Form C-144 July 21, 2008

1 - 3	
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	
2009 JHN 27 PH 1	2
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State of New Mexico
Energy Minerals and Natural Resources
Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

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:	ermit of a pit, closed-loop system, below-grade tank, or proposed alternative method
\boxtimes (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
S	ystem, below-grade tank, or proposed alternative method
Instructions: Please submit one ap	pplication (Form C-144) per individual pit, closed-loop system, below-grade tank, or alternative request
advised that approval of this request of	oes not relieve the operator of liability should operations result in pollution of surface water, ground water, or the

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: Candado 22
API Number: 3003921739 OCD Permit Number:
U/L or Qtr/QtrL Section4 Township26N Range7W County:Rio Arriba
Center of Proposed Design: Latitude <u>36.512775</u> Longitude <u>-107.585472</u> NAD: □1927 ⊠ 1983
Surface Owner: 🖂 Federal 🗌 State 🗌 Private 🗌 Tribal Trust or Indian Allotment
Pit: Subsection F or G of 19.15.17.11 NMAC
Temporary: Drilling Workover
Permanent Emergency Cavitation P&A
Lined Unlined Liner type: Thicknessmil LLDPE HDPE PVC Other
☐ String-Reinforced
Liner Seams: Welded Factory Other Volume: bbl Dimensions: L x W x D
3.
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: Thicknessmil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other
Liner Seams: Welded Factory Other Other
4.
■ Below-grade tank: Subsection I of 19.15.17.11 NMAC
Volume: 40 bbl Type of fluid: Produced water
Tank Construction material: <u>Steel tank</u>
☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☒ Visible sidewalls only ☒ Other <u>Single-walled tank</u>
Liner type: Thicknessmil
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.



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, institution or church)	hospital,
Four foot height, four strands of barbed wire evenly spaced between one and four feet	
☐ Alternate. Please specify 4 foot tall hogwire fencing	
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 of the Santa Fe En	office for
consideration of approval.	
Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.	·
Siting Criteria (regarding permitting): 19.15.17.10 NMAC Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of accept material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of a Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying above-grade tanks associated with a closed-loop system.	priate district pproval.
Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank. The attached C-144 report, completed by Envirotech, approved by the OCD in March 2006, indicates that the NMOCD accepted depth to groundwater is over 100 feet at this site.	☐ Yes 🏻 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.	☐ Yes ⊠ No
The nearest watercourse is 2,837.2 ft. south per attached topographic map. These findings are reflected by the attached visual inspection sheet.	
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. The attached aerial photograph and visual inspection sheet indicate that none of the above locations are within 1000 feet of the well site.	☐ Yes ☑ No ☐ NA
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	☐ Yes ☐ No ☑ 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. The attached C-144 report and visual inspection sheet indicate no wells are within 1000 feet of the 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. The site is not within incorporated municipal boundaries according to the attached topographical map and visual	☐ Yes ☑ No
inspection sheet.	
Within 500 feet of a wetland. The USFWS data file, WetlandsData.kmz, dated July 2, 2008, was opened using Google Earth. The nearest wetlands are 1,216 ft. south.	☐ Yes ⊠ No
Within the area overlying a subsurface mine. The attached NM EMNRD web map indicates that the well site is not within an area overlying a subsurface mine.	☐ Yes ☒ No
Within an unstable area.	☐ Yes ⊠ No
The attached topographical map and visual inspection sheet indicate that the well site is not within an unstable area.	□ 162 M M0
Within a 100-year floodplain. The attached FFMA Man indicates the well site is not within a 100-year flood plain.	☐ Yes ⊠ No

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 Previously Approved Design (attach copy of design) API Number: or Permit Number:
Treviously Approved Design (attach copy of design) Art Number.
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)
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 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 ₂ S, Prevention Plan Emergency Response Plan Oil Field Waste Stream Characterization Monitoring and Inspection Plan Erosion Control Plan Erosion Control Plan Erosion Control Plan Erosion Control Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
Proposed Closure: 19.15.17.13 NMAC Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan. Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank 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 G of 19.15.17.13 NMAC

