

UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
1301 W. Grand Avenue  
Alto, NM 88210

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

APPLICATION FOR PERMIT TO DRILL

1a. TYPE OF WORK  
DRILL ☒ DEEPEN ☐

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  
990' FNL & 660' FWL SECTION 18 T20S-R25E EDDY CO. NM  
At proposed prod. zone SAME

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
Approximately 20 miles Northwest 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  
200

17. NO. OF ACRES ASSIGNED TO THIS WELL  
320

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.  
4000'

19. PROPOSED DEPTH  
9900'

20. ROTARY OR CABLE TOOLS  
ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
3568' GR.

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

5. LEASE DESIGNATION AND SERIAL NO.  
NM-99016

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME, WELL NO.  
RED MAN "18" FEDERAL # 1

9. AR WELL NO.  
30-015-33760

10. FIELD AND POOL, OR WILDCAT  
CEMETARY-MORROW

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
SECTION 18 T20S-R25E

12. COUNTY OR PARISH  
EDDY CO.

13. STATE  
NEW MEXICO

PROPOSED CASING AND CEMENTING PROGRAM

Carlsbad Controlled Water Basin

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
25"	Conductor	NA	40'	Cement to surface W/Redi-mix.
17½"	H-40 13 3/8"	48	500'	550 Sx. circulate cement
11"	J-55 8 5/8"	32	2200'	600 Sx " "
7 7/8"	L-80 5½"	17	9900'	1000 Sx. Est. top cement 2000'

1. Drill 25" hole to 40'. Set 40' of 20" conductor pipe and cement to surface W/Redi-mix.
2. Drill 17½" hole to 500'. Run and set 500' of 13 3/8" 48# H-40 ST&C casing. Cement with 550 Sx. of Class "C" cement + ¼# Flocele/Sx, + 2% CaCl, circulate cement to surface.
3. Drill 11" hole to 2200'. Run and set 2200' of 8 5/8" 32# J-55 ST&C casing. Cement with 600 Sx. of Class "C" cement + additives, circulate cement to surface.
4. Drill 7 7/8" hole to 9900'. Run and set 9900' of 5½" 17# L-80 LT&C casing. Cement in two stages with DV Tool at 4500'±. Cement 1st stage with 650 Sx. of Class "H" cement + additives, cement 2nd stage with 350 Sx. of Class "C" cement + additives, estimate top of cement 2000' from surface.

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED

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. SIGNED Joe G. Lara TITLE Agent DATE 09/27/04  
(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:

APPROVED BY /s/ Joe G. Lara TITLE ACTING FIELD MANAGER DATE DEC 06 2004

\*See Instructions 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 the

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-1  
March 12, 2004

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: Red Man 18 Fed #1 API #: \_\_\_\_\_ U/L or Qtr/Tr A Sec 18 T 20S R 25E  
County: Eddy Latitude 32:34:41.52N Longitude 104:31:49.22W 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 not. _____	<b>RECEIVED</b> <b>OCT 12 2004</b> <b>COO-ARTERIA</b>
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more	(20 points) (10 points) ( 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.)	Yes No	(20 points) ( 0 points) <u>0</u>
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more	(20 points) (10 points) ( 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: 10/08/04

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.

Approved

Date: OCT 13 2004

Printed Name/Title Field Rep ID

Signature [Signature]

Water Resources

Data Category:

Site Information

Geographic Area:

New Mexico

GO

# Site Map for New Mexico

USGS 323328104301201 20S.25E.20.41114

Available data for this site

Station site map

GO

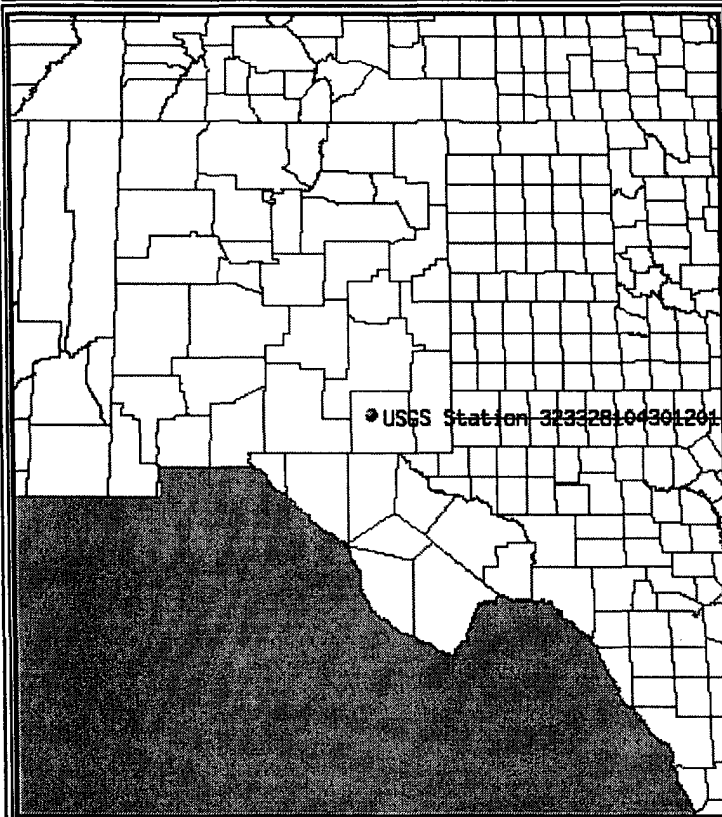
Eddy County, New Mexico

Hydrologic Unit Code

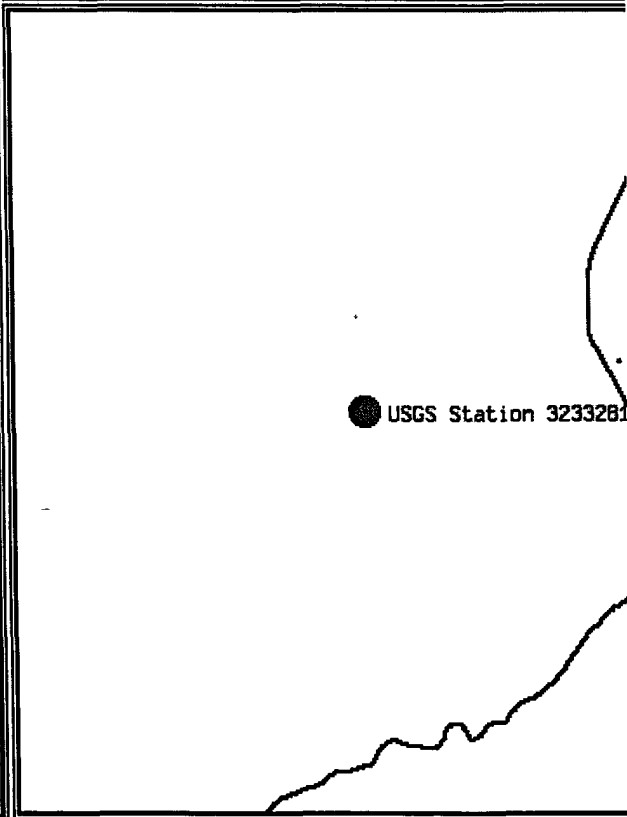
Latitude 32°33'28", Longitude 104°30'12" NAD27

Gage datum 3,504.00 feet above sea level NGVD29

Location of the site in New Mexico.



Site map.

ZOOM IN 2X, 4X, 6X, 8X, or ZOOM OUT 2X, 6X, 8X.

Maps are generated by US Census Bureau TIGER Mapping Service.

Questions about data New Mexico NWISWeb Data Inquiries

Feedback on this website New Mexico NWISWeb Maintainer

NWIS Site Inventory for New Mexico: Site Map

<http://waterdata.usgs.gov/nm/nwis/nwismap?>[Top](#)  
[Explanation of terms](#)

Water Resources

Data Category:

Ground Water

Geographic Area:

New Mexico

go

# Ground-water levels for New Mexico

## Search Results -- 1 sites found

Search Criteria

site\_no list = • 323328104301201

[Save file of selected sites to local disk for future upload](#)
**USGS 323328104301201 20S.25E.20.41114**

Available data for this site

Ground-water: Levels

GO

Eddy County, New Mexico

Hydrologic Unit Code

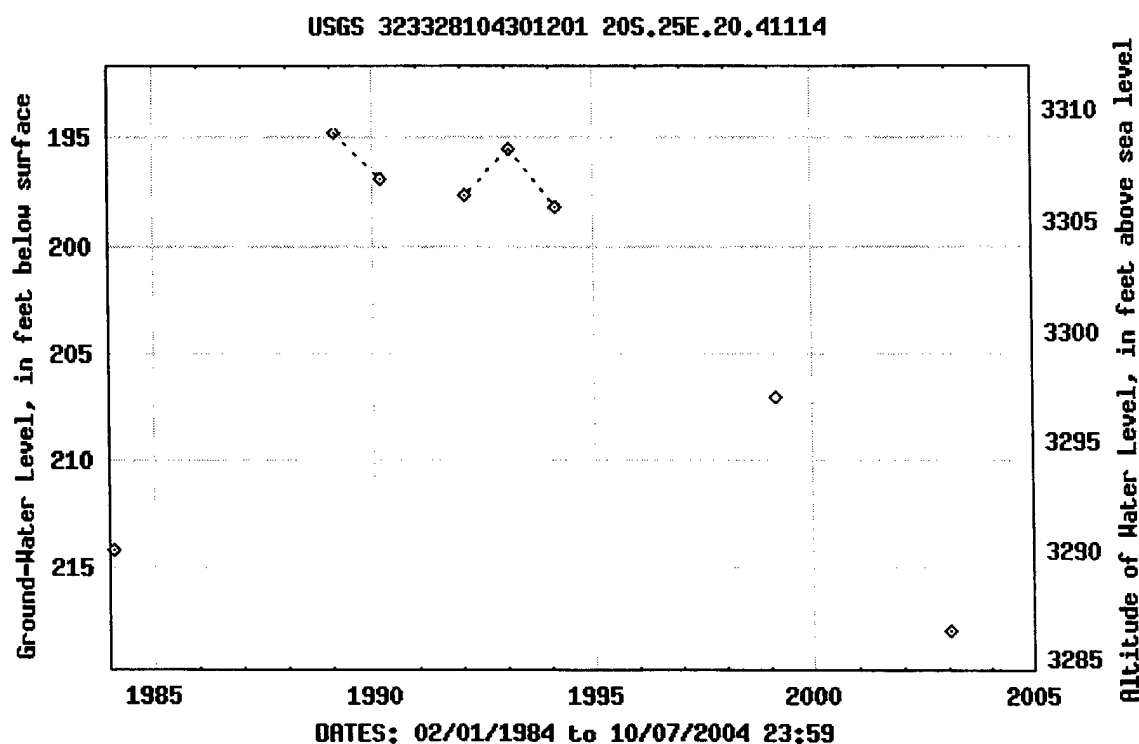
Latitude 32°33'28", Longitude 104°30'12" NAD27

Gage datum 3,504.00 feet above sea level NGVD29

The depth of the well is 314.0 feet below land surface.

