

N.M. Oil Cons. DIV-Dist. 2  
RESUBMITTAL 1501 W. Grand Avenue  
Artesia, NM 88210

Form 3160-3  
(April 2004)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**APPLICATION FOR PERMIT TO DRILL OR REENTER**

FORM APPROVED  
OMB No. 1004-0137  
Expires March 31, 2007

5. Lease Serial No.

NM-45236

6. If Indian, Allottee or Tribe Name

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.

Sterling Silver 33 Fed #17

9. API Well No.

30-015-33892

10. Field and Pool, or Exploratory

Sand Dunes Delaware West

11. Sec., T. R. M. or Blk. and Survey or Area

Sec 33, T23S, R31E

12. County or Parish

Eddy County

13. State

NM

1a. Type of work: ☒ DRILL

☐ REENTER

R-III-POTASH

1b. Type of Well: ☒ Oil Well

☐ Gas Well

☐ Other

☒ Single Zone

☐ Multiple Zone

2. Name of Operator

Pogo Producing Company

3a. Address

P.O. Box 10340, Midland, TX

3b. Phone No. (include area code)

432-685-8100

4. Location of Well (Report location clearly and in accordance with any State requirements.)

At surface 330' FSL & 990' FEL

At proposed prod. zone same

14. Distance in miles and direction from nearest town or post office\*

Approximately 20 miles East of Loving New Mexico

15. Distance from proposed\*  
location to nearest  
property or lease line, ft.  
(Also to nearest drg. unit line, if any)

330'

16. No. of acres in lease

640

17. Spacing Unit dedicated to this well

40

18. Distance from proposed location\*  
to nearest well, drilling, completed,  
applied for, on this lease, ft.

1160'

19. Proposed Depth

8500'

20. BLM/BIA Bond No. on file

29771

21. Elevations (Show whether DF, KDB, RT, GL, etc.)

3418' GR

22. Approximate date work will start\*

When Approved

23. Estimated duration

24. Attachments

CARLSBAD CONTROLLED WATER BASIN

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.

2. A Drilling Plan.

3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).

4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).

5. Operator certification

6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature

*Cathy Wright*

Name (Printed/Typed)

Cathy Wright

Date

11/03/04

Title

Sr. Eng. Tech

Approved by (Signature)

/s/ Linda S. C. Rundell

Name (Printed/Typed)

Linda S. C. Rundell

Date

22 DEC 2004

Title

STATE DIRECTOR

Office

NM STATE OFFICE

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, are attached.

**APPROVAL FOR 1 YEAR**

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

\*(Instructions on page 2)

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS  
AND SPECIAL STIPULATIONS  
ATTACHED

## STERLING SILVER 33 FEDERAL #17

### Drilling Plan

1. Drill 25" hole to 40'. Set 40' of 20" conductor pipe and cmt to surface w/ Redi-mix.
2. Drill 17-1/2" hole to 800'. Run & set 800' of 13-3/8" 48# H-40 ST&C csg. Cmt w/ 600 sks Cl "C" cmt + add followed by 200 sks Cl "C" + 2% CaCl<sub>2</sub> + add. Circ cmt to surface.
3. Drill 11" hole to 4350'. Run & set 4350' 8-5/8" 32# J-55 ST&C casing. Cmt w/ 1300 sks Cl "C" cmt + add followed by 200 sks Cl "C" + 2% CaCl<sub>2</sub>. Circ cmt to surface.
4. Drill 7-7/8" hole to 8500'. Run & set 8500' of 5-1/2" csg as follows: 2500' 17# J-55 LT&C, 5000' 15.5# J-55 LT&C, 1000' 17# J-55 LT&C. Cmt in 3 stages w/ DV tools at 5800' & 3700' ±. Cmt 1<sup>st</sup> stage w/ 650 sks Cl "H" cmt + add. Cmt 2<sup>nd</sup> stage w/ 600 sks Cl "C" + add. Cmt 3<sup>rd</sup> stage w/ 400 sks 65:35:6 Cl "C" followed by 100 sks Cl "C" + 1% CaCl<sub>2</sub>. Circ cmt to surface.

