



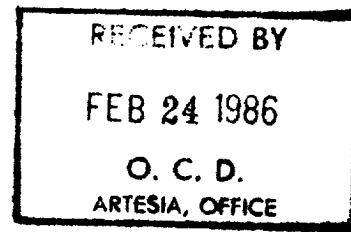
IN REPLY REFER TO

# United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Box 1397, Roswell, New Mexico - 88201

NM-19199 PD  
3160 (065)



FEB 21 1986

Pogo Producing Company  
P. O. Box 10340  
Midland, TX 79702

Dear Sir:

Your application for Permit to Drill Cal-Hon No. 4 in the NE $\frac{1}{4}$ SW $\frac{1}{4}$ , section 35, T. 23 S., R. 31 E., Eddy County, New Mexico, lease NM-19199, to a depth of 6,400 feet to test the Cherry Canyon formation in the oil-potash area, is hereby approved as amended by stipulations attached to the application.

One copy of the application is returned herewith. Please notify the Bureau of Land Management office checked on the attached special stipulation, in sufficient time for a representative to witness all cementing operations.

Sincerely,

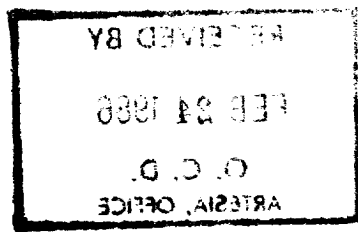
Orig. Sgd. Francis R. Cherry, Jr.

District Manager

Enclosure

cc:

✓ MOC - Artesia (2)



NM OIL CONS. COMMISSION  
Drawer DD  
Artesia, NM 88810UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>			5. LEASE DESIGNATION AND SERIAL NO. NM 19199		
2. NAME OF OPERATOR Pogo Producing Company ✓			6. IF INDIAN, ALLOTTEE OR TRIBE NAME		
3. ADDRESS OF OPERATOR P.O. Box 10340 Midland, Texas 79702			7. UNIT AGREEMENT NAME		
4. LOCATION OF WELL (Report location clearly and in accordance with any State regulations) At surface 2310' FSL & 2180' FNE FWL At proposed prod. zone 2310' FSL & 2180' FNL FWL			8. FARM OR LEASE NAME Cal-Mon		
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE 35 miles west of Jal, New Mexico			9. WELL NO. 4		
10. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 2180'			11. FIELD AND POOL, OR WILDCAT Sand Dunes - <i>Cherry Canyon</i>		
18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 990'			12. COUNTY OR PARISH Eddy		
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3493.5' GR			13. STATE New Mexico		
16. NO. OF ACRES IN LEASE 640			17. NO. OF ACRES ASSIGNED TO THIS WELL 40		
19. PROPOSED DEPTH 6400'			20. ROTARY OR CABLE TOOLS Rotary		
22. APPROX. DATE WORK WILL START February 20, 1986					

## 23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4	8 5/8	24	820'	320 sxs CIRCULATE
7 7/8	5 1/2	14 & 15.5	6400'	1150 sxs CIRCULATE

The proposal is to drill a well through the Cherry Canyon formation. Adequate logs will be run to evaluate all zones below the Delaware formation.

Cement will be circulated to the surface on the 8 5/8" surface casing & 5 1/2" production casing.

Completion or abandonment will be performed in accordance with prudent practices and regulatory requirements.

BOP Program: from 820' to 6400' 3000# WP

Gas well gas is dedicated.

Posted APD,  
NL, ID-1  
3-7-86

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 [Signature] TITLE Petroleum Engineer DATE 2/3/86

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions On Reverse Side

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102  
Supersedes C-120  
Effective 1-4-85

RECEIVED

All distances must be from the outer boundaries of the Section.

Operator <b>POGO PRODUCING COMPANY</b>		Lease <b>CAL-MON</b>		Well No. <b>4</b>
Unit Letter <b>K</b>	Section <b>35</b>	Township <b>23 SOUTH</b>	Range <b>31 EAST</b>	County <b>EMERY</b>
Actual Footage Location of Well: <b>2310</b> feet from the <b>SOUTH</b> line and <b>2180</b> feet from the <b>WEST</b> line				
Ground Level Elev. <b>3493.5'</b>	Producing Formation <b>Cherry Canyon</b>	Pool <i>West Sand River-Horse Canyon</i>	Dedicated Acreage: <b>40</b> 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 interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

