Form 3160-3 (July 1992)

V

### UNITED STATES DEPARTMENT OF THE INTERIOR

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APPLICATION FOR PERMIT TO DRILL OR DEEPEN							6. IF INDIAN, ALLOTTEE OR TRIBE NAME		
1a. TYPE OF WORK  DRILL [X]  DEEPEN							7. UNIT AGREEMENT NAME		
b. TYPE OF WELL									
OIL XX	GAS WELL OTHER			NGLE	MULTI ZONE	PLE	8. FARM OR LEASE NAME, WELL NO.		
2. NAME OF OPERATOR							Red Tank 33 Federal #2		
<u>Pogo Produci</u>						·	9. API WELL NO.	- 71 -18	
. ADDRESS AND TELEPHON		70700 704		400 805 03	.00		3 <i>D-0</i> 25	<u>~ 36542</u>	
	340, Midland, TX ort location clearly and in accordance			<u>432-685-81</u>	.00		1		
A 4	)' FNL & 660' FEL						W. Red Tank Delaware		
At proposed prod. zone	Same ,	., 36001011	33				AND SURVEY OR AREA		
		lnit H	<u> </u>				Section 33, T22S, R32E		
	DIRECTION FROM NEAREST TO						12. COUNTY OR PARISH	13. STATE	
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PROPERTY OR LEASE LII (Also to nearest drig, unit lin			1	160		20 ====	40		
18. DISTANCE FROM PROPO TO NEAREST WELL, DRIL	LING, COMPLETED, QAOI					_	Rotary or cable tools		
OR APPLIED FOR, ON THE 21. ELEVATIONS (Show what	O LLAGE, I I.		9000 K0		110 00	22. APPROX. DATE WORK WILL START*			
21. ELEVATIONS (Show whether DF, RT, GR, etc.)						When approved			
23.		PROPOSED CA	SING AND	CEMENTING PR	OGRAM		<u> </u>		
SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER F	T00T	SETTING DEP	тн		QUANTITY OF CEMENT		
17-1/2	13=3/8			800		Suffic	cient to circulate		
11	8-5/8	32				cient to circulate			
7-7/8	5-1/2	17		9000			tie back 200' into 8-5/8		
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After setting produc	ction casing, pay zone	will be perfor	rated ar	nd stimulated	as nec	:esseryD	ATE / /2-	104	
See attached for:	Supplemental d	rilling data		1310	1516	MELNO	30-025	- 3654	
·	BOP Sketch	illing data		22,13		1030	\ .		
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	RIBE PROGRAM: If proposal i							al is to drill or	
24.	pertinent data on subsurface le	ocations and meast	ured and tr	rue verticai deptris.	Give blov	wout prevent	er program, it any.	· ————————————————————————————————————	
(71)	A Milich		S	r Operati	ion Ta	ech	12/	17/03	
SIGNED COT	my mus	T T	TLE	r. Operati			DATE 12/		
(This space for Federal	or State office use)								
PERMIT NO.				APPROVAL DATE _					
Application approval does r	not warrant or certify that the applica	nt holds legal or equita	able title to th	nose rights in the subje	ect lease wi	hich would ent	itle the applicant to conduct ope	erations the reon	
SELECTIONS OF AFFRON			<i>ال</i> ايد ر	,				1	
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APPROVED BY	/S/ JOE G. LA	IRA TITLI	ַ דוב	LU MAN	MUE	,r\	DATE JAN 2	. 1 2004	

\*See Instruction's On Reverse Side

APPROVAL FOR 1 YEAR

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 tife R

United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

DISTRICT I P.O. Box 1980, Hobbs, NM 88240

#### State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Instruction on back
Submit to Appropriate District Office

DISTRICT II P.O. Drawer DD, Artesia, NM 88210

OIL CONSERVATION DIVISION
P.O. Box 2088

State Lease - 4 Copies Fee Lease - 3 Copies

DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 87410

Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

		WELL LO	CATION	AND ACREA	GE DEDICATION	ON PLAT			
API Numb	1	Pool Code		Pool Name					
30-025-3		51689			S. WEST RED TANK DELAWARE				
Property Code		REI	Property Name (1973) TANK "33"		2	.vci			
OGRID No.			Operator Nam			Elevatio	<u>n</u>		
17891			PC	GO PRODUC			3610		
			····	Surface Loc	ation				
UL or lot No. Sect	tion Townshi	ip Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County	
H 33	3 22	S   32 E		1650	NORTH	660	EAST	LEA	
		Bottom	Hole Lo	cation If Diffe	erent From Sur	face			
UL or lot No. Sec	tion Townshi	ip Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County	
Dedicated Acres J	oint or Infill	Consolidation	Code   0	rder No.	<u> </u>		L	<u> </u>	
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#### SUPPLEMENTAL DRILLING DATA

