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Submit to	Appropriate
District Of	
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

DISTRICT J P.O. Box 1980, Hobbs, NN 88240

### OIL CONSERVATION DIVISION

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

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	BOCO DOOD	$\frac{11891}{11891}$	Lease			12070	Well No.	
Unit Letter	POGO PRODU			PROXIMITY "30"	FEDER	L'sala		2
D	Section 30	Township 22 SOUTH	Range	••• • • • • • • •		County		<u></u>
Actual Footage Loc	ation of Well:	22 SOUTH		32 EAST	NMPM		LEA	· · · · · · · · · · · · · · · · · · ·
330 feet	t from the NO	RTH line and	33	30		the WES	т	
Ground Level Elev.		rmation	Pool		feet from	20210	Dedicated Aci	cage:
3590.5'	Delawar	-	Und./	Livingston Ri	idge (De	1)	40	Acres
I. Outline the ac	creage dedicated to	the subject well by colored	pencil or l	bachure marks on the j	plat below			
		ited to the well, outline eac						
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Yes	No	If answer is "yes" type						
If answer is "no"	list of owners an	d tract descriptions which			/11		•	
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# SUPPLEMENTAL DRILLING DATA

#### POGO PRODUCING COMPANY PROXIMITY "30" FEDERAL WELL NO. 2

1. SURFACE FORMATION: Quaternary.

# 2. ESTIMATED TOPS OF GEOLOGIC MARKERS:

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

# 3. ANTICIPATED POSSIBLE HYDROCARBON BEARING ZONE:

Delaware

Oil

# 4. PROPOSED CASING AND CEMENTING PROGRAM:

<u>CASING SIZE</u> 13 3/8" 8 5/8"	SETT EROM 0 1000' 2200'	<u>ING DEPTH</u> <u>1000'</u> 2200' 4500'	<u>WEIGHT</u> 54.5# 32# 24#	<u>GRADE</u> J-55 J-55 J-55	JOINT STC STC STC
5 1/2"	0 1000' 6000'	1000' 6000' 8600'	32# 17# 15.5# 17#	J-55 J-55 J-55 N-80	STC STC LTC LTC LTC
MINIMUM DESIGN F	ACTORS				LIÇ

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 8600' 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.

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### 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.

-1-

6. CIRCULATING MEDIUM:

	Surface to 850 feet:	Fresh water spud mud. Viscosity 30 to 36 as required for hole cleaning.
	850 feet to 4500 feet:	Brine conditioned as necessary for control of viscosity. Weight on the
	<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> . Visocity 38 - 45. ph 9-10. Filtrate while drilling pay zone 6-15. V 8.5 ppg (SJS) por telecon W/R.Wright 7/11/95
7.	AUXILIARY EQUIPMENT:	(SJS) por telecon W/R-1W + - + - + - + - + - + - + - + - + -

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

8. IESTING, 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 ans GR-DLL logs.

No coring is planned.

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

None anticipated. Expected bottom hole pressure is approximately 3700 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

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#### SURFACE USE AND OPERATIONS PLAN

#### FOR

#### POGO PRODUCING COMPANY PROXIMITY "30" FEDERAL WELL NO. 2 330'FNL & 330' FWL OF SECTION 30,T-22S, R-32E LEA COUNTY, NEW MEXICO

LOCATED: 30 miles east of Carlsbad, New Mexico.

FEDERAL LEASE NUMBER: NM-77059

LEASE DATE: September 1, 1988

ACRES IN LEASE: 630.

RECORD LESSEE: Pogo Producing Company

SURFACE OWNERSHIP: Federal.

<u>GRAZING PERMITTEE:</u> J.C. Mills P.O. Drawer "G" Abernathy, Texas 79311

<u>POOL:</u> Undesignated East Livingston Ridge (Delaware)

POOL RULES: Statewide. 40 acres for oil.

EXHIBITS: A. Road Map

B. Plat showing Existing wells and Existing roads

- C. Drilling Rig Layout
- D. Topo Plat



#### 1. EXISTING ROADS

A. Exhibit "A" is a portion of a road map showing the location of the proposed well as staked. The proposed well site can be reached by, either going south off US 62-180, or by going north off State 128. Point "A" on the plat is on State 128 at milepost 17.6, approximately 36 road miles west of Jal, New Mexico, where Eddy County Road 798 goes north. To go to the proposed well site from this point, go north on Eddy 798 6.8 miles to arrive at Point "C". Turn right and go east approximately 8,000' to caliche road on left. Turn north and go 1.1 mile . Location will be west approximately 1500'.

