

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED  
OMB No. 1004-0136  
Expires November 30, 2000

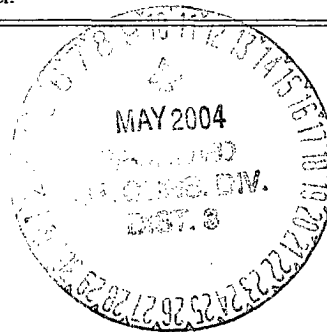
|  |  |   |  |  |  |
|--|--|---|--|--|--|
| 1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER   |  |   | 5. Lease Serial No.<br><b>BIA #11</b>                                      |  |  |
| 1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" 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<br><b>JICARILLA APACHE</b>            |  |  |
| 2. Name of Operator<br><b>ELM RIDGE RESOURCES, INC.</b>  |  |   | 7. If Unit or CA Agreement, Name and No.<br><b>N/A</b>                     |  |  |
| 3a. Address <b>P. O. BOX 189<br/>FARMINGTON, NM 87499</b>  |  | 3b. Phone No. (include area code)<br><b>(505) 632-3476</b>          | 8. Lease Name and Well No.<br><b>JICARILLA APACHE B 20</b>                 |  |  |
| 4. Location of Well (Report location clearly and in accordance with any State requirements. *)<br>At surface <b>1085' FNL &amp; 935' FEL</b><br>At proposed prod. zone <b>SAME</b>                                     |  |   | 9. API Well No.<br><b>30-039- 27721</b>                                    |  |  |
| 14. Distance in miles and direction from nearest town or post office*<br><b>7 AIR MILES NORTHEAST OF COUNSELORS</b>  |  |   | 10. Field and Pool, or Exploratory<br><b>BALLARD PICTURED CLIFFS</b>       |  |  |
| 15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) <b>1085'</b>   |  | 16. No. of Acres in lease<br><b>2,560</b>                           | 11. Sec., T., R., M., or Blk. and Survey or Area<br><b>A19-24n-5w NMPM</b> |  |  |
| 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. <b>107'</b>   |  | 19. Proposed Depth<br><b>2,400'</b>                                 | 12. County or Parish<br><b>RIO ARRIBA</b>                                  |  |  |
| 21. Elevations (Show whether DF, KDB, RT, GL, etc.)<br><b>6,505' GL</b>  |  | 20. BLM/BIA Bond No. on file<br><b>#886441C (BIA - NATION WIDE)</b> | 13. State<br><b>NM</b>   |  |  |
| 22. Approximate date work will start*<br><b>UPON APPROVAL</b>  |  | 23. Estimated duration<br><b>3 WEEKS</b>                            |  |  |  |
| 24. Attachments  |  |   |  |  |  |

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

- |   |  |
|---|--|
| 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.   |
| 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. |

Comments

The only other well in the quarter-quarter is an Elm Ridge well.



cc:BIA, BLM (&OCD), Elm (D & F), Tribe

|   |   |                           |
|---|---|---------------------------|
| 25. Signature<br>                       | Name (Printed/Typed)<br><b>BRIAN WOOD</b>       | Date<br><b>7-5-03</b>     |
| Title<br><b>CONSULTANT</b>              | PHONE: <b>505 466-8120</b>                      | FAX: <b>505 466-9682</b>  |
| Approved by (Signature)<br>             | Name (Printed/Typed)<br><b>David R. Stetler</b> | Date<br><b>MAY 5 2004</b> |
| Title<br><b>Assistant Field Manager</b> | Office  |                           |

Application approval does not warrant or certify the 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.