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Instructions: Please indentify the facility or facilities for the disposal of liquids, facilities are required.		
Disposal Facility Name:	Disposal Facility Permit Number:	
Disposal Facility Name:		
Will any of the proposed closed-loop system operations and associated activities of Yes (If yes, please provide the information below) No		
Required for impacted areas which will not be used for future service and operation Soil Backfill and Cover Design Specifications based upon the appropriate Re-vegetation Plan - based upon the appropriate requirements of Subsection Site Reclamation Plan - based upon the appropriate requirements of Subsection	e requirements of Subsection H of 19.15.17.13 NMA n I of 19.15.17.13 NMAC	c
17. <u>Siting Criteria (regarding on-site closure methods only)</u> : 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the provided below. Requests regarding changes to certain siting criteria may required considered an exception which must be submitted to the Santa Fe Environmental demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC	re administrative approval from the appropriate dist al Bureau office for consideration of approval. Just	rict office or may be
Ground water is less than 50 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Da	ta 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; Da	ta 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; Da	ta obtained from nearby wells	☐ Yes ☐ No ☐ NA
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other signake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	gnificant watercourse or lakebed, sinkhole, or playa	☐ Yes ☐ No
Within 300 feet from a permanent residence, school, hospital, institution, or churci - Visual inspection (certification) of the proposed site; Aerial photo; Satellit		☐ Yes ☐ No
Within 500 horizontal feet of a private, domestic fresh water well or spring that les watering purposes, or within 1000 horizontal feet of any other fresh water well or - NM Office of the State Engineer - iWATERS database; Visual inspection	spring, in existence at the time of initial application.	☐ Yes ☐ No
Within incorporated municipal boundaries or within a defined municipal fresh was adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written appro-	•	☐ Yes ☐ No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visu	al 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-Minin	g and Mineral Division	☐ Yes ☐ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geolog Society; Topographic map	gy & Mineral Resources; USGS; NM Geological	☐ Yes ☐ No
Within a 100-year floodplain FEMA map		☐ Yes ☐ No
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the by a check mark in the box, that the documents are attached. Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of Construction/Design Plan of Burial Trench (if applicable) based upon the a Construction/Design Plan of Temporary Pit (for in-place burial of a drying Protocols and Procedures - based upon the appropriate requirements of 19.1 Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Disposal Facility Name and Permit Number (for liquids, drilling fluids and Soil Cover Design - based upon the appropriate requirements of Subsection Re-vegetation Plan - based upon the appropriate requirements of Subsection Site Reclamation Plan - based upon the appropriate requirements of Subsection	quirements of 19.15.17.10 NMAC If Subsection F of 19.15.17.13 NMAC ppropriate requirements of 19.15.17.11 NMAC pad) - based upon the appropriate requirements of 19. 5.17.13 NMAC quirements of Subsection F of 19.15.17.13 NMAC If Subsection F of 19.15.17.13 NMAC drill cuttings or in case on-site closure standards cann H of 19.15.17.13 NMAC I of 19.15.17.13 NMAC	15.17.11 NMAC

