

**UNITED STATES OF AMERICA**  
**DEPARTMENT OF THE INTERIOR**  
**BUREAU OF LAND MANAGEMENT**

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

**APPLICATION FOR PERMIT TO DRILL OR DEEPEN**

**1a. TYPE OF WORK** DRILL ☒ DEEPEN ☐ R-111-POTASH

**b. TYPE OF WELL**  
OIL WELL ☒ GAS WELL ☐ OTHER ☐ SINGLE ZONE ☒ MULTIPLE ZONE ☐

**2. NAME OF OPERATOR**  
POGO PRODUCING COMPANY (RICHARD WRIGHT 432-685-8140)

**3. ADDRESS AND TELEPHONE NO.**  
P.O. BOX 10340 MIDLAND, TEXAS 79702-7340 (432-685-8100)

**4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)**  
At surface 660' FSL & 660' FEL SECTION 5 T24S-R31E EDDY CO. NM  
At proposed prod. zone SAME

**5. LEASE DESIGNATION AND SERIAL NO.**  
NM-104730

**6. IF INDIAN, ALLOTTEE OR TRIBE NAME**  
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**7. UNIT AGREEMENT NAME**  
-----

**8. FARM OR LEASE NAME, WELL NO.**  
SUNDANCE FEDERAL # 33

**9. API WELL NO.**  
30-015-33676

**10. FIELD AND POOL, OR WILDCAT**  
SAND DUNES DELAWARE WEST

**11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA**  
SECTION 5 T24S-R31E

**12. COUNTY OR PARISH** **13. STATE**  
EDDY CO. NEW MEXICO

**14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\***  
Approximately 25 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** 1200

**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** 5400'

**20. ROTARY OR CABLE TOOLS** ROTARY

**21. ELEVATIONS (Show whether DF, RT, GR, etc.)** 3436' GR.

**22. APPROX. DATE WORK WILL START\*** WHEN APPROVED

**23. PROPOSED CASING AND CEMENTING PROGRAM**

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
25"	Conductor	NA	40'	Cement to surface/Redi-mix
17½"	H-40 13 3/8"	48	650'	800 Sx. circulate to surface
11"	J-55 8 5/8"	32	4250'	1500 Sx. " " "
7 7/8"	N-80 & J-55 4½"	11.6	8400'	1800 Sx " " "

**CARLSBAD CONTROLLED WATER BASIN**

1. Drill 25" hole to 40'. Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
2. Drill 17½" hole to 650'. Run and set 650' of 13 3/8" 48# H-40 ST&C casing. Cement with 800 Sx. of Class "C" cement + 2% CaCl, + ¼# Flocele/Sx., circulate cement to surface.
3. Drill 11" hole to 4250'. Run and set 4250' of 8 5/8" 32# J-55 ST&C casing. Cement with 1500 Sx. of Class "C" cement + additives, circulate cement to surface.
4. Drill 7 7/8" hole to 8400'. Run and set 8400' of 4½" casing as follows: 1400' of 4½" 11.6# N-80 LT&C, 6000' of 4½" 11.6# J-55 LT&C, 1000' of 4½" 11.6# N-80 LT&C casing. Cement in 3 stages with DV Tools at 6200', 3800'±. Cement 1st stage with 550 Sx. of Class "C" + additives, cement 2nd stage with 750 Sx. of Class "C" cement + additives, cement 3rd stage with 500 Sx. of Class "C" Lite Weight cement + additives, circulate cement to surface.

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. SIGNATURE** *[Signature]* **TITLE** Agent **APPROVAL SUBJECT TO** 08/15/04  
**GENERAL REQUIREMENTS**  
**AND SPECIAL STIPULATIONS**  
**ATTACHED**

(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:

**ACTING**  
**STATE DIRECTOR**

**APPROVED BY** *[Signature]* **TITLE** \_\_\_\_\_ **DATE** 14 OCT 2004

\*See Instructions On Reverse Side

**APPROVAL FOR 1 YEAR**

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-  
March 12,

For drilling and production facilities, submit appropriate NMOCD District Office.  
For downstream facilities, submit to Santa Fe office

**Pit or Below-Grade Tank Registration or Closure**

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒

Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator: Pogo Producing Company Telephone: 432-685-8100 e-mail address: wrightc@pogoproducing.com  
Address: P. O. Box 10340, Midland, TX 79702-7340  
Facility or well name: Sundance Federal 33 API #: \_\_\_\_\_ U/L or Qtr/Qtr P Sec 5 T 24 R 31  
County: Eddy Latitude \_\_\_\_\_ Longitude \_\_\_\_\_ NAD: 1927 ☒ 1983 ☐ Surface Owner Federal ☒ State ☐ Private ☐ Indian

