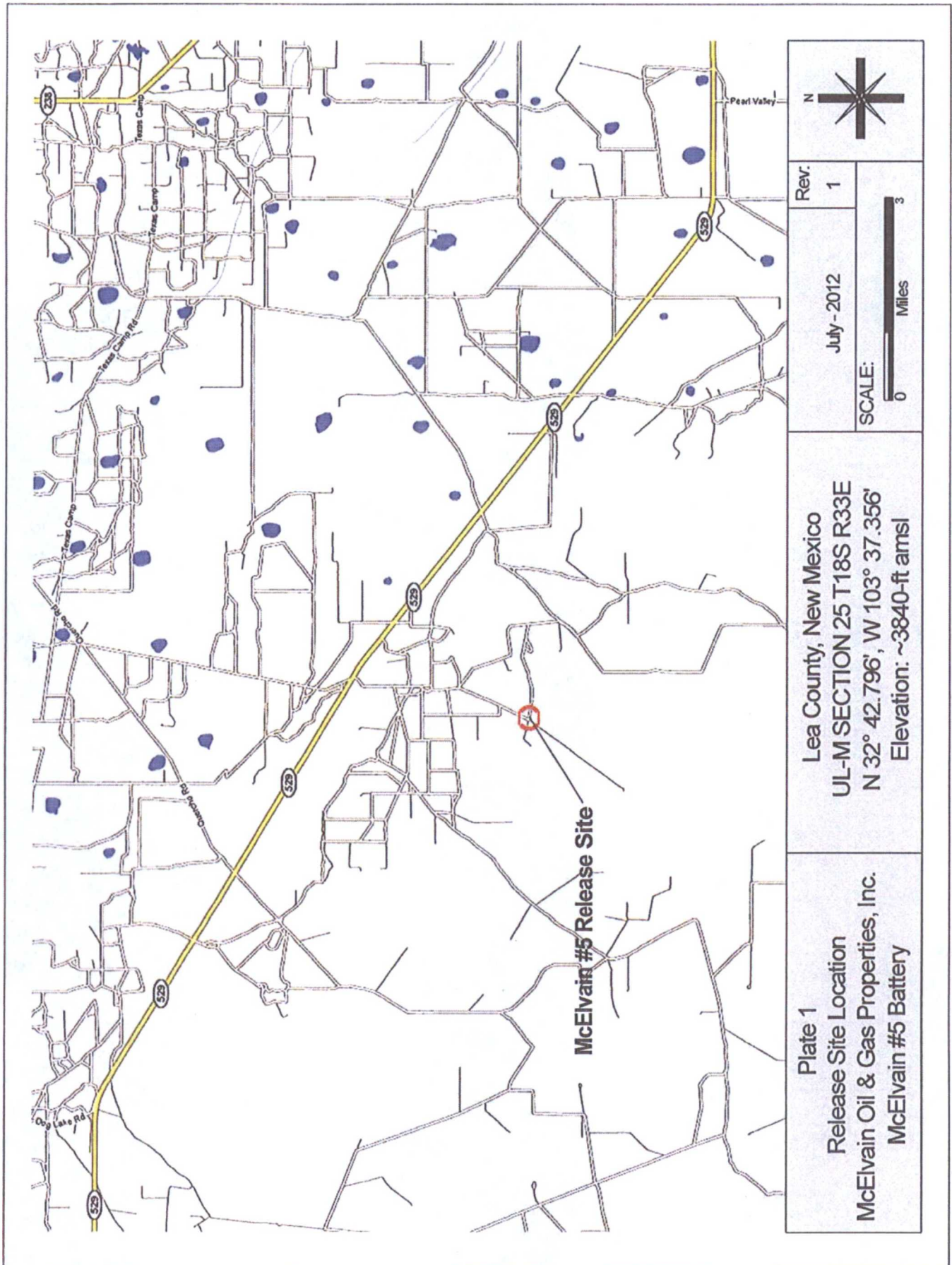




Plate 2 Release Site Topography McElvain Oil & Gas Properties, Inc. McElvain #5 Battery	Lea County, New Mexico UL-M SECTION 25 T18S R33E N 32° 42.796', W 103° 37.356' Elevation: ~3840-ft amsl	<div> <div>Rev</div> <div>1</div> </div> <div> <div>July - 2012</div> <div>SCALE:</div> <div>0 4000 Feet</div> </div>	<div> <div>N</div> <div> </div> </div>
--	--	---	--

