

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.

**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: Campos #2  
API Number: 3003905162 OCD Permit Number:  
U/L or Qtr/Qtr K Section 4 Township 23N Range 7W County: Rio Arriba  
Center of Proposed Design: Latitude 36.254014 Longitude -107.581741 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: 27 bbl Type of fluid: Produced water  
Tank Construction material: Fixed roof 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.

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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 solid cone top

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.

10.  
**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.*

<p>Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.  <b>The iWATERS database search shows a water well approximately 1.5 miles to the south-east with a depth to water of 900 feet. This water well has an elevation nearly 10 feet lower than the elevation of the well site, indicating that groundwater is at a depth of more than 50 feet from the bottom of the BGT.</b></p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p>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).  <b>The nearest watercourse is 2,062.4 ft. east per attached topographic map. These findings are reflected by the attached visual inspection sheet.</b></p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p>Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  <b>The attached aerial photograph and visual inspection sheet indicate that none of the above locations are within 1000 feet of the well site.</b></p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  <input type="checkbox"/> NA</p>
<p>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></p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No  <input checked="" type="checkbox"/> NA</p>
<p>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.  <b>The attached visual inspection sheet and iWATERS database search indicate that the well site is not within 1000 feet of a water well.</b></p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p>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.  <b>The site is not within incorporated municipal boundaries per the attached topographical map and visual inspection sheet.</b></p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p>Within 500 feet of a wetland.  <b>The USFWS data file, WetlandsData.kmz, dated July 2, 2008, was opened using Google Earth. No wetlands were noted.</b></p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p>Within the area overlying a subsurface mine.  <b>The attached NM EMNRD web map indicates the well site is not within an area overlying a subsurface mine.</b></p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p>Within an unstable area.  <b>The attached topographical map and visual inspection sheet indicates this site is not within an unstable area.</b></p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p>Within a 100-year floodplain.  <b>The attached FEMA map indicates the well site is not within a 100-year flood plain.</b></p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>

11.

**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: \_\_\_\_\_

12.

**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)

13.

**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

14.

**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)

15.

**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

16.

**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 indentify 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

17.

**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.*

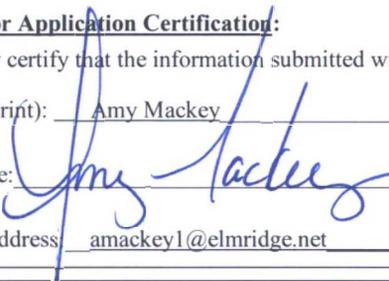
- Ground water is less than 50 feet below the bottom of the buried waste.
  - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells Yes  No  
 NA
- Ground water is between 50 and 100 feet below the bottom of the buried waste
  - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells 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 Yes  No  
 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 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 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 Yes  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 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
- Within the area overlying a subsurface mine.
  - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division Yes  No
- Within an unstable area.
  - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map Yes  No
- Within a 100-year floodplain.
  - FEMA map Yes  No

18.

**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

19. **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): Amy Mackey Title: Administrative Manager  
 Signature:  Date: 1-23-09  
 E-mail address: amackey1@elmridge.net Telephone: (505) 632-3476 ext. 201

20. **OCD Approval:**  Permit Application (including closure plan)  Closure Plan (only)  OCD Conditions (see attachment)

OCD Representative Signature: \_\_\_\_\_ Approval Date: \_\_\_\_\_  
 Title: \_\_\_\_\_ OCD Permit Number: \_\_\_\_\_

21. **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: \_\_\_\_\_

22. **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.

23. **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: \_\_\_\_\_ Disposal Facility Permit Number: \_\_\_\_\_  
 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:*  
 Site Reclamation (Photo Documentation)  
 Soil Backfilling and Cover Installation  
 Re-vegetation Application Rates and Seeding Technique

24. **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)  
 Proof of Deed Notice (required for on-site closure)  
 Plot Plan (for on-site closures and temporary pits)  
 Confirmation Sampling Analytical Results (if applicable)  
 Waste Material Sampling Analytical Results (required for on-site closure)  
 Disposal Facility Name and Permit Number  
 Soil Backfilling and Cover Installation  
 Re-vegetation Application Rates and Seeding Technique  
 Site Reclamation (Photo Documentation)

On-site Closure Location: Latitude \_\_\_\_\_ Longitude \_\_\_\_\_ NAD:  1927  1983

25. **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): \_\_\_\_\_ Title: \_\_\_\_\_  
 Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 E-mail address: \_\_\_\_\_ Telephone: \_\_\_\_\_

New Mexico Office of the State Engineer  
POD Reports and Downloads

Township: 23N Range: 07W Sections:

NAD27 X: Y: Zone:  Search Radius:

County:  Basin:  Number: Suffix:

Owner Name: (First)  (Last)   Non-Domestic  Domestic  
 All

AVERAGE DEPTH OF WATER REPORT 10/29/2008

Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	(Depth Water in Feet)		
								Min	Max	Avg
SJ	23N	07W	10				1	900	900	900

Record Count: 1

New Mexico Office of the State Engineer  
POD Reports and Downloads

Township: 23N Range: 07W Sections: 4

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last)  Non-Domestic  Domestic  All

