Re-Permit

Form 3160-3
(July 1992)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

# UNITED STATES
# DEPARTMENT OF THE INTERIOR
## BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.: NM-42814

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ]

b. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] OTHER — SINGLE ZONE [X] MULTIPLE ZONE [ ]

8. FARM OR LEASE NAME, WELL NO.: Federal 31 #3

2. NAME OF OPERATOR: Pogo Producing Company

9. API WELL NO.: 30-025-33162

3. ADDRESS AND TELEPHONE NO.: P.O.Box 10340, Midland, Texas 79702

10. FIELD AND POOL, OR WILDCAT: SE Livingston Ridge (Delawar

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*
At surface: 330' FNL & 660' FEL of Section 31
At proposed prod. zone: Same Unit A

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 31, T-21S, R-32E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 30 miles east of Carlsbad, N.M.

12. COUNTY OR PARISH: Lea Co. | 13. STATE: N.M.

| 15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) | 16. NO. OF ACRES IN LEASE | 17. NO. OF ACRES ASSIGNED TO THIS WELL |
|---|---|---|
| 330' | 320 | 40 |
| **18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.** | **19. PROPOSED DEPTH** | **20. ROTARY OR CABLE TOOLS** |
| 1320' | 8800' | Rotary |

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3705.0' Ground Level

22. APPROX. DATE WORK WILL START*: Upon Approval

23. PROPOSED CASING AND CEMENTING PROGRAM — CARLSBAD CONTROLLED WATER BASIN

| SIZE OF HOLE | GRADE, SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT |
|---|---|---|---|---|
| 17-1/2" | 13-3/8" | 54.50# J-55 | 850' | 700 sx WITNESS |
| 12-1/4" | 8-5/8" | 24,32# J-55 | 4500' | 1400 sx (circ) |
| 7-7/8" | 5-1/2" | 15.5,17# J-55,N80 | 8800' | 1300 sx ( 4300') |

SECRETARY'S POTASH — R-111-P POTASH

The operator proposes to drill to a depth sufficient to test the Delaware and Bone Springs for oil. Specific programs are outlined in the following attachments:

DRILLING PROGRAM
SURFACE USE AND OPERATING PLAN
EXHIBIT A - ROAD MAP
EXHIBIT B - EXISTING WELL MAP
EXHIBIT C - DRILLING RIG LAYOUT DIAGRAM
EXHIBIT D - TOPO MAP

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

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: John W. C. Roth Jr. TITLE: Agent DATE: 01/15/97

(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/ Lesa Eaglebell TITLE Acting State Director DATE 2-26-97

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes 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.

Submit to Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

# OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

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

## WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

| Operator | Lease | Well No. |
|---|---|---|
| POGO PRODUCING CO. | FEDERAL 31 | 3 |

| Unit Letter | Section | Township | Range | County |
|---|---|---|---|---|
| A | 31 | 21 SOUTH | 32 EAST NMPM | LEA |

Actual Footage Location of Well:
330 feet from the NORTH line and 660 feet from the EAST line

| Ground Level Elev. | Producing Formation | Pool | Dedicated Acreage: |
|---|---|---|---|
| 3708.2 | | | Acres |

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

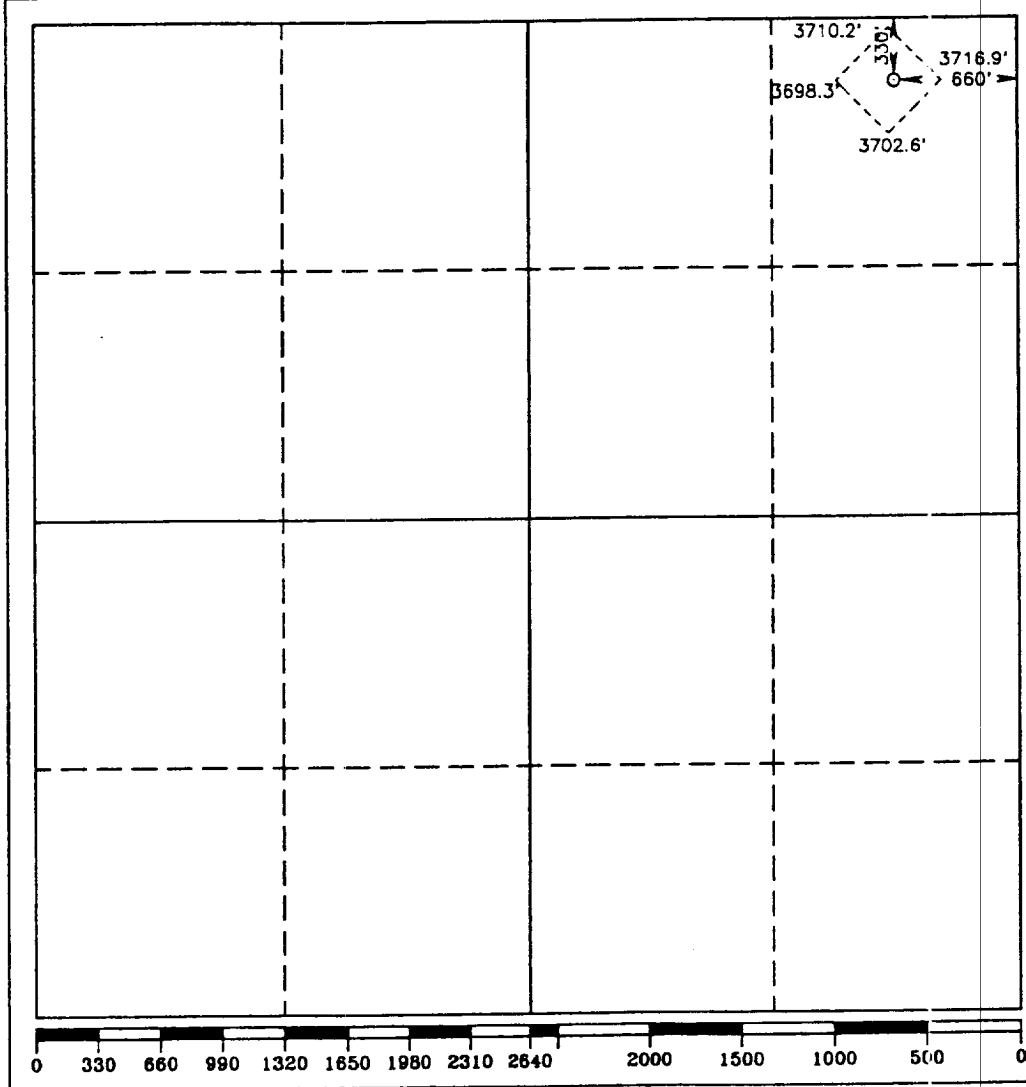
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?

