

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL. ☒

DEEPEN ☐

PLUG BACK ☐

b. TYPE OF WELL

OIL
WELL ☒

GAS
WELL ☐

OTHER ☐

SINGLE
ZONE ☒

MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

EnRe Corporation (210) 826-0681

3. ADDRESS OF OPERATOR

P.O. Box 6027, San Antonio, Tx. 78209

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

At surface

1295' FSL & 1360' FWL

At proposed prod. zone

1250' FSL & 780' FEL

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

28 air miles S of Dulce, NM

10. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drilg. unit line, if any)

2+ miles

18. DISTANCE FROM PROPOSED LOCATION*

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

>3500'

16. NO. OF ACRES IN LEASE

17,710.81

17. NO. OF ACRES ASSIGNED
TO THIS WELL

640

19. PROPOSED DEPTH

9,440' MD

20. ROTARY OR CABLE TOOLS

Rotary

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

7,795' ungraded ground

22. APPROX. DATE WORK WILL START*

Nov. 5, 1994

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8"	36# (K-55)	320' 250'	~236 cu ft and to surface
8-3/4"	7"	23# (N-80)	6,940'	~1600 cu ft and to surface
6-1/4"	4-1/2"	11.6# (N-80)	9,440'	liner

RECEIVED
NOV 29 1994

OIL CON. DIV.
DIST. 3

cc: BIA, BLM(3 +2 for OCD), EnRe, T. Velarde

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, 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

TITLE Consultant

DATE 10-22-94

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

(Original Signed) HECTOR A. VILLALOBOS

AREA MANAGER

APPROVED BY

TITLE RIO PUERTO CHI'TO AREA

DATE NOV 29 1994

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

District I
PO Box 1988, Hobbs, NM 88241-1988
District II
PO Drawer DD, 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 1-102
Revised February 2, 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 <i>30-039-25472</i>		* Pool Code 50440	* Pool Name West Puerto Chiquito Mancos
* Property Code <i>16127</i>	* Property Name Los Indios Canyon <i>15N</i>		* Well Number 15N-1
* OGRID No. 133182	* Operator Name ENRE CORPORATION		* Elevation 7795'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	15	27 N	1 W		1295'	South	1360'	West	R.A.

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
P	15	27 N	1 W		1250'	South	780'	East	R.A.

¹² Dedicated Acres <i>640</i>	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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>¹⁶</p><p>5282.64'</p><p>5286.04'</p><p>1360'</p><p>5281'</p><p>15</p><p>RECEIVED NOV 29 1994 OIL CON. DIV. DIST. 3</p></div>	<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 <u>Brian Wood</u></p><p>Printed Name <u>Consultant</u></p><p>Title <u>October 22, 1994</u></p><p>Date</p></div>
	<div><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 knowledge and belief</p><p><i>[Signature]</i></p><p>Date of Survey <u>10/22/94</u></p><p>Signature and Seal of Registered Surveyor: <i>[Signature]</i></p><p> 6857</p><p>Certificate Number</p></div>

EnRe Corporation's Los Indios Canyon 15 N #1
Surface: 1295' FSL & 1360' FWL
BHL: 1250' FSL & 780' FEL
Sec. 15, T. 27 N., R. 1 W.
Rio Arriba County, NM

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Drilling Program

1. FORMATION TOPS

Estimated tops of important geologic markers (based on an ungraded ground elevation of 7,795') are:

<u>Formation Name</u>	<u>GL Depth</u>	<u>Measured KB</u>	<u>KB TVD*</u>	<u>Subsea TVD*</u>
San Jose	000'	15'	15'	+7,795'
Ojo Alamo Ss	2,667'	2,682'	2,603'	+5,192'
Fruitland	2,887'	2,902'	2,644'	+5,151'
Pictured Cliffs Ss	2,768'	2,783'	2,763'	+5,032'
Lewis Shale	3,172'	3,187'	3,167'	+4,628'
Cliffhouse Ss	5,292'	4,601'	5,290'	+2,505'
Menefee Ss & Coal	5,111'	4,694'	5,267'	+2,528'
Pt. Lookout Ss	5,589'	5,154'	5,727'	+2,068'
Mancos Shale	5,739'	5,338'	5,734'	+2,061'
<i>Kick Off Point</i>	<i>6,200'</i>	<i>6,215'</i>	<i>6,215'</i>	<i>+1,580'</i>
Niobrara	6,285'	6,300'	6,297'	+1,498'
Mancos "A" Ss	6,925'	6,940'	6,820'	+975'
Mancos "B" Ss	6,990'	7,005'	6,856'	+939'
Total Depth	9,440'	9,455'	6,875'	+920'