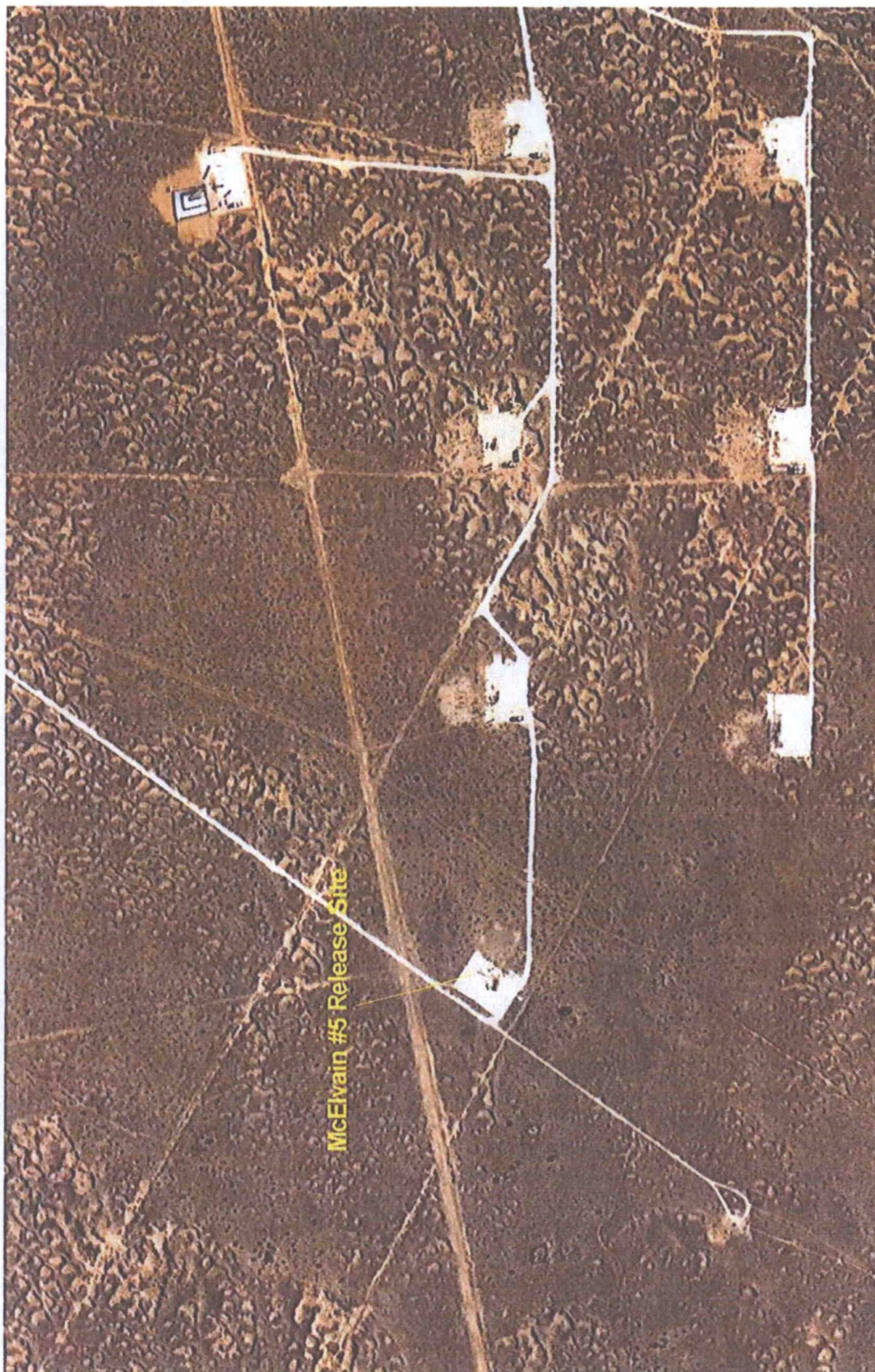
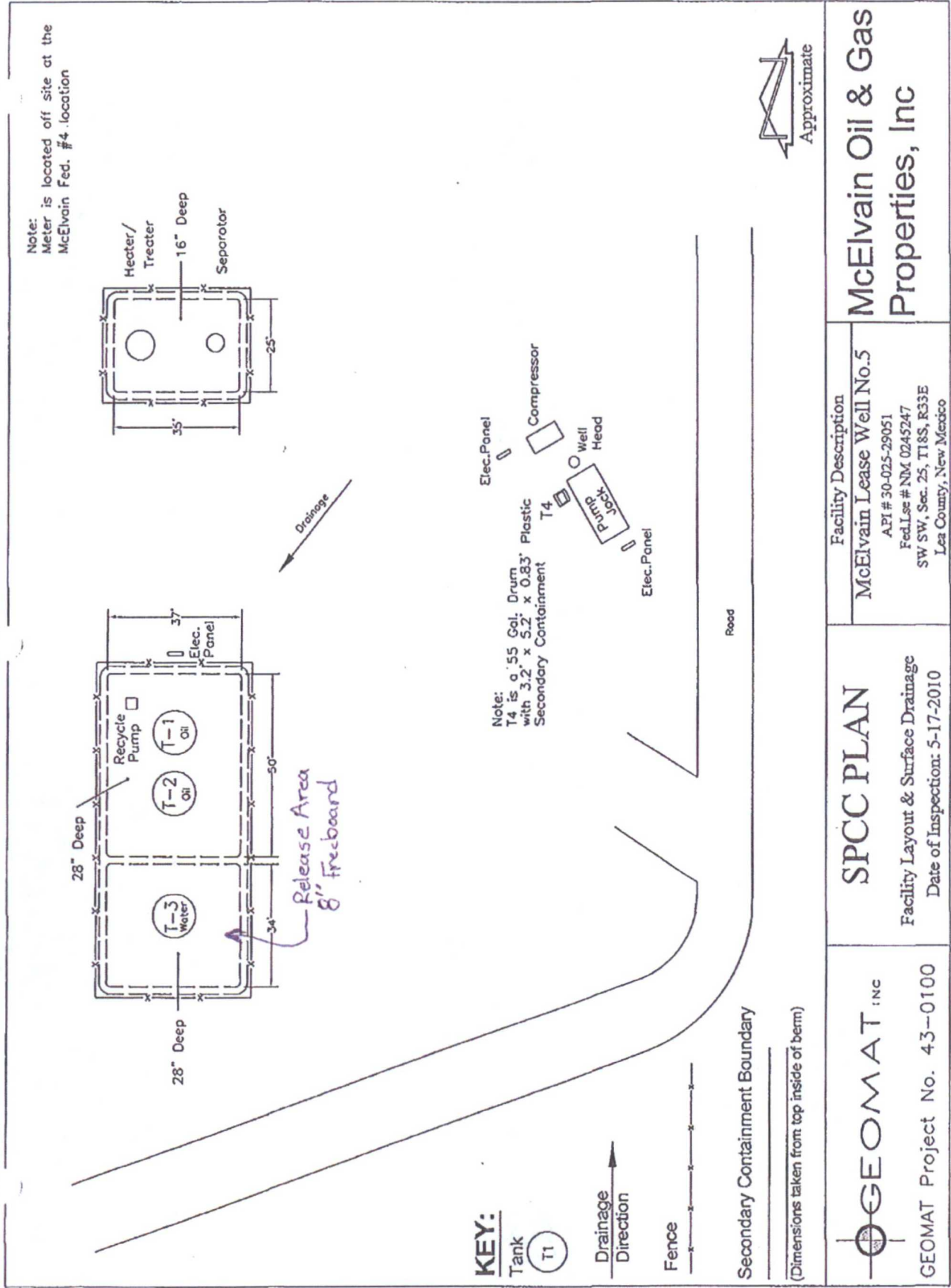
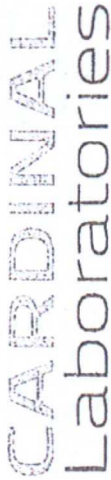


