

District I
1625 N French Dr, Hobbs, NM 88240
District II
1301 W Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S St Francis Dr, Santa Fe, NM 87505

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

Form C-144
July 21, 2008

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office
For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office

36031

Pit, Closed-Loop System, Below-Grade Tank, or
Proposed Alternative Method Permit or Closure Plan Application

- Type of action ☐ Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method
☒ Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method
☐ Modification to an existing permit
☐ Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method

Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request

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

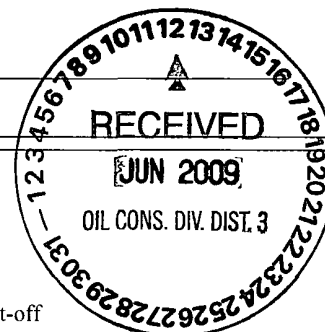
Operator Elm Ridge Exploration OGRID # 149052
Address P.O. Box 156, Bloomfield, NM 87413
Facility or well name Jicarilla 41 B-1
API Number 3003923014 OCD Permit Number _____
U/L or Qtr/Qtr M Section 31 Township 25N Range 4W County Rio Arriba
Center of Proposed Design Latitude 36 351424 Longitude -107 299825 NAD ☐ 1927 ☒ 1983
Surface Owner ☐ Federal ☐ State ☐ Private ☒ Tribal Trust or Indian Allotment

2
☐ **Pit:** Subsection F or G of 19 15 17 11 NMAC
Temporary ☐ Drilling ☐ Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A
☐ Lined ☐ Unlined Liner type Thickness _____ mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
☐ String-Reinforced
Liner Seams ☐ Welded ☐ Factory ☐ Other _____ Volume _____ bbl Dimensions L _____ x W _____ x D _____

3
☐ **Closed-loop System:** Subsection H of 19 15 17 11 NMAC
Type of Operation ☐ P&A ☐ Drilling a new well ☐ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)
☐ Drying Pad ☐ Above Ground Steel Tanks ☐ Haul-off Bins ☐ Other _____
☐ Lined ☐ Unlined Liner type Thickness _____ mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
Liner Seams ☐ Welded ☐ Factory ☐ Other _____

4
☒ **Below-grade tank:** Subsection I of 19 15 17 11 NMAC
Volume 40 bbl Type of fluid Produced water
Tank Construction material: fiberglass tank
☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☒ Other single walled tank
Liner type Thickness _____ mil ☐ HDPE ☐ PVC ☐ Other _____

5
☐ **Alternative Method:**
Submittal of an exception request is required Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval



6

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 specify _____

7

Netting: Subsection E of 19 15 17 11 NMAC (*Applies to permanent pits and permanent open top tanks*)

- ☐ Screen ☐ Netting ☐ Other _____
- ☐ Monthly inspections (If netting or screening is not physically feasible)

8

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 3 103 NMAC

9

Administrative Approvals 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:

- ☐ Administrative approval(s) Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau office for consideration of approval
- ☐ Exception(s) Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval

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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 acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying pads or above-grade tanks associated with a closed-loop system.

Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank	<input type="checkbox"/> Yes <input type="checkbox"/> No
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) 0	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application (<i>Applies to permanent pits</i>)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within 500 feet of a wetland	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within the area overlying a subsurface mine	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within an unstable area	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within a 100-year floodplain	<input type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> Yes <input type="checkbox"/> No

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Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment 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 (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 NMAC
☐ 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 15 17 9 NMAC and 19 15 17 13 NMAC
☐ Previously Approved Design (attach copy of design) API Number _____ or Permit Number _____

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Closed-loop Systems Permit Application Attachment 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.

- ☐ Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19 15 17 9
☐ Siting Criteria Compliance Demonstrations (only for on-site closure) - 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 15 17 9 NMAC and 19 15 17 13 NMAC
☐ Previously Approved Design (attach copy of design) API Number _____
☐ Previously Approved Operating and Maintenance Plan API Number _____ (Applies only to closed-loop system that use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)

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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 H₂S, 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

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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 ☐ Closed-loop System
☐ Alternative
 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 (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)

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Waste Excavation and Removal 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.