State of New Mexico  
Energy, Minerals & Mining Resources Department  
**OIL CONSERVATION DIVISION**  
2040 South Pacheco  
Santa Fe, NM 87505

Form C - 102

☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

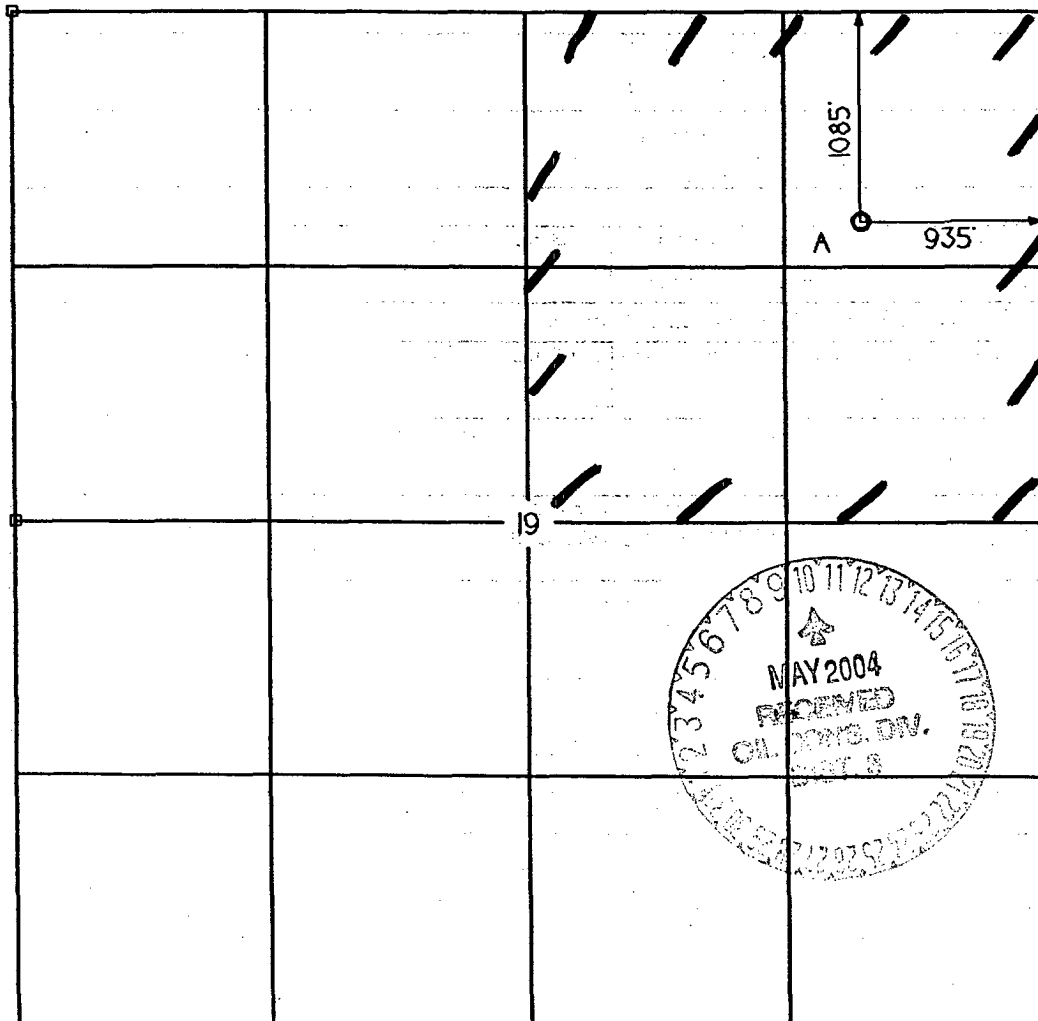
|                                   |   |   |
|-----------------------------------|---|---|
| <b>APA Number</b><br>30-039-27721 | <b>Pool Code</b><br>71439                   | <b>Pool Name</b><br>BALLARD PICTURED CLIFFS |
| <b>Property Code</b><br>19026     | <b>Property Name</b><br>APACHE B            |   |
| <b>OGRD No.</b><br>149052         | <b>Operator Name</b><br>ELM RIDGE RESOURCES |   |
|                                   |   | <b>Well Number</b><br>20                    |
|                                   |   | <b>Elevation</b><br>6505'                   |