This well is completed in ARTESIA GROUP (313ARTS)

### Output formats

[Table of data](#)[Tab-separated data](#)[Graph of data](#)[Reselect period](#)

Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

# Great Circle Calculator.

By Ed Williams

You need Javascript enabled if you want this page to do anything useful! For Netscape, it's under Options/Network Preferences/Languages.

## Compute true course and distance between points.

Enter lat/lon of points, select distance units and earth model and click "compute". Lat/lons may be entered in DD.DD, DD:MM.MM or DD:MM:SS.SS formats.

Note that if either point is very close to a pole, the course may be inaccurate, because of its extreme sensitivity to position and inevitable rounding error.

### Input Data

Lat1		Lon1	
32:34:41.52	N	104:31:49.22	W
Lat2		Lon2	
32:33:28	N	104:30:12	W

### Output

Course 1-2	Course 2-1	Distance
131.89513	311.90966	1.83470557

Distance Units:  Earth model:

## Compute lat/lon given radial and distance from a known point

Enter lat/lon of initial point, true course and distance. Select distance units and earth model and click "compute". Lat/lons may be entered in DD.DD, DD:MM.MM or DD:MM:SS.SS formats.

Note that the starting point cannot be a pole.

### Input data

Lat1		Lon1	
0:00.00	N	0:00.00	W
Course 1-2		Distance 1-2	

## DISTRICT I

1625 N. FRENCH DR., BOBBS, NM 88240

## DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 88210

## DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

## 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 74640	Pool Name CEMETARY-MORROW (GAS)
Property Code	Property Name REDMAN 18 FEDERAL	Well Number 1
OGRID No. 17891	Operator Name POGO PRODUCING COMPANY	Elevation 3568'

## Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	18	20-S	25-E		990	NORTH	660	WEST	EDDY

## Bottom Hole Location If Different From Surface

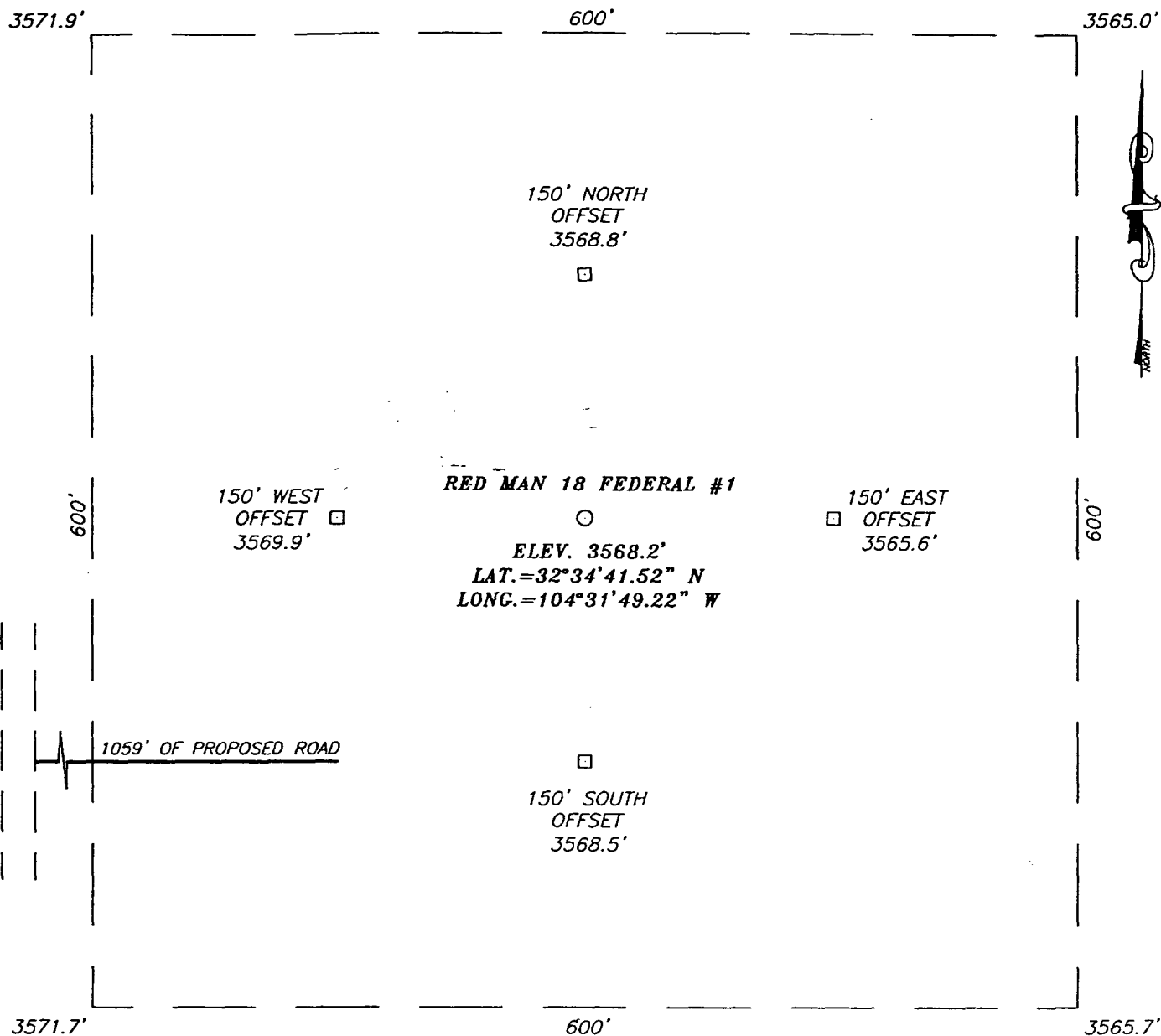
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 320	Joint or Infill	Consolidation Code	Order No.						