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88241-1980

State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102  
Revised February 10, 1994  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

DISTRICT II  
P.O. Drawer DD, Lordsburg, NM 88211-0719

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

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

DISTRICT IV  
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code 53815	Pool Name SAND DUNES -DELAWARE WEST
Property Code 023597	Property Name STERLING SILVER 33 FEDERAL	Well Number 17
OGRID No. 17891	Operator Name POGO PRODUCING COMPANY	Elevation 3418'

Surface Location

UL or lot No. P	Section 33	Township 23-S	Range 31-E	Lot Idn	Feet from the 330	North/South line SOUTH	Feet from the 990	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
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Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.
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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

				<b>OPERATOR CERTIFICATION</b>  I hereby certify the information contained herein is true and complete to the best of my knowledge and belief.   Signature Joe T. Janica Printed Name Agent Title 02/09/03 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.  JANUARY 24, 2003 Date Surveyed Signature & Seal of Professional Surveyor  03.11.01130 Certificate No. RONALD J. EIDSON 3239 GARY EIDSON 12841	

EXHIBIT "A"

# APPLICATION TO DRILL

POGO PRODUCING COMPANY  
STERLING SILVER "33" FEDERAL # 17  
UNIT "P" SECTION 33  
T23S-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: 330' FSL & 990' FEL SEC. 33 T23S-R31E EDDY CO. NM
2. Elevation above Sea Level: 3418 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: 8500'
6. Estimated tops of geological markers:

Rustler Anhydrite	750'	Cherry Canyon	5400'
Base of Anhydrite	4238'	Brushy Canyon	6630'
Delaware Lime	4512'	Bone Spring	8380'
Bell Canyon	4570'		
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"	0-827-840	13 3/8"	48	8-R	ST&C	H-40
11"	0-4350'	8 5/8"	32	8-R	ST&C	J-55
7 7/8"	0-8500'	5½"	17 & 15.5	8-R	LT&C	J-55

## APPLICATION TO DRILL

POGO PRODUCING COMPANY  
 STERLING SILVER "33" FEDERAL # 17  
 UNIT "P" SECTION 33  
 T23S-R31E EDDY CO. NM

9. CASING AND CEMENTING:

WITNESS 20" Conductor Set 40' of 20" conductor and cement to surface with Redi-mix.

WITNESS 13 3/8" Surface Set 800' of 13 3/8" 48# H-40 ST&C casing. Cement with 600 Sx. 65/35/6 Class "C" POZ-GEL, tail in with 200 Sx. Class "C" +2% CaCl, 1/4# Flocele/Sx. circulate cement to surface.

WITNESS 8 5/8" Intermediate Set 4350' of 8 5/8" 32# J-55 ST&C casing. Cement with 1300 Sx. of 65/35/6 Class "C" POZ-GEL. + 5% Salt, tail in with 200 Sx. of Class "C" + 2% CaCl, circulate cement to surface.

5 1/2" Production Set 8500' of 5 1/2" casing as follows: 2500' of 5 1/2" 17# J-55 LT&C, 5000' of 15.5# J-55 LT&C, 1000' of 17# J-55 LT&C. Cement in 3 stages DV Tools at 5800' & 3700'±. Cement 1st stage with 650 Sx. of Class "H" +additives, 2nd stage cement with 600 Sx. of Class "C" + 8# of Gilsonite/Sx. 3rd stage cement with 400 Sx. of 65/35/6 Class "C" POZ-GEL, tail in with 100 Sx. of Class "C" + 1% CaCl. circulate cement.

10. PRESSURE CONTROL EQUIPMENT: Exhibit "E" shows a 900 Series 3000 PSI working pressure B.O.P. consisting of an annular bag type preventor, middle blind rams and bottom pipe rams. The B.O.P. will be nipped up on the 13 3/8" casing and tested to API specifications. The B.O.P. will be operated at least once in each 24 hour period and the blind rams will be operated when drill pipe is out of hole on trips. Full opening stabbing valve and upper kelly cock will be utilized. Exhibit "E-1" shows a hydraulically operated closing unit and a 2" 3000 PSI choke manifold with dual adjustable chokes. No abnormal pressures or temperatures are expected.

11. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD SYSTEM
40-800'	8.4-8.6	29-34	NC	Fresh water use paper to control seepage.
800-4350'	10-10.2	29-38	NC	Brine water use paper to control seepage and high viscosity sweeps to clean hole.
4350-8500'	8.4-8.7	29-38	NC	Fresh water using high viscosity sweeps to clean hole and if necessary use a Poly-mer system to reduce water loss in order to log and run casing.

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run DST's, open hole logs, and casing viscosity and/or water loss may have to be adjusted to meet these needs.

APPLICATION TO DRILL

POGO PRODUCING COMPANY  
STERLING SILVER "33" FEDERAL # 17  
UNIT "P" SECTION 33  
T23S-R31E EDDY CO. NM

12. LOGGING, CORING, TESTING:PROGRAM:

- A. Open hole logs: Run Dual INduction, LDT, CNL, Gamma Ray, Caliper from TD back to 8 5/8" casing shoe.
- B. Cased hole logs: Run Gamma Ray, Neutron logs from 8 5/8" casing shoe back to surface.
- C. No cores or DST's are planned at this time.
- D. Mud logger may be rigged up on hole at 4350;.

13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. Hydrogen Sulfide gas may be encountered, H<sub>2</sub>S detectors will be in place to detect any presence of unsafe levels of H<sub>2</sub>S. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operations of all equipment that will be used. Estimated BHP 4100 PSI & estimated BHT 138°.

14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

Roads and location construction will begin after the BLM approves the APD. Anticipated spud date will be as soon as pad & road construction has been completed. Drilling time for the well is estimated to take 26 days. If production casing is run an additional 30 days will be required to complete well and construct surface facilities.

15. OTHER FACETS OF OPERATION:

After running production casing, cased hole Gamma-Neutron & Collar logs will be run over all possible pay intervals. If commercial production from the Bone Spring        pay is indicated it will be perforated and stimulated. Then if necessary the pay will be swab tested and completed 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  
STERLING SILVER "33" FEDERAL # 17  
UNIT "P" SECTION 33  
T23S-R31E EDDY CO. NM

1. EXISTING ROADS & PROPOSED ROADS: Area maps; Exhibit "B" is a reproduction of a County General Hi-way Map. Exhibit "C" is a reproduction of a USGS Topographic Map, showing existing and proposed roads. All existing roads will be maintained in a condition equal to or better than current conditions. Any new roads will be constructed to BLM specifications.
  - A. Exhibit "A" shows the proposed well site as staked.
  - B. From Hobbs New Mexico take U.S. Hi-way 62-180 toward Carlsbad New Mexico go 38 miles to CR-29 turn South and go 21.5 miles to State Hi-way 128 turn Right go 3.9± miles, turn Left go 1.9 miles, turn Left go .9 miles turn Right and go .5 miles to location on the West side of road.
  - C. Exhibit "F" shows the routes that flowlines will be laid and powerlines to be constructed along road R-O-W.
2. PLANNED ACCESS ROADS: No new roads will be needed.
  - A. The access roads will be crowned and ditched to a 12' wide travel surface with a 40' Right-of-Way.
  - B. Gradient of all roads will be less than 5.00%.
  - C. If turn-outs are necessary they will be constructed.
  - D. If needed roads will be surfaced with a minimum of 4" of caliche. This material will be obtained from a local source.
  - E. Center-line for new roads will be flagged. Earth-work will be will be done as field conditions require.
  - F. Culverts will be placed in the access road if they are necessary. The roads will be constructed to utilize low water crossings for drainage as required by topography.
3. LOCATIONS OF EXISTING WELLS IN A ONE MILE RADIUS. EXHIBIT "A-1"
  - A. Water wells None known
  - B. Disposal wells None known
  - C. Drilling wells None known
  - D. Producing wells As shown on Exhibit "A-1"
  - E. Abandoned wells As shown on Exhibit "A-1"

