

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK
Re-Entry ☒ DEEPEN ☐ PLUG BACK ☐

b. TYPE OF WELL
OIL WELL ☒ GAS WELL ☐ OTHER ☐ SINGLE ZONE ☒ MULTIPLE ZONE ☐

2. NAME OF OPERATOR
Pogo Producing Company

3. ADDRESS OF OPERATOR
P.O. Box 10340, Midland, Texas 79702

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
At surface 660' FNL & 2085' FEL of Sec. 31, T-22S, R-32E
At proposed prod. zone Same

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

10. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit lne, if any) 660'

16. NO. OF ACRES IN LEASE 630

17. NO. OF ACRES ASSIGNED TO THIS WELL 40

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. None

19. PROPOSED DEPTH 6800'

20. ROTARY OR CABLE TOOLS ROTARY

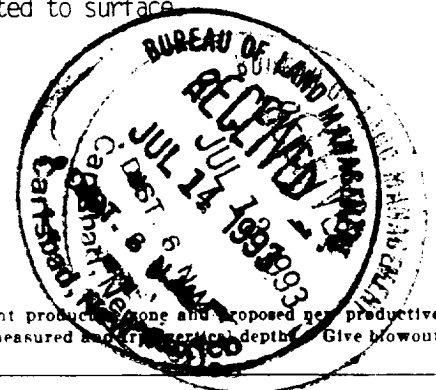
21. ELEVATIONS (Show whether DF, RT, GR, etc.)
3527' Ground Level Carlsbad Controlled Water Basin

22. APPROX. DATE WORK WILL START*
Upon Approval of this Application

PROPOSED CASING AND CEMENTING PROGRAM				
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/2"	8 5/8"	24#	368'	250 sx Neat - Circulated
7 7/8"	5 1/2"	15.5#	6800'	800 sx. - 200sx (TAIL)

We propose to drill out plugs at: 4700', 1400', 800', 430' and 15 sx at surface. We will then drill a new 7 7/8" hole from 4777' to 6800' using gel based mud to carry a 10.5 to 10.8 weight, 32-36 vis and a -8cc to -20cc water loss. At TD, a DST will more than likely be run to test Delaware formation. If test is successful, 5 1/2" casing will be run to 6800' and cemented to tie back into surface casing. 8 5/8" casing has already been set and cemented with cement circulated to surface.

Approved Subject to
General Requirements and
Special Regulations
Attached



IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present production 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 Agent DATE June 14, 1993
(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____
APPROVED BY Don Dunton TITLE AREA MANAGER DATE AUG 17 1993
CONDITIONS OF APPROVAL, IF ANY: _____