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

	<b>OPERATOR CERTIFICATION</b>  I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.  <i>Joe T. Janica</i> Signature Joe T. Janica Printed Name Agent Title 09/27/04 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.  SEPTEMBER 9, 2004 Date Surveyed Signature & Seal of Professional Surveyor <i>Cary B. Edson</i> 9/11/04 04.11.1164. Certificate No. CARY EDSON 12641

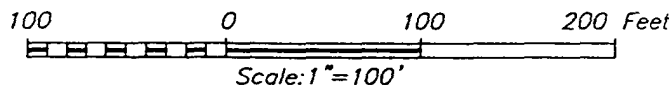
EXHIBIT "A"

**SECTION 18, TOWNSHIP 20 SOUTH, RANGE 25 EAST, N.M.P.M.,**  
**EDDY COUNTY, NEW MEXICO**



**DIRECTIONS TO LOCATION**

FROM THE INTERSECTION OF U.S. HWY #285 AND CO. RD. #28 (WHITE PINE RD.) GO WEST ON CO. RD. #28 FOR APPROX. 4.0 MILES TO CO. RD. #27 (PICKETT RD.) TURN RIGHT (NORTH) ON CO. RD. #27 AND FOLLOW ROAD NORTH TO WEST. GO WEST APPROX. 3.6 MILES TO A SIGN (MOC SWD MARATHON OIL CO.) ON THE RIGHT. TURN RIGHT (NORTH) @ SIGN AND GO APPROX. 0.8 MILES TO A PROPOSED ROAD SURVEY ON THE RIGHT. FOLLOW PROPOSED ROAD SURVEY APPROX. 0.2 MILES TO PROPOSED LOCATION.



**POGO PRODUCING COMPANY**

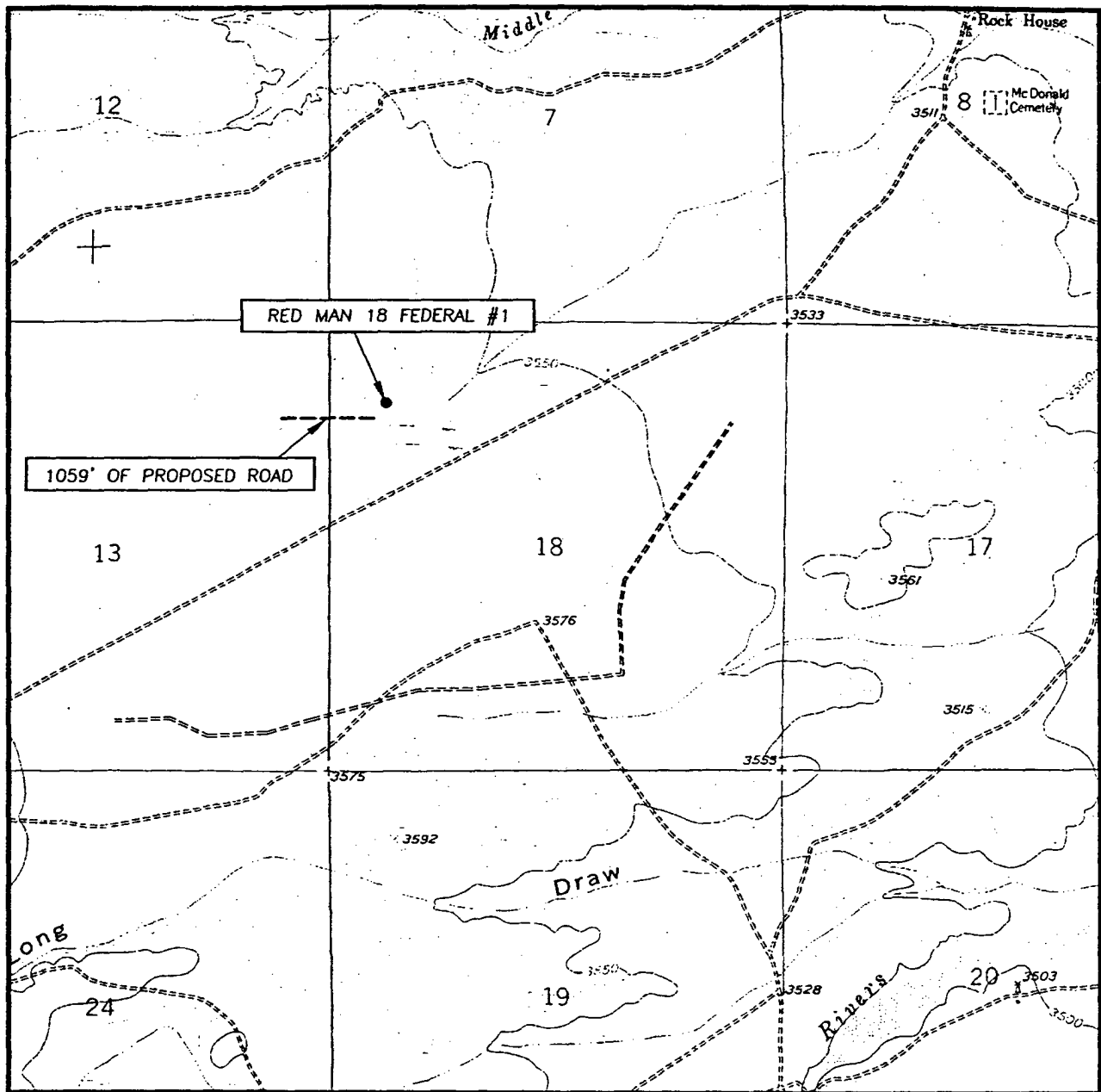
RED MAN 18 FEDERAL #1 WELL  
 LOCATED 990 FEET FROM THE NORTH LINE  
 AND 660 FEET FROM THE WEST LINE OF SECTION 18,  
 TOWNSHIP 20 SOUTH, RANGE 25 EAST, N.M.P.M.,  
 EDDY COUNTY, NEW MEXICO.

