

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

b. TYPE OF WELL

OIL WELL ☐

GAS WELL ☒

OTHER ☐

SINGLE ZONE ☒

MULTIPLE ZONE ☐

2. NAME OF OPERATOR

Elm Ridge Resources, Inc.

(505) 632-3476

3. ADDRESS AND TELEPHONE NO.

P. O. Box 189, Farmington, NM 87499

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*

At surface

700' FSL & 786' FEL

At proposed prod. zone

Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

10 air miles E of Counselor

15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT.

(Also to nearest drif. unit line, if any)

4,494'

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.

1,490'

16. NO. OF ACRES IN LEASE

2,560

19. PROPOSED DEPTH

2,300'

17. NO. OF ACRES ASSIGNED TO THIS WELL

5 E/4 160

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

6,860' ungraded

22. APPROX. DATE WORK WILL START\*

Feb. 1, 2002

PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE | GRADE, SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT        |
|--------------|-----------------------|-----------------|---------------|---------------------------|
| 8-5/8"       | K-55 8-5/8"           | 23              | 250'          | ~70 cu. ft. & to surface  |
| 6-3/4"       | J-55 4-1/2"           | 10.5            | 2,300'        | ~560 cu. ft. & to surface |

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

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

*[Signature]*

TITLE

Consultant (505) 466-8120

DATE

1-2-02

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

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:

APPROVED BY

*[Signature]*

TITLE

Acting AFM Multi-Res.