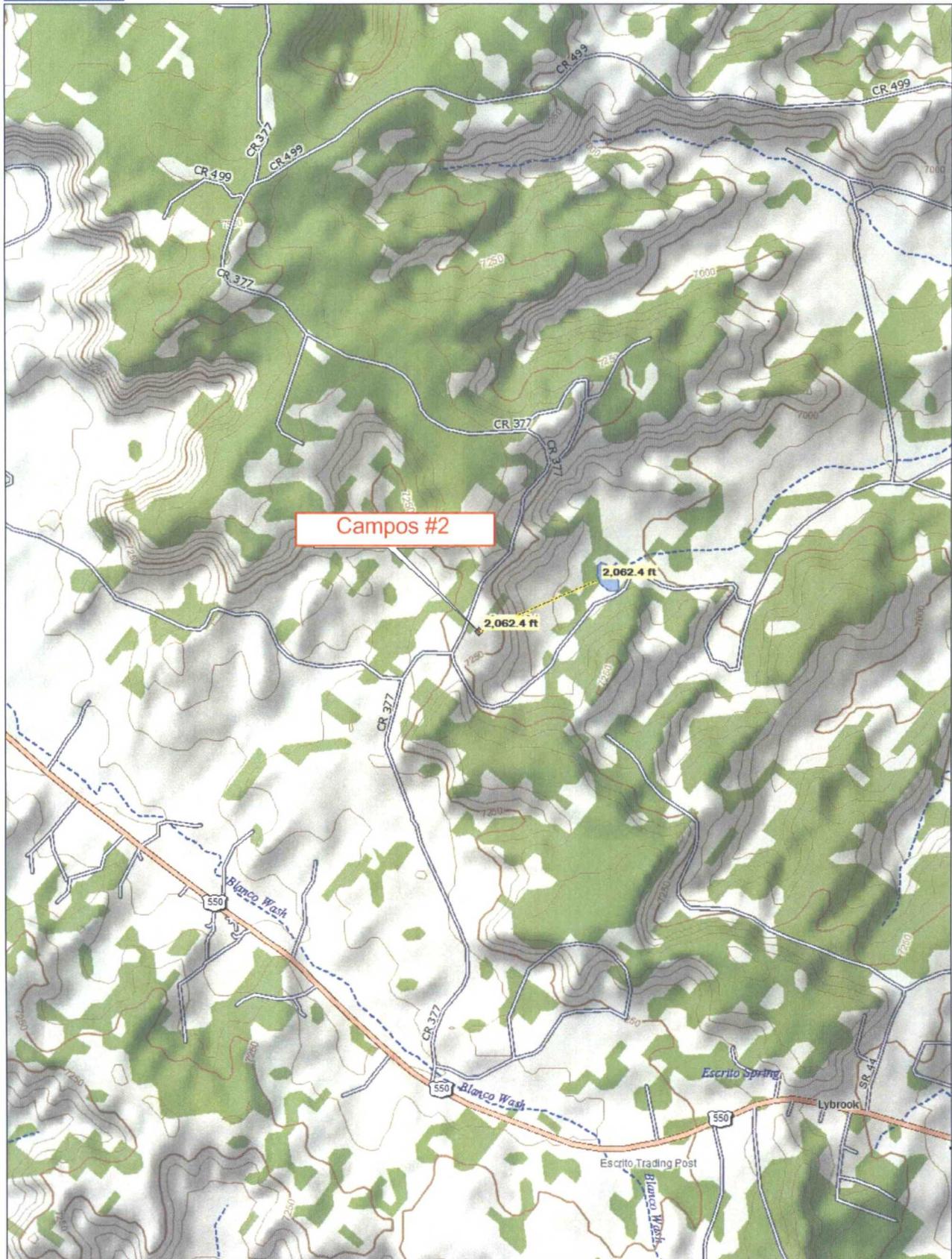
[POD / Surface Data Report](#) [Avg Depth to Water Report](#) [Water Column Report](#)

[Clear Form](#) [WATERS Menu](#) [Help](#)

POD / SURFACE DATA REPORT 09/24/2008

DB File Nbr	Use	Diversion	Owner	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE)				X Y are in Feet		UTM are in Meters			Start	Finish	Depth	Depth
					Source	Two	Range	Section	Q	Q	Q	Q	Easting	Northing	Date	Data	Well

No Records found, try again



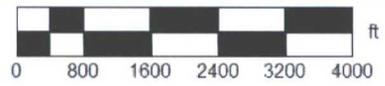
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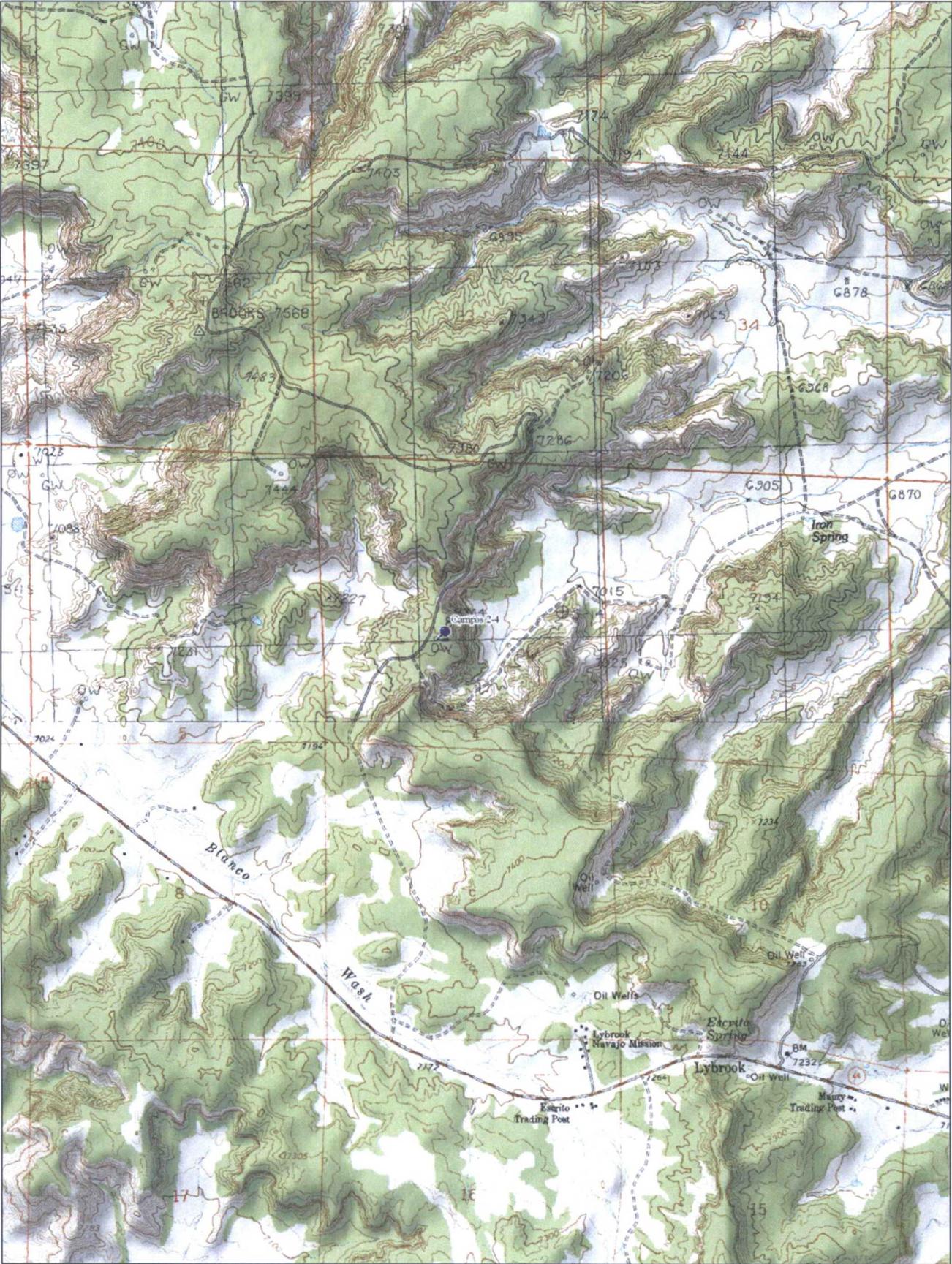
www.delorme.com