Survey Date: 09/9/04	Sheet 1 of 1 Sheets
W.O. Number: 04.11.1164	Dr By: J.R.
Date: 09/10/04	Disk: CD#10
04111164	Scale: 1"=100'



PROVIDING SURVEYING SERVICES  
 SINCE 1948  
**JOHN WEST SURVEYING COMPANY**  
 412 N. DAL PASO  
 HOBBS, N.M. 88240  
 (505) 383-3117

# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:  
FOSTER RANCH, N.M. - 10'

SEC. 18 TWP. 20-S RGE. 25-E

SURVEY N.M.P.M.

COUNTY EDDY

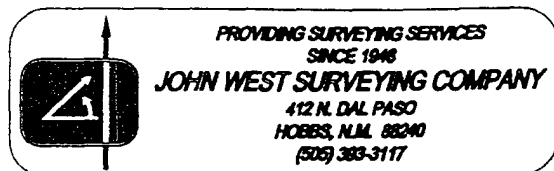
DESCRIPTION 990' FNL & 660' FWL

ELEVATION 3568'

OPERATOR POGO PRODUCING COMPANY

LEASE RED MAN 18 FEDERAL

U.S.G.S. TOPOGRAPHIC MAP  
FOSTER RANCH, N.M.





# APPLICATION TO DRILL

POGO PRODUCING COMPANY  
RED MAN "18" FEDERAL # 1  
LOT # 1 SECTION 18  
T20S-R25E 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 of well: 990' FNL & 660' FWL SECTION 18 T20S-R25E EDDY CO. NM
2. Ground Elevation above Sea Level: 3568' GR.
3. Geological age of surface formation: Quaternary Deposits:
4. Drilling tools and associated equipment: Conventional rotary drilling rig using drilling mud as a circulating medium to remove solids from hole.
5. Proposed drilling depth: 9900'
6. Estimated tops of geological markers:

Queen	600'	3rd Bone Spring Sd.	6570'
Grayburg	910'	Wolfcamp Lime	7020'
San Andres	1310'	Cisco	7850'
Bone Spring Lime	2230'	Morrow Clastics	9420'
7. Possible mineral bearing formations:

Wolfcamp	Gas	Mississippian	9800'
Cisco	Gas		
Morrow	Gas		
8. Casing Program:

Hole Size	Interval	OD of Casing	Weight	Thread	Collar	Grade
25"	0-40'	20"	NA	NA	NA	Conductor
17½"	0-500'	13 3/8"	48	8-R	ST&C	H-40
11"	0-2200'	8 5/8"	32	8-R	ST&C	J-55
7 7/8"	0-9900'	5½"	17	8-R	LT&C	J-55

# APPLICATION TO DRILL

POGO PRODUCING COMPANY  
RED MAN "18" FEDERAL # 1  
LOT # 1 SECTION 18  
T20S-R25E EDDY CO. NM

## 9. CASING CEMENTING & SETTING DEPTH:

20"	Conductor	Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
13 3/8"	Surface	Set 500' of 13 3/8" 48# H-40 ST&C casing. Cement with 550 Sx. of Class "C" cement + additives, circulate cement to surface.
8 5/8"	Intermediate	Set 2200' of 8 5/8" 32# J-55 ST&C casing. Cement with 600 Sx of Class "C" cement + 1/4# Flocele/Sx., + 2% CaCl, circulate cement to surface.
5 1/2"	Production	Set 9900' of 5 1/2" 17# L-80 LT&C casing. Cement in 2 stages set DV Tool at 4500'±. Cement 1st stage with 650 Sx. of Class "H" Premium Plus cement + additives, cement 2nd stage with 350 Sx. of Class "C" cement + additives, estimate top of cement 2000' from surface.

10. PRESSURE CONTROL EQUIPMENT: Exhibit "E" shows a 900 series 3000 PSI working perssure 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 each 24 Hr. period and the blind rams will be operated when the drill pipe is out of on trips. Full opening stabbing valve and upper kelly cock will be available in case if needed. Exhibit "E-1" shows a hydraulically operated closing unit and a 3" 3000 PSI choke manifold with adjustable chokes. No abnormal pressures or temperatures are expected while drilling this well. No problems in offset wells.

## 11. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD SYSTEM
40-500'	8.4-8.7	29-38	NC	Fresh water spud mud use paper to control seepage.
500-2200'	10-10.2	29-40	NC	Brine water use paper to control seepage and high viscosity sweeps to clean Hole.
2200-8700'	8.4-8.7	29-40	NC	Fresh water use Gel for viscosity control and high viscosity sweeps to clean hole.
8700-9900'	8.4-8.7	32-40	6-10 cc or less	Same as above use Gel for viscosity control and Dris-Pac for water loss control.