Pit	Below-grade tank						
Type: Drilling <input checked="" type="checkbox"/> Production <input type="checkbox"/> Disposal <input type="checkbox"/> Workover <input type="checkbox"/> Emergency <input type="checkbox"/> Lined <input checked="" type="checkbox"/> Unlined <input type="checkbox"/> Liner type: Synthetic <input checked="" type="checkbox"/> Thickness <u>12</u> mil Clay <input type="checkbox"/> Volume <u>16000</u> bbl	Volume: _____ bbl Type of fluid: _____ Construction material: _____ Double-walled, with leak detection? Yes <input type="checkbox"/> If not, explain why no _____ <div style="text-align: right;">RECEIVED AUG 23 2004 OCD-ARTESIA</div>						
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	<table border="1"><tr><td>Less than 50 feet</td><td>(20 points)</td></tr><tr><td>50 feet or more, but less than 100 feet</td><td>(10 points)</td></tr><tr><td>100 feet or more</td><td>( 0 points) <u>0</u></td></tr></table>	Less than 50 feet	(20 points)	50 feet or more, but less than 100 feet	(10 points)	100 feet or more	( 0 points) <u>0</u>
Less than 50 feet	(20 points)						
50 feet or more, but less than 100 feet	(10 points)						
100 feet or more	( 0 points) <u>0</u>						
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	<table border="1"><tr><td>Yes</td><td>(20 points)</td></tr><tr><td>No</td><td>( 0 points) <u>0</u></td></tr></table>	Yes	(20 points)	No	( 0 points) <u>0</u>		
Yes	(20 points)						
No	( 0 points) <u>0</u>						
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	<table border="1"><tr><td>Less than 200 feet</td><td>(20 points)</td></tr><tr><td>200 feet or more, but less than 1000 feet</td><td>(10 points)</td></tr><tr><td>1000 feet or more</td><td>( 0 points) <u>0</u></td></tr></table>	Less than 200 feet	(20 points)	200 feet or more, but less than 1000 feet	(10 points)	1000 feet or more	( 0 points) <u>0</u>
Less than 200 feet	(20 points)						
200 feet or more, but less than 1000 feet	(10 points)						
1000 feet or more	( 0 points) <u>0</u>						
Ranking Score (Total Points) <u>0</u>							

If this is a pit closure: (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: onsite ☐ offsite ☐ If offsite, name of facility \_\_\_\_\_. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface \_\_\_\_\_ ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Date: 08/25/04  
Printed Name/Title Cathy Wright, Sr Eng Tech Signature Cathy Wright

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval: AUG 26 2004

Date: \_\_\_\_\_  
Printed Name/Title Paul Sep Signature Paul Sep

DISTRICT I  
1625 N. FRENCH DR., HOBBS, NM 88240

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DISTRICT III  
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DISTRICT IV  
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION  
1220 SOUTH ST. FRANCIS DR.  
Santa Fe, New Mexico 87505

Form C-102  
Revised JUNE 10, 2003  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code 53815	Pool Name SAND DUNES DELAWARE-WEST
Property Code	Property Name SUNDANCE FEDERAL	Well Number 33
OGRID No. 17891	Operator Name POGO PRODUCING COMPANY	Elevation 3436'

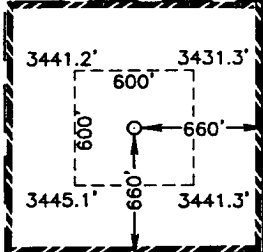
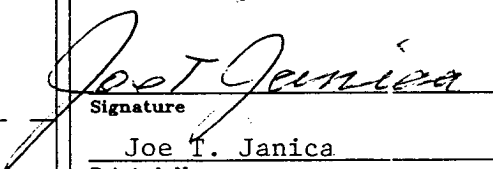
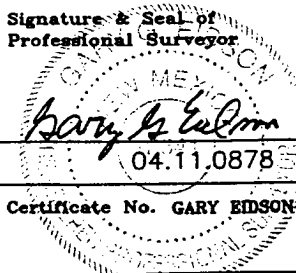
Surface Location

