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

Operator: McElvain Energy, Inc.

Facility or well name: \_\_Cougar Com 33 #1M\_

Address: 1050 17<sup>th</sup> St. Suite 2500, Denver, CO 80265

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

Form C-144 Revised June 6, 2013

For temporary pits, below-grade tanks, and multi-well fluid management pits, submit to the appropriate NMOCD District Office.

For permanent pits submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

# Proposed Alternative Method Permit or Closure Plan Application Type of action: Below grade tank registration Type of action: Permit of a pit or proposed alternative method Closure of a pit, below-grade tank, or proposed alternative method Modification to an existing permit/or registration Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank, or proposed alternative method Instructions: Please submit one application (Form C-144) per individual pit, below-grade tank or alternative request Tised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water ground water or the

OGRID #: \_\_\_\_\_\_ 22044\_\_\_\_\_

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

API Number:30-039-26669 OCD Permit Number:835
U/L or Qtr/QtrM Section33 Township26N Range2W County:RioAriba
Center of Proposed Design:       Latitude36.4364 N
Surface Owner: A Federal A State Private Tribal Trust or Indian Allotment
2.
Pit: Subsection F, G or J of 19.15.17.11 NMAC
Temporary: Drilling Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A ☐ Multi-Well Fluid Management ☐ Low Chloride Drilling Fluid ☐ yes ☐ no
Lined Unlined Liner type: Thicknessmil LLDPE HDPE PVC Other
☐ String-Reinforced
Liner Seams: Welded Factory Other Volume: bbl Dimensions: L x W x D
3. * As trascusad Please Follow Approved PlAN
Below-grade tank: Subsection I of 19.15.17.11 NMAC   Final Not Flent on Albert to public Fortiles
Volume: 95 bbl Type of fluid: Oil& Water Prome Notification IS NOT Approximately 100 Delication IS NOT
Tank Construction material:Steel Table I Closure is For 201  Secondary containment with leak detection Usible sidewalls, liner, 6-inch lift and automatic overflow shut-off  Table I Closure is For 201  Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
Secondary containment with leak detection  Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☑ Visible sidewalls only ☐ Other
Liner type: Thicknessmil
4.
Alternative Method:
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.
5.
Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)
Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)
Four foot height, four strands of barbed wire evenly spaced between one and four feet
□ Alternate. Please specify4" Hog wire w/top rail = 4'
(23)

6.					
Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)					
☐ Screen ☐ Netting ☑ OtherExpanded Metal					
☐ Monthly inspections (If netting or screening is not physically feasible)					
7.					
Signs: Subsection C of 19.15.17.11 NMAC					
12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers					
⊠ Signed in compliance with 19.15.16.8 NMAC					
8.					
Variances and Exceptions:					
Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.  Please check a box if one or more of the following is requested, if not leave blank:					
☐ Variance(s): Requests must be submitted to the appropriate division district for consideration of approval.					
Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.					
Siting Criteria (regarding permitting): 19.15.17.10 NMAC					
Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of accept material are provided below. Siting criteria does not apply to drying pads or above-grade tanks.	otable source				
material are provided below. String effecting does not apply to drying pads of above grade tanks.					
General siting					
Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank.	☐ Yes ☐ No				
- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	□ NA				
Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit.	☐ Yes ☐ No				
NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	□ NA				
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	☐ Yes ☐ No				
adopted pursuant to NMSA 1978, Section 3-27-3, as amended. ( <b>Does not apply to below grade tanks</b> )  - Written confirmation or verification from the municipality; Written approval obtained from the municipality					
- Written commination of verification from the municipality, written approvar obtained from the municipality					
Within the area overlying a subsurface mine. (Does not apply to below grade tanks)  - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No				
Within an unstable area. (Does not apply to below grade tanks)					
<ul> <li>Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; USGS; NM Geological Society; Topographic map</li> </ul>	☐ Yes ☐ No				
	☐ Yes ☐ No				
Within a 100-year floodplain. (Does not apply to below grade tanks) - FEMA map					
Below Grade Tanks					
Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured	☐ Yes ☐ No				
from the ordinary high-water mark).					
- Topographic map; Visual inspection (certification) of the proposed site					
Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;.  - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site					
Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15,000 mg/liter)					
Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole,					
or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.)  - Topographic map; Visual inspection (certification) of the proposed site	Yes No				
Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial	☐ Yes ☐ No				
application.  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	163 <u></u> 140				
Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application.  NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	Yes No				