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 water loss may have to be adjusted to meet these needs.

# APPLICATION TO DRILL

POGO PRODUCING COMPANY  
RED MAN "18" FEDERAL # 1  
LOT # 1 SECTION 18  
T20S-R25E EDDY CO. NM

## 12. LOGGING , CORING, AND TESTING:

- A. Open hole logs: Dual induction, SNP, LDT, Gamma Ray, and Caliper from TD Back to 8 5/7" casing shoe.
- B. Cased hole logs: Gamma Ray, Neutron from 8 5/8" casing shoe to surface.
- C. Mud logger may be rigged up on hole at 2200' and remain on hole to TD.
- D. DST's may be taken as shows dictate. Cores may be taken as geologist determines.

## 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 4500 PSI, and Estimated BHT 170°.

## 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 25 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 MORROW formation will be perforated and stimulated in order to establish production. The well will be swab tested and potentialized as a gas 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 bloop 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 telephones 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  
RED MAN "18" FEDERAL # 1  
LOT # 1 SECTION 18  
T20S-R25E 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 the junction of State Hi-way 200 (Relief By-pass) and U.S. Hi-way 285 North of Carlsbad New Mexico, go North 12 miles to CR-28 (White Pine Road) turn Left go 4 miles to CR-27 (Pickett Road) turn Right go .5 miles . turn West go 3.2± miles turn Right NORTH go .75 mile± turn Right EAST follow new road 1000' to location on the North side of road.

C. See Exhibit "C" for possible route of gas sales line.

2. PLANNED ACCESS ROADS: Approximately 1000;' of new road will be constructed.

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 - One approximately 1 mile East of location.

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

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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".

### 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.

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### 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 reclamation 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.



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11. OTHER INFORMATION:

- A. Topography consists of low lying limestone hills with drainage toward to the Southeast into the South Seven Rivers drainage system. Vegetation consists of creosote, yucca, sumac, and mesquite.
- 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. 432-685-8100  
Mr. RICHARD WRIGHT . 432-685-8140

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<sup>2</sup> 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 :

DATE :

TITLE :