DATE

JUN 26 2002

\*See Instructions On Reverse Side

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

Form C - 102

☐ AMENDED REPORT

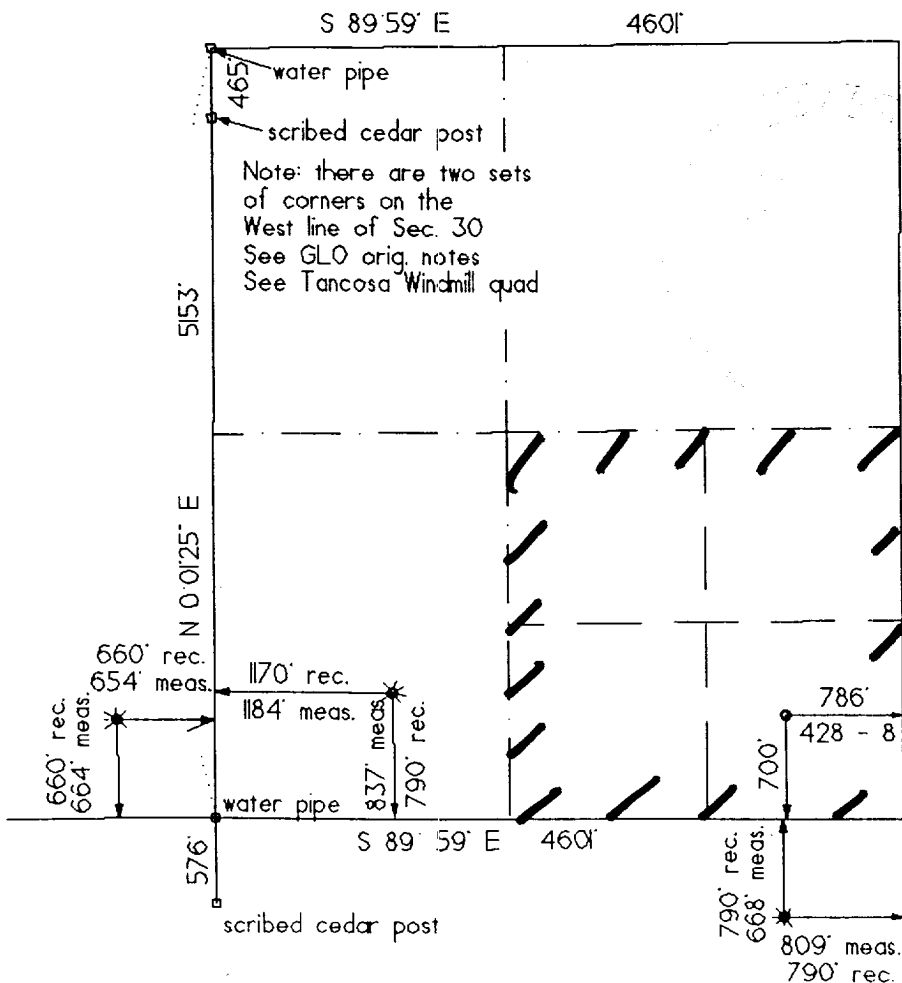
WELL LOCATION AND ACREAGE DEDICATION PLAT

|                                   |   |   |
|-----------------------------------|---|---|
| APA Number<br><b>30-043-20956</b> | Pool Code<br><b>71439</b>                   | Pool Name<br><b>BALLARD PICTURED CLIFFS</b> |
| Property Code<br><b>30308</b>     | Property Name<br><b>JICARILLA 428</b>       | Well Number<br><b>8</b>                     |
| OGRID No.<br><b>149052</b>        | Operator Name<br><b>ELM RIDGE RESOURCES</b> | Elevation<br><b>6860'</b>                   |

| Surface Location |      |       |      |          |           |             |           |           |          |
|------------------|------|-------|------|----------|-----------|-------------|-----------|-----------|----------|
| UL or Lot        | Sec. | Twp.  | Rge. | Lot Ltr. | Feet From | North/South | Feet From | East/West | County   |
| P                | 30   | 23 N. | 4 W. |          | 700'      | SOUTH       | 786'      | EAST      | SANDOVAL |

| Bottom Hole Location If Different From Surface |         |               |           |          |           |             |           |           |        |
|--|---------|---------------|-----------|----------|-----------|-------------|-----------|-----------|--------|
| UL or Lot                                      | Sec.    | Twp.          | Rge.      | Lot Ltr. | Feet From | North/South | Feet From | East/West | County |
|  |         |               |           |          |           |             |           |           |        |
| Dedication                                     | Joint ? | Consolidation | Order No. |          |           |             |           |           |        |

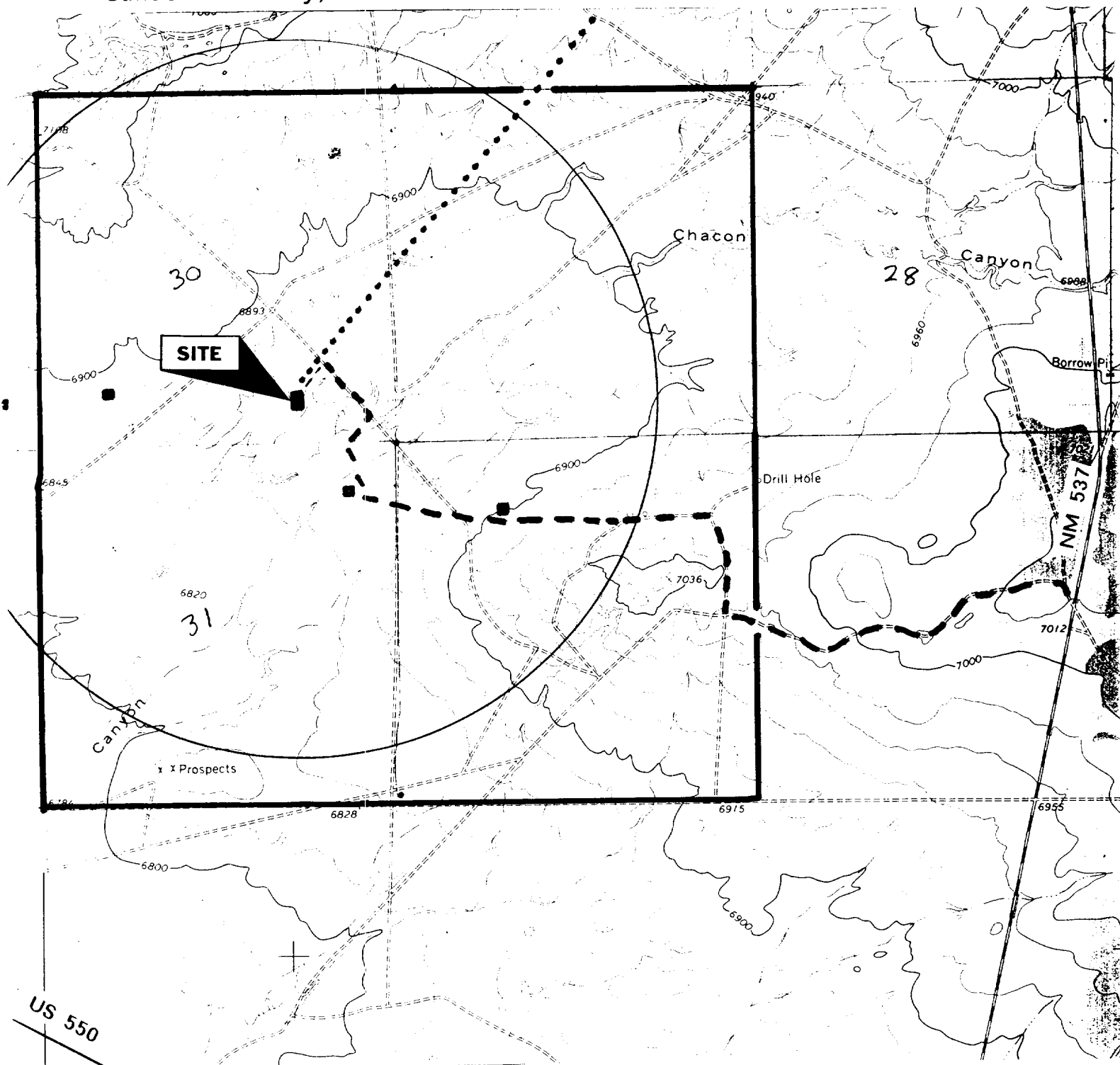
NO ALLOWABLE WILL ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