*See Instructions On Reverse Side

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

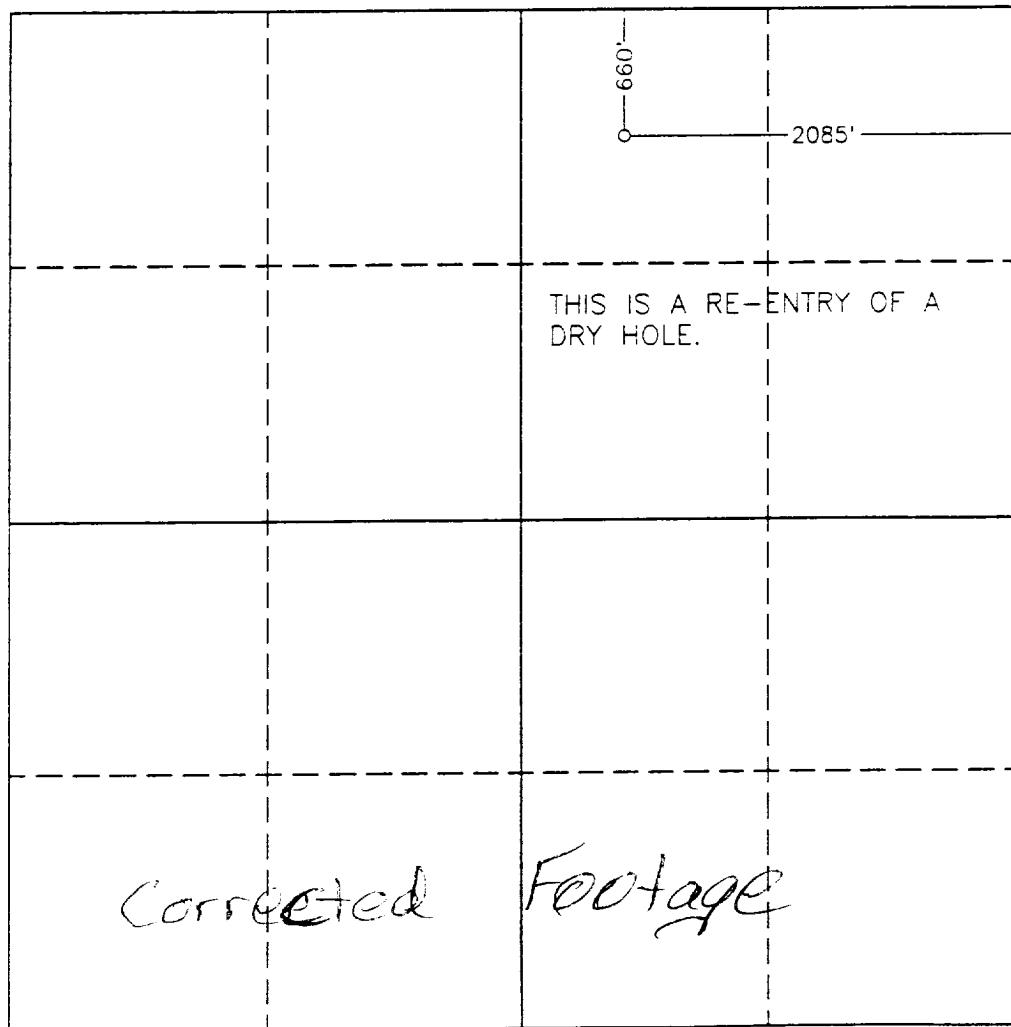
1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator POGO PRODUCING COMPANY			Lease PROXIMITY "31" FEDERAL		Well No. 4
Unit Letter B	Section 31	Township 22 SOUTH	Range 32 EAST	County NMPM	LEA
Actual Footage Location of Well: 660 feet from the NORTH line and 2085 feet from the EAST line					
Ground Level Elev. 3527.2	Producing Formation Delaware	Pool South UNDESIGNATED EAST Livingston Ridge		Dedicated Acreage: 40 Acres	

- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- 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 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 Company

Company

JUNE 25, 1993

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

Date Surveyed
JUNE 18, 1993

Signature & Seal of
Professional Surveyor

GARY L. JONES
NEW MEXICO
79
Gary L. Jones
Cert. No. 79
JOHN W. WEST, 678
RONALD J. EDSON, 3239
GARY L. JONES, 7977

93-11-1180

SUPPLEMENTAL DRILLING DATA

POGO PRODUCING COMPANY
PROXIMITY "31" FEDERAL WELL No. 4

1. SURFACE FORMATION: Quaternary.

2. ESTIMATED TOPS OF GEOLOGIC MARKERS:

Rustler Anhydrite	800'
Delaware Lime	4580'
Cherry Canyon	5600'

3. ANTICIPATED POSSIBLE HYDROCARBON BEARING ZONE:

Delaware	Oil
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4. PROPOSED CASING AND CEMENTING PROGRAM:

<u>CASING SIZE</u>	<u>SETTING DEPTH</u>		<u>WEIGHT</u>	<u>GRADE</u>	<u>JOINT</u>
	<u>FROM</u>	<u>TO</u>			
* 8 5/8"	0	368'	24#	K-55	STC
5 1/2"	0	6800'	15.5# & 17#	K-55	LTC

MINIMUM DESIGN FACTORS: Collapse 1.125 Burst 1.1 Tension 1.7

*8 5/8" casing is set at 368' in 12 1/4" hole. Casing cemented with 250 sx of Class "C".
Cement circulated.

5 1/2" casing is to be set at 6800' in 7 7/8" hole. Casing is to be cemented with 800 sacks of Class
"H" cement tailed in with 200 sx Class "C". Cement to tie back to 8 5/8" casing.