| Surface Location |      |       |      |          |           |             |           |           |            |
|------------------|------|-------|------|----------|-----------|-------------|-----------|-----------|------------|
| UL or Lot        | Sec. | Twp.  | Rge. | Lot Lth. | Feet from | North/South | Feet from | East/West | County     |
| A                | 19   | 24 N. | 5 W. |          | 1085'     | NORTH       | 935'      | EAST      | RIO ARRIBA |

| Bottom Hole Location If Different From Surface |      |      |      |          |           |             |           |           |        |
|--|------|------|------|----------|-----------|-------------|-----------|-----------|--------|
| UL or Lot                                      | Sec. | Twp. | Rge. | Lot Lth. | Feet from | North/South | Feet from | East/West | County |
|  |      |      |      |          |           |             |           |           |        |

|                          |                     |                           |                       |
|--------------------------|---------------------|---------------------------|-----------------------|
| <b>Dedication</b><br>160 | <b>Joint ?</b><br>. | <b>Consolidation</b><br>. | <b>Order No.</b><br>. |
|--------------------------|---------------------|---------------------------|-----------------------|

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



|  |                    |
|--|--------------------|
| <b>OPERATOR CERTIFICATION</b><br>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.   |                    |
| Signature  | <i>B. Wood</i>     |
| Printed Name   | BRIAN WOOD         |
| Title  | CONSULTANT         |
| Date   | JULY 5, 2003       |
| <b>SURVEYOR CERTIFICATION</b><br>I hereby certify that the well location 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. |                    |
| Date of Survey   |                    |
| Signature and Seal of Professional Surveyor  | <i>[Signature]</i> |
|  |                    |

Elm Ridge Resources, Inc.  
Jicarilla Apache 8 #20  
1085' FNL & 935' FEL  
Sec. 19, T. 24 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'              | +6,505'          |
| Kirtland Shale        | 1,858'          | 1,863'          | +4,647'          |
| Pictured Cliffs Ss    | 2,119'          | 2,124'          | +4,386'          |
| Lewis Shale           | 2,219'          | 2,224'          | +4,286'          |
| Total Depth (TD)*     | 2,400'          | 2,405'          | +4,105'          |

\* all elevations reflect the ungraded ground level of 6,505'

### 2. NOTABLE ZONES

#### Oil & Gas Zones

Ojo Alamo  
Pictured Cliffs

#### Water Zones

San Jose

#### Coal Zones

Fruitland

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

Elm Ridge Resources, Inc.  
Jicarilla Apache 8 #20  
1085' FNL & 935' FEL  
Sec. 19, T. 24 N., R. 5 W.  
Rio Arriba County, New Mexico

PAGE 2

use when kelly is not in use.

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     | New        | 2,400'                  |

Surface casing will be cemented to the surface with  $\approx 70$  cubic feet ( $\approx 60$  sacks) Class B with 1/4#/sk Flocele + 2%  $\text{CaCl}_2$ . 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  $\approx 590$  cubic feet ( $\approx 500$  sacks) Class B with 1/4#/sk Flocele + 2%  $\text{CaCl}_2$ . 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  $\approx 35$  will be used. Sufficient material to maintain mud properties, control lost circulation, and contain a blowout will be available at the well while drilling.

## Pressure Control Equipment

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

## Fill Line

Closing  
Wheels or  
Locking

**Activated by Accumulator  
With Emergency Backup**

## Pipe Rams

## Blind Rams

**PI Standard Package**

**TABLE 1**

## Kill Line

Back Pressure  
and/or safety valve

Caring Head  
Slip on Veld or 8rd  
2000-3000 psi W.P.