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Operator Application Certification: I hereby certify that the information symmetric with this application is true, accurate,	and complete to the best of my knowledge and belief.
Name (Print): Ms. Amy Macket	Title: Administrative Manager
Signature: Mu lackly	Date: 1-23-09
E-mail address: amackey1@elmridge.net	Telephone:(505) 632-3476 Ext. 201
20.	
OCD Representative Signature:	
OCD Representative Signature:	Approval Date:
Title: O	CD Permit Number:
Closure Report (required within 60 days of closure completion): Subsection K of Instructions: Operators are required to obtain an approved closure plan prior to in The closure report is required to be submitted to the division within 60 days of the consection of the form until an approved closure plan has been obtained and the closure	nplementing any closure activities and submitting the closure report. completion of the closure activities. Please do not complete this re activities have been completed.
	Closure Completion Date:
Closure Method: Waste Excavation and Removal On-Site Closure Method Alternative If different from approved plan, please explain.	e Closure Method Waste Removal (Closed-loop systems only)
23. <u>Closure Report Regarding Waste Removal Closure For Closed-loop Systems Th</u> <i>Instructions: Please indentify the facility or facilities for where the liquids, drilling two facilities were utilized.</i>	
Disposal Facility Name: D	isposal Facility Permit Number:
	risposal Facility Permit Number:
Were the closed-loop system operations and associated activities performed on or in a Yes (If yes, please demonstrate compliance to the items below) No	areas that will not be used for future service and operations?
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 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	must be attached to the closure report. Please indicate, by a check NAD: 1927 1983
25. Operator Closure Certification:	
I hereby certify that the information and attachments submitted with this closure repobelief. I also certify that the closure complies with all applicable closure requirement	
Name (Print):	Title:
Signature:	Date:
E-mail address:	Telephone:

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**

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

Form C-144 June 1, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe

Pit or Be	<u>low-Grade</u>	Tank I	Registrat	<u>ion or</u>	Closure
Is pit or belov	w-grade tank o	overed by	a "general p	olan"? Ye	s 🛛 No 🗌

Type of action: Registration of a pit	or below-grade tank 🔲 Closure of a pit or below-grade	de tank 🗵 (16) 7 18 70			
Operator: Elm Ridge Resources Telephone: (505) 632-347 Address: #20 CR 5060, Bloomfield, New Mexico, 87413	76 e-mail address: amackey1@elmrid				
· · · · · · · · · · · · · · · · · · ·	1720 - 1// OO D - S 4 - T - 2/				
	Longitude <u>107,585483</u> NAD: 1927 ∑	The Office of the State of the			
Surface Owner: Federal State Private Indian	T				
Pt -	Below-grade tank	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
Type: Drilling □ Production ☑ Disposal □ Volume:bbl Type of fluid:					
Workover Emergency	Construction material:				
Lined Unlined	Double-walled, with leak detection? Yes If not	, explain why not			
Liner type: Synthetic Thicknessmil Clay					
Pit Volumebbl					
Depth to ground water (vertical distance from bottom of pit to seasonal	Less than 50 feet	(20 points)			
high water elevation of ground water.)	50 feet or more, but less than 100 feet	(10 points)			
ingli water elevation of ground water.)	100 feet or more	(0 points) 0			
	Yes	(20 points)			
Wellhead protection area: (Less than 200 feet from a private domestic	No	(O points) 0			
water source, or less than 1000 feet from all other water sources.)		() ,			
Distance to surface water: (horizontal distance to all wetlands, playas,	Less than 200 feet	(20 points)			
irrigation canals, ditches, and perennial and ephemeral watercourses.)	200 feet or more, but less than 1000 feet	(10 points)			
inguitor comiss, dictics, and perchana and opposite water-	1000 feet or more	(0 points) 0			
	Ranking Score (Total Points)	0			
If this is a pit closure: (1) Attach a diagram of the facility showing the pit'	• • • • • • • • • • • • • • • • • • • •				
your are burying in place) onsite 🔲 offsite 🔯 If offsite, name of facility _					
remediation start date and end date. (4) Groundwater encountered: No 🔯	Yes 🔲 If yes, show depth below ground surface	ft. and attach sample results.			
(5) Attach soil sample results and a diagram of sample locations and excava	tions.				
Additional Comments:					
Approximately 10 cubic yards of contaminated soil was excavated and tran	asported to Envirotech's NMED permitted landfarm				
	· · · · · · · · · · · · · · · · · · ·				
I hereby certify that the information above is true and complete to the best	of my knowledge and belief. I further certify that the	he above-described pit or below-grade tank			
has been/will be constructed or closed according to NMOCD guideline	🕦 🗔, a general permit 🔲 or en (attached)/alterna	ive OCD-approved plan .			
Date: 3-9-66					
	- An Marke				
Printed Name/Title Ms. Amy Mackey, Production Technician	Signature VIII	4			
Your certification and NMOCD approval of this application/closure does not otherwise endanger public health or the environment. Nor does it relieve to	not relieve the operator of liability should the contents	of the pit or tank contaminate ground water or			
regulations.	and operation of its responsitioning for compliance with a	ny odrez redezat, state, or tocal laws allow			
Approval:	1				
Approval: WHIT OR A GAS RESPECTOR CORNER OWN HOLD Date: MAR 1 6 2006					
- SMESS					