# POGO PRODUCING COMPANY RED TANK 33 FEDERAL WELL NO. 2

1. SURFACE FORMATION: Quaternary.

#### 2. ESTIMATED TOPS OF GEOLOGIC MARKERS:

Anhydrite	8001
Delaware Lime	4700'
Cherry Canyon	6100'
Brushy Canyon	74001
Bone Springs	88001

#### 3. ANTICIPATED POSSIBLE HYDROCARBON BEARING ZONES:

Delaware

011

#### 4. PROPOSED CASING AND CEMENTING PROGRAM:

•	SETTING DEP	TH			
CASING SIZE	FROM	TO	WEIGHT	GRADE	<u>JOINT</u>
13-3/8"	0	8001	54.5#	J-55	STC
8-5/8"	0 4300'	4300' 4500'	32# 32#	J-55 S-80	STC STC
5-1/2"	0 1000' 7000'	1000' 7000' 9000'	17# 17# 17#	N-80 J-55 N-80	LTC LTC LTC
MINIMUM DESIGN FACTORS:	COLLAPSE_	1.1 BI	IRST 1.1	TENSION	1.2

13-3/8" casing to be cemented with 500 sacks of light cement tailed in with 200 sacks of Class "C" with 2% CaCl. Cement to circulate.

8-5/8" casing to be cemented with 1200 sacks of light cement with 10% salt tailed in with 200 sacks of premium cement with 1% CaCl. Cement to circulate.

5-1/2" production casing is to be cemented with approximately 500 sacks

of light cement followed by 400 sacks of premium cement. Cement to tie back to 3600 feet.

If, during drilling operations, need for stage cementing of casing is indicated, staging tool(s) will be run and positioned to best suit hole conditions at time casing is run.

Cement volumes may be adjusted and cement may have lost circulation and/or other additives depending on hole conditions at the time casing is run.

#### 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.

Blow out prevention equipment, while drilling below the 8-5/8" casing seat, will be a 3000 psi working pressure BOP stack. A BOP sketch is attached.

#### 6. CIRCULATING MEDIUM:

Surface to 800 feet: Fresh water base fluid with gel and paper sweeps

for hole cleaning.

Mud wgt 8.4 ppg - 8.6 ppg

Viscosity 28 - 32 seconds per quart.

800 feet to 4500 feet: Brine water base fluid with salt gel and paper

sweeps for hole cleaning. Mud wgt 10.0 ppg - 10.2 ppg

Viscosity 28 - 32 seconds per quart.

4500 feet to T.D.: Fresh water base fluid with gel and paper sweeps

for hole cleaning.

Mud wgt 8.4 ppg - 8.6 ppg

Viscosity 28 - 32 seconds per quart.

#### 7. AUXILIARY EQUIPMENT:

A mud logging trailer will be in use while drilling below the interdediate casing.

#### 8. TESTING, LOGGING, AND CORING PROGRAM:

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:

No abnormal pressures or temperatures are expected.

Expected bottom hole pressure is about 3600 psi.

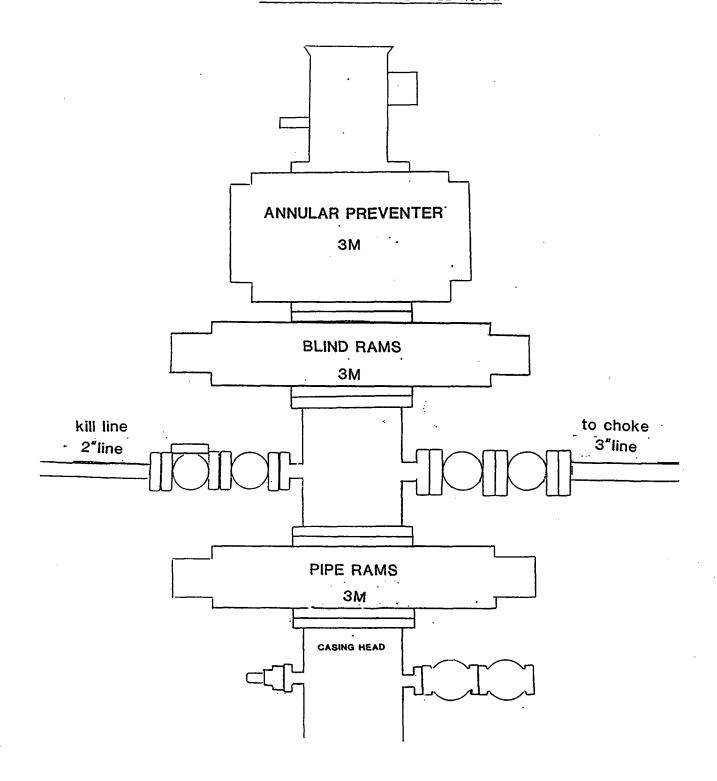
Expected bottom hole temperature is about 125 degrees Fahr.