Joe T Janica  
09/27/04  
Agent

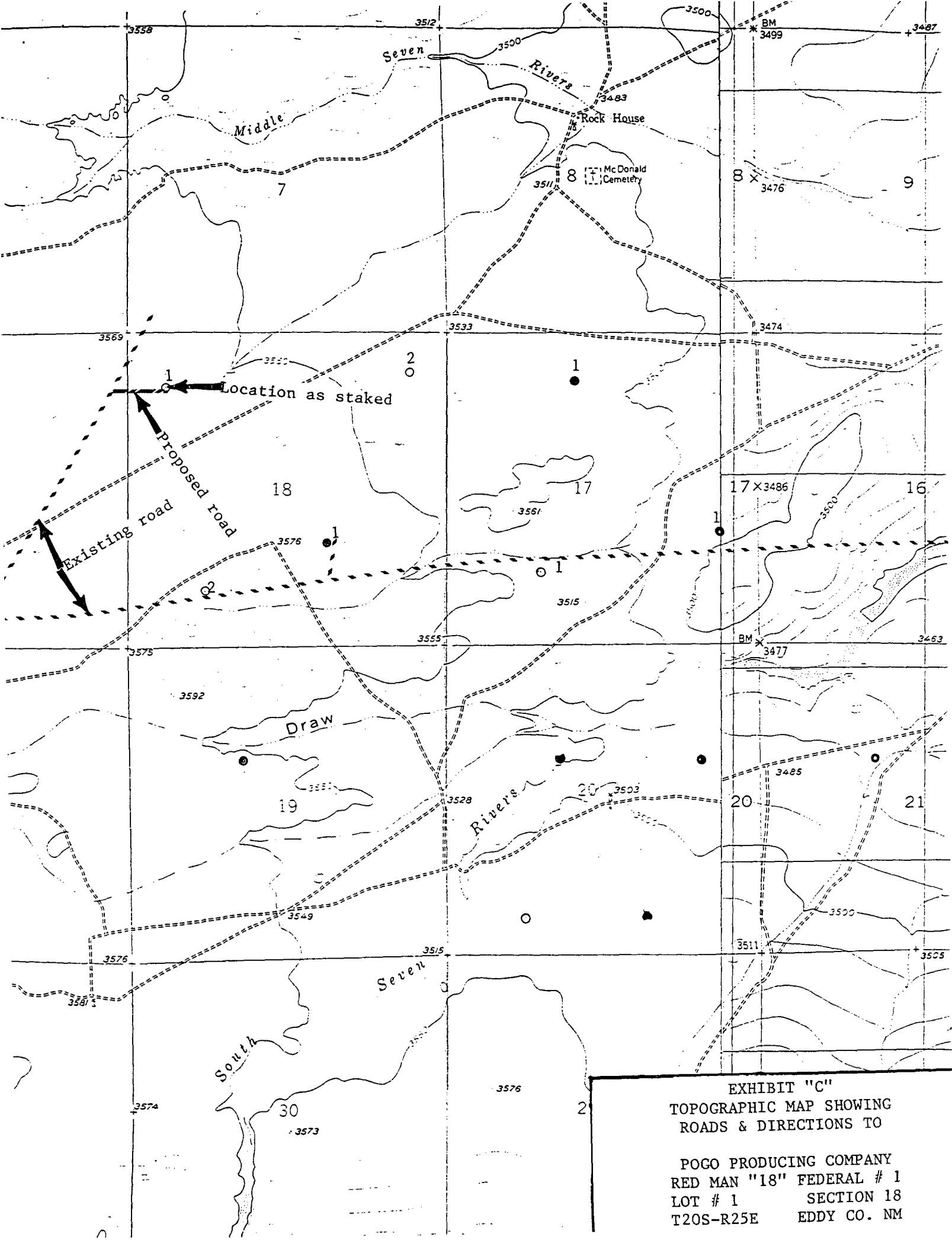
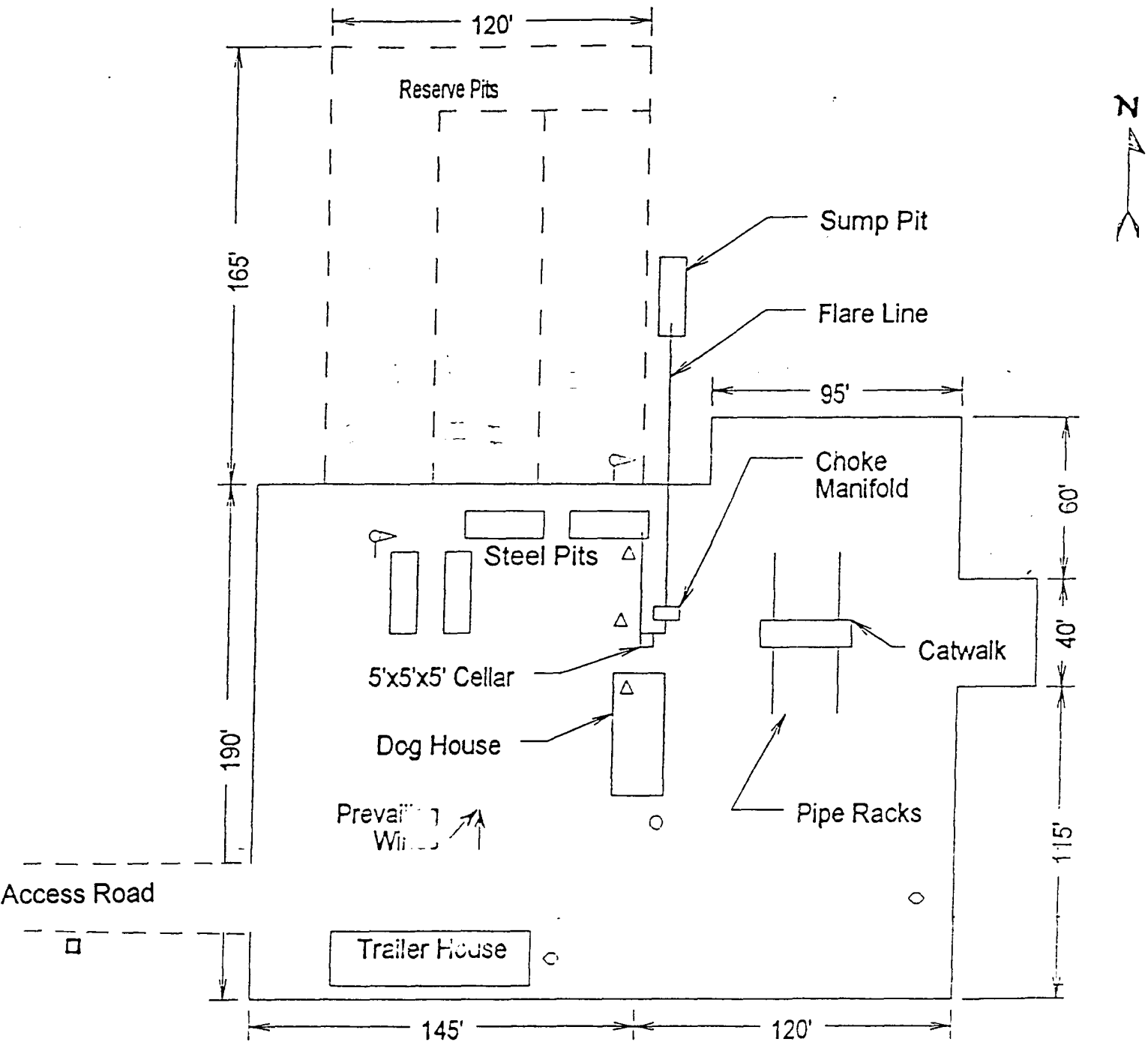


EXHIBIT "C"  
TOPOGRAPHIC MAP SHOWING  
ROADS & DIRECTIONS TO

POGO PRODUCING COMPANY  
RED MAN "18" FEDERAL # 1  
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- 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"