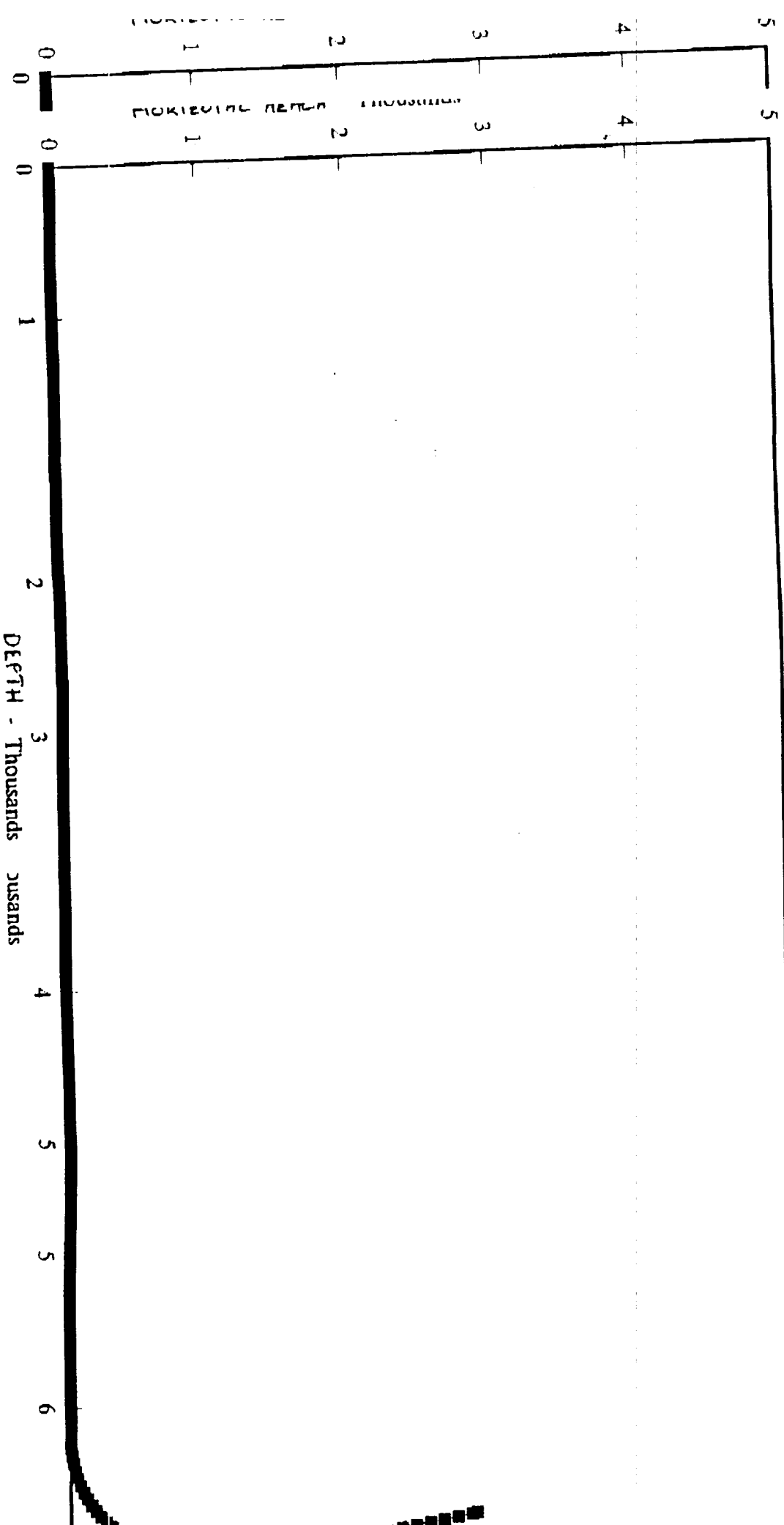
*Depths estimated vertically above point of entry into Mancos B sandstone