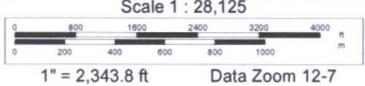
MN (10.1° E)



Data Zoom 13-0



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Campos #2

Co Rd 377

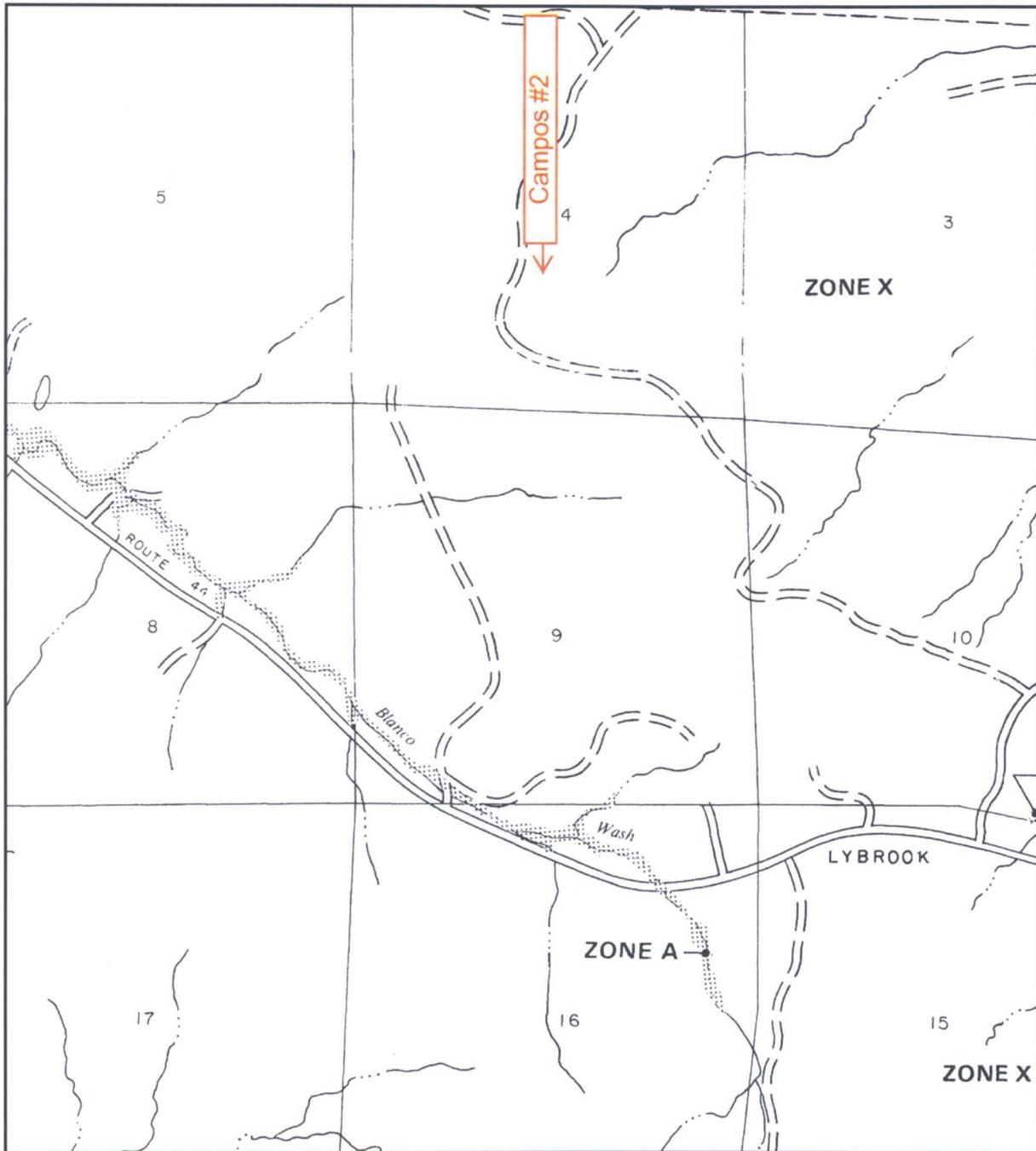
© 2008 Tele Atlas

Image NMRGIS

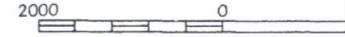
lat 36.254014° lon -107.581741°

Jul 2005

Google  
Earth  
Point  
Eye alt 3281 ft



APPROXIMATE SCALE



NATIONAL FLOOD INSURANCE PROGRAM

**FIRM**  
FLOOD INSURANCE RATE MAP

RIO ARRIBA COUNTY,  
NEW MEXICO  
UNINCORPORATED AREAS

PANEL 900 OF 1325  
(SEE MAP INDEX FOR PANELS NOT PRINTED)



