

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

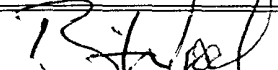
1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. BIA CONTRACT 78
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name JICARILLA APACHE NATION
2. Name of Operator ELM RIDGE EXPLORATION COMPANY, LLC		7. If Unit or CA Agreement, Name and No. N/A
3a. Address P. O. BOX 156 BLOOMFIELD, NM 87413	3b. Phone No. (include area code) (505) 632-3476	8. Lease Name and Well No. JICARILLA 78 PC #2
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 1040' FNL & 1750' FEL At proposed prod. zone SAME		9. API Well No. 30-039- 29792
10. Field and Pool, or Exploratory BALLARD PICTURED CLIFFS		11. Sec., T. R. M. or Blk. and Survey or Area B14-23N-5W NMPM
12. Distance in miles and direction from nearest town or post office* 7 AIR MILES ENE OF COUNSELOR, NM		12. County or Parish RIO ARriba
13. State NM		
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 3,530'	16. No. of acres in lease 2,560	17. Spacing Unit dedicated to this well NE4
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 111' (#50)	19. Proposed Depth 2,400'	20. BLM/BIA Bond No on file BIA NATION WIDE 886441C
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6,758' GL	22. Approximate date work will start* 04/15/2006	23. Estimated duration 3 WEEKS

24. Attachments


The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

RCUD MAR 31 '10
OIL CONS. DIV.

- | | |
|---|--|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification DIST. 3 |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature 	Name (Printed/Typed) BRIAN WOOD	Date 02/03/2006
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Title **CONSULTANT** PHONE: (505) 466-8120 FAX: (505) 466-9682

Approved by (Signature) 	Name (Printed/Typed) AFM	Date 3/30/2010
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Title **AFM** Office **FFO**

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*(Instructions on page 2)

A COMPLETE C-144 MUST BE SUBMITTED TO AND APPROVED BY THE NMOCD FOR: A PIT, CLOSED LOOP SYSTEM, BELOW GRADE TANK, OR PROPOSED ALTERNATIVE METHOD, PURSUANT TO NMOCD PART 19.15.17, PRIOR TO THE USE OR CONSTRUCTION OF THE ABOVE APPLICATIONS.

**NOTIFY AZTEC OCD 24 HRS
PRIOR TO CASING & CEMENT**

**RECEIVED
FARMINGTON NM
FEB 6 PM 12 04**

APR 08 2010



NMOCD

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS".

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

District I
PO Box 1980, Hobbs, NM 88241-1980

District II
PO Drawer 00, Artesia, NM 88211-0719

District III
1000 Rio Brazos Rd., Aztec, NM 87410

District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30039-29792		*Pool Code 71439	*Pool Name BALLARD PICTURED CLIFFS
*Property Code 38100	*Property Name JICARILLA 78 PC		*Well Number 2
*OGRID No 149052	*Operator Name ELM RIDGE EXPLORATION COMPANY, LLC.		*Elevation 6758


¹⁰ Surface Location

UL or lot no B	Section 14	Township 23N	Range 5W	Lot Idn	Feet from the 1040	North/South line NORTH	Feet from the 1750	East/West line EAST	County RIO ARriba
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¹¹ Bottom Hole Location If Different From Surface

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Dedicated Acres 160.0 Acres - (NE/4)					¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.		

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<div><p>15</p><p>5280.00'</p><p>1040'</p><p>LAT: 36.228184°N LONG: 107.327754°W DATUM: NAD1927</p><p>1750'</p><p>14</p><p>5280.00'</p><p>5282.64'</p></div>	<p>¹⁷ OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Brian Wood</i></p> <p>Signature BRIAN WOOD</p> <p>Printed Name CONSULTANT</p> <p>Title FEB. 3, 2006</p> <p>Date</p>
	<p>¹⁸ SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>Date of Survey: JUNE 22, 2005</p> <p>Signature and Seal of Professional Surveyor</p>
	