2. NOTABLE ZONES

The Pictured Cliffs, Mesa Verde, and Mancos zones are most likely to have oil or gas. Mancos B is the primary goal. Lost circulation may occur in the Pictured Cliffs and Mancos. Only likely water zone is the San Jose. If any other water zones are found, then all will be recorded and protected with casing, cement, and weighted mud. Oil and gas shows

ENRE CORICORPORATION, SAV, SAN ANTONIO, NIO, TEXAS

1
LOS INDIOS CANYON 15N-12N 15N-1 (HORIZONTAL) (L)



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4. CASING & CEMENT

The proposed casing program is:

<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"	9-5/8"	36	K-55	ST&C	New	≥250'
8-3/4"	7"	23	N-80	ST&C	New	6,940'
6-1/4"	4-1/2"	11.6	N-80*	LT&C	New	**9,440'

*Liner

**Measured Depth

Surface casing will be cemented to the surface with ≈236 cubic feet (≈205 sx) Class B with 3% salt + 1/4#/sk celloflake + 2% CaCl₂. Volume calculated at 100% excess. Use ≈20 sx for top job. Run regular pattern guide shoe and insert float in top of shoe joint. Place one stop ring 10' from bottom of shoe joint for first centralizer. Place 2 additional centralizers on the casing at 100' intervals.

Intermediate casing will be cemented to the surface. Calculations based on 150% excess. Actual volumes will be calculated at 20% excess as measured by caliper log. First stage will be cemented from 6,940' to ≈3200' with ≈850 cubic feet of ≈410 sx Howco Lite + 1/4#/sk celloflake in lead and ≈100 sx Class B + 1/4#/sk celloflake in tail. Second stage lead will be cemented from ≈3300' to the surface with ≈750 cubic feet of ≈360 sx Howco Lite + 1/4#/sk celloflake in lead and ≈60 sx Class B + 1/4#/sk celloflake in tail. DV tool will be installed just below Picture Cliffs. A second cement stage collar may be used just below the Mesa Verde if there is severe lost circulation in the Mancos A. Centralizers will be used.

Pre-perforated or pre-slotted liner will be hung to total depth. There will be at least 100' of overlap with the intermediate casing. Liner will set on bottom with J slot liner setting tool with no pack off.

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5. MUD PROGRAM

<u>Depth</u>	<u>Type</u>	<u>ppg</u>	<u>Viscosity</u>	<u>Fluid Loss cc</u>
0' - 250'	Fresh water gel	9.0-10.0	40-50	NC
250' - 2,300'	Gel & PHPA polymer	8.7-8.8	29-33	15-20
2,300' - 4,100'	Gel polymer	8.7-8.9	30-35	12-15
4,100' - 5,300'	Gel polymer	8.7-8.9	34-38	12-15
5,300' - 6,925'	Gel polymer	8.8-9.0	35-38	8-10
6,925' - TD	Aerated gel polymer + KOH or KCl	8.7-8.9	38-42	6-8

Sufficient mud material to maintain mud properties, control lost circulation, and contain a blowout will be at the wellsite while drilling. Mud will be checked frequently by rig personnel. Mud logging unit, gas detector, and flow sensor will be used.

6. CORING, TESTING, & LOGGING

No cores or DSTs are planned. Triple combination logs may be run from $\approx 6,500'$ to TD. Dual Induction - Gamma Ray may be run from 6,200' to base of surface casing. Spectral Density and Compensated Neutron logs may be run across porous and potential pay intervals. A Sonic log will be run from TD to base of surface casing.

7. DOWNHOLE CONDITIONS

No abnormal temperatures pressures, nor hydrogen sulfide are expected.

8. OTHER INFORMATION

Anticipated spud date is November 5, 1994. Drilling is expected to take ≈ 25 days. Completion will take ≈ 10 days.

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Surface Use Plan

1. DIRECTIONS & EXISTING ROADS (See Pages 12 & 13)

From the junction of US 64 and NM 537, go south 9.1 miles on NM 537.
Then turn left onto J-16 and go SE 8.5 mi. to J-8.
Then turn right onto J-8 and go S 1.35 mi. to J-17 at a green LACT.
Then turn right onto J-17 and go SW 0.9 mi. to J-55.
Then bear right and go SW 3.9 mi. to the proposed well.

Roads will be maintained to a standard at least equal to their present condition. Only upgrading needed will be to limb or fell some trees along J-55.

2. ROAD TO BE BUILT

No new road will be built.