PANEL LOCATION

COMMUNITY-PANEL NUMBER

350049 0900 B

EFFECTIVE DATE:

JANUARY 5, 1989



Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

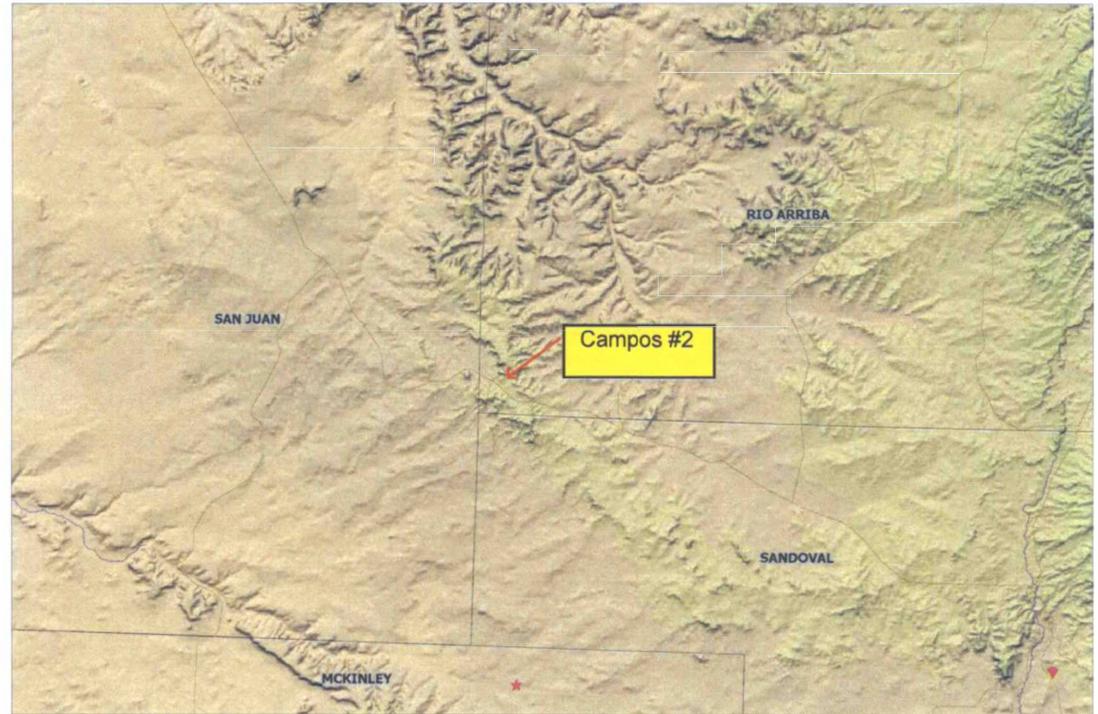
# Elm Ridge Exploration Mine Map

## Mines, Mills & Quarries Commodity Groups

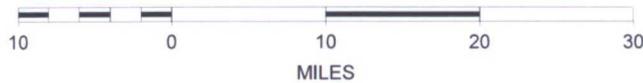
-  Aggregate & Stone Mines
-  Coal Mines
-  Industrial Minerals Mines
-  Industrial Minerals Mills
-  Metal Mines and Mill Concentrate
-  Potash Mines & Refineries
-  Smelters & Refinery Ops.
-  Uranium Mines
-  Uranium Mills

## Mines, Mills & Quarries Status

-  Active Mining
-  Active Mining, Active Reclamation
-  Permanent Closure, Active Reclamation
-  Permanent Closure, Reclaimed Awaiting Bond Release
-  Temporary Suspension