## SURFACE USE PLAN

POGO PRODUCING COMPANY  
STERLING SILVER "33" FEDERAL # 17  
UNIT "P" SECTION 33  
T23S-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 "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 minium 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 furthred 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 pips 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  
STERLING SILVER "33" FEDERAL # 17  
UNIT "P" SECTION 33  
T23S-R31E EDDY CO. NM

### 9. WELL SITE LAYOUT

- A. Exhibit "D" shows the proposed well site layout.
- B. This exhibit indicated proposed location of reserve and sump pits and living facilities.
- C. Mud pits in the active circulating system will be steel pits & the reserve pit is proposed to be unlined unless subsurface condition encountered during pit construction indicate that lining is needed for lateral containment of fluids.
- D. If needed, the reserve pit is to be lined with polyethelene. The pit liner will be 6 mils thick. Pit liner will extend a minimum 2'00" over the reserve pits dikes where the liner will be anchored down.
- E. The reserve pit will be fenced on three sides with four strands of barbed wire during drilling and completion phases. The fourth side will be fenced after all drilling operations have ceased. If the well is a producer, the reserve pit fence will be torn down. The reserve pit and those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements.

### 10. PLANS FOR RESTORATION OF SURFACE

Rehabilitation of the location and reserve pit will start in a timely manner after all drilling operations cease. The type of raclamation will depend on whether the well is a producer or a dry hole.

However, in either event, the reserve pit will be allowed to dry properly, and fluid removed and disposed of in accordance with Article 7.B 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 erosion. These may need to be modified in certain circumstances to prevent inundation of the location's pad and surface facilities. After the area has been shaped and contoured, topsoil from the spoil pile will be placed over the disturbed area to the extent possible. Revegetation procedures will comply with BLM standards.

If the well is a dry hole, the pad and road area will be contoured to match the existing terrain. Topsoil will be spread to the extent possible. Revegetation will comply with BLM standards.

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  
STERLING SILVER "33" FEDERAL # 17  
UNIT "P" SECTION 33  
T23S-R31E EDDY CO. NM

11. OTHER INFORMATION:

- A. Topography consists of sand dunes with a slight dip to the West. Deep sandy soil supports shinnery oak, native grasses, and an occasional mesquite tree.
- B. Surface is owned by the U.S. Government and is administered by the Bureau of Land Management. The surface is used for grazing livestock and the production of oil and gas.
- C. An archaeological survey will be conducted on the location and access roads. This report will be filed with The Bureau of Land Management in the Carlsbad field office.
- D. There are no dwellings in the near vicinity of this location.

12. OPERATORS REPRESENTATIVES:

Before construction:

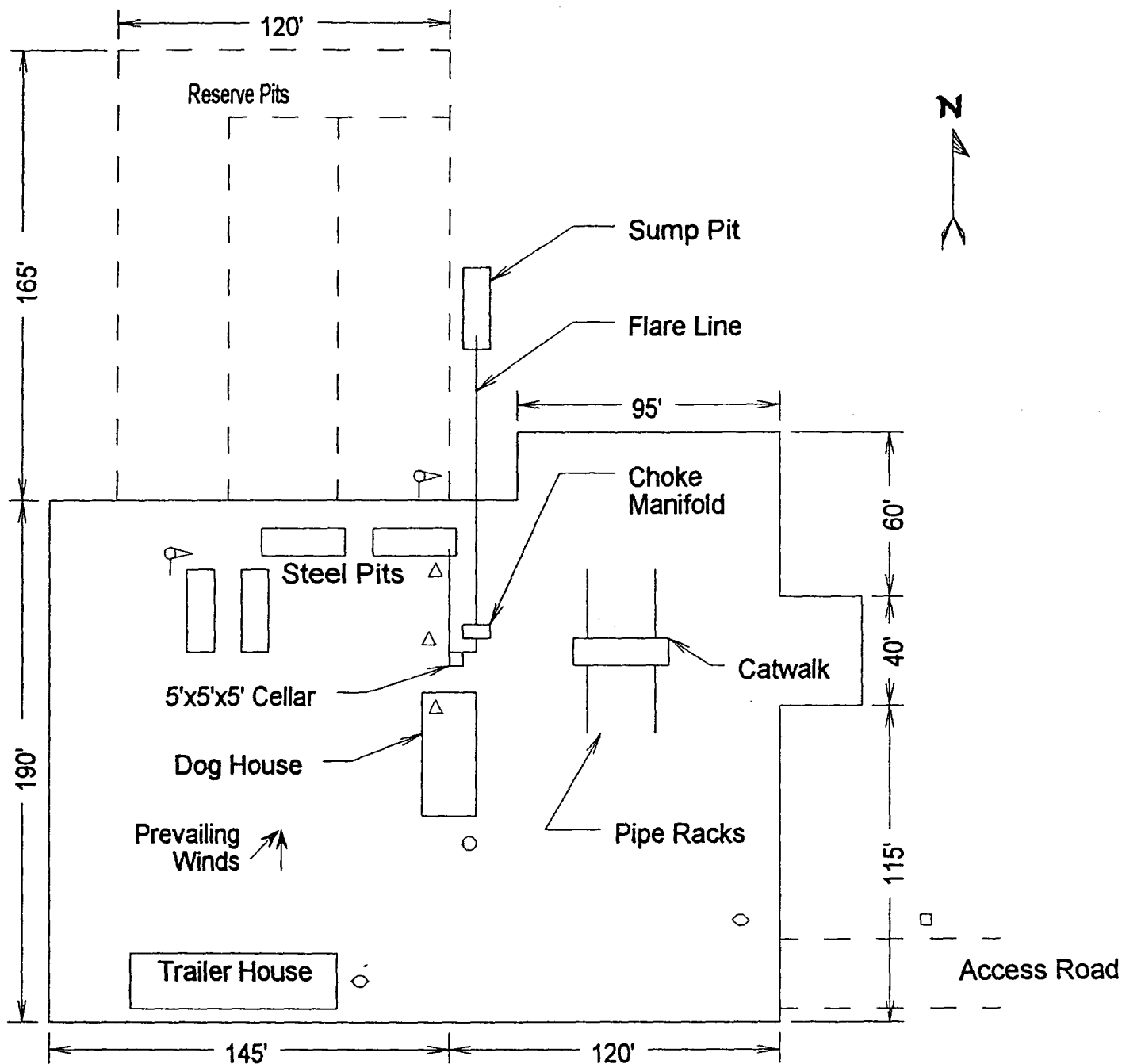
TIERRA EXPLORATION, INC  
P.O. BOX 2188  
HOBBS, NEW MEXICO 88241  
OFFICE Ph. 505-391-8503  
JOE T. JANICA

During and after construction:

POGO PRODUCING COMPANY  
P.O. BOX 10340  
MIDLAND, TEXAS 79702-7340  
OFFICE Ph. 915-685-8100  
Mr. RICHARD WRIGHT 915-685-8140

13. CERTIFICATION: I hereby certify that I, or persons under my direct supervision have inspected the proposed drill site and 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 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 compformity 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.