5. PRESSURE CONTROL EQUIPMENT:

Blowout prevention equipment, while drilling the 12 1/4" hole and 7 7/8" hole will be either a 3000
psi working pressure double ram type or a 3000 psi working pressure annular type preventer.

6. CIRCULATING MEDIUM:

Surface to 4700 feet: Brine Water. Weight 9.9 - 10.0 ppg.

4700 feet to T.D.: Water based drilling fluid conditioned as necessary for control of weight, viscosity, ph and water-loss. Weight 9 to 10. Viscosity 38 - 45. ph 9-10. Filtrate while drilling pay zone 6-15.

7. AUXILIARY EQUIPMENT.

A mudlogging trailer will be used while drilling in new hole from 4700 feet to 6800 feet.

8. TESTING, LOGGING, AND CORING PROGRAMS:

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

9. ABNORMAL PRESSURES, TEMPERATURES, OR HYDROGEN SULFIDE GAS:

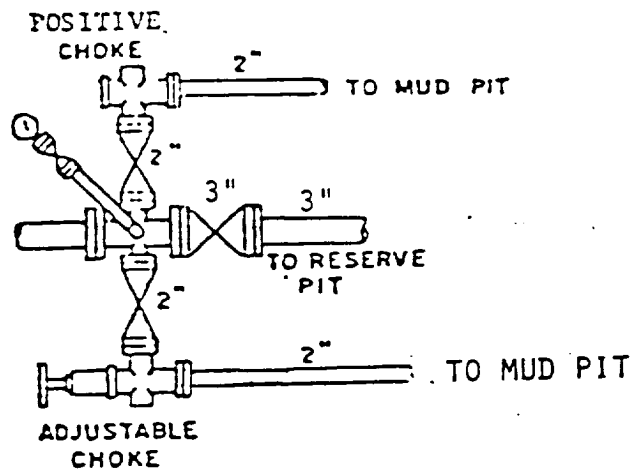
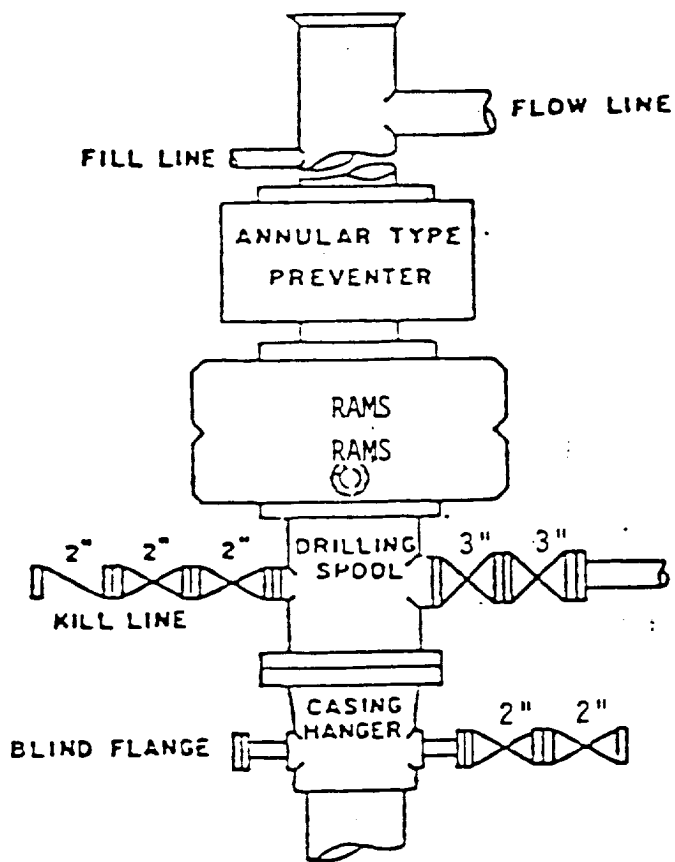
None anticipated.

Expected bottom hole pressure is approximately 3400 psi.

Expected bottom hole temperature is approximately 1200 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