Within 100 feet of a wetland.  - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Temporary Pit Non-low chloride drilling fluid	
Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No
Within 500 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application; - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet of a wetland US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Permanent Pit or Multi-Well Fluid Management Pit	
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No
Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.  - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 500 feet of a wetland.  - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
10.	D. C. C.
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 Natructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the docattached.  Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19. and 19.15.17.13 NMAC Previously Approved Design (attach copy of design) API Number: or Permit Number: or Permit Number:	NMAC 15.17.9 NMAC
II. Multi Wall Fluid Management Pit Cheeklist, Subsection B of 10 15 17 0 NMAC	
Multi-Well Fluid Management Pit Checklist: Subsection B of 19.15.17.9 NMAC  Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the doc attached.  Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC  Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC  A List of wells with approved application for permit to drill associated with the pit.  Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19 and 19.15.17.13 NMAC  Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC  Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC	.15.17.9 NMAC
Previously Approved Design (attach copy of design) API Number: or Permit Number:	

12.						
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC  Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the	documents are					
attached.  Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC  Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC  Climatological Factors Assessment  Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC  Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC  Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC  Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC  Quality Control/Quality Assurance Construction and Installation Plan  Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC  Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC  Nuisance or Hazardous Odors, including H <sub>2</sub> S, Prevention Plan  Emergency Response Plan  Oil Field Waste Stream Characterization  Monitoring and Inspection Plan  Erosion Control Plan  Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC						
Proposed Closure: 19.15.17.13 NMAC  Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.  Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Multi-well F Alternative	luid Management Pit					
Proposed Closure Method: Waste Excavation and Removal Waste Removal (Closed-loop systems only) On-site Closure Method (Only for temporary pits and closed-loop systems) In-place Burial On-site Trench Burial Alternative Closure Method						
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be closure plan. Please indicate, by a check mark in the box, that the documents are attached.  □ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC  □ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.13 NMAC  □ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)  □ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC  □ Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC						
is.  Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC  Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable sour provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. I 19.15.17.10 NMAC for guidance.						
Ground water is less than 25 feet below the bottom of the buried waste.  - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA					
Ground water is between 25-50 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA					
Ground water is more than 100 feet below the bottom of the buried waste.  - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells  \[ \textstyle \text{Yes} \subseteq \text{No} \]  \[ \textstyle \text{NA} \]						
Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, lakebed, sinkhole, or playa ake (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site						
Vithin 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image						
Vithin 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, in existence the time of initial application.  - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site						
Vritten confirmation or verification from the municipality; Written approval obtained from the municipality  Yes No						
Within 300 feet of a wetland.  IS Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site						
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	Yes No					

adopted pursuant to NMSA 1978, Section 3-27-3, as amended.  - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No						
Within the area overlying a subsurface mine Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division							
<ul> <li>Within an unstable area.</li> <li>Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; USGS; NM Geological Society; Topographic map</li> </ul>	☐ Yes ☐ No						
Within a 100-year floodplain FEMA map	Yes No						
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.  Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC  Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection E of 19.15.17.13 NMAC  Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17.11 NMAC  Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.13 NMAC  Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of 19.15.17.13 NMAC  Waste Material Sampling Plan - based upon the appropriate requirements of 19.15.17.13 NMAC  Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)  Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC  Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC							
Operator Application Certification:							
I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and bel	ief.						
Name (Print): Title:							
Signature: Date:							
e-mail address: Telephone:							
OCD Approval: Permit Application (including closure plan) Closure plan (only) OCD Conditions (see attachment) Society of the Conditions (see attachment) S	EE Provd						
Title: Description of the opening that the opening the							
Closure Report (required within 60 days of closure completion): 19.15.17.13 NMAC  Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not section of the form until an approved closure plan has been obtained and the closure activities have been completed.  Closure Completion Date:10/14/2014							
20.  Closure Method:  Waste Excavation and Removal  On-Site Closure Method  Alternative Closure Method  Waste Removal (Closed-logold If different from approved plan, please explain.	oop systems only)						
Closure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please in mark in the box, that the documents are attached.  Proof of Closure Notice (surface owner and division)  Proof of Deed Notice (required for on-site closure for private land only)  Plot Plan (for on-site closures and temporary pits)	ndicate, by a check						

Form C-144

22. Operator Closure Certification:	
I hereby certify that the information and attachments submitted with this closure report belief. I also certify that the closure complies with all applicable closure requirements a	
Name (Print): _Deborah K Powell	Title:Eng Tech Manager
Name (Print): _Deborah K Powell	Date:12/3/2014
e-mail address:Debbyp@Mcelvain.com	Telephone:303-893-0933

### McElvain Oil & Gas Properties, Inc. San Juan Basin Closure Plan

In accordance with Rule 19.15.17.1 NMAC the following procedure describes the closure plan for the McElvain Energy, Inc (MEI) below grade tank on the Cougar Com 33 #1M well located in the SWSW of Sec 33, T26N, 2W.