- ☐ 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 F 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 I of 19 15 17 13 NMAC
☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19 15 17 13 NMAC

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19 15 17 13 D NMAC)

Instructions: Please identify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.

Disposal Facility Name _____ Disposal Facility Permit Number _____
 Disposal Facility Name _____ Disposal Facility Permit Number _____

Will any of the proposed closed-loop system operations and associated activities occur on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please provide the information below) ☐ No

Required for impacted areas which will not be used for future service and operations

- ☐ 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 I of 19 15 17 13 NMAC
☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19 15 17 13 NMAC

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 source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.

Ground water is less than 50 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search, USGS, Data obtained from nearby wells	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Ground water is between 50 and 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search, USGS, Data obtained from nearby wells	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
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	<input type="checkbox"/> Yes <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application - NM Office of the State Engineer - iWATERS database, Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended - Written confirmation or verification from the municipality, Written approval obtained from the municipality	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within 500 feet of a wetland - US Fish and Wildlife Wetland Identification map, Topographic map, Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within the area overlying a subsurface mine - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within an unstable area - Engineering measures incorporated into the design, NM Bureau of Geology & Mineral Resources, USGS, NM Geological Society, Topographic map	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within a 100-year floodplain - FEMA map	<input type="checkbox"/> Yes <input type="checkbox"/> 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 F of 19 15 17 13 NMAC
☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements 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 11 NMAC
☐ 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 F of 19 15 17 13 NMAC
☐ Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F 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 I of 19 15 17 13 NMAC
☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15 17 13 NMAC

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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 belief

Name (Print) _____ Title _____

Signature _____ Date _____

e-mail address _____ Telephone _____

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OCD Approval: ☐ Permit Application (including closure plan) ☒ Closure Plan (only) ☐ OCD Conditions (see attachment)

OCD Representative Signature: Jonathan D. Kelly Approval Date: 11/14/2011

Title: Compliance Officer OCD Permit Number: _____

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Closure Report (required within 60 days of closure completion): Subsection K of 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. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

☒ Closure Completion Date: 4/30/09

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Closure Method:

☒ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)
☐ If different from approved plan, please explain

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Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:

Instructions: Please identify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.

Disposal Facility Name TNT Landfarm Disposal Facility Permit Number NM-01-0008

Disposal Facility Name _____ Disposal Facility Permit Number _____

Were the closed-loop system operations and associated activities performed on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please demonstrate compliance to the items below) ☒ No

Required for impacted areas which will not be used for future service and operations **area is being used for the new above ground storage tank**

- ☐ Site Reclamation (Photo Documentation)
☐ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique

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Closure Report Attachment Checklist: *Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.*

- ☒ Proof of Closure Notice (surface owner and division) **Attached**
☐ Proof of Deed Notice (required for on-site closure) **NA**
☐ Plot Plan (for on-site closures and temporary pits)
☒ Confirmation Sampling Analytical Results (if applicable) **Attached to C-141**
☐ Waste Material Sampling Analytical Results (required for on-site closure) **NA**
☒ Disposal Facility Name and Permit Number **TNT Landfarm Permit # NM-01-0008**
☒ Soil Backfilling and Cover Installation **Backfilled under the direction of the Jicarilla Environmental Department**
☒ Re-vegetation Application Rates and Seeding Technique **area currently being used for the new above ground storage tank**
☐ Site Reclamation (Photo Documentation) **area currently being used for the new above ground storage tank**
On-site Closure Location Latitude _____ Longitude _____ NAD ☐ 1927 ☐ 1983

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Operator Closure Certification:

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): Ms. Amy Mackey Title: Administrative Manager

