

Form 3160-3  
(July 1992)

N.M. OPER. OGRID NO. 17491  
P.O. PROPERTY NO. 9327  
UNCL POOL CODE 3738D  
DEPARTMENT EFF. DATE 11/2/95  
BUREAU OF API NO. 3D-025-33162  
APPLICATION FOR PERMIT

'LOCATE'  
ON

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

1A. TYPE OF WORK

DRILL ☒

DEEPEN ☐

B. TYPE OF WELL

OIL  
WELL ☒

GAS  
WELL ☐

OTHER

SINGLE  
ZONE ☐

MULTIPLE  
ZONE ☐

2. NAME OF OPERATOR

Pogo Producing Company

(Richard Wright)

3. ADDRESS AND TELEPHONE NO.

P.O. Box 10340 Midland, Texas 79702 915-682-6822

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

At surface 330' FNL & 660' FEL of Sec.31 T21S R32E

At proposed prod. zone

Same

Unit A

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

Approximately 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)

330'

16. NO. OF ACRES IN LEASE

320

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

8800'

20. ROTARY OR CABLE TOOLS

Rotary

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

3708.2' Ground Level

22. APPROX. DATE WORK WILL START\*

As soon as approved

23.

PROPOSED CASING AND CEMENTING PROGRAM

K-111-P Potash

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	J-55 13 3/8"	54.5	850'	700 Sx Circulate to surface
12 1/2"	J-55 8 5/8"	32 & 24	4500'	1400 Sx Circulate to surface
7 7/8"	J-55, N-80 5 1/2"	17 & 15.5	8800'	1300 Sx Tie back to 4300'±

1. Drill 17 1/2" hole to 850'. Run and set 850' of 13 3/8" J-55 54.5# ST&C casing. Cement with 500 Sx. Light tail in with 200Sx. Class "C". Circulate cement to surface.
2. Drill 12 1/2" hole to 4500'. Run and set 4500' 8 5/8" J-55 ST&C casing, bottom 2300' 32# middle 1200' 24# & top 1000' 32# casing. Cement with 1200 Sx. of Light cement tail in with 200 Sx. Class "C". Circulate cement to surface.
3. Drill 7 7/8" hole to 8800'. Run and set 8800' of 5 1/2" casing, bottom 2800' 17# N-80 LT&C, middle 5000' 15.5# J-55 LT&C, top 1000' 17# J-55 LT&C. Cement with 600 Sx. Class "H" tail in with 700 Sx. Class "C". Bring cement back to at least 4300' 200' into 8 5/8" intermediate casing.
4. After setting production casing, pay zone will be perforated and stimulated as necessary. See attached for: Supplemental Drilling Data, BOP Sketches, Surface Use and Operations Plan.

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

*Get J. J. J.*

TITLE

Agent

DATE

09/06/95

(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:

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED

APPROVED BY

*FRANK Splendoria*

TITLE

*Acting State Director*

DATE

*10-20-95*

\*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.



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. NM-42814
b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
2. NAME OF OPERATOR Pogo Producing Company		7. UNIT AGREEMENT NAME
3. ADDRESS OF OPERATOR P.O. Box 10340, Midland, Texas 79702		8. FARM OR LEASE NAME Federal 31
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements *) At surface 330' FNL & 660' FEL of Sec. 31, T-21S, R-32E At proposed prod. zone Same		9. WELL NO. 3
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 30 miles East of Carlsbad, New Mexico		10. FIELD AND POOL, OR WILDCAT Undesignated Lost Tank Delaware
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 330'		11. SEC. T. R. M., OR BLK. AND SURVEY OR AREA Section 31, T-21S, R-32E
16. NO. OF ACRES IN LEASE 320		12. COUNTY OR PARISH Lea
17. NO. OF ACRES ASSIGNED TO THIS WELL 40		13. STATE New Mexico
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 1320		20. ROTARY OR CABLE TOOLS Rotary
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3708.2' (3705.00) Ground Level		22. APPROX. DATE WORK WILL START* Upon Approval of Appl.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8"	54.4# 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 Sketches  
Surface Use and Operations Plan

Approved & Sent to  
General Requirements and  
Special Requirements  
Approved



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 <u>James M.C. Ritchie, Jr.</u> TITLE <u>Agent</u> DATE <u>June 25, 1993</u>	
(This space for Federal or State office use)	
PERMIT NO. _____	APPROVAL DATE _____
APPROVED BY <u>Kathy Eaton</u> TITLE <u>Actg State Director</u> DATE <u>8-10-93</u>	
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