☐ Yes ☐ No If answer is "yes" type of consolidation _____

If answer is "no" list of owners and tract descriptions which have actually been consolidated. (Use reverse side of this form necessary. _____

No allowable will be assigned to the well unit all interests have been consolidated (by communitization, unitization, forced-pooling, otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.




### OPERATOR CERTIFICATION

*I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.*

James M.C. Ritchie Jr.
Signature

James M.C. Ritchie Jr.
Printed Name

AGENT
Position

Pogo Producing Co.
Company

July 20, 1993 / 1-15-97
Date

### SURVEYOR CERTIFICATION

*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 supervison, and that the same is true and correct to the best of my knowledge and belief.*

Date Surveyed
MAY 17, 1993

Signature & Seal of
Professional Surveyor

GARY L. JONES NEW MEXICO 7977 REGISTERED PROFESSIONAL SURVEYOR

Certificate No. JOHN W. WEST 676
RONALD J. EIDSON 3239
GARY L. JONES 7977

# SUPPLEMENTAL DRILLING DATA

## BOGO PRODUCING COMPANY
## FEDERAL "31" WELL NO. 3

1. SURFACE FORMATION: Quaternary

2. ESTIMATED TOPS OF GEOLOGIC MARKERS:

| | |
|---|---|
| Rustler Anhydrite | 800' |
| Delaware Lime | 4800' |
| Cherry Canyon | 5800' |
| Brushy Canyon | 7300' |

3. ANTICIPATED POSSIBLE HYDROCARBON BEARING ZONE:

| | |
|---|---|
| Delaware | Oil |

4. PROPOSED CASING AND CEMENTING PROGRAM:

| CASING SIZE | SETTING DEPTH FROM | TO | WEIGHT | GRADE | JOINT |
|---|---|---|---|---|---|
| 13 3/8" | 0 | 850' | 54.5# | J-55 | STC |
| 8 5/8" | 0 | 1000' | 32# | J-55 | STC |
| " | 1000' | 2200' | 24# | J-55 | STC |
| " | 2200' | 4800' | 32# | J-55 | STC |
| 5 1/2" | 0 | 1000' | 17# | J-55 | LTC |
| " | 1000' | 6000' | 15.5# | J-55 | LTC |
| " | 6000' | 8500' | 17# | N-80 | LTC |

MINIMUM DESIGN FACTORS: Collapse 1.125 Burst 1.1 Tension 1.7

13 3/8" casing is to be set at approximately 850' in 17-1/2" hole. Casing to be cemented with 500 sacks of Light cement tailed in with 200 sacks of Class "C". Cement to circulate.

8 5/8" casing is to be set at approximately 4800' in 11" hole. Casing is to be cemented with 1200 sacks of Light cement tailed in with 200 sacks of Class "C". Cement to circulate.

5 1/2" casing is to be set at 8500' in 7 7/8" hole. Casing is to be cemented with 800 sacks of Class "H" cement tailed in with 700 sx Class "C". Cement to be back to 8 5/8" casing.

5. PRESSURE CONTROL EQUIPMENT:

Blowout prevention equipment while drilling the 12¼" hole, will be either a 3000 psi working pressure double ram type preventer or a 3000 psi working pressure annular type preventer.
- BOPE will be as shown in diagram while drlg 7⅞" bore.