Signature [Signature] Date 6/11/09

e-mail address amackey1@elmridge.net Telephone (505) 632-3476 Ext 201

District I
1625 N French Dr, Hobbs, NM 88240
District II
1301 W Grand Avenue, Artesia, NM 88210
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1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S St Francis Dr, Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Elm Ridge Exploration	Contact: Amy Mackey
Address: PO Box 156, Bloomfield, NM 87413	Telephone No.: (505) 632-3476 Ext 201
Facility Name: Jicarilla 41 B #1	Facility Type: Oil Well

Surface Owner: Jicarilla	Mineral Owner:	Lease No.: Jicarilla Contract #41
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LOCATION OF RELEASE

Unit Letter M	Section 31	Township 25N	Range 4W	Feet from the 790	North/South Line FSL	Feet from the 790	East/West Line FWL	County Rio Arriba
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Latitude 36.351424 Longitude -107.299825

NATURE OF RELEASE

Type of Release: Produced Water and Incidental Oil	Volume of Release: NA	Volume Recovered: NA
Source of Release: Leaking BGT	Date and Hour of Occurrence: NA	Date and Hour of Discovery: NA
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
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. *

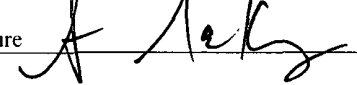
Describe Cause of Problem and Remedial Action Taken. *

Produced Water and incidental oil from an oil well leaked from a BGT overtime, impacting the soil around the BGT. The leaking BGT was removed and the contaminated soil was excavated. The BGT has been replaced by a double bottomed above ground storage tank (AST) with leak detection. The AST was placed in the same location as the former BGT, and will serve the same purpose as the BGT.

Describe Area Affected and Cleanup Action Taken. *

A sample was collected beneath the BGT and the sample results are attached to this document for reference. The sample was analyzed in the field for Total Petroleum Hydrocarbons (TPH) via USEPA Method 418.1 and in Envirotech's laboratory for benzene and total BTEX via USEPA Method 8021, TPH via USEPA Method 8015, and for total chlorides via USEPA Method 4500B. The sample returned results that were below the 0.2 ppm benzene standard, the 50 ppm BTEX standard, and the 250 ppm total chloride standard, but above the 100 ppm TPH standard via USEPA Method 418.1 and USEPA Method 8015, confirming that a release had occurred. The site was then ranked pursuant to the NMOCD Guidelines for the Remediation of Leaks, Spills and Releases. The closure standards were determined to be 100 ppm TPH, 10 ppm benzene and 50 ppm BTEX due to the site being located on the Jicarilla Apache Indian Reservation. There is no closure standard for total chlorides per the NMOCD Guidelines for the Remediation of Leaks, Spills and Releases. The spill area was excavated to extents of 20' x 20' x 13' deep. At this time a composite sample was collected from the bottom and from the four (4) walls. Each sample was analyzed in the field for TPH via USEPA Method 418.1 and for organic vapors using a PID. Both samples returned results that were below the 100 ppm organic vapor standard, but above the 100 ppm TPH standard. At this time, both samples were collected into 4-ounce glass jars, capped headspace free, and transported with ice under chain of custody to Envirotech's laboratory to be analyzed for TPH via USEPA Method 8015. Both samples returned results below the 100 ppm closure standard determined for this site. No further excavation was required.

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 of 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 	OIL CONSERVATION DIVISION		
Printed Name: Ms. Amy Mackey	Approved by District Supervisor		
Title: Administrative Manager	Approval Date	Expiration Date	
E-mail Address: amackey1@elmr ridge.net	Conditions of Approval		Attached <input type="checkbox"/>
Date: 6/11/09	Phone		

FROM: GREG CRABTREE
SENT: WEDNESDAY, APRIL 29, 2009 12:48 PM
TO: JAMES MCDANIEL
SUBJECT: FW: JICARILLA 41 B #1 CLOSURE CONFIRMATION

From: dksandoval@yahoo.com [mailto:dksandoval@yahoo.com]
Sent: Wednesday, April 29, 2009 11:46 AM
To: Greg Crabtree
Subject: Re: Jicarilla 41 B #1 Closure Confirmation