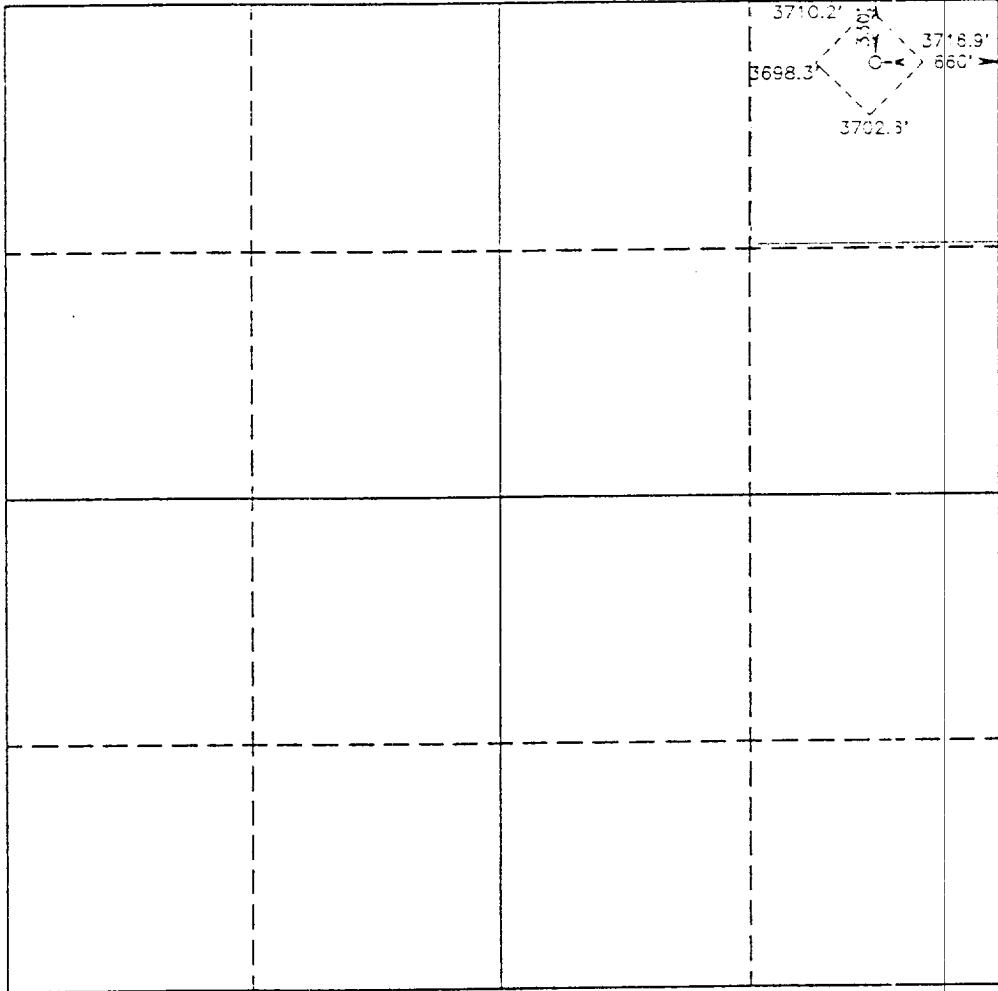

P.O. Drawer DD, Artesia, NM 88210

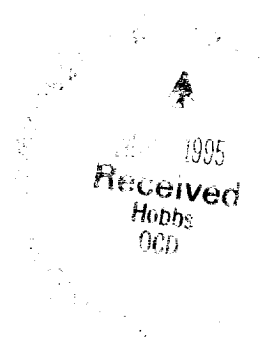
DISTRICT III

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 CO.		Lease FEDERAL 31		Well No. 3	
Unit Letter A	Section 31	Township 21 SOUTH	Range 32 EAST	County LEA	
Actual Footage Location of Well: 330 feet from the NORTH line and 660 feet from the EAST line					
Ground Level Elev. 3708.2	Producing Formation Delaware	Pool SE Livingston Ridge DEDICATED TO TAKE DELAWARE		Dedicated Acreage: 40 Acres	
<p>1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.</p> <p>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).</p> <p>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.?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No If answer is "yes" type of consolidation _____</p> <p>If answer is "no" list of owners and tract descriptions which have actually been consolidated. (Use reverse side of this form necessary.)</p> <p>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.</p>					
				<b>OPERATOR CERTIFICATION</b> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Robert M. C. Fisher, Jr.</i></p> <p>Signature Printed Name Position Pogo Producing Company Date July 20, 1993</p>	
				<b>SURVEYOR CERTIFICATION</b> <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>Date Surveyed MAY 17, 1993</p> <p>Signature &amp; Seal of Professional Surveyor  Certification No. JOHN W. WEST 575 RONALD J. BROSZ 3239 JAMES 7372</p> <p>93-11-0849</p>	