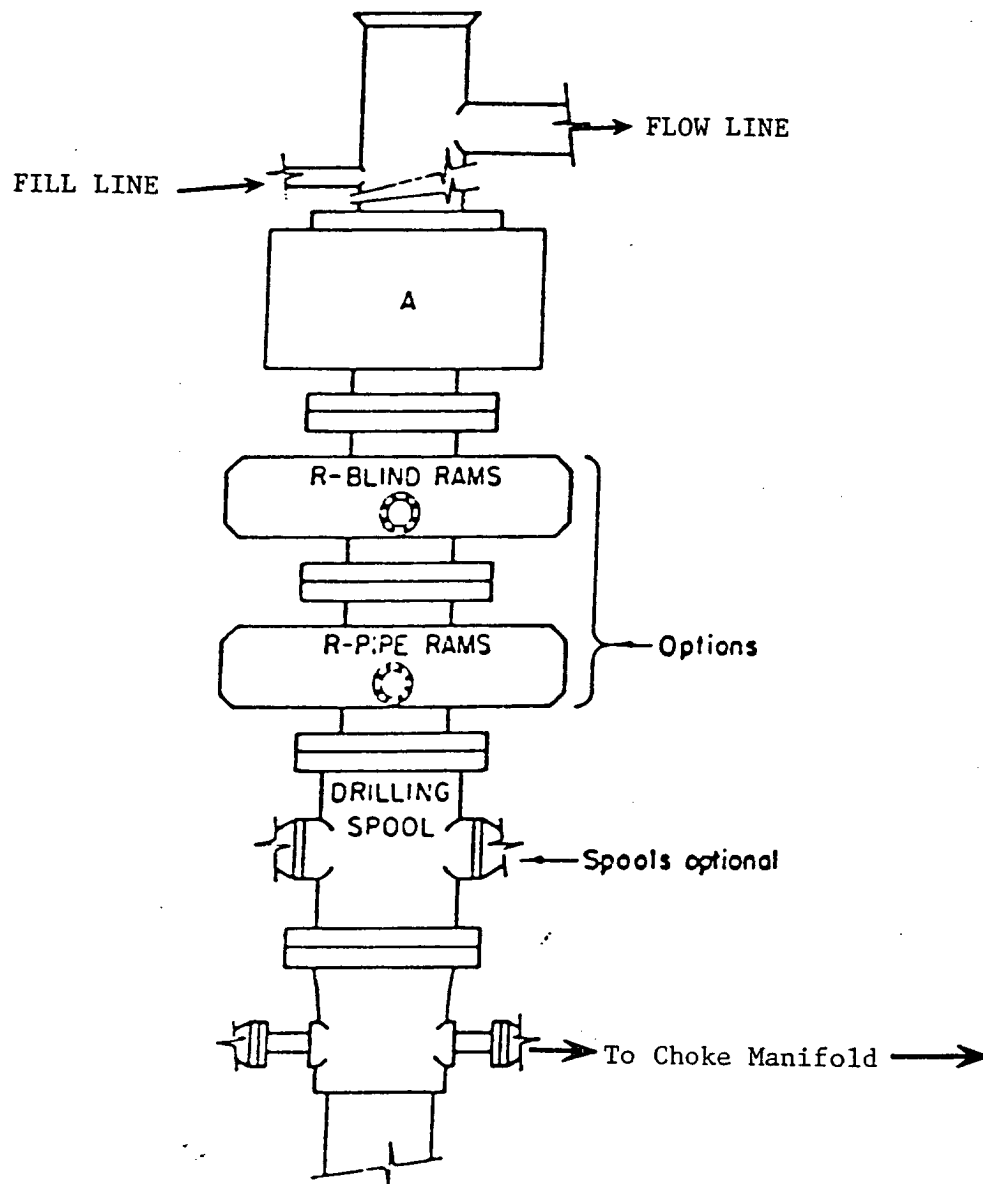
NAME : Joe T. Janica  
DATE : 02/09/03  
TITLE : Agent