|  |  |
|--|--|
| <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.<br>Signature <i>Brian Wood</i>  |  |
| Printed Name <b>BRIAN WOOD</b>   |  |
| Title <b>CONSULTANT</b>  |  |
| Date <b>JAN. 2, 2002</b>   |  |
| <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.<br>Date of Survey <b>16 November 2001</b> |  |
| Signature <i>[Signature]</i><br>Professional Surveyor<br>  |  |

Elm Ridge Resources, Inc.  
 Jicarilla 428 #8  
 700' FSL & 786' FEL  
 Sec. 30, T. 23 N., R. 4 W.  
 Sandoval County, New Mexico

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PROPOSED WELL: ■

EXISTING WELL: ■

LEASE: ┌

PROPOSED GAS LINE: . . . .

EXISTING ROAD: - - -

NEW ROAD: - -

**PERMITS WEST** INC.  
 PROVIDING PERMITS FOR LAND USERS

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## Drilling Program

### 1. ESTIMATED FORMATION TOPS

| <u>Formation Name</u> | <u>GL Depth</u> | <u>KB Depth</u> | <u>Subsea Elevation</u> |
|-----------------------|-----------------|-----------------|-------------------------|
| San Jose              | 000'            | 5'              | +6,860'                 |
| Ojo Alamo Ss          | 1,685'          | 2,400'          | +5,175'                 |
| Kirtland Sh           | 1,855'          | 2,550'          | +5,005'                 |
| Pictured Cliffs Ss    | 2,135'          | 2,750'          | +4,725'                 |
| Lewis Sh              | 2,230'          |                 | +4,630'                 |
| Total Depth (TD)*     | 2,300'          | 2,305'          | +4,560'                 |

\* all elevations reflect the ungraded ground level of 6,860'

### 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

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and collars will be available on the rig floor in the open position at all times for 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         | ST&C        | New        | 250'                    |
| 6-3/4"           | 4-1/2"      | 10.5                  | J-55         | LT&C        | New        | 2,300'                  |

Surface casing will be cemented to the surface with  $\approx 70$  cubic feet ( $\approx 60$  sacks) Class B with 1/4#/sk Flocele + 2% CaCl<sub>2</sub>. 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  $\approx 560$  cubic feet ( $\approx 475$  sacks) Class B with 1/4#/sk Flocele + 2% CaCl<sub>2</sub>. 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.