SCALE 1 : 740,905



**Elm Ridge Site Inventory Sheet**

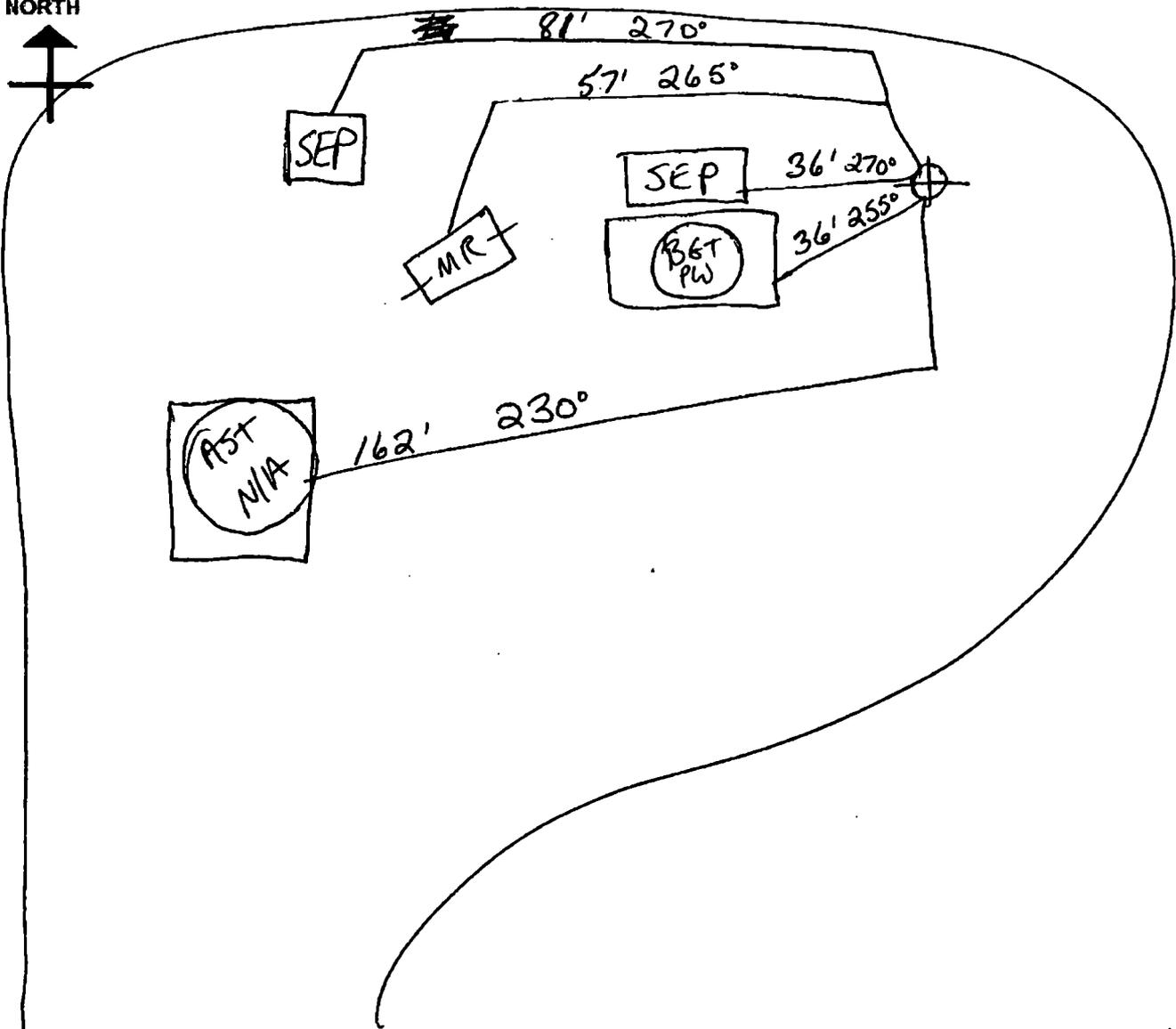
• Date: 8/5/18      Initials: sla      Time Started: 11:55      Ended: 12:15  
 • Well Name & Number: Camp 2-4  
 • API #: 3003905162  
 • Lease #: NMSF078272A  
 • Quarter/Quarter: K      Section: 4      Township: 23N      Range: 7W  
 • Lat: 36.254014°      Long: -107.581741°      GPS Point ID: Camp 2

• Pit Tank #1: Manufacturer: N/A  
 • Serial #: N/A      DOM: N/A      Size N/A bbl  
     o If N/A - Dimensions: Diameter 8'      Height 3'  
 • Material: Steel \_\_\_\_\_ Galvanized \_\_\_\_\_ Fiberglass X  
 • Tank Configuration: Double Wall \_\_\_\_\_ Single Wall X (Buried \_\_\_\_\_ or Exposed X)  
 • Visible Walls: Y X      N \_\_\_\_\_      Leak Detection: Y \_\_\_\_\_ N X  
 • Contents: Produced Water X      Condensate \_\_\_\_\_      Recycled Oil \_\_\_\_\_  
     No Label  
 • Tank Top Covering: Solid/Cone-top X      Netting \_\_\_\_\_ (Solid \_\_\_\_\_ Fiber \_\_\_\_\_)  
 • Secondary Containment: Yes X      No \_\_\_\_\_  
 • Fencing around berm: Yes \_\_\_\_\_ No X  
     o Fence Type: Cattle Panel N/A      Field Fence N/A      Barbwire N/A

• Pit Tank #2: Manufacturer: \_\_\_\_\_  
 • Serial #: \_\_\_\_\_      DOM: \_\_\_\_\_      Size \_\_\_\_\_ bbl  
     o If N/A - Dimensions: Diameter \_\_\_\_\_      Height \_\_\_\_\_  
 • Material: Steel \_\_\_\_\_ Galvanized \_\_\_\_\_ Fiberglass \_\_\_\_\_  
 • Tank Configuration: Double Wall \_\_\_\_\_ Single Wall \_\_\_\_\_ (Buried \_\_\_\_\_ or Exposed \_\_\_\_\_)  
 • Visible Walls: Y \_\_\_\_\_ N \_\_\_\_\_      Leak Detection: Y \_\_\_\_\_ N \_\_\_\_\_  
 • Contents: Produced Water \_\_\_\_\_      Condensate \_\_\_\_\_      Recycled Oil \_\_\_\_\_  
 • Tank Top Covering: Solid/Cone-top \_\_\_\_\_      Netting \_\_\_\_\_ (Solid \_\_\_\_\_ Fiber \_\_\_\_\_)  
 • Secondary Containment: Yes \_\_\_\_\_ No \_\_\_\_\_  
 • Fencing around berm: Yes \_\_\_\_\_ No \_\_\_\_\_  
     o Fence Type: Cattle Panel \_\_\_\_\_      Field Fence \_\_\_\_\_      Barbwire \_\_\_\_\_

• Above-Ground Tank #1: Manufacturer: American Tank + Steel Corp  
 • Serial #: 383      DOM: 7-54      Size 300 bbl  
     o If N/A - Dimensions: Diameter 121      Height 15'  
 • Material: Steel X      Galvanized \_\_\_\_\_      Fiberglass \_\_\_\_\_  
 • Contents: Produced Water N/A      Condensate N/A (State # 2-571)      Recycled Oil N/A  
     No Label  
 • Secondary Containment: Yes X      No \_\_\_\_\_

### Well Schematic



**Schematic Key:**

Separator



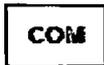
Artificial Lift



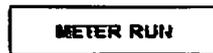
Condensate Tank



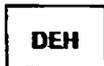
Compressor



Meter Run



Dehydrator



Well Head



Water Tank



Measure any distance 1000ft or less of the following:

• From wellhead to any continuous flowing or significant water course. N/A

• From below-grade tanks to any permanent residence, school, church, hospital, etc. None