3. EXISTING WELLS (See PAGE 13)

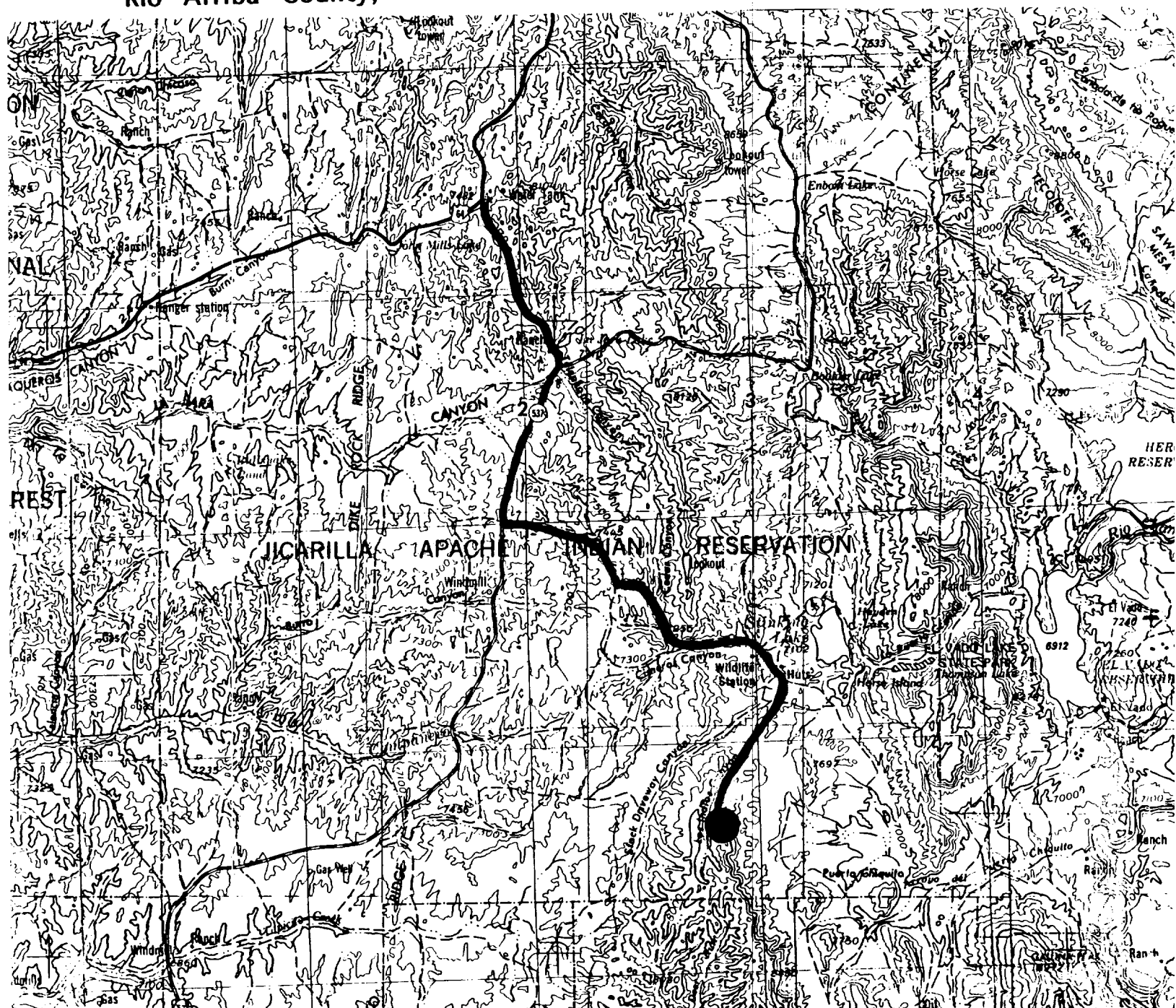
According to NM Oil Conservation Division records, there are no injection, water, or gas wells within a mile. There is an oil well about 3500' west of the surface location and over a mile west of the BHL.

4. PROPOSED PRODUCTION FACILITIES

The exact type, location, and layout of the production facilities are not known now. It is expected they may include a meter run, dehydrator, separator, tank battery, and/or heater-treater. All will be painted a flat juniper green color. A flowline will be buried north to a

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Wellsite: ●

Access Route: ~

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