No hydrogen sulfide gas is expected. The production stream of Pogo Producing Company's wells in this area have been tested specifically for hydrogen sulfide gas and test results were negative. However, since it is possible that low-volume hydrogen sulfide gas may be present in permeable water zones of the Castile formation, drilling operations below the surface casing will be in accordance with the attached "HYDROGEN SULFIDE DRILLING OPERATIONS PLAN" until intermediate casing is set and cemented and this possible source of hydrogen sulfide gas is cased off.

#### 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.

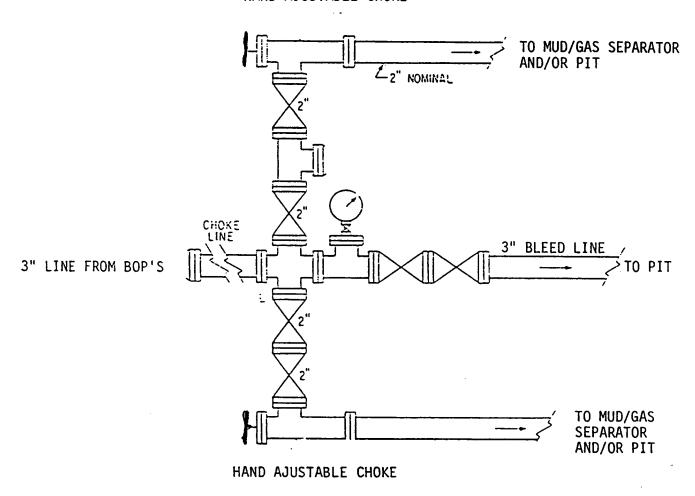
# POGO PRODUCING COMPANY RED TANK 33 FEDERAL WELL NO. 2



## POGO PRODUCING CO 3M CHOKE MANIFOLD

RED TANK 33 FEDERAL WELL NO. 2

#### HAND AJUSTABLE CHOKE



#### HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

#### APPLICABILITY:

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.

#### 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.
- B. In addition, supervisory personnel will be trained in the following areas:
  - 1. The effects of hydrogen sulfide on metal components. If 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 received the proper training.

#### 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.
  - 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:

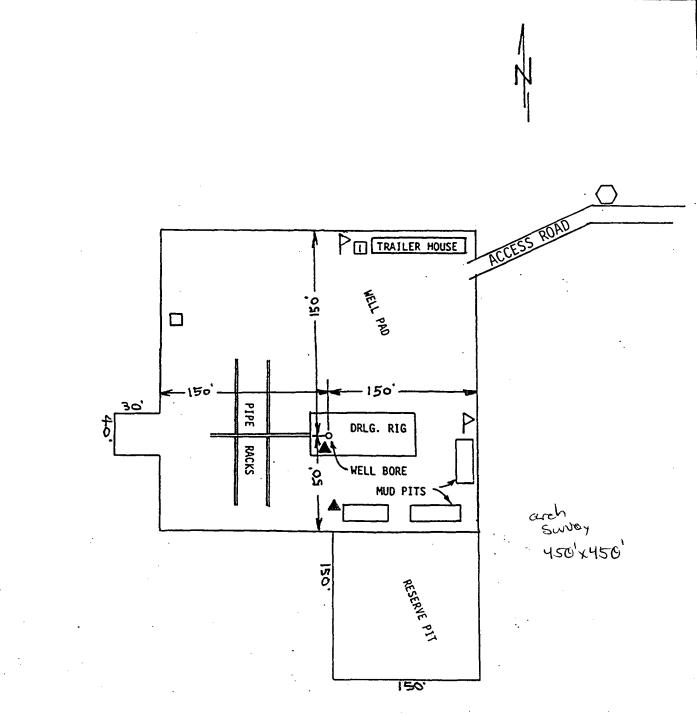
A. Drill stem testing of zones known, or reasonably expected, to contain hydrogen sulfide in concentrations of 100 ppm or more will use the closed chamber method of testing.