- 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

EXHIBIT "D"  
RIG LAY OUT PLAT

POGO PRODUCING COMPANY  
STERLING SILVER "33" FEDERAL # 17  
UNIT "P" SECTION 33  
T22C-D31E EDDY CO. NM



# **ARRANGEMENT SRRA**

900 Series  
3000 PSI WP

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

POGO PRODUCING COMPANY  
STERLING SILVER "33" FEDERAL # 17  
UNIT "P" SECTION 33  
T23S-R31F EDDY CO. NM

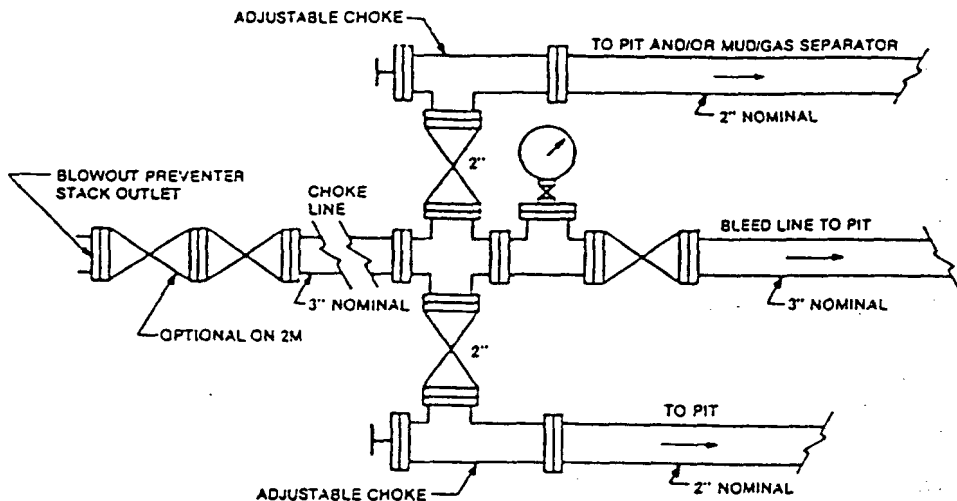


FIGURE K-1. Typical choke manifold assembly for 2M and 3M rated working pressure service — surface installation.

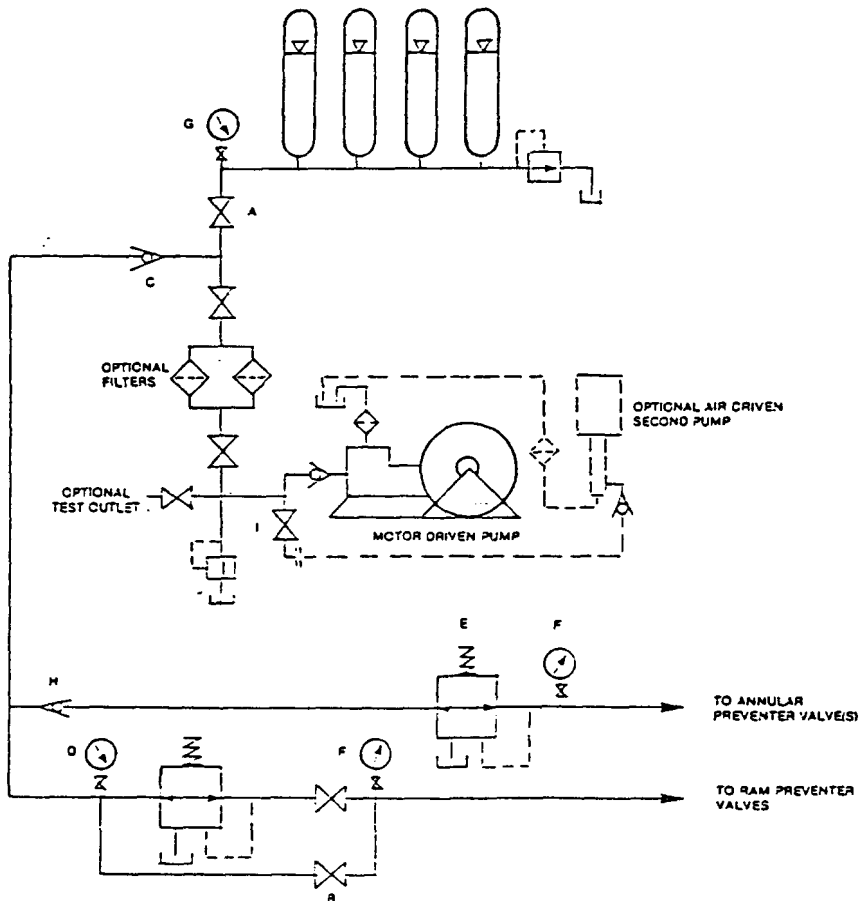


FIGURE K-6-1. The schematic sketch of an accumulator system shows required and optional components.

EXHIBIT "E-1"  
CHOKE MANIFOLD & CLOSING UNIT

POGO PRODUCING COMPANY  
STERLING SILVER "33" FEDERAL # 17  
UNIT "P" SECTION 33  
T22C-D31P EDDY CO. NM