# **BELOW GRADE TANK (BGT) CLOSURE PLAN**

**SITE NAME:**

**CAMPOS #2**

**UNIT LETTER K, SECTION 4, TOWNSHIP 23N, RANGE 7W**

**RIO ARriba COUNTY, NEW MEXICO**

**LATITUDE 36.254014 LONGITUDE -107.581741**

**SUBMITTED TO:**

**MR. WAYNE PRICE**

**NEW MEXICO OIL CONSERVATION DIVISION**

**1220 SOUTH ST. FRANCIS DRIVE**

**SANTA FE, NEW MEXICO 87505**

**(505) 476-3490**

**SUBMITTED BY:**

**MS. AMY MACKEY**

**ELM RIDGE EXPLORATION**

**P.O. BOX 156**

**BLOOMFIELD, NEW MEXICO 87413**

**(505) 632-3476 EXT. 201**

**JANUARY 2009**

**BELOW GRADE TANK (BGT) CLOSURE PLAN  
ELM RIDGE EXPLORATION  
CAMPOS #2  
RIO ARRIBA COUNTY, NEW MEXICO**

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## INTRODUCTION

Elm Ridge Exploration would like to submit a closure plan for the below grade tank (BGT) at the Campos #2 well site located in the NE ¼ SW ¼ of Section 4, Township 23N, Range 7W, Rio Arriba County, New Mexico. This closure plan has been prepared in conformance with the closure requirements of 19.15.17.13 NMAC.

## SCOPE OF CLOSURE ACTIVITIES

The purpose of this closure plan is to provide the details of activities involved in the closure of the BGT at the Campos #2 well site. The following scope of closure activities has been designed to meet this objective:

- 1) Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will close all of the BGTs currently in service within the five (5) years allotted. Elm Ridge Exploration does not operate any BGTs which would qualify to be upgraded or retrofitted; as such they will be closing all their current BGTs and replacing them with above ground storage tanks.
- 2) Elm Ridge Exploration will close BGTs deemed to be an imminent danger to fresh water, public health, or the environment by an earlier date that the division requires as specified in Subsection A of 19.15.17.13 NMAC.
- 3) Elm Ridge Exploration will close any BGT which demonstrates a compromise of integrity before the five (5) years allotted by the division per Paragraph (6) of Subsection I of 19.15.17.11 NMAC.
- 4) Elm Ridge Exploration will close any BGT within 60 days of cessation of the BGTs operation per Subsection A of 19.15.17.13 NMAC.
- 5) No less than 72 hours and no greater than one (1) week prior to BGT removal Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will provide written notification to the appropriate division district office as well as a schedule of on-site activities, as in accordance with 19.15.17.13 Subsection J Paragraph (2) NMAC. Written notification will include the name of the well operator, the well's API number, the well's name and number, and the well's unit letter, section, township, and range.
- 6) No less than 24 hours and no greater than one (1) week prior to beginning BGT closure activities Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will provide written notification to the appropriate surface owner, as in accordance with 19.15.17.13 Subsection J Paragraph (1) NMAC. Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will notify the surface owner by certified mail, return receipt requested, that the operator plans to close a below-grade tank. The return receipt will be used to ensure that the surface owner has received written notification no less than 24 hours and no greater than one (1) week prior to the beginning of BGT closure activities. Evidence of mailing of the notice to the address of the surface owner shown in the county tax records is sufficient to demonstrate compliance with this requirement. Closure activities that will take place on tribal land will have notifications sent by certified mail, return

receipt requested, to the appropriate tribal office. Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will notify the Bureau of Land Management (BLM) of closure activities for wells located on federal land per a Sundry Notice, as in accordance with 19.15.17.13 Subsection J Paragraph (1) NMAC. All notices will be sent in such a way that the surface owner received notice at least 24 hours prior to the beginning of closure activities.

- 7) Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will remove all liquids, and/or sludge, if applicable, prior to closure. Material will be disposed of at Envirotech's Landfarm #2, Permit # NM-01-0011, TNT Environmental Inc. Landfarm, Permit # NM-01-0008, Industrial Ecosystems Inc. (IEI) Landfarm, Permit # NM-01-0010B or Basin Disposal, Permit # NM-01-0005, depending on the consistence of the material removed, as in accordance with 19.15.17.13 Subsection E Paragraph (1) NMAC .
- 8) Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will remove all on-site equipment associated with this BGT that is no longer required for some other purpose, as in accordance with 19.15.17.13 Subsection E Paragraphs (3) NMAC.
- 9) If applicable, any liners or leak detection systems removed from a BGT closure will be cleaned off and disposed of at San Juan County Regional Landfill in accordance with Subparagraph (m) of Paragraph (1) of Subsection D of 19.15.9.712 NMAC.
- 10) Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will obtain prior approval from the OCD to dispose, recycle, reuse, or reclaim the BGT. Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will provide the OCD with documentation concerning the final disposition of the BGT with the closure report.
- 11) Once the BGT is removed a five (5)-point composite sample will be collected from directly below the tank or below the leak detection system if present. Grab samples will be collected from any area that are wet, discolored, or showing other evidence of a release. All samples being collected will be analyzed for benzene and total BTEX via USEPA Method 8021B, TPH via USEPA Method 418.1, and chlorides via USEPA 300.1, as in accordance with 19.15.17.13 Subsection E Paragraph (4) NMAC.
- 12) Depending on soil sample results the area will be either backfilled or the area will be excavated.
  - a. If soil samples do not exceed the regulatory standards of 0.2 mg/kg benzene, 50 mg/kg BTEX, 100 mg/kg TPH, and 250 mg/kg or background concentration of chlorides, as in accordance with 19.15.17.13 Subsection E Paragraph (4) NMAC.
    - i. Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, shall submit a Form C-141 with the laboratory results so that the division may review the results to determine if additional delineation is required in accordance with Paragraph (5) of Subsection E of 19.15.17.13 NMAC.
    - ii. Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will backfill the excavation or impacted area with non-waste containing, earthen material, in accordance with 19.15.17.13

- Subsection E Paragraph (6) NMAC. A soil cover shall be installed for all backfilled excavations consisting of the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater in accordance with Subsections H of 19.15.17.13 NMAC. The operator shall construct the soil cover to the site's existing grade and prevent ponding of water and erosion of the cover material.
- iii. All areas of the well site that are no longer utilized on a day to day basis for the production of oil and/or gas, Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will substantially restore, re-contour, and re-vegetate the areas, in accordance with 19.15.17.13 Subsections G and I NMAC. The operator shall notify the division when it has been re-seeded and when it has achieved successful re-vegetation. For re-vegetation methods, please see attached re-vegetation plan.
- b. If soil samples exceed the regulatory standards stated above.
- i. Elm Ridge Exploration will submit a Release Notification by Form C-141 with the appropriate analytical laboratory results to the appropriate division district office, in accordance with 19.15.17.13 Subsection E Paragraph (4) NMAC.
  - ii. In accordance with Paragraph (5) of Subsection E of 19.15.17.13 NMAC, once the operator or the OCD has determined that a release has occurred, Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will comply with rule 19.15.3.116 NMAC and 19.15.1.19 NMAC as appropriate.