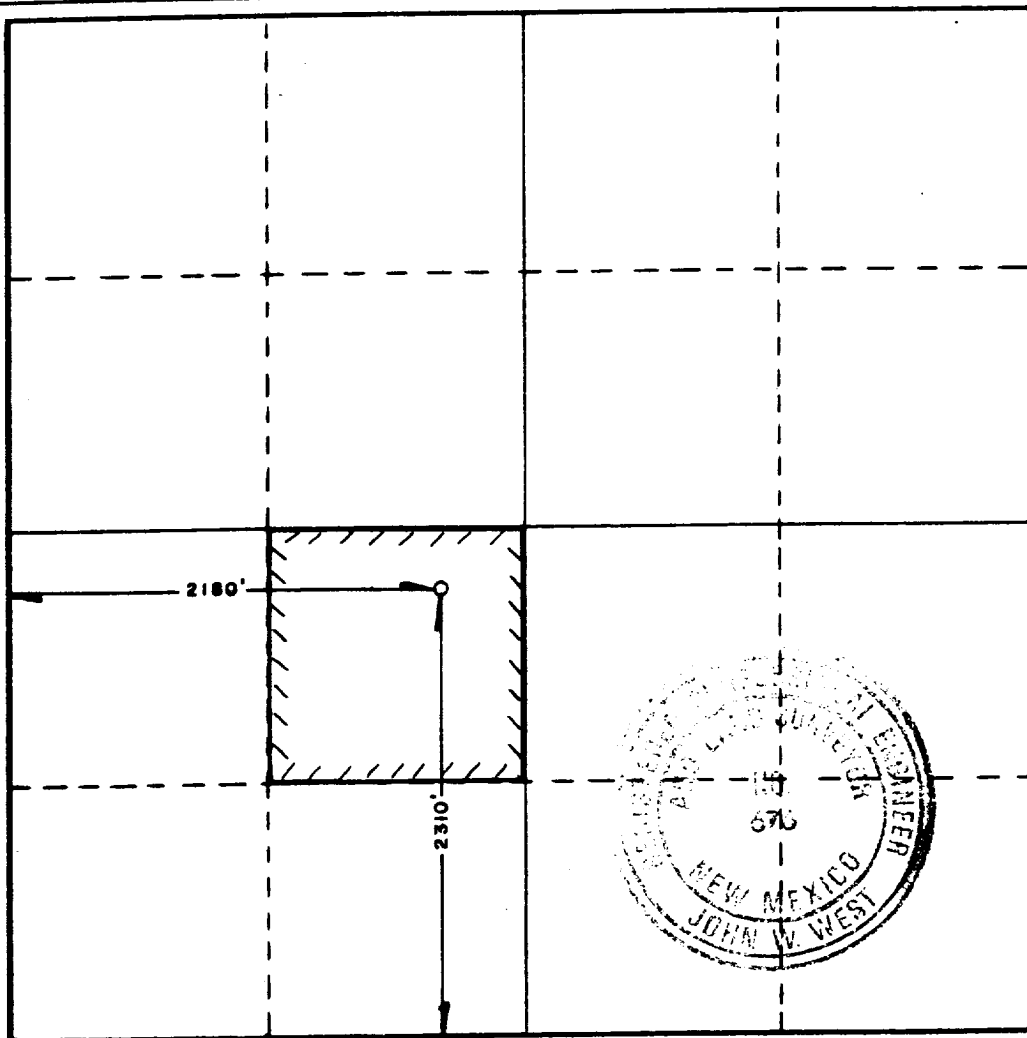
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FEB 24 1986

ARTESIA, OFFICE

☐ Yes ☐ No If answer is "yes," type of consolidation \_\_\_\_\_

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_

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



CERTIFICATION

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

*David Beathard*

Name  
**David Beathard**  
Position  
**Petroleum Engineer**  
Company  
**Pogo Producing Company**

Date  
**1/27/86**

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  
**JANUARY 24, 1986**

Registered Professional Engineer and/or Land Surveyor

*John W. West*

Certificate No. **JOHN W. WEST, 676**  
**RONALD J. EIDSON, 3239**

APPLICATION FOR DRILLING  
POGO PRODUCING COMPANY  
CAL-MON NO. 4  
EDDY COUNTY, NEW MEXICO

In conjunction with permitting the captioned well for drilling in Section 35, T-23-S, R-31-E, Eddy County, New Mexico, Pogo Producing Company submits the following in accordance with U.S.G.S. (NTL-6) letter dated July 1, 1976:

1. The surface formation is Quarternary sand and gravel.

2. Estimated tops of geologic markers as follows:

Rustler Anhydrite and Dolomite -----	727'
Delaware Limestone -----	4427'
Bell Canyon Sandstone -----	4475'
Cherry Canyon Sandstone -----	5292'
Total Depth -----	6400'

3. The depths at which oil, gas, or water are expected are 4875' & 5292'.

4. Casing program and cement:

8 5/8" 24# K-55 ST&C @ 820' w/453 sxs C1 C + .6% CF-1  
circulate cement

5 1/2" 14# & 15.5# K-55 ST&C @ 6400' w/DV tool @ 4100'  
1st stage - 453 sxs C1 C + .6% CF-1  
2nd stage - 650 sxs Pacesetter Lite C + 3# Hi-seal/sxs  
+ 5# salt/sxs. Circulate cement 100 sxs C1 C. Circulate  
cement.