B. Exhibit "B" shows existing pertinent roads in the vicinity of the proposed reentry. Existing roads are color coded.

#### 2. PLANNED ACCESS ROADS:

A. <u>Length and Width:</u> The planned access road will be 12' wide and approximately 1320' long. See Exhibit "B".

- B. Surfacing Material: Caliche. Compacted and watered.
- C. Maximum Grade: Less than one percent.
- D. Turnouts: Not needed.
- E. Drainage Design: The access road will be crowned so the water will run off to the sides.
- F. Culverts: None needed.
- G. Cuts and Fills: None necessary.
- H. Gates and Cattle Guards: Not needed. No fences involved.

#### 3. LOCATION OF EXISTING WELLS:

A. Existing wells in the immediate area are shown on Exhibit "B".

-2-

#### 4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

A. Production Facilities will be located on well # 1.

#### 5. LOCATION AND TYPE OF WATER SUPPLY:

A. It is not planned that a water well will be drilled. Water necessary for drilling operations will be purchased and trucked to the well site, or will be moved to the well site by a temporary pipeline laid on the ground alongside existing and proposed roads.

#### 6. SOURCE OF CONSTRUCTION MATERIAL:

A. Caliche needed for construction work will be taken, if present, from a pit opened on-site within the 400' X 450' work area. Otherwise, caliche will be taken from an existing pit located on Federal land in the NE1/4NE1/4 of Section 26, T-22S, R-31E, Eddy County, New Mexico, and will be trucked to the well site over existing and proposed roads. Location of caliche pit is shown on Exhibit "A".

#### 7. METHODS OF HANDLING WASTE MATERIAL:

A. Drill cuttings will be disposed of in the drilling pits.

B. Drilling fluids will be allowed to evaporate in the drilling pits until pits are dry.

C. All trash, junk, and other waste material will be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill.

D. Water produced during test will be disposed of in the drilling pits.

E. Oil produced during tests will be stored in test tanks until sold.

8. ANCILLARY FACILITIES:

A. None necessary.

-3-

#### 9. WELL SITE LAYOUT:

A. Exhibit "C" shows relative location and dimensions of the well pad, mud pits, reserve pit and the location of major drilling rig components.

B. Cleaning and levelling of the well site will be required.

C. The pad and pit area is staked and flagged.

#### 10. PLANS FOR RESTORATION OF THE SURFACE:

A. After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed. Pits will be filled and the location will be cleaned of all trash and junk to leave the well site in an as aesthetically pleasing condition as possible.

B. Any unguarded pits containing fluids will be fenced until the pits are dry.

C. After abandonment, all equipment, trash and junk will be removed and the well site will be cleaned. Any special rehabilitation and/or special revegatation requirements of the surface management agency will be complied with and will be accomplished as rapidly as possible.

#### 11. OTHER INFORMATION:

A. <u>Topography:</u> The land surface in the area is undulating and duny. In the immediate area of the well site, land slope is to the southwest.

B. Soil: Top soil at the well site is a loamy sand.

C. <u>Flora and Fauna:</u> The vegatative cover is moderate and includes mesquite, javelina bush, yucca, weeds and range grasses. Wildlife in the area is that typical of semi-arid desert land and includes coyotes, rabbits, rodents, reptiles, dove and quail.

D. Ponds and Streams: There are no rivers, ponds, lakes or streams in the area.

E. <u>Residences and Other Structures</u>: There are no occupied dwellings or other structures within a mile of the proposed well site.

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F. <u>Archaeological</u>, <u>Historical</u>, <u>and Cultural Sites</u>; An archeological reconnaissance is to be accomplished and a report furnished.

G. Land Use: Grazing and wildlife habitat.

H. Surface Ownership: Federal

#### 12. OPERATOR'S REPRESENTATIVE:

Richard L. Wright Division Operations Manager Pogo Producing Company P.O. Box 10340 Midland, Texas 79702 (915) 685=8100

#### 13. <u>CERTIFICATION:</u>

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Pogo Producing Company and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 19 U.S.C. 1001 for the filing of a false statement.