### **Closure Requirements:**

- 1. MEI shall close the below grade tank within the time periods provided in 19.15.17.13 NMAC or by an earlier date that the division requires because of imminent danger to fresh water, public health, or the environment.
- 2. MEI shall close an existing below grade tank that does not meet the requirements of Paragraph (1) through (4) of Subsection I of 19.15.17.11 NMAC or is not included in Paragraph (5) of Subsection I of 19.15.17.11 NMAC within five years after June 16, 2008 if not retrofitted to comply with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC.
- 3. MEI shall close a permitted below grade tank within 60 days of cessation of the below ground tank's operation or as required by the transitional provisions of Subsection B of 19.15.17.17 NMAC in accordance with a closure plan that the appropriate division district office approves. The closure report will be filed on C-144.
- 4. All liquids will be removed from the temporary permit prior to closure and the liquids disposed of in a division approved facility. **No liquids in tank**.
- 5. MEI shall remove the below grade tank and dispose of it in a division approved facility or recycle, reuse, or reclaim it in a manner that the appropriate division district office approves. **Tank Removed**
- 6. MEI will remove any on-site equipment associated with the below grade tank unless the equipment is required for some other purpose. **Associated equipment removed.**
- 7. MEI shall test the soils beneath the below grade tank to determine whether a release has occurred. MEI shall collect a five point composite sample and individual grab samples from any area that is wet, discolored, or showing other evidence of a release. The samples will be analyzed for BTEX, TPH, and chlorides to demonstrate that the individual constituent levels are below the levels set forth in the published closure criteria found in 19.15.17.13 (H)(5) Table 1 NMAC. MEI shall notify the division of its results on form C-141 if any corrective action need be taken. **Analytical report included.**

- 8. If MOG or the division determines that a release has occurred, then MEI shall comply with 19.15.3.116 NMAC and 19.15.1.19 NMAC as appropriate. **No release occurred. C-141 Included**
- 9. If contamination is confirmed by field sampling. MEI will follow the Guidelines For Remediation Of Leaks, Spills, and Releases NMOCD August 1993 when remediating identified contaminants. **None Present**
- 10. If the sampling program demonstrates that a release has not occurred or that any release does not exceed the concentrations specified in Paragraph (4) of Subsection E of 19.15.17.13 NMAC, then MEI shall backfill the excavation with compacted, non-waste containing, earthen material; construct a division-prescribed soil cover; re-contour, and re-vegetate the site. **Backfilled with good soil and re-contoured.**
- 11. Notice of closure will be given to the Aztec Division office between 72 hours and one week of closure via email or verbally. The notification of closure will include the following:
  - · Operator's name
  - · Location by Unit Letter, Section Township, and Range.
  - · Well name and API number Notification Attached
- 12. All closure activities will include proper documentation and be available for review upon request and will be submitted to OCD within 60 days of closure of the blow grade tank. The closure report will be filed on C-144 and incorporate the following:
  - · Details on capping and covering where applicable
  - · Inspection reports
  - · Sampling results Attached
- 13. The site will be re-contoured to match the surrounding area. Natural drainages will be unimpeded and erosion control will be utilized where necessary. **Re-Contoured to natural landscape**
- 14. MEI shall seed the disturbed areas the first growing season with a division approved seed mixture after pit closure. Seeding will be accomplished by drilling on the contour whenever possible or by other division approved methods. Repeat seeding or planting will be continued until successful vegetative growth occurs. **Location has been seeded.**
- 15. A minimum of four feet of cover shall be achieved and the cover shall include one foot of suitable material to establish vegetation at the site, or the thickness of the topsoil native to the area, whichever is greater. **Four plus Feet of soil.**

16. The surface owner shall be notified of MOG's closing of the below grade tank as per the approved closure plan using certified mail with return receipt requested. **Notification by Phone**.

### **Debby Powell**

From:

Randy Elledge

Sent:

Wednesday, October 08, 2014 8:33 AM

To:

Jonathan.Kelly@state.nm.us; Cory.Smith@State.nm.us; Brandon.Powell@state.nm.us;

**Debby Powell** 

Cc:

John Steuble; Glenn Hise; Tony Cooper; Tiffany McIntosh (tmcintosh@envirotech-

inc.com)

Subject:

Pit closures

McElvain Energy, Inc. will be sampling and removing the below grade pit tank (BGT) at the Cougar Com 33-1M on October 14<sup>th</sup> at 10:00am. Upon removal of the BGT, we will move to the Ora #8 and remove and sample the BGT on this location as well. If the samples return below the required limits, then backfilling will take place. If the test results are above the required limits, remediation will take place. Envirotech will be taking the field samples and conducting the laboratory analysis. I can be reached at 505-320-4969.