UL or lot No. P	Section 5	Township 24-S	Range 31-E	Lot Idn	Feet from the 660'	North/South line SOUTH	Feet from the 660'	East/West line EAST	County EDDY
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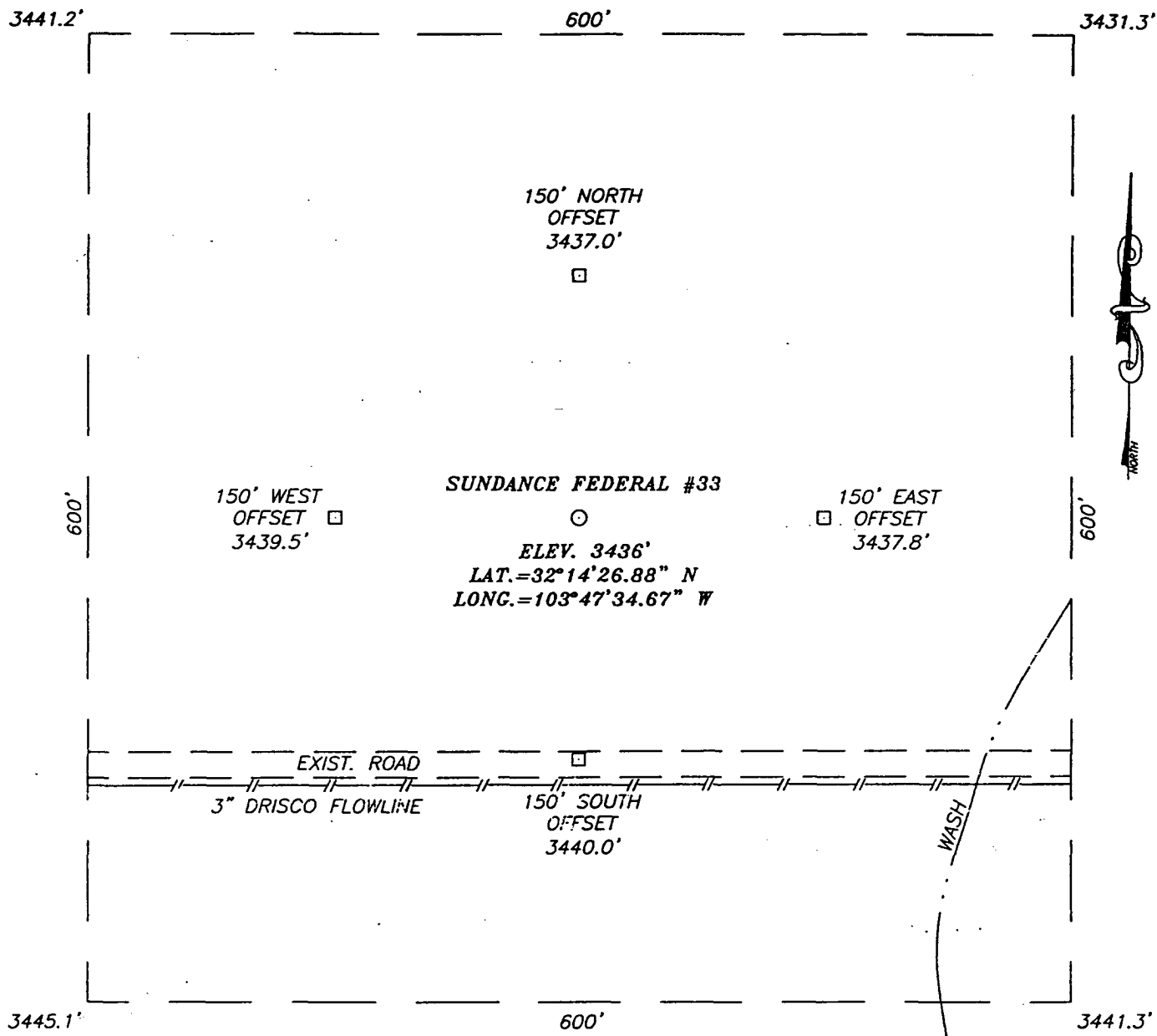
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

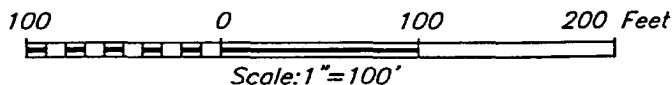
LOT 1	LOT 3	LOT 2	LOT 1
40.25 AC	40.26 AC	40.28 AC	40.29 AC
GEODETIC COORDINATE NAD 27 NME Y=451742.1 N X=667073.8 E LAT.=32°14'26.88" N LONG.=103°47'34.67" W			
			
<b>OPERATOR CERTIFICATION</b> I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.  Signature Joe T. Janica Printed Name Agent Title 08/15/04 Date			
<b>SURVEYOR CERTIFICATION</b> 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 belief. JULY 15, 2004 Date Surveyed LA Signature & Seal of Professional Surveyor  04.11.0878 Certificate No. GARY EDSON 12641			

**SECTION 5, TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M.,**  
**EDDY COUNTY, NEW MEXICO**



**DIRECTIONS TO LOCATION**

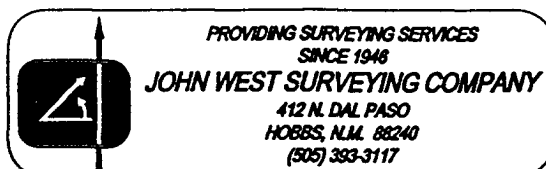
FROM THE INTERSECTION OF STATE HWY. #128 AND CO. RD. #787 (TWIN WELLS ROAD), GO SOUTHEAST ON HWY. #128 APPROX. 1.0 MILE TO A LEASE ROAD. GO SOUTH ON LEASE ROAD FOR 4.1 MILES. TURN RIGHT AND GO WEST APPROX. 700'. THIS LOCATION IS APPROX. 138' NORTH.