Plate 3 Release Site Aerial Photograph McElvain Oil & Gas Properties, Inc. McElvain #5 Battery	Lea County, New Mexico UL-M SECTION 25 T18S R33E N 32° 42.796', W 103° 37.356' Elevation: ~3840-ft amsl	<table border="1"> <tr> <td data-bbox="1252 422 1341 737"> July - 2012 </td> <td data-bbox="1252 359 1341 422"> Rev 1 </td> </tr> <tr> <td colspan="2" data-bbox="1341 359 1425 737"> SCALE: </td> </tr> </table>	July - 2012	Rev 1	SCALE: 		
July - 2012	Rev 1						
SCALE: 							





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

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 causes 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 the client or 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 cited causes or otherwise.

Relinquished By: <u>Sean Alexander</u>		Date: <u>4-6-12</u>		Received By: <u>Gadi Jensen</u>		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #: <u>602-1947</u>	
Relinquished By:		Type: <u>1415</u>		Date:		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #:	
Time:				Time:					
Delivered By: (Circle One)		Sample Condition		CHECKED BY: (initials)					
Sampler - UPS - Bus - Other:		Cool <input type="checkbox"/> Yes <input type="checkbox"/> No		Intact <input type="checkbox"/> Yes <input type="checkbox"/> No					
REMARKS: <u>tonycamelvain.com</u> <u>rsalexander387@gmail.com</u> <u>samples taken & brought directly</u>									

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



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

July 13, 2012

MC ELVAIN OIL & GAS

MC ELVAIN OIL & GAS

1050 17TH STREET, SUITE 2500

DENVER, CO 80265

RE: MC ELVAIN LEASE #5

Enclosed are the results of analyses for samples received by the laboratory on 07/06/12 14:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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,

Hope Moreno

Inorganic Technical Director

Analytical Results For:

MC ELVAIN OIL & GAS
MC ELVAIN OIL & GAS
1050 17TH STREET, SUITE 2500
DENVER CO, 80265
Fax To: NOT GIVEN

Received:	07/06/2012	Sampling Date:	07/06/2012
Reported:	07/13/2012	Sampling Type:	Soil
Project Name:	MC ELVAIN LEASE #5	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	OFF HWY 529		

Sample ID: #1 (H201543-01)

BTX 8021B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/11/2012	ND	1.81	90.3	2.00	3.87	
Toluene*	<0.050	0.050	07/11/2012	ND	1.84	91.8	2.00	2.07	
Ethylbenzene*	<0.050	0.050	07/11/2012	ND	1.86	93.0	2.00	2.40	
Total Xylenes*	<0.150	0.150	07/11/2012	ND	5.61	93.5	6.00	2.08	

Surrogate: 4-Bromofluorobenzene (PIE) 104 % 89.4-126

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	07/10/2012	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: AM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/12/2012	ND	193	96.5	200	0.00207	
DRO >C10-C28	68.4	10.0	07/12/2012	ND	202	101	200	0.0431	

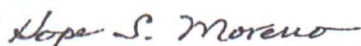
Surrogate: 1-Chlorooctane 69.4 % 65.2-140

Surrogate: 1-Chlorooctadecane 91.3 % 63.6-154

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.



Hope Moreno, Inorganic Technical Director

Analytical Results For:

MC ELVAIN OIL & GAS
MC ELVAIN OIL & GAS
1050 17TH STREET, SUITE 2500
DENVER CO, 80265
Fax To: NOT GIVEN

Received:	07/06/2012	Sampling Date:	07/06/2012
Reported:	07/13/2012	Sampling Type:	Soil
Project Name:	MC ELVAIN LEASE #5	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	OFF HWY 529		

Sample ID: #2 (H201543-02)

BTX 8021B		mg/kg		Analyzed By: ZZZ					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/11/2012	ND	1.81	90.3	2.00	3.87	
Toluene*	<0.050	0.050	07/11/2012	ND	1.84	91.8	2.00	2.07	
Ethylbenzene*	<0.050	0.050	07/11/2012	ND	1.86	93.0	2.00	2.40	
Total Xylenes*	<0.150	0.150	07/11/2012	ND	5.61	93.5	6.00	2.08	

Surrogate: 4-Bromofluorobenzene (PIE) 103 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	576	16.0	07/10/2012	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: AM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/12/2012	ND	193	96.5	200	0.00207	
DRO >C10-C28	23.7	10.0	07/12/2012	ND	202	101	200	0.0431	

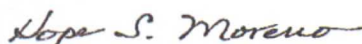
Surrogate: 1-Chlorooctane 78.1 % 65.2-140

Surrogate: 1-Chlorooctadecane 102 % 63.6-154

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.