Randy J. Elledge Wapiti Energy Services, LLC



November 25, 2014

Project Number 06039-0035

Mr. Randy Elledge McElvain Oil & Gas 700 Dekalb Street Farmington, New Mexico 87401

Phone:

(505) 320-4969

RE: BELOW-GRADE TANK CLOSURE DOCUMENTATION FOR THE COUGAR COM #33-1M WELL SITE, RIO ARRIBA COUNTY, NEW MEXICO

Dear Mr. Elledge:

Enclosed please find the field notes and analytical results for below-grade tank (BGT) closure activities conducted at the Cougar Com #33-1M well site located in Section 33, Township 26 North, Range 2 West, Rio Arriba County, New Mexico. Upon Envirotech personnel's arrival on October 14, 2014, one (1) five (5)-point composite soil sample was collected from directly beneath the former BGT; see enclosed *Field Notes*. The sample was placed into a four (4)-ounce glass jar, capped headspace free, and transported on ice, under chain of custody, to Envirotech's Analytical Laboratory to be analyzed for total petroleum hydrocarbons (TPH) using USEPA Method 418.1 and 8015, benzene and total BTEX using USEPA Method 8021, and chlorides using USEPA Method 300.0. The sample returned results below the regulatory standards for all constituents analyzed, confirming a release had not occurred; see enclosed *Summary of Analytical Results* and *Analytical Results*. Envirotech, Inc. recommends no further action in regards to this incident.

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

Respectfully submitted,

ENVIROTECH, INC.

Sheena Leon

Environmental Field Technician

sleon@envirotech-inc.com

Enclosure(s): Field Notes

Summary of Analytical Results

Analytical Results

Cc:

Client File Number 06039

						V 100 00 000	AMAZIA AMAZIA
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PAGE NO: OF		en	VII	ote	cn	14.	2 cm
				(800) 362-1		0	nau 1
DATE STARTED: 10 1414				armington, NM		LAT: 36	431274
DATE FINISHED: 10 14 14						LONG: ~	17.061522
FIELD	REPORT: BO	GT / PI	T CLOS	SURE VE	RIFIC	ATION	
LOCATION: NAME: DLOCK	T'DM V	WELL#:	33-IM	EMP PIT:	PERMA	NENT PIT:	BGT:
LEGAL ADD: UNIT:	SEC: 33		TWP:	le n	RNG: 20	Ů :	PM:
QTR/FOOTAGE:	(	CNTY: P	Dirno		ST: Ne	w men	100
EXCAVATION APPROX:	FT. X		FT. X	-	FT DEEP	CUBIC YA	RDAGE:
DISPOSAL FACILITY:		-	-	TION METHO	-		
LAND OWNER:	I	API:		The second secon		VOLUME:	
CONSTRUCTION MATERIAL:	I	DOUBLE-V	VALLED, W	ITH LEAK D	ETECTIO	N:	
LOCATION APPROXIMATELY:	I	FT.	)	FROM WELL	HEAD		
DEPTH TO GROUNDWATER:							
TEMPORARY PIT - GROUNI	DWATER 50-100 FE	ET DEEP					
BENZENE ≤ 0.2 mg/kg, BTEX ≤ 5	50 mg/kg, GRO & DRO	FRACTION	(8015) ≤ 500	mg/kg, TPH (4	118.1) ≤ 250	0 mg/kg, CHL	ORIDES ≤ 500 mg/kg
TEMPORARY PIT - GROUN	DWATER >100 FFF	TOFFP					
BENZENE ≤ 0.2 mg/kg, BTEX ≤ 5			(8015) < 500	ma/ka TPH (4	18 1) < 250	0 mg/kg CHI	ORIDES < 1000 mg/kg
	o mg ng, one a Dno	1101011011	(0013) 2 300	1110/115, 1111	10.17 = 250	o mg ng, orac	21.000 mg ng
PERMANENT PIT OR BGT							
BENZENE ≤ 0.2 mg/kg, BTEX ≤	50 mg/kg, 1PH (418.1)	) ≤ 100 mg/kg	g, CHLORID	$ES \le 250 \text{ mg/kg}$	g		
				D 418.1 ANAL			0.110
	ME SAMPLE LD.	LAB NO.	WEIGHT (g)	mL FREON	DILUTION		CALC. (mg/kg)
10:	1D 200 STD	1	5	20	X4	183	
1	DO IN CIT	2		010	NY		
		3					
		4					
		5				+	
		0					
PERIMETER		The same of the sa	HLORIDE	S RESULTS		PRO	OFILE
		SAMPLE	READING	CALC.			
		_ ID _		(mg/kg)	-		
N.							
1					1		
			-		-		
		1	PID RESU	LTS	1		
				RESULTS	1		
		SAMI	PLE ID	(mg/kg)			
		DGI		0.0			
					-		
				-			
				1 Sp BGT			-
LAB SAMPLES	NOTES:	A 00	halas	1 -	a int	Como	KIH.
	SULTS	( OK)	l CHO	1 54	JOHN W	Will ike	
BENZENE		000	d	01-			
GRO & DRO	Cam	who ()	maler	15011			
CHLORIDES	Jell 1	file "					
	ranking:	-			-		
	WORKORDE	R#		WHO ORDER	RED		