#### 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.



#### LEGEND:

- Caution/Danger Sign
- ☐ Briefing Area
- □ Briefing Area Primary
- ▲ H2S Monitor
- Wind Sock

Prevailing Wind Direction - Southwest

### HYDROGEN SULFIDE DRILLING OPERATIONS PLAN DRILL SITE DIAGRAM

POGO PRODUCING COMPANY RED TANK 33 FEDERAL WELL NO. 2

SCALE: None

#### SURFACE USE AND OPERATIONS PLAN

#### FOR

# POGO PRODUCING COMPANY RED TANK 33 FEDERAL WELL NO. 2 1650'FNL & 660'FEL SEC.33, T.22 S., R.32 E. LEA COUNTY, NEW MEXICO

LOCATED: 30 miles west of Eunice, New Mexico.

FEDERAL LEASE NUMBER: NM-77060.

LEASE DATE: September 1, 1988.

ACRES IN LEASE: 1160.

SURFACE OWNERSHIP: Federal.

GRAZING PERMITTEE: J. C. Mills

P. O. Box 190

Abernathy, Texas 79311

POOL: Undesignated West Red Tank Delaware.

POOL RULES: Statewide Rules. 40 acre spacing 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 62-180 at Milepost 66.8, approximately 38 miles west of Hobbs, New Mexico, where Lea County road C-29 goes south. Also see Exhibits "B" and "D". To go to the proposed well site from this point, exit 62-180 to the south on the paved road and go 14 miles to where Eddy 797 (Mills Ranch road) goes southwest and a caliche road goes northeast (Point "B"). Turn northeast and go, mainly easterly, 5.2 miles to where a caliche road goes southeast. Turn southeast and go 1.7 miles to arrive at Pogo Producing Company's Red Tank 34 Federal well No. 1. Turn west and go 0.5 mile, passing well No. 14 at 0.2 mile, to arrive at well No. 13. The proposed well site is 1240 feet south and 1320 feet west of this well.
- B. Exhibit "B" shows existing pertinent roads in the vicinity of the proposed well. Existing roads are color coded.

#### 2. PLANNED ACCESS ROAD:

- A. <u>Length and Width</u>: The new road will be 12 feet wide and about 1900 feet long, and is shown labeled and color coded red on Exhibit "B". The centerline of the proposed new road is staked and flagged.
  - B. Surfacing Material: Caliche. Watered, compacted and graded.
  - C. Maximum Grade: Approximately two percent.
  - D. Road Turnouts: Probably two.
  - E. Drainage Design: New road will be crowned with drainage to the side.
  - F. Culverts: Not needed.
  - G. Cuts and Fills: Not necessary.
- H. Gates and Cattle Guards: A cattle guard is to be installed in the fence which parallels the west line of section 34 as indicated on Exhibit "B".

#### 3. LOCATION OF EXISTING WELLS:

- A. Existing wells in the immediate area are shown on Exhibit "B".
  - 4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:
- A. Production from this well will be delivered to the existing tank battery located on the well pad at well No. 2. The flow line will be 3" SDR-7

polyethylene pipe laid on the ground alongside existing and proposed roads and extend from the well to the tank battery as indicated on Exhibit "B". The anticipated flow line pressure is about 60 psi.

B. An electric power line is planned for construction alongside the planned access road, as shown on Exhibit "B", to extend from the proposed well site east to near proposed well No. 15 and then northeast to the existing line at well No. 13. The electric line is to be 3-phase primary at 12,470 volts with stepdown transformers at the well site.

#### 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 temporary pipeline laid on the ground alongside existing and proposed roads.

#### 6. SOURCE OF CONSTRUCTION MATERIALS:

A. Caliche needed for construction work will be taken, if present, from a pit opened on-site within the 400'x 400' work area. Otherwise, caliche will be taken from an existing pit on State land in Section 16, T.22 S., R.32 E., Lea County, New Mexico, and will be trucked to the well site over existing and proposed roads.

#### 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 the pits are dry.
- C. Water produced during tests will be disposed of in the drilling pits or will be stored in tanks for disposal in an approved disposal system.
  - D. Oil produced during tests will be stored in test tanks until sold.
- E. 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 land fill.