**POGO PRODUCING COMPANY**

SUNDANCE FEDERAL #33 WELL  
 LOCATED 660 FEET FROM THE SOUTH LINE  
 AND 660 FEET FROM THE EAST LINE OF SECTION 5,  
 TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M.,  
 EDDY COUNTY, NEW MEXICO.

Survey Date: 7/15/04		Sheet 1 of 1 Sheets	
W.O. Number: 04.11.0878		Dr By: LA	Rev 1:N/A
Date: 7/22/04	Disk: CD#3	04110878	Scale: 1"=100'



# APPLICATION TO DRILL

POGO PRODUCING COMPANY  
SUNDANCE FEDERAL # 33  
UNIT "P" SECTION 5  
T24S-R31E EDDY CO. NM

In response to questions asked under Section II of Bulletin NTL-6 the following information on the above well is provided for your consideration.

1. Location: 660' FEL & 660' FSL SECTION 5 T24S-R31E EDDY CO, NM
2. Elevation above Sea Level: 3436' GR.
3. Geologic name of surface formation: Quaternary Aeolian Deposits.
4. Drilling tools and associated equipment: Conventional rotary drilling rig using drilling mud as a circulating medium for solids removal from hole.
5. Proposed drilling depth: 8400'
6. Estimated tops of geological markers:

Rustler Anhydrite	675'	Cherry Canyon	5200'
Basal Anhydrite	4055'	Brushy Canyon	6440'
Delaware Lime	4280'	Bone Spring	8140'
Bell Canyon	4315'	Upper Bone Spring Sd.	8200'
7. Possible mineral bearing formations:

Brushy Canyon	Oil
Bone Spring	Oil
8. Casing program:

Hole size	Interval	OD of casing	Weight	Thread	Collar	Grade
25"	0-40'	20"	NA	NA	NA	Conductor
17½"	0-650'	13 3/8"	48#	8-R	ST&C	H-40
11"	0-4250'	8 5/8"	32#	8-R	ST&C	J-55
7 7/8"	0-8400'	4½"	11.6#	8-R	LT&C	J-55 N-80

# APPLICATION TO DRILL

POGO PRODUCING COMPANY  
SUNDANCE FEDERAL # 33  
UNIT "P" SECTION 5  
T24S-R31E EDDY CO. NM

## 9. CEMENTING & CASING SETTING DEPTHS:

20"	Conductor	Set 40' of 20" conductor and cement to surface with Redi-mix.
13 3/8"	Surface	Set 650' of 13 3/8" 48# H-40 ST&C casing. Cement with 800 Sx. of Class "C" cement + 2% CaCl, + 1/4# Flocele/Sx. circulate cement to surface.
8 5/8"	Intermediate	Set 4250' of 8 5/8" 32# J-55 ST&C casing. Cement with 1500 Sx. of Class "C" cement + additives, circulate cement to surface.
4 1/2"	Production	Set 8400' of 4 1/2" 11.6# casing as follows: 1400' of 4 1/2" 11.6# N-80 LT&C, 6000' of 4 1/2" 11.6# J-55 LT&C, 1000' of 4 1/2" 11.6# N-80 LT&C. Cement in 3 stages, DV Tools at 6200'±, & 3800'±. Cement 1st stage with 550 Sx. of Class "C" + additives, Cement 2nd stage with 750 Sx. of Class "C" cement + additives, Cement 3rd stage with 500 Sx. of Class "C" Light circulate to surface.

## 10. PRESSURE CONTROL EQUIPMENT:

Exhibit "E" shows a 2000 PSI working pressure B.O.P. consisting of a stripper head instead of an annular preventor, blind rams, and pipe rams. This B.O.P. stack is being used because of substructure height limitations of the drilling rig being used to drill this well. Pressures encountered while drilling are not expected to exceed 1700 PSI at total depth, Pogo requests permission to 3rd party test of the B.O.P. after setting the intermediate casing at 4250'. The B.O.P. will be tested according to API specifications. Exhibit "E-1" shows a manually operated choke manifold as no remote B.O.P. equipment will be necessary.

## 11. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD
40-650'	8.4-8.7	29-32	NC	Fresh water spud mud use paper to control seepage.
650-4250'	10.0-10.2	29-38	NC	Brine water use paper to control seepage and high viscosity sweeps to clean hole.
4250-8400'	8.4-8.7	29-40	NC*	Fresh water mud use high viscosity sweeps to clean hole.

\* Water loss may be required in order to run open hole logs, DST's and casing, if required go to a Polymer mud system.

Sufficient mud materials to maintain mud properties, lost circulation, increased weight requirements, will be kept at the well site at all times. In order to run logs, casing, and DST's the viscosity and water loss may have to be altered. These mud materials will be on location.