Hope Moreno, Inorganic Technical Director

Analytical Results For:

MC ELVAIN OIL & GAS
MC ELVAIN OIL & GAS
1050 17TH STREET, SUITE 2500
DENVER CO, 80265
Fax To: NOT GIVEN

Received:	07/06/2012	Sampling Date:	07/06/2012
Reported:	07/13/2012	Sampling Type:	Soil
Project Name:	MC ELVAIN LEASE #5	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	OFF HWY 529		

Sample ID: #3 (H201543-03)

BTEX 8021B		mg/kg		Analyzed By: ZZZ					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/11/2012	ND	1.81	90.3	2.00	3.87	
Toluene*	<0.050	0.050	07/11/2012	ND	1.84	91.8	2.00	2.07	
Ethylbenzene*	<0.050	0.050	07/11/2012	ND	1.86	93.0	2.00	2.40	
Total Xylenes*	<0.150	0.150	07/11/2012	ND	5.61	93.5	6.00	2.08	

Surrogate: 4-Bromofluorobenzene (PIE) 103 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	576	16.0	07/10/2012	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: AM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/12/2012	ND	193	96.5	200	0.00207	
DRO >C10-C28	23.6	10.0	07/12/2012	ND	202	101	200	0.0431	

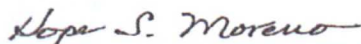
Surrogate: 1-Chlorooctane 79.1 % 65.2-140

Surrogate: 1-Chlorooctadecane 104 % 63.6-154

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.



Hope Moreno, Inorganic Technical Director

Analytical Results For:

MC ELVAIN OIL & GAS
MC ELVAIN OIL & GAS
1050 17TH STREET, SUITE 2500
DENVER CO, 80265
Fax To: NOT GIVEN

Received:	07/06/2012	Sampling Date:	07/06/2012
Reported:	07/13/2012	Sampling Type:	Soil
Project Name:	MC ELVAIN LEASE #5	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	OFF HWY 529		

Sample ID: #4 (H201543-04)

BTX 8021B		mg/kg		Analyzed By: ZZZ					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/11/2012	ND	1.81	90.3	2.00	3.87	
Toluene*	<0.050	0.050	07/11/2012	ND	1.84	91.8	2.00	2.07	
Ethylbenzene*	<0.050	0.050	07/11/2012	ND	1.86	93.0	2.00	2.40	
Total Xylenes*	<0.150	0.150	07/11/2012	ND	5.61	93.5	6.00	2.08	

Surrogate: 4-Bromofluorobenzene (PIE) 102 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	592	16.0	07/10/2012	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: AM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/12/2012	ND	193	96.5	200	0.00207	
DRO >C10-C28	17.7	10.0	07/12/2012	ND	202	101	200	0.0431	

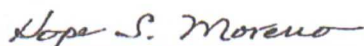
Surrogate: 1-Chlorooctane 66.9 % 65.2-140

Surrogate: 1-Chlorooctadecane 86.0 % 63.6-154

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.



Hope Moreno, Inorganic Technical Director

Analytical Results For:

MC ELVAIN OIL & GAS
MC ELVAIN OIL & GAS
1050 17TH STREET, SUITE 2500
DENVER CO, 80265
Fax To: NOT GIVEN

Received:	07/06/2012	Sampling Date:	07/06/2012
Reported:	07/13/2012	Sampling Type:	Soil
Project Name:	MC ELVAIN LEASE #5	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	OFF HWY 529		

Sample ID: SMITH RANCH PIT (H201543-05)

BTX 8021B		mg/kg		Analyzed By: ZZZ					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/11/2012	ND	1.81	90.3	2.00	3.87	
Toluene*	<0.050	0.050	07/11/2012	ND	1.84	91.8	2.00	2.07	
Ethylbenzene*	<0.050	0.050	07/11/2012	ND	1.86	93.0	2.00	2.40	
Total Xylenes*	<0.150	0.150	07/11/2012	ND	5.61	93.5	6.00	2.08	

Surrogate: 4-Bromofluorobenzene (PIE) 102 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	07/10/2012	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: AM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/12/2012	ND	193	96.5	200	0.00207	
DRO >C10-C28	<10.0	10.0	07/12/2012	ND	202	101	200	0.0431	

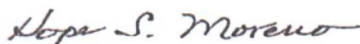
Surrogate: 1-Chlorooctane 78.9 % 65.2-140

Surrogate: 1-Chlorooctadecane 105 % 63.6-154

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 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 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.