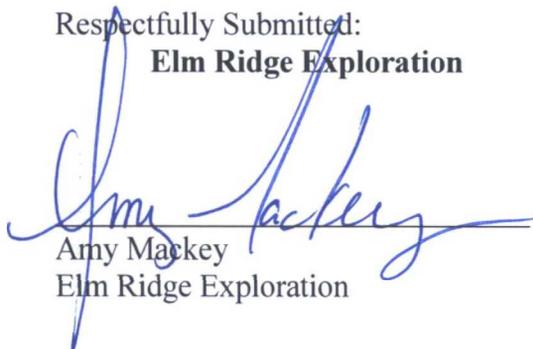
### REPORTING

Elm Ridge Exploration will submit a closure report within 60 days following the BGT closure. The closure report will consist of a form C-144 with all supporting data, and a form C-141 with all supporting data. The supporting data will include proof of closure notice to the surface owner and the OCD, confirmation sampling analytical results, a site diagram, soil backfilling and cover installation, re-vegetation rates, re-seeding techniques, and site reclamation photo documentation, if applicable, along with all other information related to the onsite activities.

We appreciate the opportunity to be of service. If you have any questions or require further information, please do not hesitate to contact our office at (505) 632-3476 Ext. 201.

Respectfully Submitted:

**Elm Ridge Exploration**



Amy Mackey  
Elm Ridge Exploration

## **Elm Ridge Exploration**

### **San Juan Basin**

#### **Below Grade Tank Maintenance and Operating Plan**

In accordance with Rule 19.15.17 the following information describes the operation and maintenance of a Below Grade Tank (BGT) on Elm Ridge Exploration locations. This particular location does not meet the siting criteria to operate a BGT, and thus will be closing the BGT within five (5) years, or upon failure of integrity, and replacing it with an above ground storage tank.