	<p>JASON C. EDWARDS</p> <p>Certificate Number 15269</p>

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2006 FEB 9 PM 12 04

070 FARMINGTON NM

Elm Ridge Exploration Company, LLC
Jicarilla 78 PC #2
1040' FNL & 1750' FEL
Sec. 14, T. 23 N., R. 5 W.
Rio Arriba County, New Mexico

PAGE 1

Drilling Program

1. ESTIMATED FORMATION TOPS

<u>Formation Name</u>	<u>GL Depth</u>	<u>KB Depth</u>	<u>Elevation</u>
San Jose	000'	5'	+6,758'
Ojo Alamo Ss	1,708'	1,713'	+5,050'
Kirtland Shale	2,058'	2,063'	+4,700'
Pictured Cliffs Ss	2,223'	2,228'	+4,535'
Total Depth (TD)*	2,400'	2,405'	+4,358'

2. NOTABLE ZONES

<u>Oil & Gas Zones</u>	<u>Water Zones</u>	<u>Coal Zone</u>
Ojo Alamo	San Jose	Fruitland
Pictured Cliffs	Ojo Alamo	

Water zones will be protected with casing, cement, and weighted mud. Fresh water encountered during drilling will be recorded by depth, cased, and cemented. Oil and gas shows will be tested for commercial potential based on the well site geologist's recommendations.

3. PRESSURE CONTROL

The drilling contract has not yet been awarded, thus the exact BOP model to be used is not yet known. (A typical 2,000 psi model is on PAGE 3.) BOP and choke manifold system will be installed and tested to 500 psi before drilling surface casing plug. It will remain in use until the well is completed or abandoned. A safety valve and sub with a full opening valve to fit the drill pipe and collars will be available on the rig floor in the open position at all times for use when kelly is not in use.

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PAGE 2

All BOP mechanical and pressure tests will be recorded on the driller's log. BOPs will be inspected and opened and closed at least daily to assure good mechanical working order. Inspections will be recorded on the daily drilling report. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place.

4. CASING & CEMENT

<u>Hole Size</u>	<u>O. D.</u>	<u>Weight (lb/ft)</u>	<u>Grade</u>	<u>Type</u>	<u>Age</u>	<u>GL Setting Depth</u>
8-5/8"	7"	23	K-55	S T & C	New	250'
6-3/4"	4-1/2"	10.5	J-55	L T & C ST	New	2,400'

Surface casing will be cemented to the surface with ≈ 70 cubic feet (≈ 60 sacks) Class B with 1/4#/sk Flocele + 2% CaCl_2 . Yield = 1.18 cubic feet per sack. Weight = 15.2 pounds per gallon. Volume = 100% excess. Centralizers will be installed on the middle of the shoe joint and every other centralizer thereafter. Thread lock the guide shoe and bottom of float collar only. Use API casing dope.

Production casing will be cemented to the surface with ≈ 590 cubic feet (≈ 500 sacks) Class B with 1/4#/sk Flocele + 2% CaCl_2 . Yield = 1.18 cubic feet per sack. Weight = 15.2 pounds per gallon. Volume = 75% excess. At least six centralizers will be used.

5. MUD PROGRAM

A nine pound polymer and fresh water mud system with a viscosity of ≈ 35 will be used. Sufficient material to maintain mud properties, control lost circulation, and contain a blowout will be available at the well while drilling.

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PAGE 4

6. CORES, TESTS, & LOGS

No cores or drill stem tests are planned. DIL/GR log may be run from TD to surface. CNL/FSC log may be run over certain intervals.

7. DOWN HOLE CONDITIONS

No abnormal pressures, temperatures, nor hydrogen sulfide are expected. Maximum expected bottom hole pressure will be ≤ 960 psi.