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> From: Greg Crabtree <gcrabtree@envirotech-inc.com>  
> Subject: Jicarilla 41 B #1 Closure Confirmation  
> To: dksandoval@yahoo.com  
> Date: Wednesday, April 29, 2009, 9:55 AM  
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Mr. Sandoval,  
  
I am sending this email to  
confirm that you have  
already been made aware of the closure activities to take  
place at the  
Jicarilla 41 B #1 well site today, April 29, 2009.  
Mr. Frank Welch with  
Elm Ridge Exploration stated that you were already aware of  
the cleanup  
activities taking place, and have been involved in  
coordinating the closure  
activities. We appreciate your time in regards to  
this project.
```

FROM: JAMES MCDANIEL
SENT: WEDNESDAY, APRIL 29, 2009 8:38 AM
TO: 'BRANDON.POWELL@STATE.NM.US'
SUBJECT: JICARILLA 41 B #1 NOTIFICATION CONFIRMATION

Mr. Powell,

Hello, I am just confirming that you received the notification I left you via voicemail on Monday, April 27, 2009 for the BGT closure activities to take place today at the Jicarilla 41 B #1 well site located in Unit M, Sec 31, Twn 25N, Rge 4W, Rio Arriba County. Mr. Dixon Sandoval of the Jicarilla Environmental Department is already aware of the activities taking place as the surface owner. Thank you very much for your time in regards to this project.

James P McDaniel
Project Scientist
Envirotech, Inc

505-793-5392



**EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS**

Client	Elm Ridge Exploration	Project #	03056-0224
Sample No	1	Date Reported	5/13/2009
Sample ID.	1 (Spill Confirmation)	Date Sampled	4/30/2009
Sample Matrix	Soil	Date Analyzed	4/30/2009
Preservative	Cool	Analysis Needed	TPH-418 1
Condition	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	192	5.0

ND = Parameter not detected at the stated detection limit

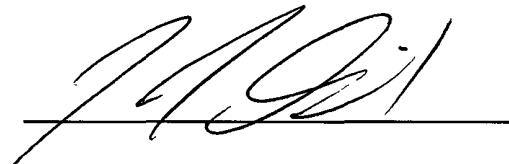
References Method 418 1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis
of Water and Waste, USEPA Storet No 4551, 1978

Comments: **Jicarilla 41 B #1**

Instrument calibrated to 200 ppm standard. Zeroed before each sample


Analyst

Joshua Kirchner
Printed



James McDaniel
Printed



**EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS**

Client	Elm Ridge Exploration	Project #	03056-0224
Sample No	2	Date Reported	5/13/2009
Sample ID	Floor	Date Sampled	4/30/2009
Sample Matrix	Soil	Date Analyzed	4/30/2009
Preservative	Cool	Analysis Needed	TPH-418 1
Condition	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	232	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: **Jicarilla 41 B #1**

Instrument calibrated to 200 ppm standard. Zeroed before each sample



Analyst

Joshua Kirchner

Printed



Analyst

James McDaniel

Printed



**EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS**

Client	Elm Ridge Exploration	Project #	03056-0224
Sample No	3	Date Reported	5/13/2009
Sample ID	Walls (20' x 20')	Date Sampled	4/30/2009
Sample Matrix	Soil	Date Analyzed	4/30/2009