Table 1, Summary of Analytical Results
McElvain Oil and Gas
Cougar Com #33-1M
Below Ground Tank Closure Report
Rio Arriba County, New Mexico
Project Number 06039-0035

Sample Description	Sample Number	Date	TPH USEPA Method 418.1 (ppm)	TPH USEPA Method 8015 (ppm)	Benzene USEPA Method 8021 (ppm)	BTEX USEPA Method 8021 (ppm)	Chlorides USEPA Method 300.0 (ppm)
NMOCD/RCRA Standards	NA	NA	2500	1000	10	50	10000
BGT Composite	1	10/14/2014	ND	ND	ND	ND	ND

NS = Not Sampled

ND = Non-Detect at Stated Method's Detection Limit

<sup>\*</sup> Values in **BOLD** above regulatory standards

### EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:

McElvain Oil & Gas

Project #:

06039-0035

Sample No.:

1

Date Reported:

11/24/2014

Sample ID:

**BGT Composite** 

Date Sampled:

10/14/2014

Sample Matrix: Preservative: Soil Cool Date Analyzed: Analysis Needed:

10/14/2014 TPH-418.1

Condition:

Cool and Intact

		Det.
	Concentration	Limit
Parameter	(mg/kg)	(mg/kg)

**Total Petroleum Hydrocarbons** 

ND

5.0

ND = Parameter not detected at the stated detection limit.

References:

Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis

of Water and Waste, USEPA Storet No. 4551, 1978.

Comments:

Cougar Com #33-1M

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Review

Sheena Leon

Toni McKnight, EIT
Printed

Printed

### CONTINUOUS CALIBRATION EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Cal. Date:

14-Oct-14

Parameter	Standard Concentration mg/L	Concentration Reading mg/L	
ТРН	100		
	200	182	
	500		
	1000		

The accepted percent relative deviation (%RSD) of the calibration factor is less than 20% over the working range.

Sheem Off	11/24/2014
Analyst	Date
Sheena Leon Print Name	
Ioni Mchist	11/24/2014
Review	Date

Toni McKnight, EIT

Print Name



### **Analytical Report**

### **Report Summary**

Client: McElvain Energy, Inc.

Chain Of Custody Number: 17482

Samples Received: 10/14/2014 4:10:00PM

Job Number: 06039-0035

Work Order: P410055

Project Name/Location: Cougar Com 33-1M

Entire Report Reviewed By:

Date: 10/22/14

Tim Cain, Laboratory Manager

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



Farmington NM, 87499-5610

PO Box 5610

Project Name:

Cougar Com 33-1M

Project Number: Project Manager: 06039-0035

Etech

Reported:

22-Oct-14 14:23

### **Analyical Report for Samples**

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BGT Composite	P410055-01A	Soil	10/14/14	10/14/14	Glass Jar, 4 oz.

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Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301



Farmington NM, 87499-5610

Project Name:

Project Manager:

Cougar Com 33-1M

PO Box 5610

Project Number:

06039-0035

Etech

Reported: 22-Oct-14 14:23

### **BGT Composite** P410055-01 (Solid)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1442019	10/15/14	10/22/14	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1442019	10/15/14	10/22/14	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1442019	10/15/14	10/22/14	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1442019	10/15/14	10/22/14	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1442019	10/15/14	10/22/14	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1442019	10/15/14	10/22/14	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1442019	10/15/14	10/22/14	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		93.8 %	50-	150	1442019	10/15/14	10/22/14	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	9.99	mg/kg	1	1442019	10/15/14	10/22/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	40.0	mg/kg	2	1442014	10/15/14	10/15/14	EPA 8015D	
Surrogate: o-Terphenyl		102 %	50-2	200	1442014	10/15/14	10/15/14	EPA 8015D	
Surrogate: 4-Bromochlorobenzene-FID		85.6%	50-	150	1442019	10/15/14	10/22/14	EPA 8015D	
Cation/Anion Analysis								=	
Chloride	ND	9.88	mg/kg	1	1442020	10/15/14	10/15/14	EPA 300.0	



Farmington NM, 87499-5610

Project Name:

Cougar Com 33-1M

PO Box 5610

Project Number:

Project Manager:

06039-0035

Etech

Reported:

22-Oct-14 14:23

### Volatile Organics by EPA 8021 - Quality Control

### **Envirotech Analytical Laboratory**

Analyte	Result	Reporting	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes		
		Link	Oma	Lord	Result	/ercbC	Liuus	KI D	Liiii	140005		
Batch 1442019 - Purge and Trap EPA 5	J30A											
Blank (1442019-BLK1)	Prepared: 14-Oct-14 Analyzed: 16-Oct-14											
Benzene	ND	0.10	mg/kg									
Toluene	ND	0.10	**									
Ethylbenzene	ND	0.10	**									
p,m-Xylene	ND	0.20										
o-Xylene	ND	0.10	•									
Total Xylenes	ND	0.10	85									
Total BTEX	ND	0.10	n									
Surrogate: 4-Bromochlorobenzene-PID	0.395		ar	0.400		98.9	50-150					
LCS (1442019-BS1)												
Benzene	18.5	0.10	mg/kg	20.0		92.5	75-125					
Toluene	18.6	0.10	-	20.0		92.9	70-125					
Ethylbenzene	18.7	0.10		20.0		93.4	75-125					
p,m-Xylene	37.7	0.20		40.0		94.5	80-125					
o-Xylene	18.6	0.10	-	20.0		93.1	75-125					
Surrogate: 4-Bromochlorobenzene-PID	0.404		*	0.400		101	50-150					
Matrix Spike (1442019-MS1)	Sou	rce: P410054-	-01	Prepared:	14-Oct-14	Analyzed: 1	6-Oct-14					
Benzene	19.9	0.10	mg/kg	20.0	ND	99.3	75-125					
Toluene	20.0	0.10	*	20.0	ND	100	70-125					
Ethylbenzene	20.1	0.10	**	20.0	ND	100	75-125					
p,m-Xylene	40.6	0.20	*	40.0	ND	102	80-125					
o-Xylene	20.1	0.10	•	20.0	0.11	100	75-125					
Surrogate: 4-Bromochlorobenzene-PID	0.411		"	0.400		103	50-150					
Matrix Spike Dup (1442019-MSD1)	Sou	rce: P410054-	-01	Prepared: 1	14-Oct-14	Analyzed: 1	6-Oct-14					
Benzene	20.0	0.10	mg/kg	20.0	ND	100	75-125	0.769	15			
Toluene	20.1	0.10	•	20.0	ND	101	70-125	0.718	15			
Ethylbenzene	20.2	0.10	*	20.0	ND	101	75-125	0.634	15			
p,m-Xylene	40.9	0.20	•	40.0	ND	102	80-125	0.686	15			
o-Xylene	20.3	0.10	*	20.0	0.11	101	75-125	0.844	15			
Surrogate: 4-Bromochlorobenzene-PID	0 409		"	0.400		102	50-150					

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5796 US Highway 64, Farmington, NM 87401

Ph (505) 632-0615 Fx (505) 632-1865

Three Springs - 65 Mercado Street, Suite 115, Durango, CO 81301

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



Farmington NM, 87499-5610

PO Box 5610

Project Name:

Cougar Com 33-1M

Project Number: Project Manager: 06039-0035

Etech

Reported: 22-Oct-14 14:23

%DEC

Nonhalogenated Organics by 8015 - Quality Control

**Envirotech Analytical Laboratory** 

		Reporting		Spike	Source		%KEC		KPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1442014 - DRO Extraction EPA 355	50M									
Blank (1442014-BLK1)				Prepared:	14-Oct-14	Analyzed: 1	5-Oct-14			
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Surrogate: o-Terphenyl	38.1		н	39.9		95.5	50-200			
LCS (1442014-BS1)				Prepared:	14-Oct-14	Analyzed: 1	5-Oct-14			
Diesel Range Organics (C10-C28)	465	25.0	mg/kg	499		93.2	38-132			
Surrogate: o-Terphenyl	44.3		*	39.9		111	50-200			
Matrix Spike (1442014-MS1)	Sour	ce: P410046-	-04	Prepared:	14-Oct-14	Analyzed: 1	5-Oct-14			
Diesel Range Organics (C10-C28)	659	39.9	mg/kg	499	ND	132	38-132			
Surrogate: o-Terphenyl	59.2		"	39.9		148	50-200			
Matrix Spike Dup (1442014-MSD1)	Sour	ce: P410046-	-04	Prepared:	14-Oct-14	Analyzed:	15-Oct-14			
Diesel Range Organics (C10-C28)	628	39.9	mg/kg	499	ND	126	38-132	4.77	20	
Surrogate: o-Terphenyl	53.2		"	39.9		133	50-200			