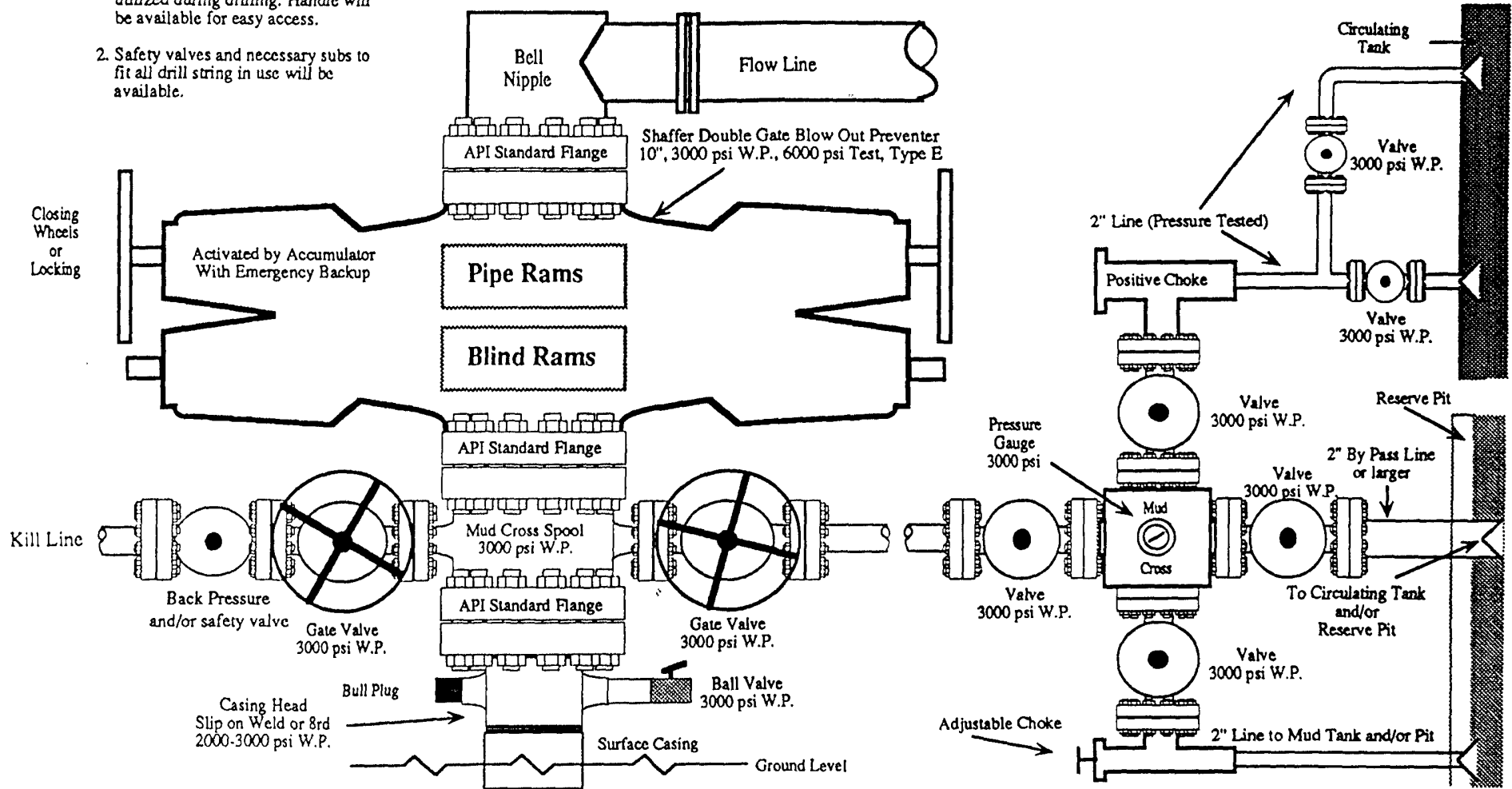
8. OTHER INFORMATION

The anticipated spud date is upon approval. It is expected it will take <1 week to drill and ≈ 2 weeks to complete the well.

2,000 PSI BOP SYSTEM

Note: 1. An upper Kelly cock valve will be utilized during drilling. Handle will be available for easy access.

2. Safety valves and necessary subs to fit all drill string in use will be available.



Note: This equipment is designed to meet requirements for a 2-M rating standard per 43 CFR part 3160 (amended). Proper operation and testing of equipment will be carried out per standard. 2,000 psi equipment can be substituted in the drawing to meet minimum requirements per standard.