New Mexico Office of the State Engineer POD Reports and Downloads

Township: 26N Range: 07W Sections: 3,4,9,10

NAD27 X

Search Radius

County:

Basin:

Number

Suffix

Owner Name: (First)

(Last)

Non-Domestic Domestic All

Clear Form iWATERS Menu Help

POD / SURFACE DATA REPORT 10/07/2008

(acre ft per annum) DB File Nbr Use Diversion Owner
STK 3 RICHARD BOYD SJ 02419

POD Number

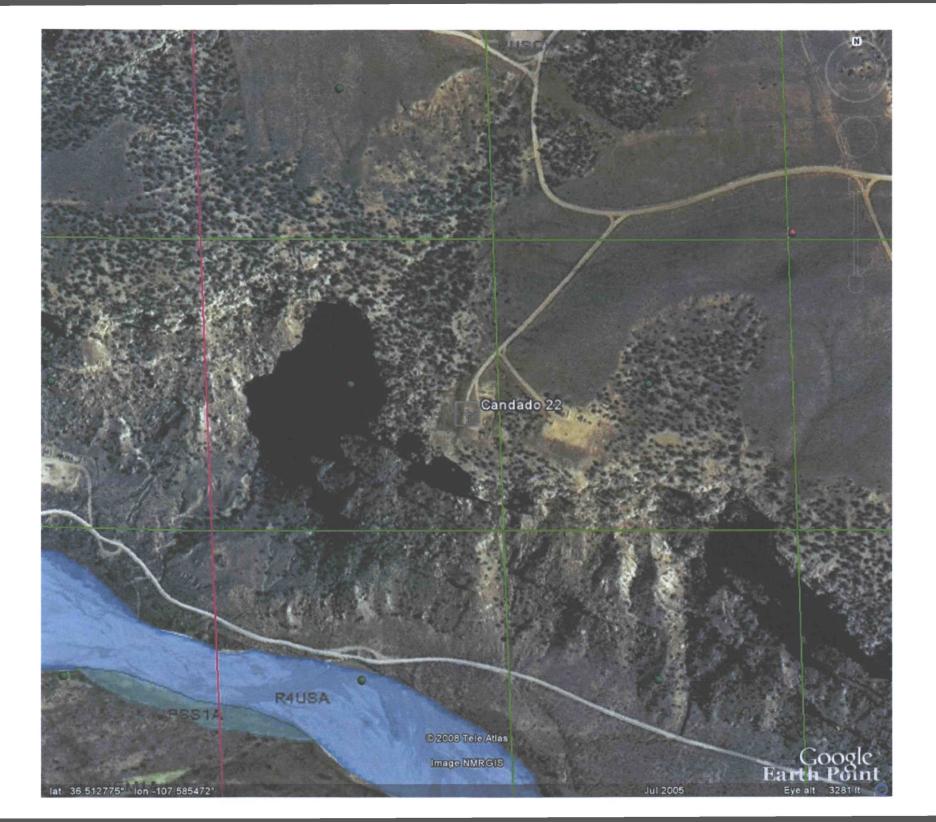
SJ 02419

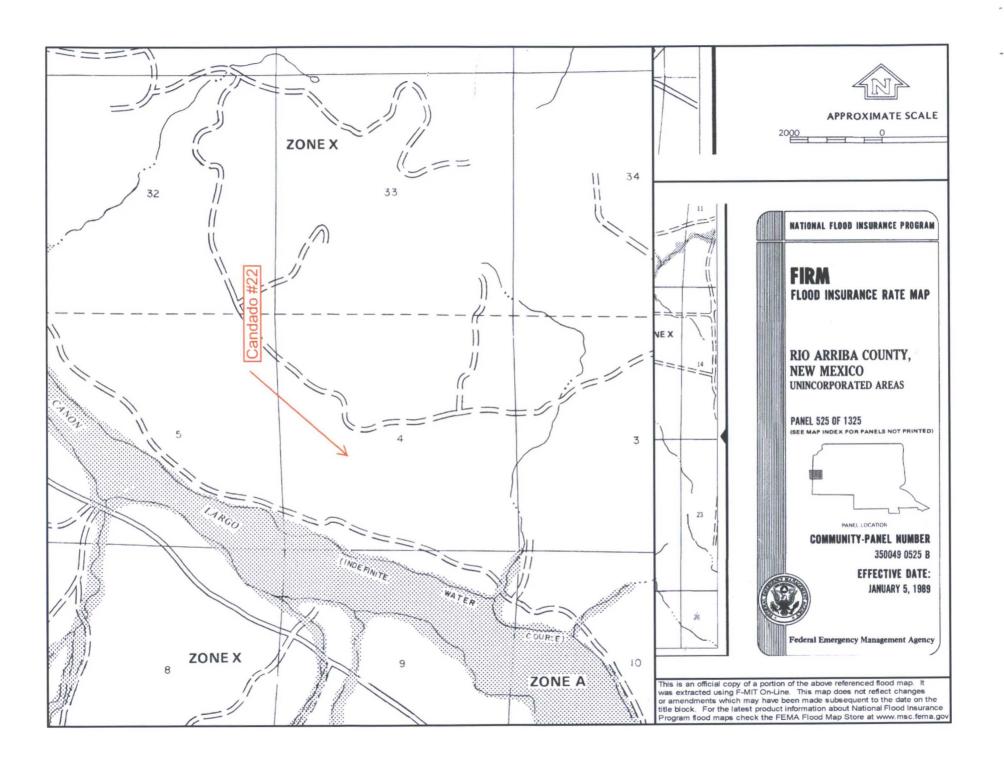
(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are biggest to smallest X Y are in Feet Source Tws Rng Sec q q Q Zone X Y UTM_Zone Easting Northing Date
26N 07W 09 2 2 3 13 269401 4043063

