

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

880' FNL & 1956' FWL

At proposed prod. zone Same

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

15 air miles NE of Lybrook

15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

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

1,760'

16. NO. OF ACRES IN LEASE

2,560

18. DISTANCE FROM PROPOSED LOCATION\*

TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

100'

19. PROPOSED DEPTH

7,500'

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

6,837' ungraded

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

~~160 NW 1/4 Sec 8-320~~

20. ROTARY OR CABLE TOOLS

Rotary

22. APPROX. DATE WORK WILL START\*

July 25, 2002

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	K-55 8-5/8"	24	350'	≈250 cu. ft. & to surface
7-7/8"	J-55 4-1/2"	11.6	7,500'	≈3,450 cu. ft. & to surface



cc: BIA, BLM, Elm (D&F), OCD (via BLM), T. Velarde  
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

6-1-02

(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

/s/ Edwin J. Singleton

TITLE

FOM

DATE

MAR 24 2003

\*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

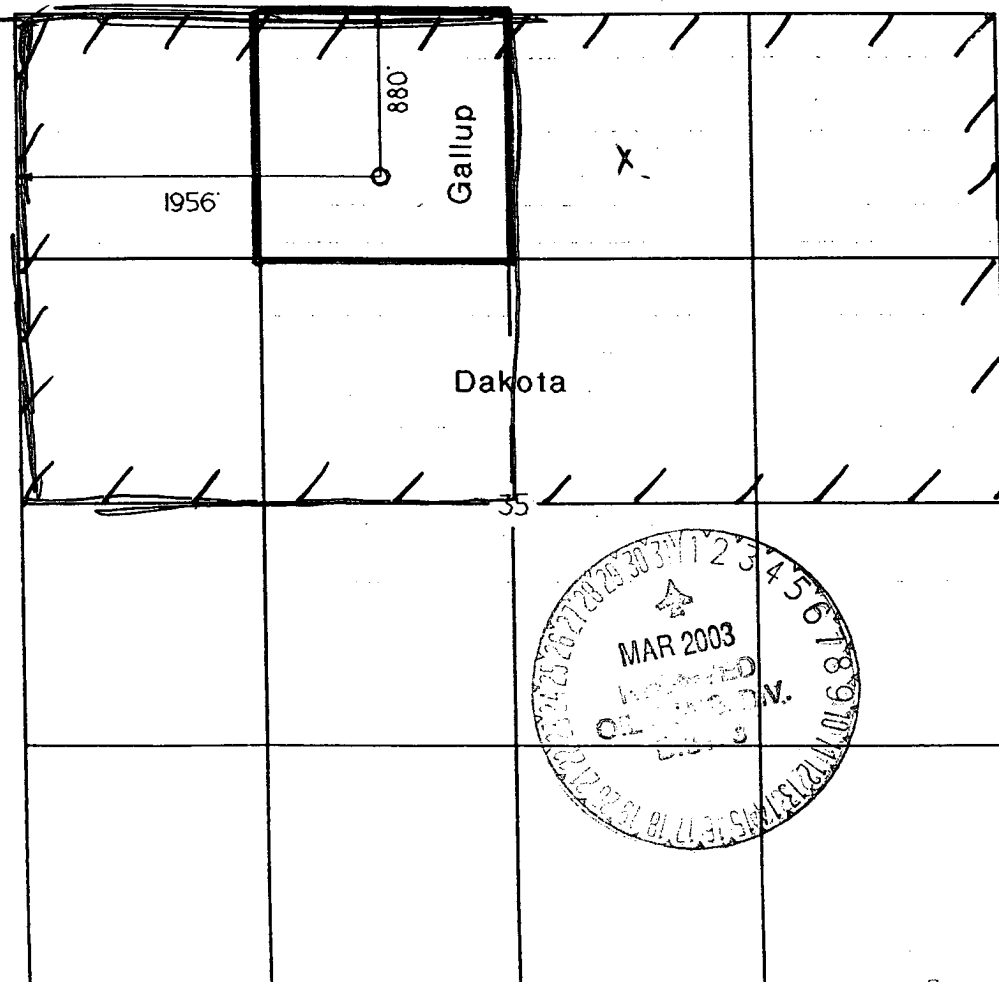
WELL LOCATION AND ACREAGE DEDICATION PLAT

APA Number <b>30-039-27406</b>	Pool Code <b>39189</b>	Pool Name <b>LINDRITH GALLUP DAKOTA WEST</b>
Property Code <b>19025</b>	Property Name <b>APACHE A</b>	Well Number <b>14</b>
OGRD No. <b>149052</b>	Operator Name <b>ELM RIDGE RESOURCES</b>	Elevation <b>6837'</b>