#### 8. ANCILLARY FACILITIES:

A. None necessary.

#### 9. WELL SITE LAYOUT:

- A. Exhibit "C" shows the relative location and dimensions of the well pad, mud pits, and reserve pits, and the location of major drilling rig components.
  - B. Clearing and levelling of the pad and pit area 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 from the well site. Pits will be filled and 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.
- C. After abandonment, all equipment, trash, and junk will be removed and the well site will be cleaned. Any special rehabilitation requirements of the surface management agency will be complied with and accomplished as rapidly as possible.

#### 11. OTHER INFORMATION:

- A. <u>Topography</u>: The land surface in the general area is gently undulating and duny. In the immediate area of the well site the land surface slopes gently to the northwest. Regionaly, drainage is to the west and southwest.
  - B. Soil: Top soil at the well site is sand.
- C. Flora and Fauna: The vegetative cover is moderate and includes mesquite, shinnery oak, sand sage, 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, lakes, ponds, or streams in the area.
- E. Residences and Other Structures: There are no occupied dwellings or other structures within a mile of the proposed well site.

- F. Archaeological, Historical, and Cultural Sites: None observed in the area. However, an archaeological 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 Office Phone: 915-685-8100

#### 13. CERTIFICATION:

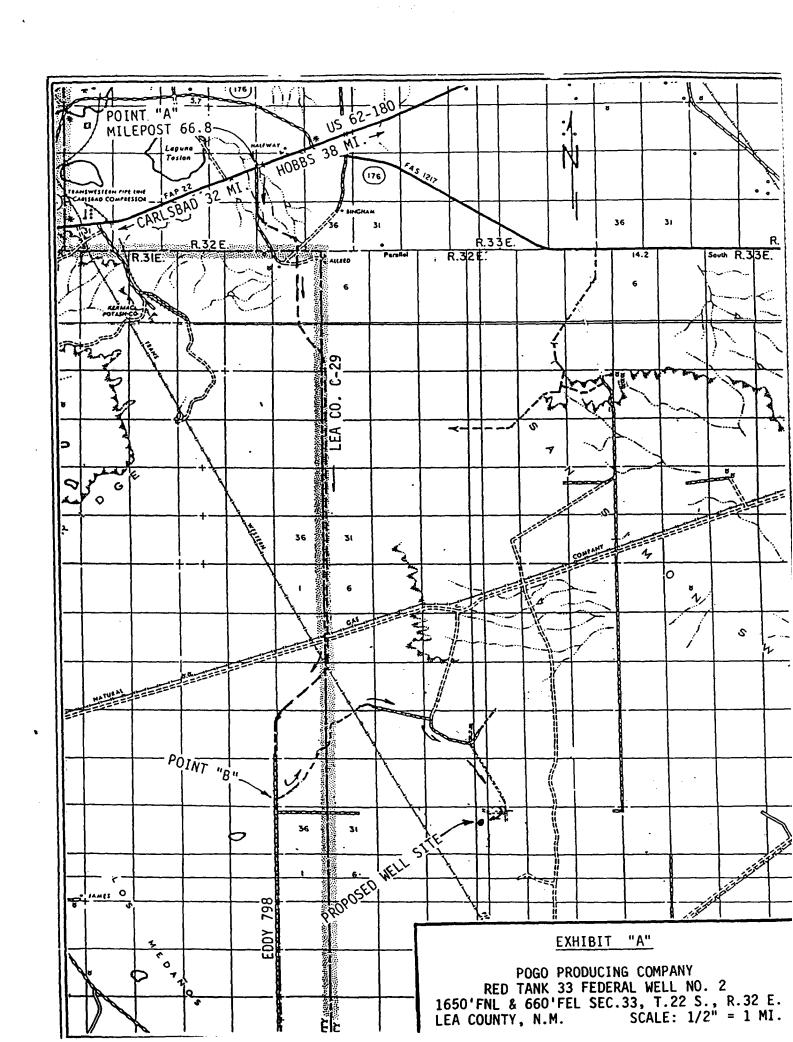
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated 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 18 U.S.C. 1001 for the filing of a false statement.