APPLICATION TO DRILL

POGO PRODUCING COMPANY  
SUNDANCE FEDERAL # 33  
UNIT "P" SECTION 5  
T24S-R31E EDDY CO. NM

12. LOGGING, CORING, AND TESTING PROGRAM:

- A. Open hole logs: If two runs are necessary: run dual laterolog, SNP, LDT, Gamma Ray, Caliper from 4250' to 650', Gamma Ray-Neutron from 650' to surface. Run #2 Run dual Induction, SNP, LDT, Gamma Ray, Caliper from TD back to 8 5/8" casing shoe.
- B. No cores or DST's are planned at this time, a mud logger may be placed on hole at 4250' and remain on hole to TD.

13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. There is no known presence of H<sup>2</sup>S in this area. If H<sup>2</sup>S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 4250 PSI, and Estimated BHT 165°.

14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operation and drilling is expected to take 28 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flowlines in order to place well on production.

15. OTHER FACETS OF OPERATIONS:

After running casing, cased hole Gamma Ray, Neutron Collar logs will be run from TD back to all possible productive zones. The Delaware formation will be perforated and stimulated in order to establish production. The well will be swab tested and potentialized as an oil well.

## HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. All Company and Contract personnel admitted on location must be trained by a qualified H<sub>2</sub>S safety instructor to the following:
  - A. Characteristics of H<sub>2</sub>S
  - B. Physical effects and hazards
  - C. Proper use of safety equipment and life support systems.
  - D. Principle and operation of H<sub>2</sub>S detectors, warning system and briefing areas.
  - E. Evacuation procedure, routes and first aid.
  - F. Proper use of 30 minute pressure demand air pack.
2. H<sub>2</sub>S Detection and Alarm Systems
  - A. H<sub>2</sub>S detectors and audio alarm system to be located at bell nipple, end of blooie line (mud pit) and on derrick floor or doghouse.
3. Windsock and/or wind streamers
  - A. Windsock at mudpit area should be high enough to be visible.
  - B. Windsock at briefing area should be high enough to be visible.
  - C. There should be a windsock at entrance to location.
4. Condition Flags and Signs
  - A. Warning sign on access road to location.
  - B. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H<sub>2</sub>S present in dangerous concentration. Only emergency personnel admitted to location.
5. Well control equipment
  - A. See exhibit "E" & "E-1"
6. Communication
  - A. While working under masks chalkboards will be used for communication.
  - B. Hand signals will be used where chalk board is inappropriate.
  - C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephoned will be available at most drilling foreman's trailer or living quarters.
7. Drillstem Testing
  - A. Exhausts will be watered.
  - B. Flare line will be equipped with an electric ignitor or a propane pilot light in case gas reaches the surface.
  - C. If the location is near to a dwelling a closed DST will be performed.



## HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

8. Drilling contractor supervisor will be required to be familiar with the effects H<sub>2</sub>S has on tubular goods and other mechanical equipment.
9. If H<sub>2</sub>S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H<sub>2</sub>S scavengers if necessary.

## SURFACE USE PLAN

POGO PRODUCING COMPANY  
SUNDANCE FEDERAL # 33  
UNIT "P" SECTION 5  
T24S-R31E EDDY CO. NM

4. If on completion this well is a producer the operator will lay pipelines and construct powerlines along existing road R-O-W's or other existing R-O-W's. Possible routes of pipelines, flowlines and powerlines are shown on Exhibit "C" & "F".

5. LOCATION AND TYPE OF WATER SUPPLY:

Water will be purchased locally from a commercial source and trucked over the access roads or piped to location in flexible lines laid on top of the ground.

6. SOURCE OF CONSTRUCTION MATERIAL:

If possible construction material will be obtained from the excavation of drill site, if additional material is needed it will be obtained from a local source and transported over the access roads as shown on Exhibit "C".

7. METHODS OF HANDLING WASTE MATERIAL:

- A. Drill cuttings will be disposed of in the reserve pits.
- B. All trash, junk and other waste material will be contained in trash cages or trash bins to prevent scattering. When the job is completed all contents will be removed and disposed of in a approved sanitary land fill.
- C. Salts remaining after completion of well will be picked up by the supplier, including broken sacks.
- D. Waste water from living quarters will be drained into holes with a minimum of 10'. These holes will be covered during drilling and will be back filled when the well is completed. A Porto-John will be provided for the rig crews. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.
- E. Remaining drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry enough to be broken out for further drying. If the drilling fluids do not evaporate in a reasonable time they will be hauled off by transports to a state approve disposal site. Later pits will be broken out to speed drying. Water produced during completion will be put in reserve pits. Oil and condensate produced will be put in storage tanks and sold.

8. ANCILLARY FACILITIES:

- A. No camps or air strips will be constructed on location.