5/31/45

Dete:

Jamé M.C. Ritchie Agent













HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

JUN 22 15 -2 M -95 APPLICABILITY:

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The provisions of this plan are effective when drilling operations are conducted in areas where zones may be penetrated that are known to contain, or may be reasonably expected to contain, hydrogen sulfide gas in concentrations of 100 parts per million or more.

Proximity "30" Federal Well #2

#### TRAINING REQUIREMENTS:

- A. When conducting drilling operations in an area where hydrogen sulfide gas might be encountered, all personnel at the well site will have had proper training in the following areas:
  - 1. The hazards and characteristics of hydrogen sulfide gas (H2S).
  - 2. Toxicity of hydrogen sulfide and sulfur dioxide.
  - 3. Hydrogen sulfide gas detectors, warning systems, evacuation procedures, and proper use and maintenance of personal protective equipment.
  - 4. Proper rescue procedures, first aid, and artificial respiration.
- в. In addition, supervisory personnel will be trained in the following areas:
  - The effects of hydrogen sulfide on metal components. If 1. high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
  - 2. Corrective action and shut-in procedures when drilling or reworking a well, and blowout prevention and well control procedures.
  - 3. The contents and requirements of the Hydrogen Sulfide Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable hydrogen sulfide zone (within 3 days or 500 feet) and weekly hydrogen sulfide and well control drills for all personnel in each crew. The initial training session will include a review of the site specific Hydrogen Sulfide Drilling Operations Plan and the Public Protection Plan. This plan will be available at the well site. All personnel will be required to carry documentation that they have 5283031 C received the proper training.



-1-

#### WELL SITE DIAGRAM:

A. Attached is a detailed well site diagram showing:

- Drilling rig orientation
- Prevailing wind direction (Southwest)
- Location of briefing areas
- Location of Caution/Danger Signs
- Location of hydrogen sulfide monitors
- Location of wind direction Indicators

#### HYDROGEN SULFIDE SAFETY EQUIPMENT:

- A. All safety equipment and systems will be installed, tested, and deemed operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone reasonably expected to contain hydrogen sulfide.
- B. During drilling operations, a flare line will be routed from the BOP manifold to the reserve pit. Should suspected sour gas be vented through the flair line, a flare pistol will be used to ignite the flare.
- C. Protective equipment for essential personnel will be installed and maintained as follows:
  - 1. 30-minute air packs will be maintained on the rig floor and near the briefing area.
  - 2. 30-minute work units will be maintained at the H2S trailer and/or on the rig floor.
  - 3. 30-minute escape units will be maintained on the rig floor.
  - 4. 300 cu.ft. air cylinders will be maintained in the H2S trailer.
  - 5. Associated breathing air equipment will also be installed and maintained.
  - 6. Hydrogen sulfide monitor will be located in the dog house on the rig floor with sensors placed on the rig floor, at the bell nipple, the shale shaker, and in the pit area.
  - 7. An audible/visual alarm will be located near the dog house on the rig floor.

#### VISUAL WARNING SYSTEMS:

- A. High visibility Caution/Danger signs will be posted on roads providing direct access to the well location.
- B. Green, yellow, and red condition flags to be displayed to denote Normal Conditions, Potential Danger, and Danger, H2S Present.
- C. Wind socks to be located at the protection center and in the pit area to continuously indicate wind direction.

#### CIRCULATING MEDIUM:

A. Drilling fluid to be conditioned to minimize the volume of H2S circulated to the surface.

#### SPECIAL WELL CONTROL EQUIPMENT:

A. In addition to the normal BOP stack and choke manifold, a drilling head will be used to help control an H2S contaminated drilling fluid.

#### WELL TESTING:

A. Drill stem testing of zones known, or reasonably expected, to contain hydrogen sulfide in concentrations of 100 ppm or more will use the closed chamber method of testing.

#### COMMUNICATION:

A. Radio communication will be available at the drilling rig and also in company vehicles.

#### ADDITIONAL INFORMATION:

A. Additional information concerning Emergency Reaction Steps, Ignition Procedures, Training Requirements, and Emergency Equipment Requirements will be available on location at the well site.