PO Box 5610

Farmington NM, 87499-5610

Project Name:

Cougar Com 33-1M

Spike

Source

%REC

Project Number: Project Manager:

Reporting

06039-0035

Etech

Reported:

RPD

22-Oct-14 14:23

### Nonhalogenated Organics by 8015 - Quality Control

### **Envirotech Analytical Laboratory**

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1442019 - Purge and Trap EPA 5030	A									
Blank (1442019-BLK1)										
Gasoline Range Organics (C6-C10)	ND	9.99	mg/kg							
Surrogate: 4-Bromochlorobenzene-FID	0.361		п	0.400		90.4	50-150			
LCS (1442019-BS1)				Prepared: 1	4-Oct-14	Analyzed:	16-Oct-14			
Gasoline Range Organics (C6-C10)	265	9.99	mg/kg	292		90.9	80-120			
Surrogate: 4-Bromochlorobenzene-FID	0.369		*	0.400		92.2	50-150			
Matrix Spike (1442019-MS1)	Sour	ce: P410054-	01	Prepared: 1	4-Oct-14	Analyzed:	16-Oct-14			
Gasoline Range Organics (C6-C10)	285	10.0	mg/kg	292	ND	97.6	75-125			
Surrogate: 4-Bromochlorobenzene-FID	0 374		er	0.400		93.5	50-150			
Matrix Spike Dup (1442019-MSD1)	Sour	ce: P410054-	01	Prepared: 1	4-Oct-14	Analyzed:	16-Oct-14			
Gasoline Range Organics (C6-C10)	287	9.99	mg/kg	292	ND	98.5	75-125	0.798	15	
Surrogate: 4-Bromochlorobenzene-FID	0.374		*	0.400		93.5	50-150			



Cougar Com 33-1M

PO Box 5610

Farmington NM, 87499-5610

Project Name: Project Number:

Project Manager:

06039-0035

Etech

Reported:

22-Oct-14 14:23

### Cation/Anion Analysis - Quality Control

### **Envirotech Analytical Laboratory**

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1442020 - Anion Extraction EPA 300.0										
Blank (1442020-BLK1)				Prepared &	Analyzed:	15-Oct-14				
Chloride	ND	9.99	mg/kg							
LCS (1442020-BS1)				Prepared &	k Analyzed:	15-Oct-14				
Chloride	501	9.93	mg/kg	497		101	90-110			
Matrix Spike (1442020-MS1)	Sou	rce: P410054-	-01	Prepared &	k Analyzed:	15-Oct-14				
Chloride	511	9.94	mg/kg	497	ND	103	80-120			
Matrix Spike Dup (1442020-MSD1)	Sou	rce: P410054	-01	Prepared &	k Analyzed	15-Oct-14				
Chloride	514	9.94	mg/kg	497	ND	103	80-120	0.674	20	



Farmington NM, 87499-5610

Project Name:

Project Manager:

Cougar Com 33-1M

PO Box 5610

5610 Project Number:

06039-0035

Etech

Reported:

22-Oct-14 14:23

### **Notes and Definitions**

DET

Analyte DETECTED

ND

Analyte NOT DETECTED at or above the reporting limit

NR

Not Reported

dry

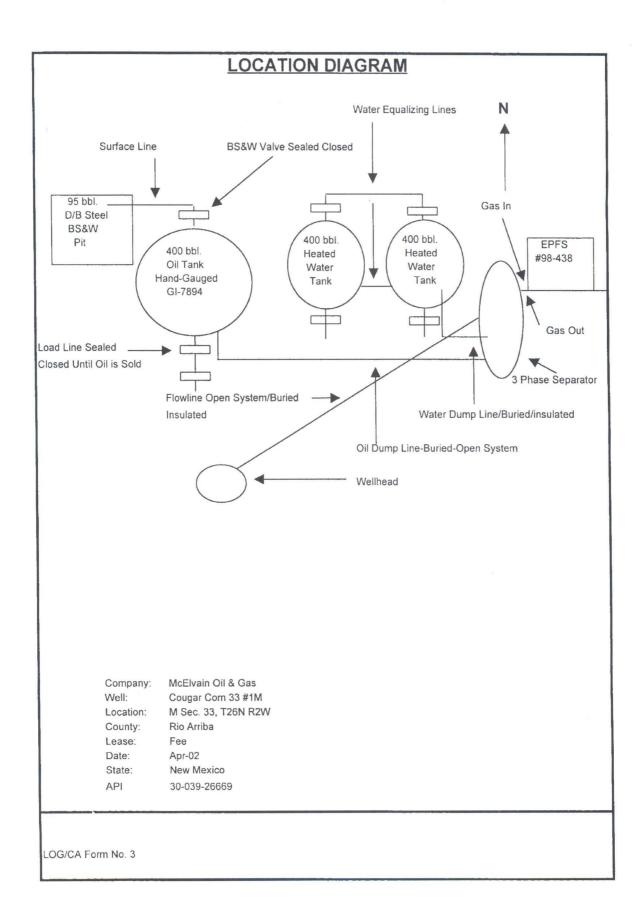
Sample results reported on a dry weight basis