5. Circulating Medium:

An earthen pit will be used to hold drilling fluids and cuttings.  
The drilling mud program is as follows:

Spud mud to 820'  
Cut Brine to 6400'

6. If warranted, drill stem tests will be carried out in the Cherry Canyon.

7. Ten foot samples of cuttings will be caught from the base of the surface pipe (820') to total depth.

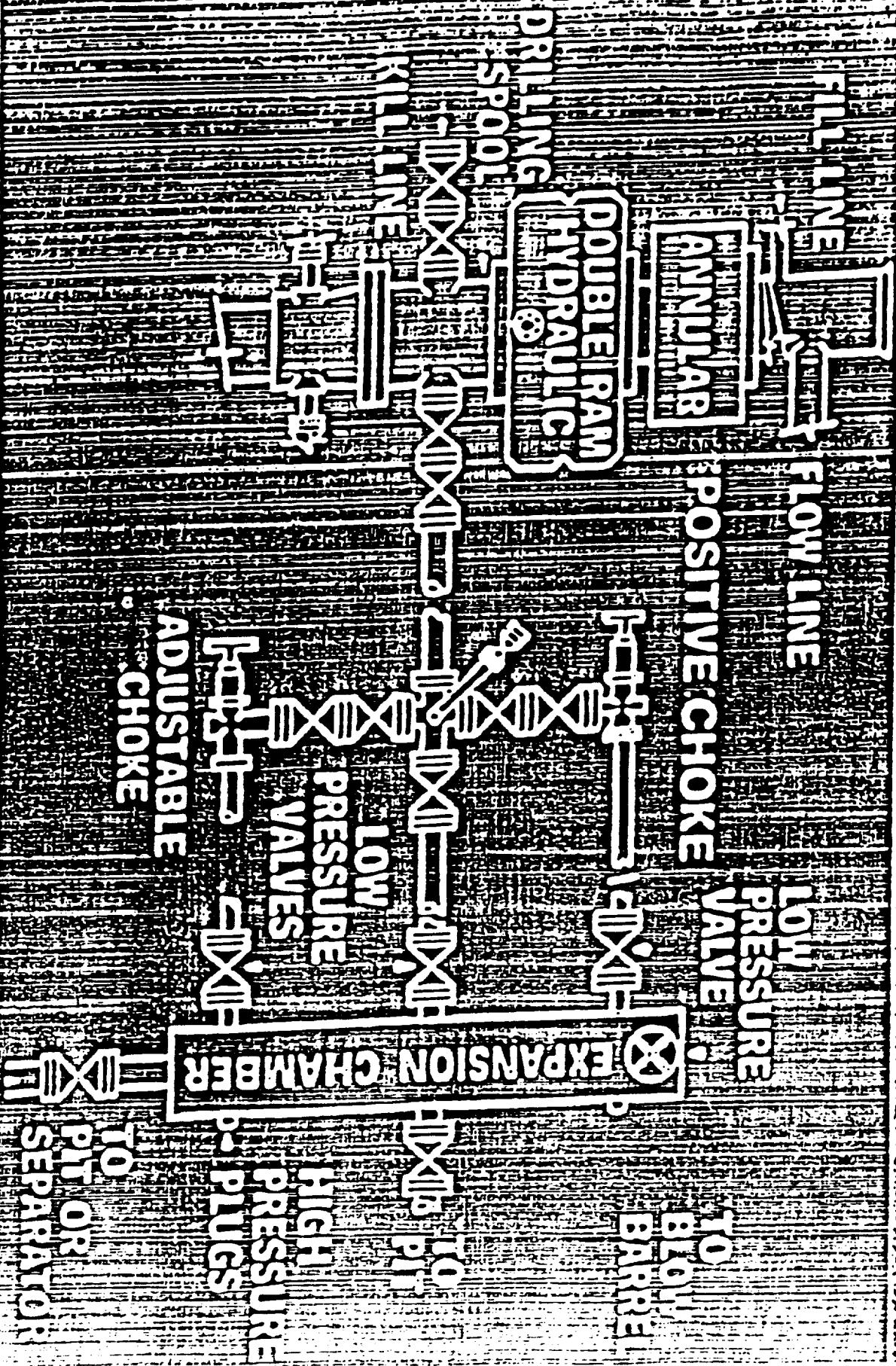
8. Adequate electrical and resistivity logs will be run from total depth to the base of the surface casing at 820'. The gamma ray will be run to the surface.

9. Loss circulation zones are possible from the surface to 6400'.

10. Blow Out Preventors:

Surface to 820'  
820' to 6400' - 3000# WP  
A typical BOP sketch is attached

11. The anticipated starting date is February 20, 1986 with the completion expected by March 31, 1986.



TYPICAL BOP SKETCH  
Cal-Mon #4

Pogo Producing Company  
2310' FSL & 2180' FWL  
Sec. 35, T-23-S, R-31-E  
Eddy County, New Mexico