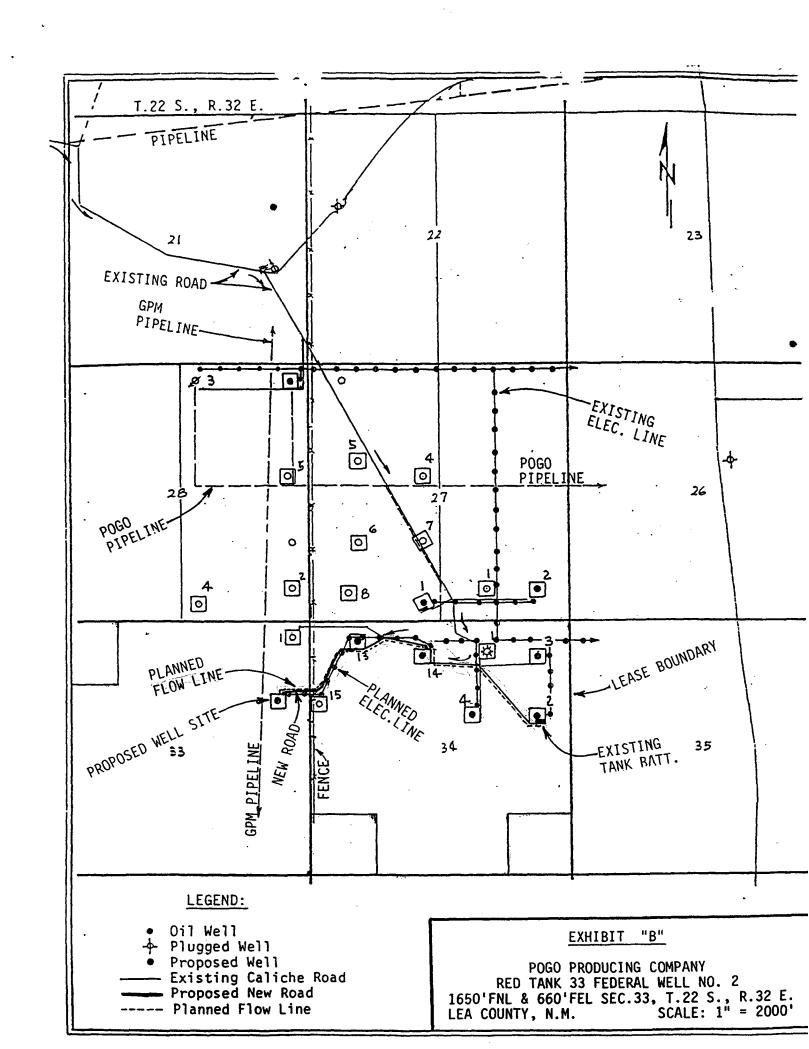
<u>June 16, 1995</u>

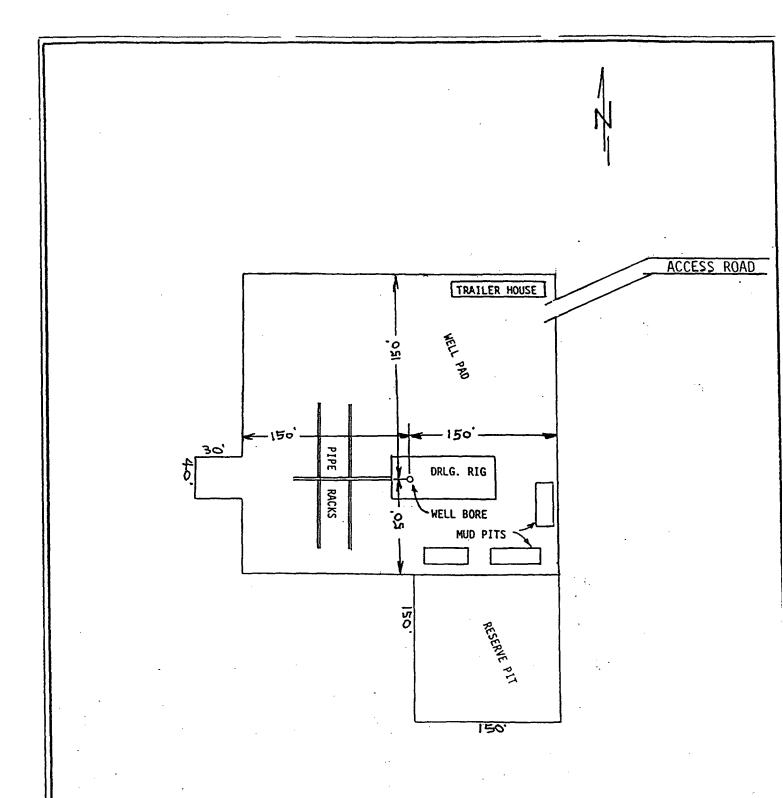
Date

Richard L. Wright

Division Operations Manager







### EXHIBIT "C"

POGO PRODUCING COMPANY RED TANK 33 FEDERAL WELL NO. 2

DRILLING RIG LAYOUT SCALE: None