RPD

Relative Percent Difference

### CHAIN OF CUSTODY RECORD 17482

Client: Project Name / Location: Caught Com 33-1 m												А	NAL'	YSIS	/ PAI	RAM	ETER	RS			
Email results to:  Client Phone No.:	mpler Name:	Ren 039-0035				TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Anion		ith H/P	CO Table 910-1	8.1)	IDE			Cool	Intact		
Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative		Preservative		BTEX (A	VOC (M	RCRA 8	Cation / Anion	RCI	TCLP with H/P	CO Tab	TPH (418.1)	CHLORIDE			Sample Cool	Sample Intact
BGT Composite	10/14/14	10:55	P410055-01	1-402 gossign	-		X	X	X								X			4	1
					ļ i										_				-		-
					-														+		-
Relinquished by: (Signature)	1,	<u>m</u>		Date Time	Rece	ved b	y: (Si	ignati	ure)										Date	T	īme
Relinquished by: (Signature)	Shoona	Jeon	)	194/141010	Rece		by: (Si			~	0	3		_					13/14	141	b., 10
Sample Matrix Soil Solid Sludge	Aqueous [	Other 🗌															- true				
Sample(s) dropped off after hours to secure drop off area.  envirotech Analytical Laboratory																					
5795 US Highway 64	4 • Farmingto	on, NM 8740	1 • 505-632-0615 • T							urang	10. C	0 813	301 •	labor	atory	@env	virote	ch-inc.	com		





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.

Santa 1 C, 14141 07303																
Release Notification and Corrective Action																
						<b>OPERA</b>	ГOR	al Report	$\boxtimes$	Final Report						
Name of Co	ompany N	AcElvain En	ergy, Inc.			Contact Deb Powell										
				, CO 80265		Telephone No. 303-893-0933										
Facility Na	me Couga	r Com 33 #1	M			Facility Type Well- Removal of Below Grade Pit Tank										
Surface Ow	ner Priva	ite		Mineral C	wner	Private		API No	. 30-039-2	6669						
				LOCA	TIO	N OF REI	LEASE									
Unit Letter																
Latitude Longitude																
40.5																
NATURE OF RELEASE																
Type of Rele		NE				Volume of			Recovered Hour of Disc							
Source of Re Was Immedi		Given?				If YES, To	Hour of Occurrence	Date and	Hour of Disc	covery						
was minicul	ate Notice (		Yes [	No Not Re	equirec		Wildin:									
By Whom?						Date and Hour										
Was a Water	course Read					If YES, Volume Impacting the Watercourse.										
			Yes [	] No							100 mm 1 mm					
If a Waterco	urse was Im	pacted, Descr	ibe Fully.	*							224 (A. 14 )					
J 1.44 1											1 10 K 1000KF 1					
NONE																
Describe Car	use of Probl	em and Reme	dial Actio	n Taken.*												
											****					
NONE		1.01									***					
Describe Are	ea Affected	and Cleanup	Action Tal	ken.*												
1.0																
I haraby aart	ify that the	information a	ivan abaya	a ic true and comp	lata to	the best of my	knowledge and u	inderstand that purs	suant to NM	OCD r	ules and					
regulations a	all operators	are required t	o report a	nd/or file certain r	elease	notifications a	nd perform correct	ctive actions for rel	eases which	may e	ndanger					
								eport" does not rel								
								eat to ground wate								
				otance of a C-141	report	does not reliev	e the operator of	responsibility for c	compliance w	ith any	other other					
federal, state	e, or local la	ws and/or reg	ulations.				OII COM	CEDVATION	DIVICIO	NI	100000000000000000000000000000000000000					
	()	, 0	11				OIL CON	SERVATION	DIVISIC	IN						
Signature:	Tell	K (Tan	ll			-										
Printed Nam	e: Deboral	h K. Powell				Approved by	Environmental S	pecialist:								
Title: Eng T	ech Manag	er				Approval Da										
THIC. LINE I	- Jan Triumug							Expiration								
E-mail Addr	ess: Debb	yp@McElvai	n.com			Conditions of Approval:										

Phone: 303-893-0933

Date: 12/3/2014

<sup>\*</sup> Attach Additional Sheets If Necessary