Surface Location									
UL or Lot <b>C</b>	Sec. <b>35</b>	Twp. <b>25 N.</b>	Rge. <b>5 W.</b>	Lot Lbr.	Feet from >	North/South	Feet from >	East/West	County <b>RIO ARriba</b>
					<b>880'</b>	<b>NORTH</b>	<b>1956'</b>	<b>WEST</b>	

Bottom Hole Location If Different From Surface									
UL or Lot	Sec.	Twp.	Rge.	Lot Lbr.	Feet from >	North/South	Feet from >	East/West	County
Dedication <b>160</b>	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> I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Signature <i>Brian Wood</i>	
Printed Name <b>BRIAN WOOD</b>	
Title <b>CONSULTANT</b>	
Date <b>JUNE 1, 2002</b>	
<b>SURVEYOR CERTIFICATION</b> 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 	

Elm Ridge Resources, Inc.  
Jicarilla Apache A #14  
880' FNL & 1956' FWL  
Sec. 35, T. 25 N., R. 5 W.  
Rio Arriba County, New Mexico

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## Drilling Program

### 1. ESTIMATED FORMATION TOPS

<u>Formation Name</u>	<u>GL Depth</u>	<u>KB Depth</u>	<u>Elevation</u>
San Jose	000'	10'	+6,837'
Ojo Alamo Ss	2,137'	2,147'	+4,700'
Kirtland Fm	2,537'	2,547'	+4,300'
Fruitland Coal	2,637'	2,647'	+4,200'
Pictured Cliffs Ss	2,887'	2,897'	+3,950'
Lewis Sh	2,962'	2,972'	+3,875'
Chacra Ss	3,737'	3,747'	+3,100'
Cliff House Ss	4,437'	4,447'	+2,400'
Menefee	4,462'	4,472'	+2,375'
Point Lookout	5,087'	5,097'	+1,750'
Mancos Sh	5,287'	5,297'	+1,550'
Gallup Ss	6,237'	6,247'	+600'
Sanostee Ss	6,687'	6,697'	+150'
Green Horn	6,987'	6,997'	-150'
Graneros	7,037'	7,047'	-200'
Dakota Ss	7,087'	7,097'	-250'
Total Depth (TD)*	7,500'	7,510'	-663'

\* all elevations reflect the ungraded ground level of 6,837'

### 2. NOTABLE ZONES

#### Oil & Gas Zones

Ojo Alamo  
Fruitland  
Pictured Cliffs  
Chacra  
Mancos

#### Water Zones

San Jose  
Ojo Alamo  
Fruitland

#### Coal Zone

Fruitland

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Surface casing will be cemented to the surface with  $\approx 250$  cubic feet ( $\approx 250$  sacks) Class B with 1/4#/sk Flocele + 2%  $\text{CaCl}_2$ . Volume is based on 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 in 2 stages with a stage tool set at  $\approx 5,000'$ . First stage volume will be  $\approx 1,450$  cubic feet consisting of  $\approx 355$  sacks Halliburton Lite with 1/4 pound per sack Flocele followed by  $\approx 655$  sacks Class B with 2%  $\text{CaCl}_2$ . Second stage volume will be  $\approx 2,000$  cubic feet consisting of  $\approx 1,085$  sacks of Halliburton Lite with 2%  $\text{CaCl}_2$  followed by  $\approx 50$  sacks Class B with 2%  $\text{CaCl}_2$  to cover the Mesa Verde, Pictured Cliffs, and Ojo Alamo. Volume is based on 75% excess, but a caliper log will be used to determine actual volumes needed. Centralizers will be installed on the middle of the shoe joint and on every joint thereafter for a total of  $\approx 32$  centralizers. Thread lock the guide shoe, bottom of float collar, and bottom of stage tool only. Use API casing dope.

#### 5. MUD PROGRAM

<u>Depth</u>	<u>Type</u>	<u>ppg</u>	<u>Viscosity</u>	<u>Fluid Loss</u>	<u>pH</u>
0' - 350'	Fresh water gel chem	9.0	50	NC	9
350' - TD'	Fresh water gel chem	9.0	38-50	6.0	9

Sufficient material to maintain mud properties, control lost circulation, and contain a blowout will be available at the well site while drilling. Mud will be checked hourly by rig personnel. Material to soak up possible oil or fuel spills will be on site.

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Oil & Gas Zones

Gallup

Sanostee

Dakota

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 3,000 psi model is on PAGE 3. The  $\geq 3,000$  psi BOP and choke manifold system will be installed and tested to 2,000 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.

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>
12-1/4"	8-5/8"	24	K-55	S T & C	New	350'
7-7/8"	4-1/2"	11.6	J-55	L T & C	New	7,500'