Start

Finish Depth Depth (in feet) Well Water

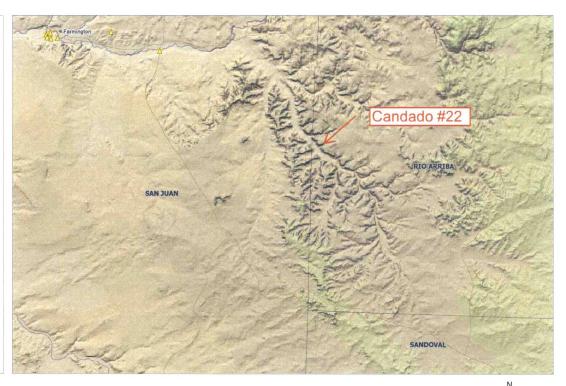
Record Count: 1





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**







Elm Ridge Site Inventory Sheet Time: Started: 11:45 Ended: 12:03 Initials: PS CANDADO # 22 CH & MY Well Name & Number: 3003921739 Lease #: SF - 079/61 Quarter/Quarter: L Section: 4 Township: 26N Range: 7W Lat: N36.512775 Long: W107.585472° GPS Point ID: Pit Tank #1: Manufacturer: Serial #: ____ N/A ___ DOM: ___ //A Size N/4 o If N/A – Dimensions: Diameter /2 ' Height Material: Steel X Galvanized Fiberglass Tank Configuration: Double Wall _____ Single Wall _____ (Buried___ or Exposed_X) Visible Walls: Y N Leak Detection: Y N N Contents: Produced Water____ Condensate____ Recycled Oil_X__ Tank Top Covering: Solid/Cone-top_____ Netting X (Solid X Fiber ___) Secondary Containment: Yes \(\) No____ Fencing around berm: Yes X No____ ○ Fence Type: Cattle Panel____ Field Fence 🕺 Barbwire 💢 Pit Tank #2: Manufacturer: Serial #:_____DOM:____ Size____bbl ____ Height___ o If N/A - Dimensions: Diameter_____ Steel____ Galvanized____ Fiberglass_____ Material: 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: 471 Serial #: 7549 DOM: 5/78 Size 2/0 bbl o If N/A - Dimensions: Diameter /6' Height /5' Material: Steel X Galvanized____ Fiberglass____ Contents: Produced Water Condensate (State # 9/ - 274/) Recycled Oil Secondary Containment: Yes X No____

BELOW GRADE TANK (BGT) CLOSURE PLAN

SITE NAME:

WELL SITE CANDADO 22
UNIT LETTER L, SECTION 4, TOWNSHIP 26N, RANGE 7W
RIO ARRIBA COUNTY, NEW MEXICO
LATITUDE 36.512775 LONGITUDE -107.585472

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 CANDADO 22 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 Candado 22 well site located in the NW ¼ SW ¼ of Section 4, Township 26N, 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 Candado 22 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 he state to contact our office at (505) 632-3476 Ext. 201.

Respectfully Submitted:

Elm Ridge Exploration

Amy Mackey

Elm Ridge Exploration

Elm Ridge Exploration

Re-Seeding Techniques and Seed Mixture Ratios

These applied practices by Elm Ridge Exploration will at a minimum comply with the New Mexico Oil Conservation Divisions rule 19.15.17.13, Subsection I NMAC, Elm Ridge Exploration has adopted these re-seeding application techniques, ratios, and mixtures as their standard operating procedures.

- 1. The first growing season after closure of a below grade tank or pit, all areas of the well site not utilized for the production of oil and/or gas on a daily basis will be re-seeded with the specified seed mixture.
- 2. The seed mixture used will be certified with no primary or secondary noxious weeds in seed mixtures. The seed labels from each bag shall be available for inspection while seed is being sown.
- 3. The operator shall accomplish seeding by drilling on the contour whenever practical or by other division-approved methods. The operator shall obtain vegetative cover that equals 70% of the native perennial vegetative cover (un-impacted by overgrazing, fire or other intrusion damaging to native vegetation) consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintain that cover through two successive growing seasons. During the two growing seasons that prove viability, there shall be no artificial irrigation of the vegetation.
- 4. Hand seeding with hydro-mulch, excelsior netting, or mulch with netting is required on the cut/fill slopes. Mulch will be spread at a rate of 2,000-3,000 pounds per acre.
- 5. Compacted areas determined by visual inspection will be ripped to a depth of 12 inches below ground surface and disked to a depth of six (6) inches before seeding. Seeding shall be done with a disk type drill with two (2) boxes for various seed sizes. The drill rows shall be eight (8) to ten (10) inches apart. Seed shall be planted at no less than one-half (1/2) inch deep or more than one (1) inch deep. The seeder shall be followed with a drag, packer, or roller to ensure uniform coverage of the seed and adequate compaction. Drilling shall be done on the contour where possible, but not up and down the slope.
- 6. Where slopes are too steep for contour drilling a hand seeder shall be used. Seed shall be covered to the depth above by whatever means is practical. If the seed is unable to be covered by the means listed above, the prescribed seed mixture amount will be doubled.