Hope Moreno, Inorganic Technical Director

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 x ☒ Final Report

Name of Company- McElvain Energy	Contact - Tony Cooper	
Address - 1050 17 th Street Suite 2500 Denver Co 80265	Telephone No. 303-893-0933 cell 303-501-0004	
Facility Name - McElvain #5 Facility	Facility Type - Tank Battery	
Surface Owner - BLM USA	Mineral Owner - BLM USA	API No.- 30-025-29051

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	25	18S	33E		660 FSL		810 FWL	Lea

Latitude 32.7131761435436 Longitude -103.622517463922

NATURE OF RELEASE

Type of Release - <i>PRODUCED WATER RELEASE</i>	Volume of Release - <i>EST 158 - 160 BBLs</i>	Volume Recovered - <i>EST 158 BBLs</i>
Source of Release - <i>400 BBL FIBERGLASS WATER TANK (above ground)</i>	Date and Hour of Occurrence <i>EST 7/3/2012 PM</i>	Date and Hour of Discovery <i>7/4/2012 AM</i>
Was Immediate Notice Given? <div style="text-align: center;">X <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required</div>	If YES, To Whom? <i>Spoke with Jeff Lecking (NMOCD) at 11:50 am on 7/5/2012 and reported the release. Will follow up with a Form C-141 initial release notification report.</i>	
By Whom? <i>Tony Cooper EHS Coordinator McElvain Energy Denver CO</i>	Date and Hour- <i>7/5/2012 11:50am</i>	
Was a Watercourse Reached? <div style="text-align: center;"><input type="checkbox"/> Yes x <input checked="" type="checkbox"/> No</div>	If YES, Volume Impacting the Watercourse. <i>NA</i>	
If a Watercourse was Impacted, Describe Fully.* <i>NA</i>		
Describe Cause of Problem and Remedial Action Taken.* <i>Lightning strike to above ground produced water tank</i>		
Describe Area Affected and Cleanup Action Taken.* <i>On 7/4/2012 a vacuum truck was called and recovered approximately 158 bbls of produced water contained within the tank containment area. The containment area was not breached by the release. The containment area was lined with a poly liner so the soil in the containment area is not expected to have been impacted by the release.</i> <i>Remediation of the release affected area consisted of the removal and disposal of 15-yd3 of trace hydrocarbon and chloride contaminated gravel covering the poly liner. The gravel, poly liner, and cutup fiberglass tank was disposed of at the R-360 disposal facility, Hobbs NM. The bottom (1-ft bgs) of the release area was sampled in a five spot grid. All samples were confirmed to be below the NMOCD thresholds for TPH, Benzene, and BTEX through analytical analyses performed by Cardinal Laboratories, Hobbs, NM.</i> <i>Chloride concentrations at (1-ft bgs) ranged between 575 and 625 ppm between four composite samples. Upon further direction from the NMOCD a chloride field test kit was used to determine the vertical range of the chloride levels. The field test kit showed 300 ppm @ (2-ft bgs) and 200 ppm at (3-ft bgs). A confirmation soil sample was taken @ (3-ft bgs) and sent to Cardinal Labs for analyses of chloride levels. Results confirmed chlorides levels to be @ 240 ppm at the (3-ft bgs) level which is under the 250 level required by NMOCD. All of the soil sample analysis results from Cardinal Laboratories have been included for your review.</i> <i>Upon NMOCD approval of this final report the area will be relined with a poly liner and backfilled with gravel purchased from a private source. A new 300 bbl fiberglass open top produced water tank will be set in the area when received from the manufacturer. A new containment berm will then be constructed around the produced water tank battery area. The containment area for the water tank is 34' x 37' (1258 sq ft). McElvain Energy Inc. requests that NMOCD require "no further action" as regards to the July 3rd, 2012 release of produced water at this location.</i>		

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:

Tony G. Cooper

Printed Name:

Tony G. Cooper

Approved by Environmental Specialist:

Title:

Sr EHS Specialist

Approval Date:

Expiration Date:

E-mail Address:

tonyg@McElwain.com

Conditions of Approval:

Attached ☐

Date:

7-25-12

Phone:

303 401 0004

* Attach Additional Sheets If Necessary



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

July 23, 2012

TONY COOPER

MC ELVAIN OIL & GAS

1050 17TH STREET, SUITE 2500

DENVER, CO 80265

RE: MC ELVAIN #5 WELL

Enclosed are the results of analyses for samples received by the laboratory on 07/20/12 16:07.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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



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

Analytical Results For:

MC ELVAIN OIL & GAS
TONY COOPER
1050 17TH STREET, SUITE 2500
DENVER CO, 80265
Fax To: NOT GIVEN

Received: 07/20/2012
Reported: 07/23/2012
Project Name: MC ELVAIN #5 WELL
Project Number: NONE GIVEN
Project Location: LEA COUNTY

Sampling Date: 07/20/2012
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Jodi Henson

Sample ID: MC ELVAIN #5 (H201685-01)

Chloride, SM4500Cl-B

mg/kg

Analyzed By: HM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	07/23/2012	ND	432	108	400	0.00	

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

PHOTOS

07/06/2012 -Reconstruction of release containment area.





NAME

~~COMPANY~~

~~PHONE/EMAIL~~

McELVAIN #5 PRODUCED WATER TANK

clarify

1) Smith Ranch Pit Sample BG
- 1 of 5 after liner removed?

2) CHLORIDE REMOVAL TESTING BELOW LINER?
LAB @ 1' - > 500 4 COMPOSITE SAMPLES?

2' - 300' FIELD

3' - 200' FIELD 240 PPM LAB

#1 CL 656

#2 576

#3 576

#4 592

SMITH PIT 32.0 (This Backfill right - NO BG)

5 SPOT GRID REALLY ONLY 4 SAMP POINTS
RIGHT?

WHERE DID YOU GET THE COLOR PORTION OF M/M O/C D
MAP

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

x ☐ Initial Report ☐ Final Report

Name of Company- McElvain Energy	Contact - Tony Cooper	
Address - 1050 17 th Street Suite 2500 Denver Co 80265	Telephone No. 303-893-0933 cell 303-501-0004	
Facility Name - McElvain #5 Facility	Facility Type - Tank Battery	
Surface Owner - BLM USA	Mineral Owner - BLM USA	API No.- 30-025-29051

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	25	18S	33E		660 FSL		810 FWL	Lea

Latitude 32.7131761435436 Longitude-103.622517463922

NATURE OF RELEASE

Type of Release - PRODUCED WATER RELEASE	Volume of Release - EST 158 - 160 BBLS	Volume Recovered - EST 158 BBLS
Source of Release - 400 BBL FIBERGLASS WATER TANK (above ground)	Date and Hour of Occurrence EST 7/3/2012 PM	Date and Hour of Discovery 7/4/2012 AM
Was Immediate Notice Given? Required X <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not	If YES, To Whom? Spoke with Jeff Lecking (NMOCD) at 11:50 am on 7/5/2012 and reported the release. Will follow up with a Form C-141 initial release notification report.	
By Whom? Tony Cooper EHS Coordinator McElvain Energy Denver CO	Date and Hour- 7/5/2012 11:50am	
Was a Watercourse Reached? <input type="checkbox"/> Yes x <input type="checkbox"/> No	If YES, Volume Impacting the Watercourse. NA	
If a Watercourse was Impacted, Describe Fully.* NA		
Describe Cause of Problem and Remedial Action Taken.* Lightning strike to above ground produced water tank		
Describe Area Affected and Cleanup Action Taken.* On 7/4/2012 a vacuum truck was called and recovered approximately 158 bbls of produced water contained within the tank containment area. The containment area was not breached by the release. The containment area was lined with a poly liner so the soil in the containment area is not expected to have been impacted by the release. Scheduling soil samples to be taken by local environmental contractor ASAP. Will test for THP BTEX and chlorides as per NMOCD requirements.		
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: Tony G. Cooper		OIL CONSERVATION DIVISION
Printed Name: Tony G Cooper		Approved by Environmental Specialist:
Title: Sr. EHS Specialist	Approval Date:	Expiration Date:
E-mail Address: TonyC@McElvain.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 7-5-12 Phone: 303 501 0004		

* Attach Additional Sheets If Necessary