## SURFACE USE PLAN

POGO PRODUCING COMPANY  
SUNDANCE FEDERAL # 33  
UNIT "P" SECTION 5  
T24S-R31E EDDY CO. NM

### 9. WELL SITE LAYOUT:

- A. Exhibit "D" shows the proposed well site layout.
- B. This Exhibit shows the location of reserve pit, sump pits, and living facilities.
- C. Mud pits in the active circulating system will be steel pits and the reserve pits will be unlined unless subsurface conditions encountered during pit construction indicate that a plastic liner is required to contain lateral migration.
- D. If needed the reserve pits will be lined with polyethelene. The pit liner will be no less than 6 mils thick and the liner will be extended at least 3 feet over the top of the dikes and secured in place to keep edge of liner in place.
- E. The reserve pit will be fenced on three sides and fenced with four strands of barbed wire during drilling and completion phases. The 4th side will be fenced after drilling operations are complete and the drilling rig has moved out. If the well is a producer the mud pits will remain fenced in until the mud has dried up enough to break out the pits and reclaimed according to BLM requirements.

### 10. PLANS FOR RESTORATION OF SURFACE:

Rehabilitation of the location and reserve pits will be allowed to dry properly, fluids may be moved and disposed of in accordance with article 7-E as previously noted. The pit area will then be leveled and contoured to conform to the original and surrounding area. Drainage systems, if any will be reshaped to the original configuration with provisions made to alleviate future erosion. In case of the well completed as a producer the drilling pad will be necessary to construct production facilities. After the area has been shaped and contoured top soil from the spoil pile will be placed over the disturbed area to the extent possible so that revegetation procedures can be accomplished to comply with the BLM specifications.

If the well is a dry hole the pad and road area will be contoured to match the existing terrain. Top soil will be spread to the extent possible and revegetation will be carried out according to the BLM specifications.

Should the well be a producer the previously noted procedures will apply to those areas which are not required for production facilities.

SURFACE USE PLAN

POGO PRODUCING COMPANY  
SUNDANCE FEDERAL # 33  
UNIT "P" SECTION 5  
T24S-R31E EDDY CO. NM

11. OTHER INFORMATION:

- A. Topography consists of West-sloping plains with low rises with scattered small playas, Coppice dunes with low shallow blowouts. Loose sands and fine gravel. Vegetation consists of scattered Mesquite, Sandsage, Yucca, Shinnery oak, mixed native grasses, and Snakeweed.
- B. The surface is owned by The U.S. Department of Interior and is administered by The Bureau of Land Management. The surface is used for the grazing of livestock and the production of Oil & Gas.
- C. An archaeological survey has been done and is on file in the Carlsbad Field Office of The Bureau of Land Management.
- D. There are no dwellings in the near vicinity of this location.

12. OPERATION'S REPRESENTATIVES:

Before Construction:

TIERRA EXPLORATION, INC.  
P.O. BOX 2188  
HOBBS, NEW MEXICO 88241  
OFFICE Ph. 505-391-8503  
JOE T. JANICA

During and after Construction:

POGO PRODUCING COMPANY  
P.O. BOX 10340  
MIDLAND, TEXAS 79702-7340  
RICHARD WRIGHT  
OFFICE Ph. 432-685-8140

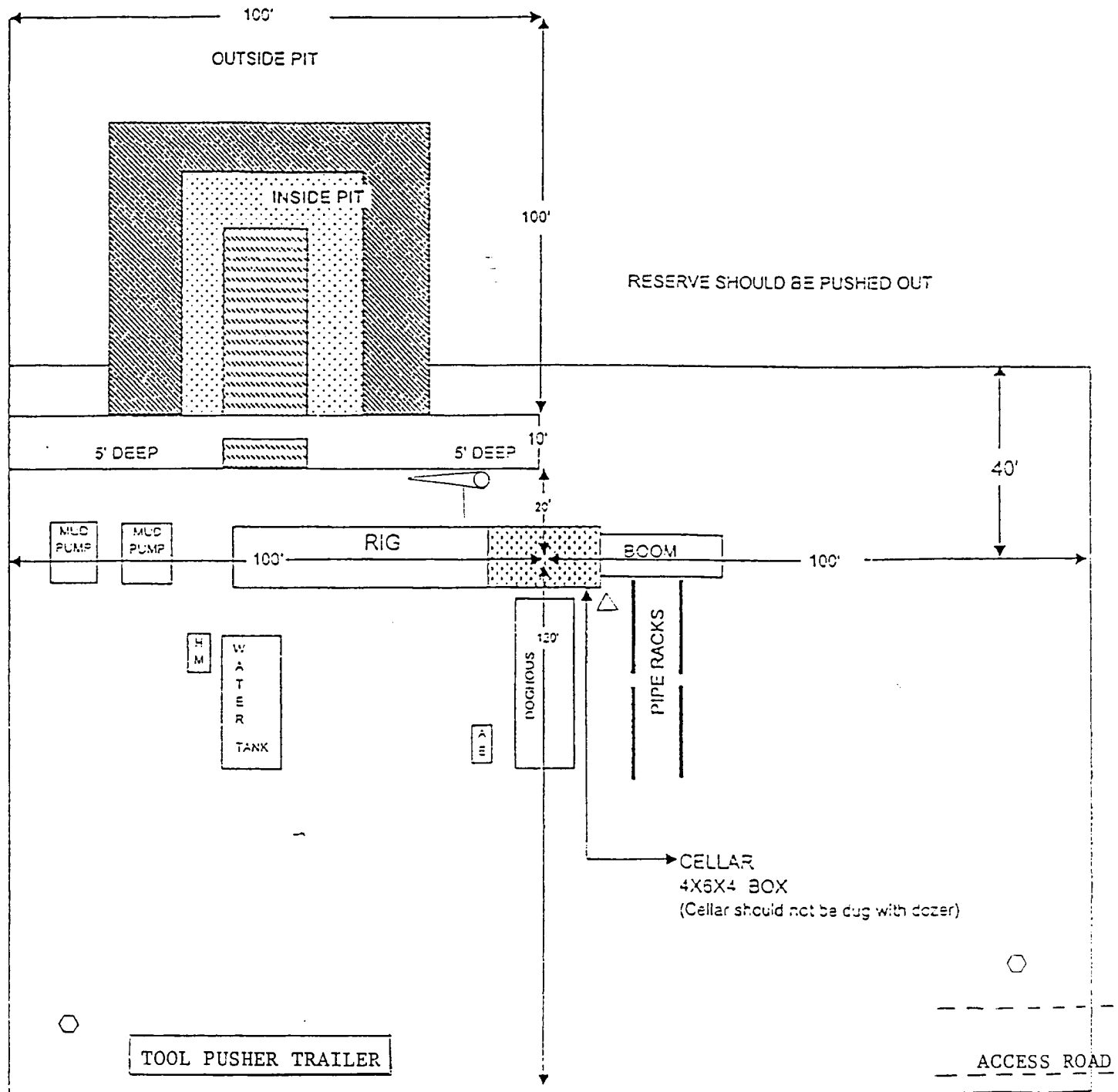
13. CERTIFICATION: I hereby certify that I, or persons under my direct supervision have inspected the proposed drill site and the access roads, and that I am familiar with the conditions which currently exist, that the statements made in this plan are to the best of my knowledge are true and correct, and that the work associated with the operations proposed herein will be performed by POGO PRODUCING COMPANY it's contractors/subcontractors is in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provision of U.S.C. 1001 for the filing of a false report.

NAME : Joe T. Janica

DATE : 08/15/04

TITLE : Agent

Capstar Drilling, Inc.  
**LOCATION SPECIFICATIONS AND RIG LAYOUT  
 FOR EARTH PITS**



Cellar can be 4X4X4 if using a screw-on wellhead  
 Working Pits dug 5' below ground level

- Wind Direction Indicators  
 (wind sock or streamers)
- △ H2S Monitors  
 (alarms at bell nipple and shale shaker)
- Briefing Areas
- Remote BOP Closing Unit
- Sign and Condition Flags