SUPPLEMENTAL DRILLING DATA

POGO PRODUCING COMPANY  
FEDERAL "31" WELL NO. 3

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

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'	8800'	17#	N-80	LTC

MINIMUM DESIGN FACTORS: Collapse 1.125 Burst 1.1 Tension 1.7

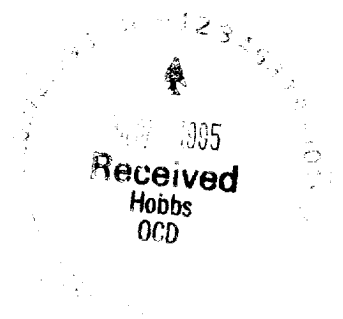
13 3/8" casing is to be set at approximately 850' in 17-1/2" hole. Casing to be cemented with 500 sacks of Light cement tailed in with 200 sacks of Class "C". Cement to circulate.

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 8800' 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 3 5/8" casing.

5. PRESSURE CONTROL EQUIPMENT:

Blowout prevention equipment, while drilling the 12 1/4" 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 <del>9 to 10</del> 8.5 ppG 38 - 45. ph 9-10. Filtrate while drilling pay zone 6-15.

SJS

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.

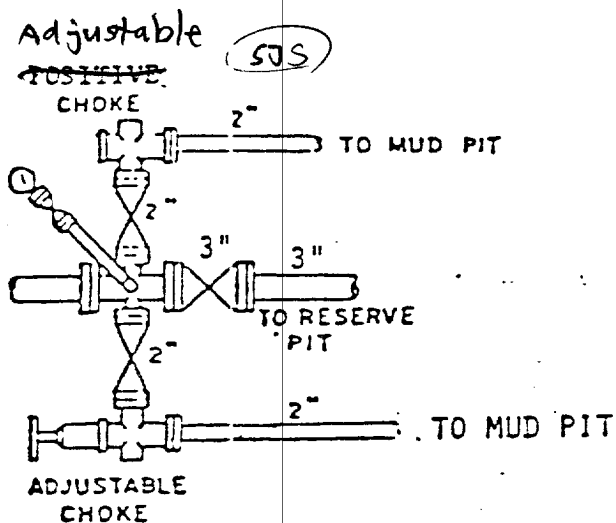
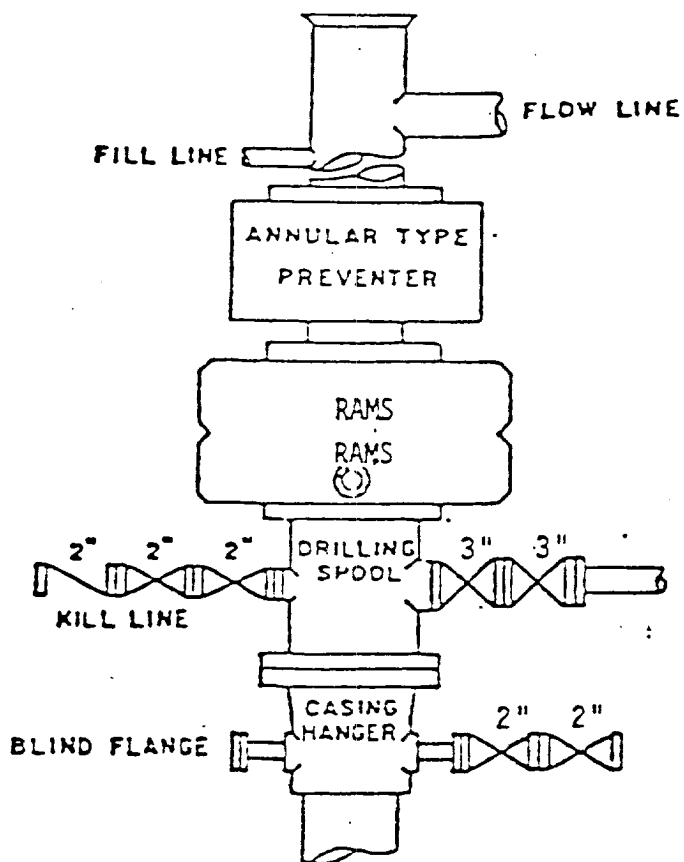
Expected bottom hole pressure is approximately 3700 psi.

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