- 7. Elm Ridge Exploration shall repeat seeding or planting until it successfully achieves the required vegetative cover of 70% of the native perennial vegetation cover.
- 8. Upon abandonment of a well site, if the retention of the access road is not considered necessary for the management and multiple uses of the natural resources, or by the surface owner, it will be ripped a minimum of 12 inches in depth. After ripping, water bars will be installed. All ripped surfaces are to be protected from vehicular travel by construction of a dead end ditch and earthen barricade at the entrance to these ripped areas. Re-seeding of areas affected by the ditch and barriers will be re-seeded if necessary.
- 9. Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will inform the division once successful re-vegetation has occurred.

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.

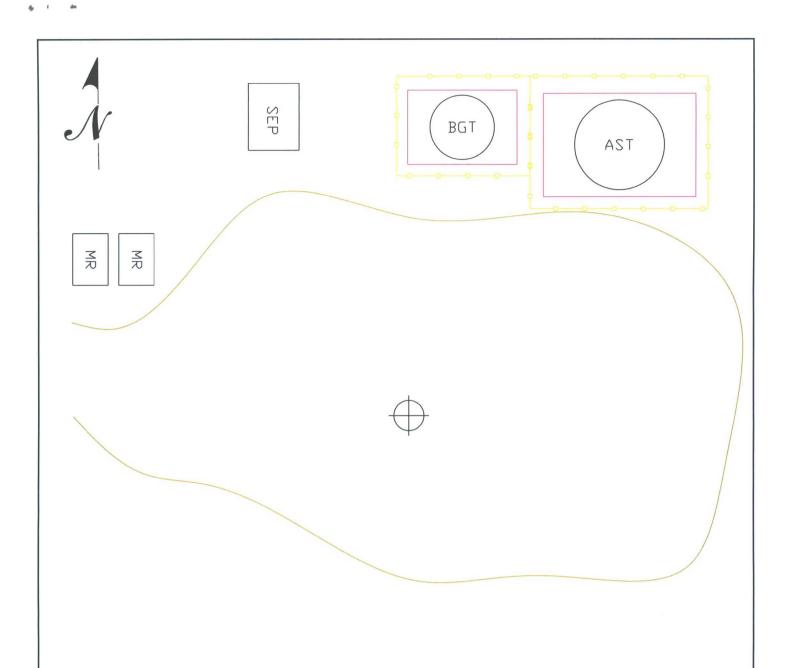
GENERAL PLAN:

- 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







SITE MAP ELM RIDGE EXPLORATION CANDADO #22 SEC 4 TWN 26N RGE 7W RIO ARRIBA COUNTY, NEW MEXICO

RIO ARRIBA COUNTY, NEW MEXICO

SCALE: NTS

FIGURE NO. A

REV

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ENVIRONMENTAL SCIENTISTS & ENGINEERS

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

Elm Ridge Exploration, LLC

Monthly Below Grade Tank Inspection Form

Inspec	tion Performed B	y:		Date:	
	Well Site	Name:			-
Unit:	Section:	Township:	Range:	County	y:
	Quarter	Footage:			
	Latitude:		Longitude:		<u>.</u>
Below Grade	<u> Fank</u>				
Construction Mate	erial of BGT (cire	ele one): Steel Fib	erglass Galvan	nized Other:	
Tank Capacity (B	BLS):	· <u>-</u>		-	•
Status of Tank (ci	rcle one):	A poor fa	ir good	excellent	
Leaks Detected (c	ircle one):	Yes No	Unknown		
Liquid level in tar	k from the top:				
Recent overflow of	letected (circle or	ne): Yes N	o Unknowr	ı	
BGT Cover preser	nt: Yes	No NA			
Cover Type (circle	e one): wire	mesh steel mesl	h fibrous ne	etting other:	
Berm Present (circ	cle one):	Yes No			
Secondary Co	ntainment -				
Type of secondary	y containment:	<u></u>			
Status of secondar	ry containment (c	ircle one): NA	poor fa	air 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

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)
40 45 47 40 Classes Blad
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
$A = \frac{1}{2}$
Registration Date: VF (CS) $\frac{5}{17/16}$
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