Location Specs

**EXHIBIT "D"**  
**RIG LAY OUT PLAT**

POGO PRODUCING COMPANY  
 SUNDANCE FEDERAL # 33  
 UNIT "P" SECTION 5  
 T24S-R31E EDDY CO. NM

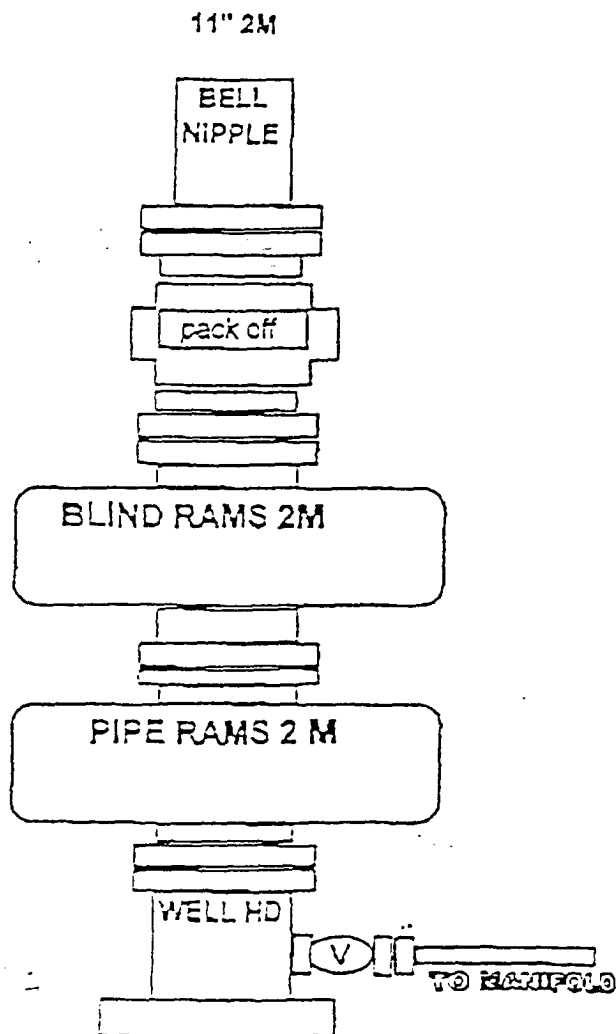


EXHIBIT "E"  
SKETCH OF B.O.P. TO BE USED ON

POGO PRODUCING COMPANY  
SUNDANCE FEDERAL # 33  
UNIT "P" SECTION 5  
T24S-R31E EDDY CO. NM

3000 PSI WP

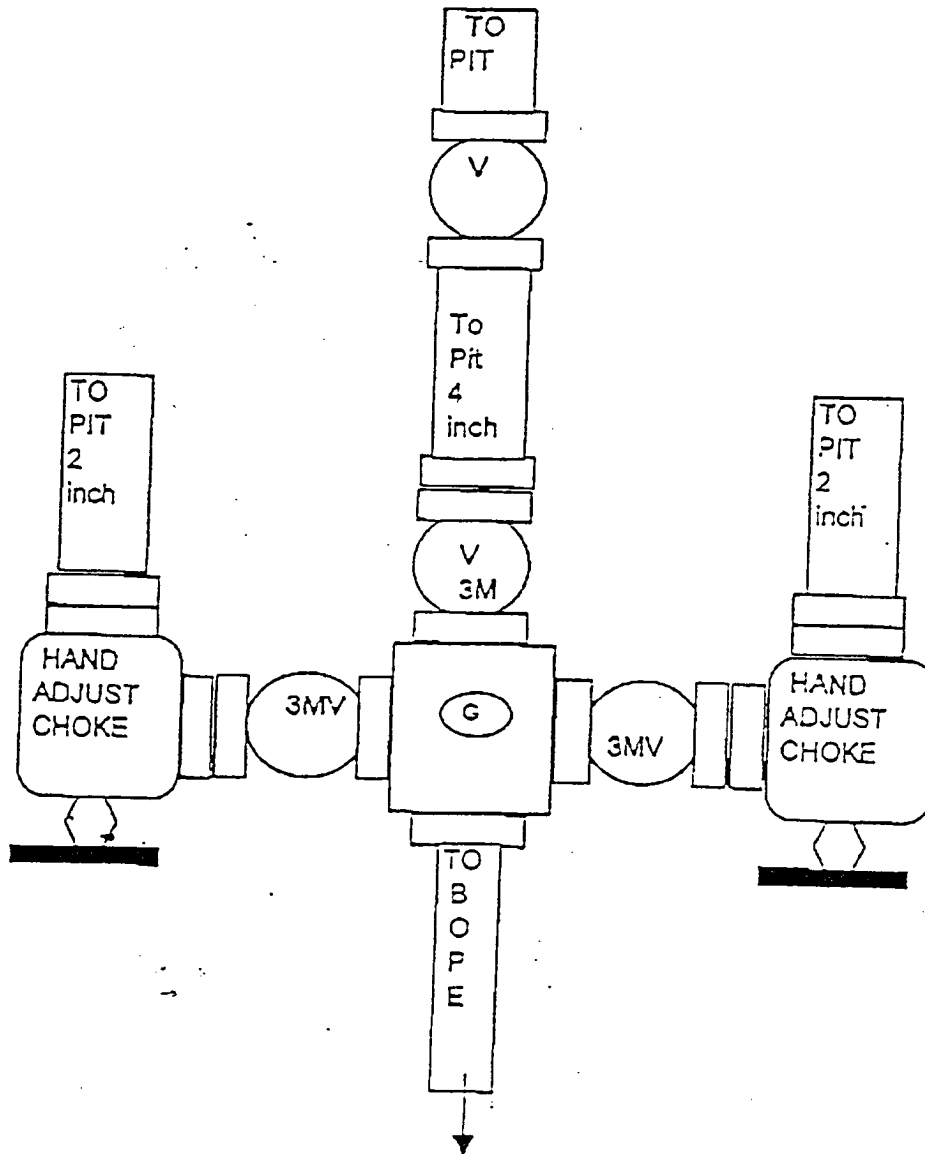


EXHIBIT "E-1"  
CHOKE MANIFOLD & CLOSING UNIT

POGO PRODUCING COMPANY  
SUNDANCE FEDERAL # 33  
UNIT "P" SECTION 5  
T24S-R31E EDDY CO. NM