Preservative	Cool	Analysis Needed	TPH-418 1
Condition	Cool and Intact		

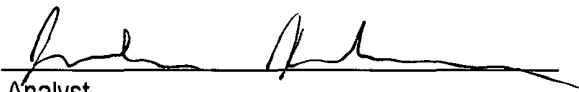
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	124	5.0

ND = Parameter not detected at the stated detection limit

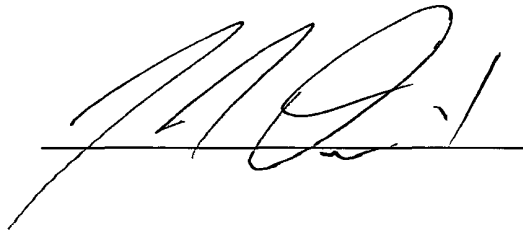
References Method 418 1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No 4551, 1978

Comments: **Jicarilla 41 B #1**

Instrument calibrated to 200 ppm standard. Zeroed before each sample


Analyst

Joshua Kirchner
Printed


James McDaniel
Printed

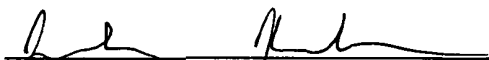


CONTINUOUS CALIBRATION
EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

Cal. Date: 30-Apr-09

Parameter	Standard Concentration mg/L	Concentration Reading mg/L
TPH	100	211
	200	
	500	
	1000	

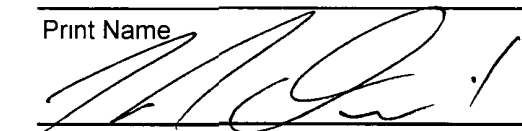
The accepted percent relative deviation (%RSD) of the calibration factor is less than 20% over the working range


Analyst

5/13/09
Date

Joshua Kirchner

Print Name


Review

5/13/09
Date

James McDaniel

Print Name



envirotech
Analytical Laboratory

**EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons**

Client	ElmRidge	Project #	03056-0224
Sample ID	Floor	Date Reported	05-06-09
Laboratory Number	49880	Date Sampled	04-30-09
Chain of Custody No	6958	Date Received	04-30-09
Sample Matrix	Soil	Date Extracted	05-04-09
Preservative	Cool	Date Analyzed	05-05-09
Condition	Intact	Analysis Requested	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	8.8	0.1
Total Petroleum Hydrocarbons	8.8	0.2

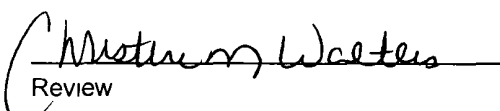
ND - Parameter not detected at the stated detection limit

References Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996

Comments **Jicarilla 41 #B1**



Analyst



Review

**EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons**

Client	ElmRidge	Project #	03056-0224
Sample ID	1	Date Reported	05-06-09
Laboratory Number	49881	Date Sampled	04-30-09
Chain of Custody No	6958	Date Received	04-30-09
Sample Matrix	Soil	Date Extracted	05-04-09
Preservative	Cool	Date Analyzed	05-05-09
Condition	Intact	Analysis Requested	8015 TPH

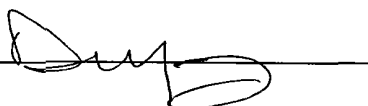
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	237	0.1
Total Petroleum Hydrocarbons	237	0.2

ND - Parameter not detected at the stated detection limit

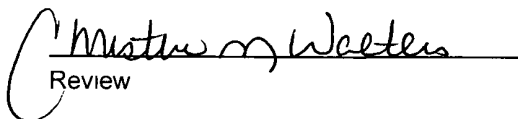
References Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996

Comments **Jicarilla 41 #B1**

Analyst



Review





**EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons**

Client	ElmRidge	Project #	03056-0224
Sample ID	Walls	Date Reported	05-06-09
Laboratory Number	49882	Date Sampled	04-30-09
Chain of Custody No	6958	Date Received	04-30-09
Sample Matrix	Soil	Date Extracted	05-04-09
Preservative	Cool	Date Analyzed	05-05-09
Condition	Intact	Analysis Requested	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

ND - Parameter not detected at the stated detection limit

References Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996

Comments **Jicarilla 41 #B1**

Analyst

Review



EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client	QA/QC	Project #	N/A
Sample ID	05-05-09 QA/QC	Date Reported	05-06-09
Laboratory Number	49870	Date Sampled	N/A
Sample Matrix	Methylene Chloride	Date Received	N/A
Preservative	N/A	Date Analyzed	05-05-09
Condition	N/A	Analysis Requested	TPH

	I-Cal Date	I-Cal RF	C-Cal RF	% Difference	Accept Range
Gasoline Range C5 - C10	05-07-07	9 6696E+002	9 6735E+002	0.04%	0 - 15%
Diesel Range C10 - C28	05-07-07	9 5732E+002	9 5770E+002	0.04%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept Range
Gasoline Range C5 - C10	ND	ND	0.0%	0 - 30%
Diesel Range C10 - C28	8.5	7.9	7.1%	0 - 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
Gasoline Range C5 - C10	ND	250	244	97.6%	75 - 125%
Diesel Range C10 - C28	8.5	250	236	91.1%	75 - 125%

ND - Parameter not detected at the stated detection limit

References Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996

Comments **QA/QC for Samples 49870 - 49874, 49880 - 49883, and 49902.**

Analyst

Review



Client	ElmRidge	Project #	03056-0224
Sample ID	1	Date Reported	05-06-09
Laboratory Number	49881	Date Sampled	04-30-09
Chain of Custody	6958	Date Received	04-30-09
Sample Matrix	Soil	Date Analyzed	05-05-09
Preservative	Cool	Date Extracted	05-04-09
Condition	Intact	Analysis Requested	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	1.3	0.9
Toluene	2.1	1.0
Ethylbenzene	1.1	1.0
p,m-Xylene	3.4	1.2
o-Xylene	2.3	0.9
Total BTEX	10.2	

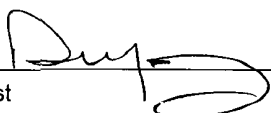
ND - Parameter not detected at the stated detection limit

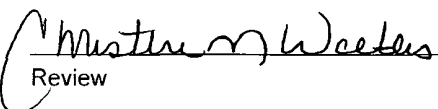
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	96.0 %
	1,4-difluorobenzene	96.0 %
	Bromochlorobenzene	96.0 %

References Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996

Comments: Jicarilla 41 #B1


Analyst


Review



Client	N/A	Project #	N/A
Sample ID	05-05-BT QA/QC	Date Reported	05-06-09
Laboratory Number	49870	Date Sampled	N/A
Sample Matrix	Soil	Date Received	N/A
Preservative	N/A	Date Analyzed	05-05-09
Condition	N/A	Analysis	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF	C-Cal RF	%Diff	Blank Conc	Detect. Limit
		Accept. Range	0 - 15%		
Benzene	6 7295E+006	6 7430E+006	0.2%	ND	0.1
Toluene	6 1945E+006	6 2070E+006	0.2%	ND	0.1
Ethylbenzene	5 3301E+006	5 3407E+006	0.2%	ND	0.1
p,m-Xylene	1 3858E+007	1 3886E+007	0.2%	ND	0.1
o-Xylene	5 1244E+006	5 1347E+006	0.2%	ND	0.1

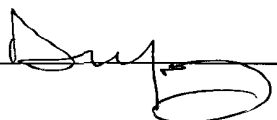
Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff	Accept Range	Detect. Limit
Benzene	4.2	3.9	7.1%	0 - 30%	0.9
Toluene	8.4	8.1	3.6%	0 - 30%	1.0
Ethylbenzene	10.8	9.7	10.2%	0 - 30%	1.0
p,m-Xylene	26.6	25.0	6.0%	0 - 30%	1.2
o-Xylene	15.8	14.6	7.6%	0 - 30%	0.9

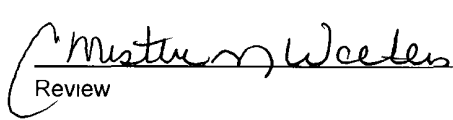
Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	4.2	50.0	52.9	97.6%	39 - 150
Toluene	8.4	50.0	57.0	97.6%	46 - 148
Ethylbenzene	10.8	50.0	59.2	97.4%	32 - 160
