

N.M. OIL CONS. COMMISSION  
P.O. BOX 11 BLM • CARLSBAD  
HOBBS, NEW MEXICO 88240  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN 1 .CATE\*  
(Other instructions on  
reverse side)

30-025-32185  
Form approved.  
Budget Bureau No. 1004-0136  
Expires August 31, 1985

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  
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' FSL & 1650' FEL of Section 7, 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, New Mexico  
15. DISTANCE FROM PROPOSED\*  
LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest drlg. unit line, if any) 660'  
16. NO. OF ACRES IN LEASE  
703.55  
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. 1320'  
19. PROPOSED DEPTH  
8700  
20. ROTARY OR CABLE TOOLS  
Rotary  
21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
3596.3' 3686' Ground Level  
22. APPROX. DATE WORK WILL START\*  
Upon Approval of Application  
23. PROPOSED CASING AND CEMENTING PROGRAM  
Carlsbad Controlled Water Basin  
Secretary's Potash

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8"	54.5#	850'	Sufficient to Circulate
12 1/4"	8 5/8"	32#	4500'	Sufficient to Circulate
7 7/8"	5 1/2"	15.5# & 17#	8700'	1200 SX - SEE STIPS.

After setting production casing, pay zone will be perforated and stimulated as necessary.

See attached for: Supplemental Drilling Data  
BOP Sketch  
Surface Use and Operations Plan

Approval Subject to  
General Requirements and  
Special Requirements  
Attached



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 James M.C. Ritchie, Jr. TITLE Agent DATE July 11, 1993  
(This space for Federal or State office use)

PERMIT NO.                      APPROVAL DATE                       
APPROVED BY [Signature] TITLE Acting State Director DATE 8-4-93  
CONDITIONS OF APPROVAL, IF ANY:                     

\*See Instructions On Reverse Side

NOS: 6/3/93

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., Artec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator POGO PRODUCING CO.		Lease EAST LIVINGSTON RIDGE UNIT		Well No. 5
Unit Letter 0	Section 7	Township 22 SOUTH	Range 32 EAST NMPM	County LEA

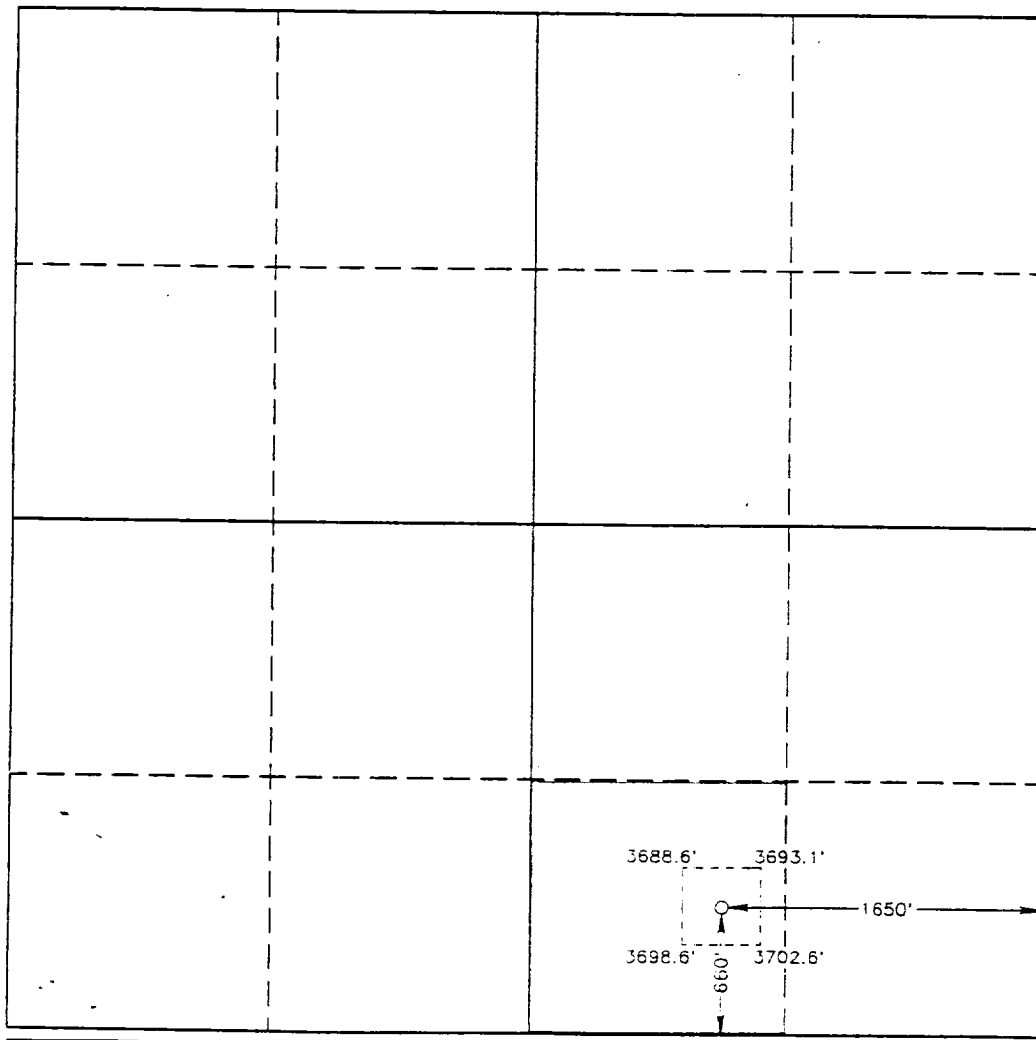
Actual Footage Location of Well:

660 feet from the SOUTH line and		1650 feet from the EAST line	
Ground Level Elev. 3696.3'	Producing Formation DELAWARE	Pool EAST Livingston Ridge Delaware	Dedicated Acreage: 40 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 Company

Company

July 23, 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

MAY 20, 1993

Signature & Seal of Professional Surveyor

*Gary L. Jones*

Certificate No. JOHN W. WEST, 676

RONALD J. EIDSON, 3239

GARY L. JONES, 7977

## SUPPLEMENTAL DRILLING DATA

POGO PRODUCING COMPANY

E. LIVINGSTON RIDGE UNIT No. 5

1. SURFACE FORMATION: Quaternary

2. ESTIMATED TOPS OF GEOLOGIC MARKERS:

Rustler Anhydrite	800'
Delaware Lime	4600'
Cherry Canyon	5600'
Brusny Canyon	7300'

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>			
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'	4500'	32#	J-55	STC
5 1/2"	0	1000'	17#	J-55	LTC
"	1000'	6000'	15.5#	J-55	LTC
"	6000'	8700'	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 4500' 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 8700' in 7 7/8" hole. Casing is to be cemented with 600 sacks of Class "H" cement tailed in with 700 sx Class "C". Cement to tie back to 8 5/8" casing.

5. PRESSURE CONTROL EQUIPMENT:

Blowout prevention equipment, while drilling the 11" hole, will be either a 3000 psi working pressure double ram type preventer or a 3000 psi working pressure annular type preventer.

6. CIRCULATING MEDIUM:

<u>Surface to 850 feet:</u>	Fresh water spud mud. Viscosity 30 to 36 as required for hole cleaning.
<u>850 feet to 4500 feet:</u>	Brine conditioned as necessary for control of viscosity. Weight 9.8 to 10.0. PH 9 to 10. Viscosity 32 to 36.
<u>4500 feet to T.D.:</u>	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 below intermediate casing.

8. TESTING, LOGGING, AND CORING PROGRAMS:

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

It is planned that electric logs will include GR-CNL- Density logs and GR-DLL logs.

No coring is planned.

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

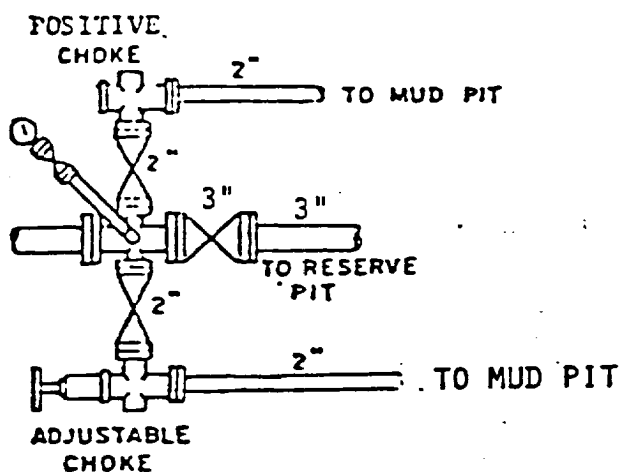
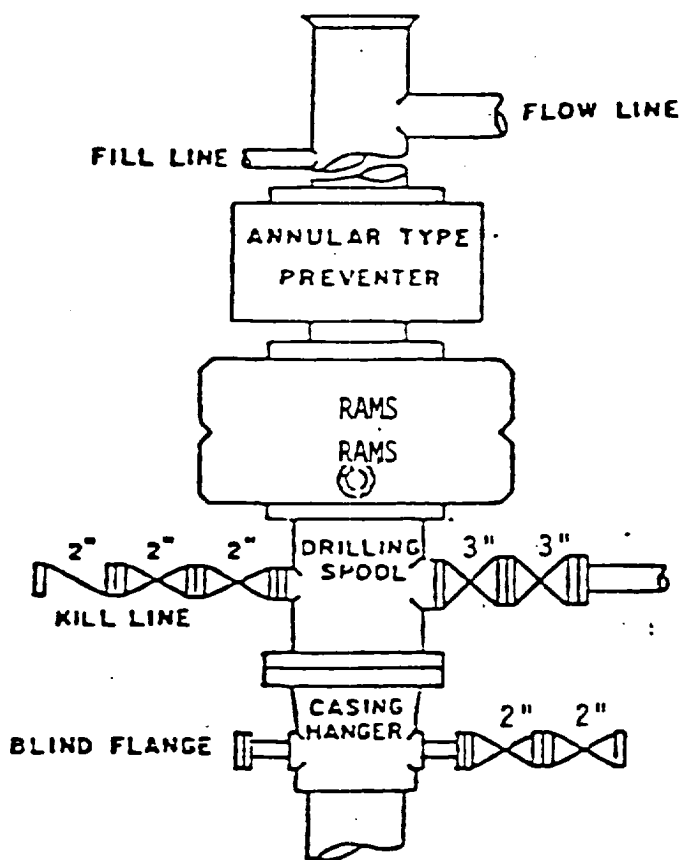
None anticipated.

Expected bottom hole pressure is approximately 3700 psi.

Expected bottom hole temperature 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 30 days.



BOP STACK

3000 PSI WORKING PRESSURE

BOP ARRANGEMENT