SDS

6. CIRCULATING MEDIUM:

| | |
|---|---|
| Surface to 850 feet: | Fresh water spud mud. Viscosity 30 to 36 as required for hole cleaning. |
| 850 feet to 4550 feet: | Brine conditioned as necessary for control of viscosity. Weight 9.8 to 10.0. PH 9 to 10. Viscosity 32 to 36. |
| 4550 feet to T.D.: | Water based drilling fluid conditioned as necessary for control of weight, viscosity, ph and water-loss. Weight 8.5 ppg Visocity 38 - 45. ph 9-10. Filtrate while drilling pay zone 6-15. |

7. AUXILIARY EQUIPMENT:

A mudlogging trailer will be used while drilling below Intermediate casing.

8. TESTING, LOGGING, AND CORING PROGRAMS:

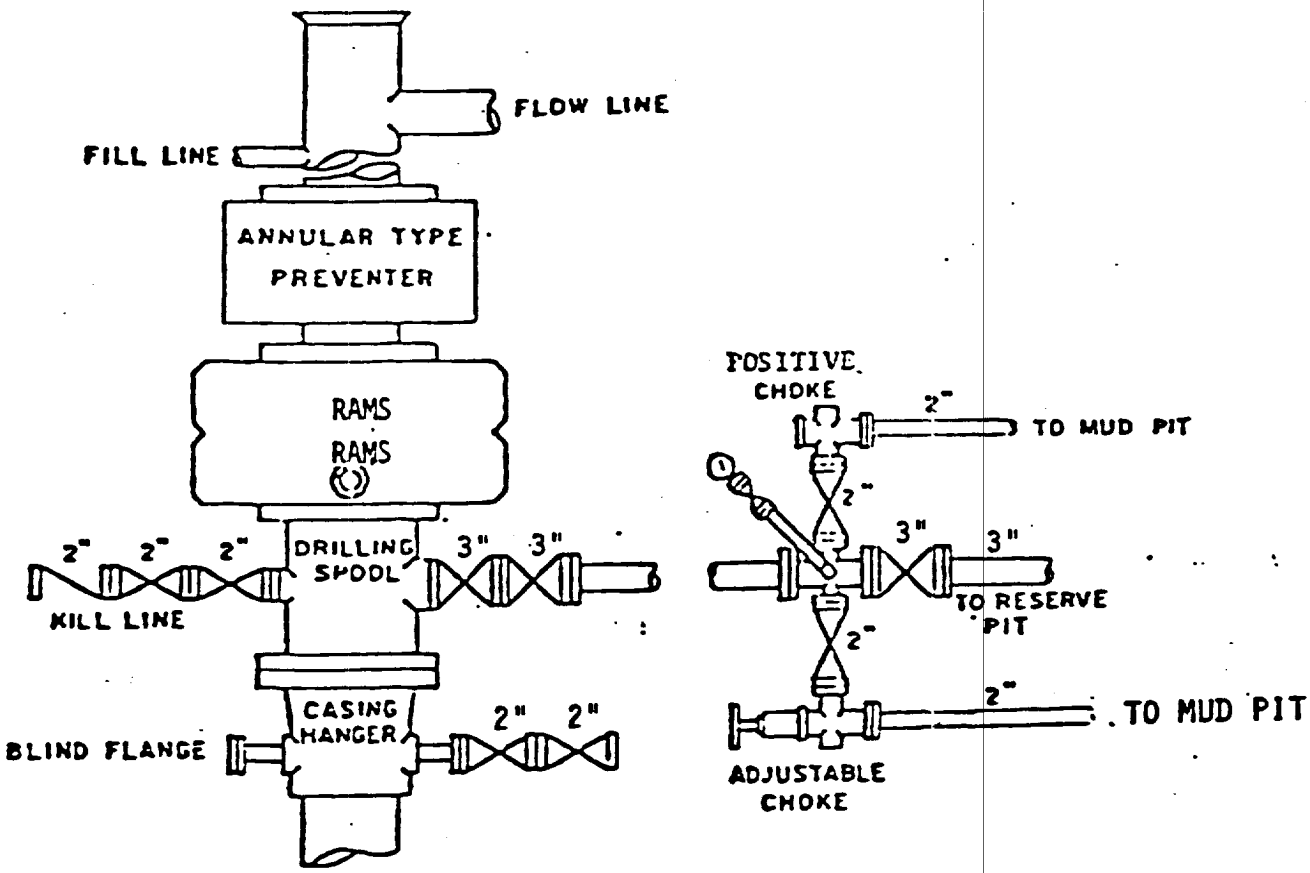
Drill Stem tests will be made when well data indicate a test is warranted.

9. ABNORMAL PRESSURES, TEMPERTURES, OR HYDROGEN SULFIFE GAS:

None anticipated.
Expected bottom hole pressure is approximately 3600 psi.
Expected bottom hole temperture is approximately 130 degrees Fahr.

10. ANTICIPATED STARTING DATE:

It is planned that operations will commence upon approval of this application, with drilling and completion operations lasting about 45 days.




BOP STACK

3000 PSI WORKING PRESSURE

BOP ARRANGEMENT