p,m-Xylene	26.6	100	130	103%	46 - 148
o-Xylene	15.8	50.0	64.1	97.4%	46 - 148

ND - Parameter not detected at the stated detection limit

References Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996

Comments: **QA/QC for Sample 49870 - 49873, 49881, 49883, and 49902.**

Analyst 

Review 



Client	ElmRidge	Project #	03056-0224
Sample ID	1	Date Reported	05-08-09
Lab ID#	49881	Date Sampled	04-30-09
Sample Matrix	Soil	Date Received	04-30-09
Preservative	Cool	Date Analyzed	05-08-09
Condition	Intact	Chain of Custody	6958

Parameter


Concentration (mg/Kg)

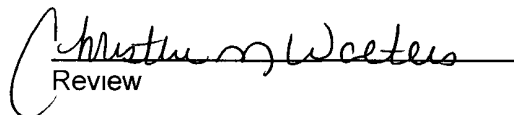
Total Chloride

132

Reference U S E P A , 4500B, "Methods for Chemical Analysis of Water and Wastes", 1983
Standard Methods For The Examination of Water And Waste Water", 18th ed , 1992

Comments **Jicarilla 41 #B1**

Analyst 

Review 

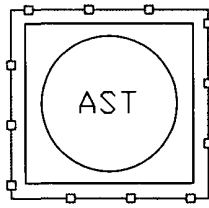
CHAIN OF CUSTODY RECORD

6958

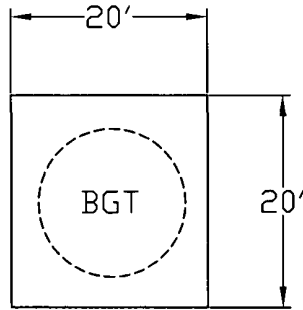
Client: Elmridge			Project Name / Location: Durica 41 # B 1			ANALYSIS / PARAMETERS														
Client Address:			Sampler Name: SKirchner			TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	PAH	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact
Client Phone No.:			Client No. 03056-0224																	
Sample No./ Identification	Sample Date	Sample Time	Lab No.	Sample Matrix	No /Volume of Containers	Preservative HgCl ₂ HCl														
floor	4-30	1245	49880	Soil Solid Sludge Aqueous	402(1)														✓	✓
1	1	1100	49881	Soil Solid Sludge Aqueous	1														✓	✓
WALLS	1	1555	49882	Soil Solid Sludge Aqueous	1														✓	✓
				Soil Solid Sludge Aqueous																
				Soil Solid Sludge Aqueous																
				Soil Solid Sludge Aqueous																
				Soil Solid Sludge Aqueous																
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				Soil Solid Sludge Aqueous																
				Soil Solid Sludge Aqueous																
Relinquished by: (Signature) 				Date 4-30-09	Time 1610	Received by: (Signature) 				Date 4/30/09	Time 1610									
Relinquished by: (Signature)						Received by: (Signature)														
Relinquished by: (Signature)						Received by: (Signature)														

ENVIROTECH INC.

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505-632-0615



SEP

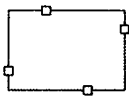


PUMP
JACK

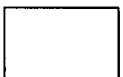


MR

LEGEND



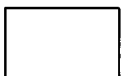
4' Tall Hogwire Fencing



Berm



Well Head



Excavated Area



Location of Former
BGT

SITE MAP ELM RIDGE EXPLORATION JICARILLA 41 B-1 SEC 31 TWN 25N RGE 4W RIO ARriba COUNTY, NEW MEXICO

SCALE: NTS

PROJECT NO03056-0224

FIGURE NO. 1

REV

REVISIONS

NO	DATE	BY	DESCRIPTION
MAP DRWN	JPM	5/13/09	BASE DRWN

ENVIRONMENTAL SCIENTISTS & ENGINEERS
ENVIROTECH

5796 U.S. HIGHWAY 64, FARMINGTON, NM 87410 505-632-0615



ELM RIDGE RESOURCES INC.

JICARILLA 41 #B-1

JICARILLA CONT. #41

SW/SW SEC 31 T23N R4W

RIO ARRIBA NM