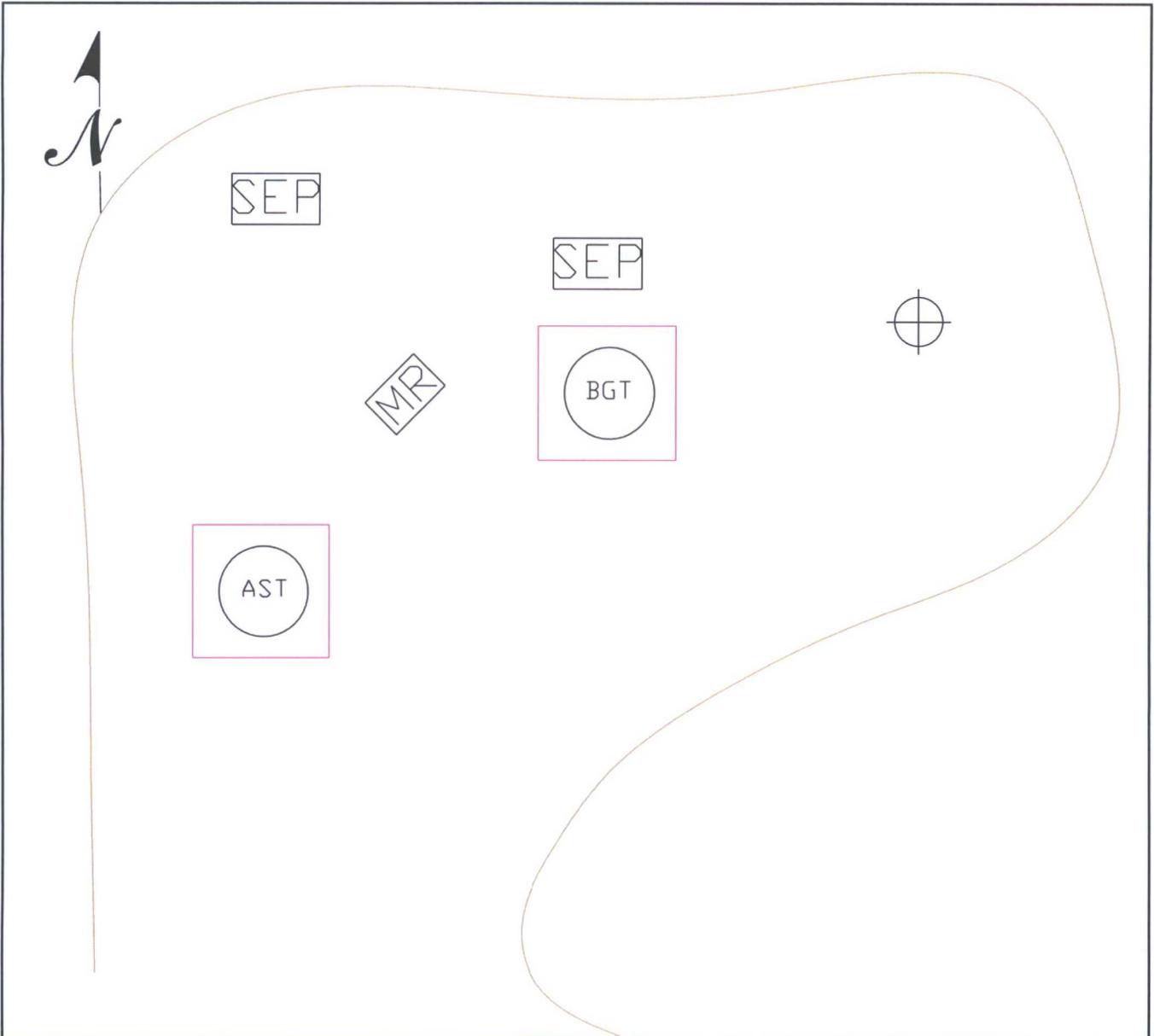
#### **GENERAL PLAN:**

1. Elm Ridge Exploration, or a contractor representing Elm Ridge Exploration, will operate and maintain a BGT to contain liquids and solids to prevent contamination of fresh water and to protect public health and environment. This will be accomplished by performing monthly inspections of the BGT, any liners or leak detection, if applicable, netting, secondary containment, fencing, and maintaining adequate freeboard.
2. Elm Ridge Exploration, or a contractor representing Elm Ridge Exploration, shall not allow a BGT to overflow or allow surface water run-on to enter the BGT. This will be accomplished by a secondary containment consisting of a soil berm around the BGT that will be monitored by monthly inspections. Overflowing will be prevented by maintaining an adequate freeboard of eight (8) inches, maintained by monthly inspections. This process will be performed on the current BGT located at this well site.
3. Elm Ridge Exploration, or a contractor representing Elm Ridge Exploration, shall continuously remove any visible or measurable layer of oil from the fluid surface of a BGT in an effort to prevent the accumulation of oil over time.
4. Elm Ridge Exploration, or a contractor representing Elm Ridge Exploration, shall inspect the BGT at least once monthly and maintain a written record of each inspection for at least five (5) years. The monthly inspection form to be used by Elm Ridge Exploration is attached to this document.
5. Elm Ridge Exploration, or a contractor representing Elm Ridge Exploration, shall maintain adequate freeboard to prevent overtopping of the BGT. The standard freeboard to be maintained by Elm Ridge Exploration is eight (8) inches.
6. Elm Ridge Exploration, or a contractor representing Elm Ridge Exploration, shall maintain an expanded metal covering on the BGT.

7. Elm Ridge Exploration will not discharge into or store any hazardous wastes in the BGT.
8. If Elm Ridge Exploration, or a contractor representing Elm Ridge Exploration, determines that a BGT has developed a leak below the liquid's surface, then Elm Ridge Exploration, or a contractor representing Elm Ridge Exploration, will notify the appropriate division office within 48 hours of discovering the leak. Elm Ridge Exploration, or a contractor representing Elm Ridge Exploration, shall remove all liquids above the damage or leak line within 48 hours in accordance with Subsection A of 19.15.17.12 NMAC. The damaged tank will then be removed and closure activities will begin in accordance with the submitted closure plan.
9. Elm Ridge Exploration will begin closure activities for any BGT in cession for 60 days.
10. Elm Ridge Exploration, or a contractor representing Elm Ridge Exploration, will close the BGT within the NMOCD allotted five (5) years, within 60 days of cession of the BGT or upon failure of integrity, and put into service an above ground storage tank to meet the needs previously fulfilled by the BGT.

***Figure A, Site Map***

***Attachment 1, Monthly BGT Inspection Form***



# LEGEND

 Berm

 Well Head

SITE MAP  
 ELM RIDGE EXPLORATION  
 CAMPOS #2  
 SEC 4 TWN 23N RGE 7W  
 RIO ARRIBA COUNTY, NEW MEXICO

SCALE: NTS	FIGURE NO. A	REV
PROJECT N003056-0135		

REVISIONS			
NO.	DATE	BY	DESCRIPTION
MAP	DRWN	RP	10/24/08
BASE	DRWN		

ENVIRONMENTAL SCIENTISTS & ENGINEERS  
**ENVIROTECH**

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

# Elm Ridge Exploration, LLC

## Monthly Below Grade Tank Inspection Form

Inspection Performed By: \_\_\_\_\_ Date: \_\_\_\_\_

Well Site Name: \_\_\_\_\_

Unit: \_\_\_\_\_ Section: \_\_\_\_\_ Township: \_\_\_\_\_ Range: \_\_\_\_\_ County: \_\_\_\_\_

Quarter Footage: \_\_\_\_\_

Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_

### **Below Grade Tank**

Construction Material of BGT (circle one): Steel Fiberglass Galvanized Other: \_\_\_\_\_

Tank Capacity (BBLs): \_\_\_\_\_

Status of Tank (circle one): NA poor fair good excellent

Leaks Detected (circle one): Yes No Unknown

Liquid level in tank from the top: \_\_\_\_\_

Recent overflow detected (circle one): Yes No Unknown

BGT Cover present: Yes No NA

Cover Type (circle one): wire mesh steel mesh fibrous netting other: \_\_\_\_\_

Berm Present (circle one): Yes No

### **Secondary Containment**

Type of secondary containment: \_\_\_\_\_

Status of secondary containment (circle one): NA poor fair good excellent

### **Fencing**

Fencing Present (circle one): Yes No

Describe Fencing: \_\_\_\_\_

Status of Fencing (circle one): NA poor fair good excellent

\*Maintain this document on record for a minimum of five (5) years from the date performed.

**OCD Aztec District III  
ELM RIDGE Checklist  
Below Grade Tank Closure Plans**

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**19.15.17.9 Permit application**

- Signed C-144 (Page 5 of C-144)
- Site Specific Hydrogeology (Iwaters)

**19.15.17.10 Siting requirements**

- Proximity to watercourses (Topo map)
- Proximity to Permanent Structure (Aerial Map)
- Proximity to Flood Plain Map (Aerial Map)
- Proximity to Subsurface Mines Map (Aerial Map)

**19.15.17.13 Closure Plan**

- Below Grade Tank Closure Plan

**19.15.17.12 Operating and Maintenance Plan**

- Below Grade Tank Operating and Maintenance Plan

**Requirements:** (Application Marked Closure Plan Only)

**Registration Date:** VF (CS) 5/17/18