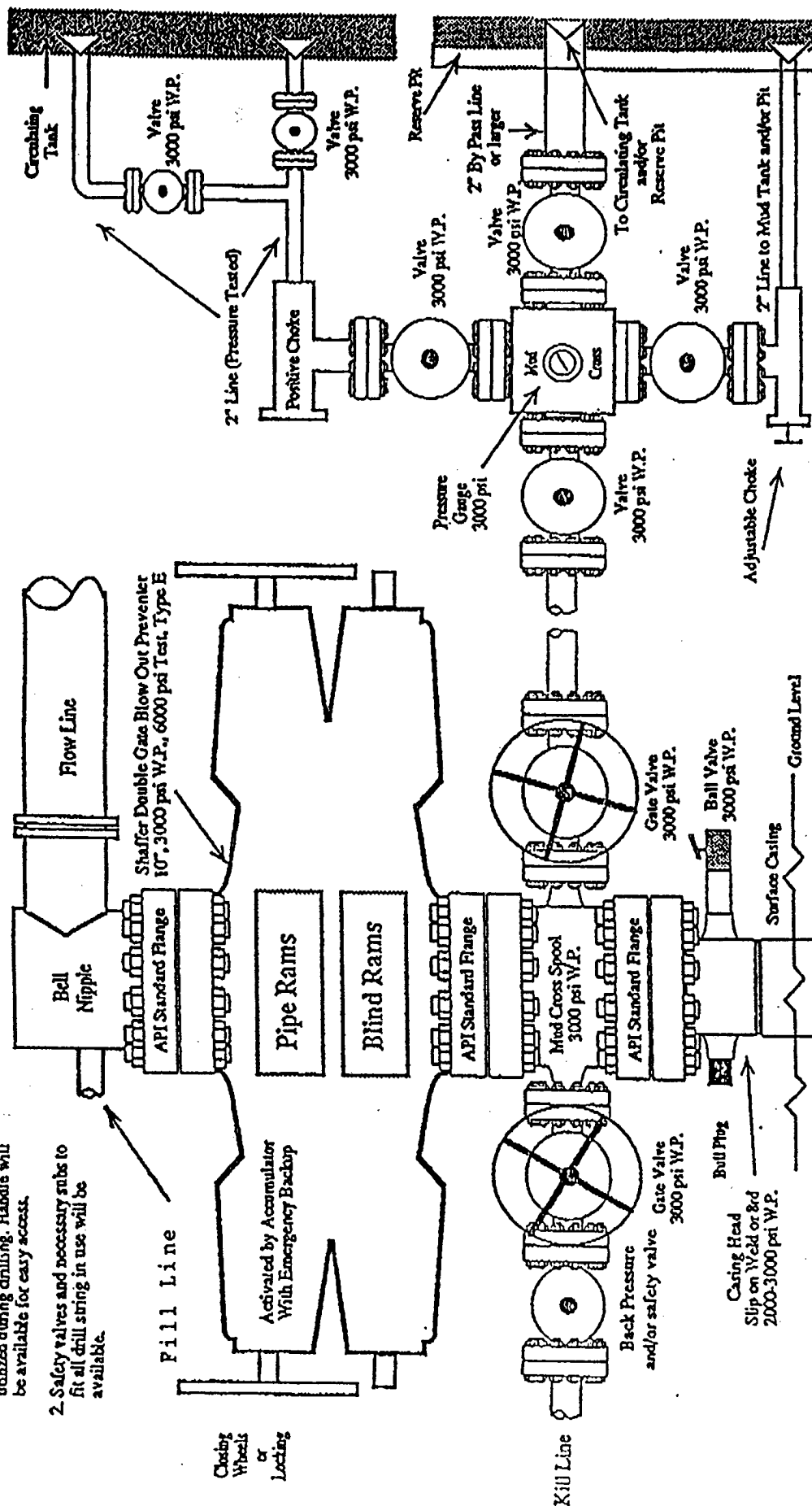


**Ball Valve**  
**3000 psi W.P.**

## Surface Casings

### Ground Level

**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.



Jicarilla Apache B 20  
well pad & section