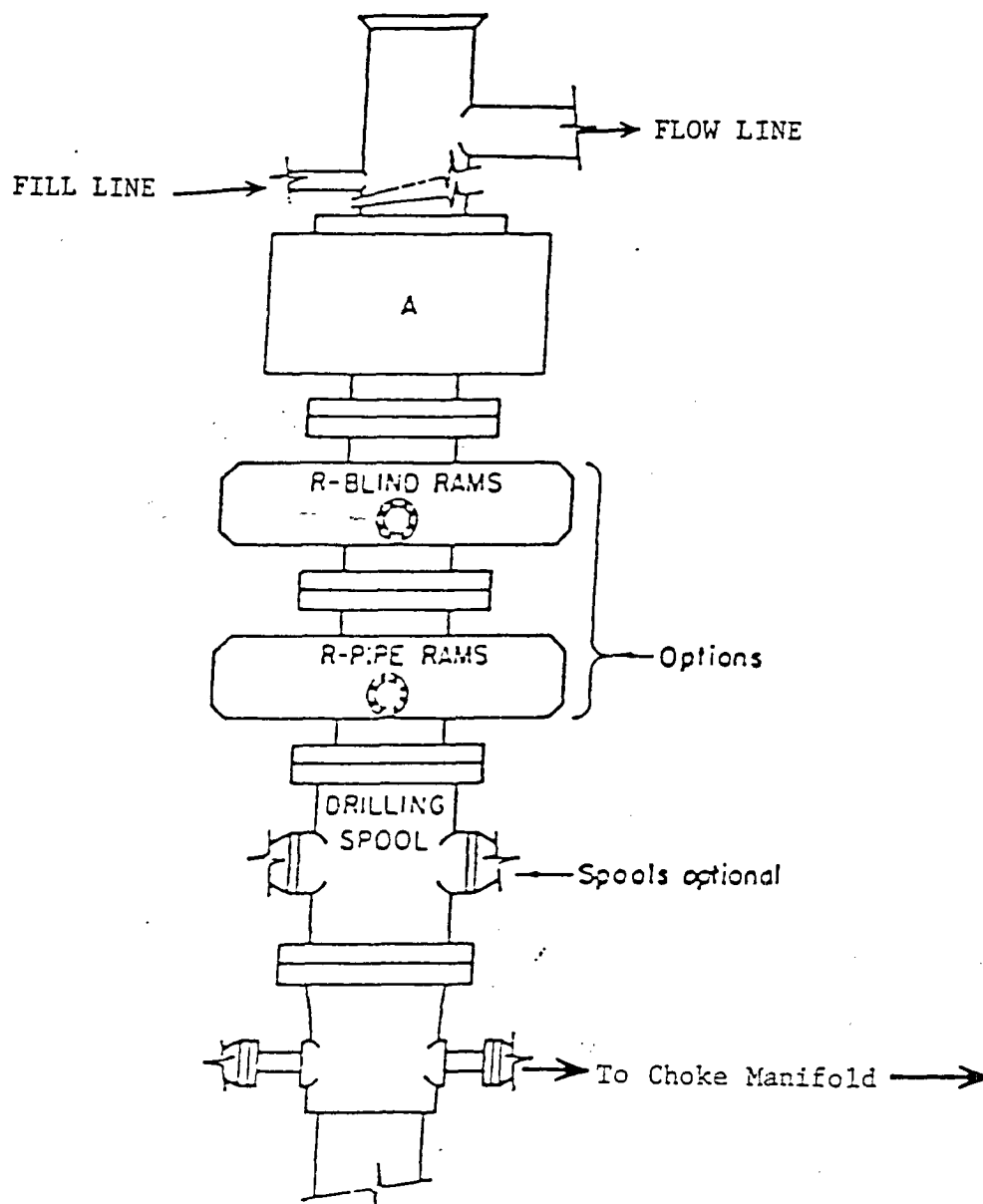
RIG LAY OUT PLAT

POGO PRODUCING COMPANY

RED MAN "18" FEDERAL # 1

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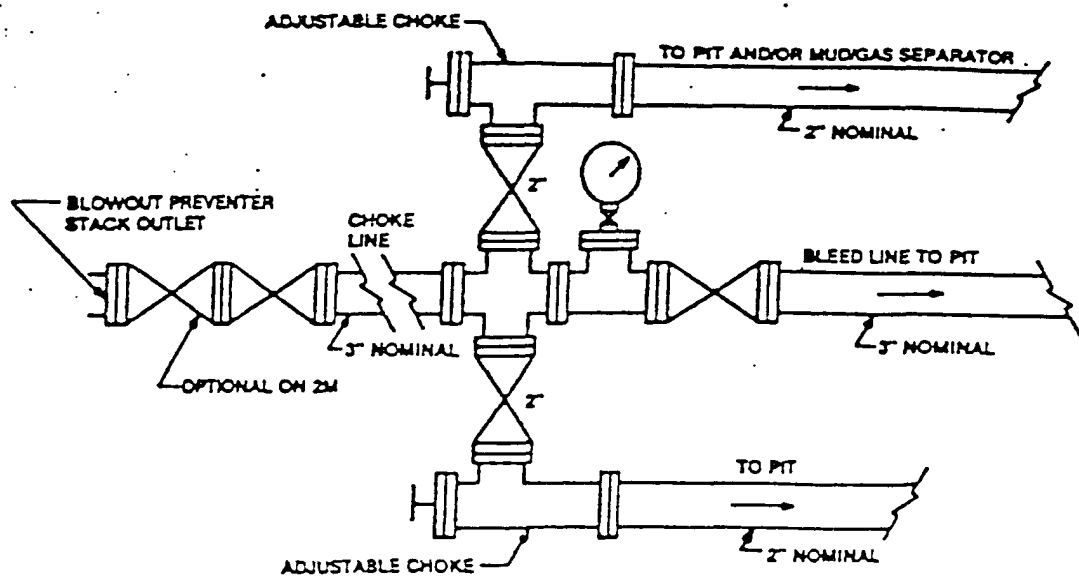


# ARRANGEMENT SRRA

900 Series  
3000 PSI WP

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

POGO PRODUCING COMPANY  
RED MAN "18" FEDERAL # 1  
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Typical choke manifold assembly for 3M WP system

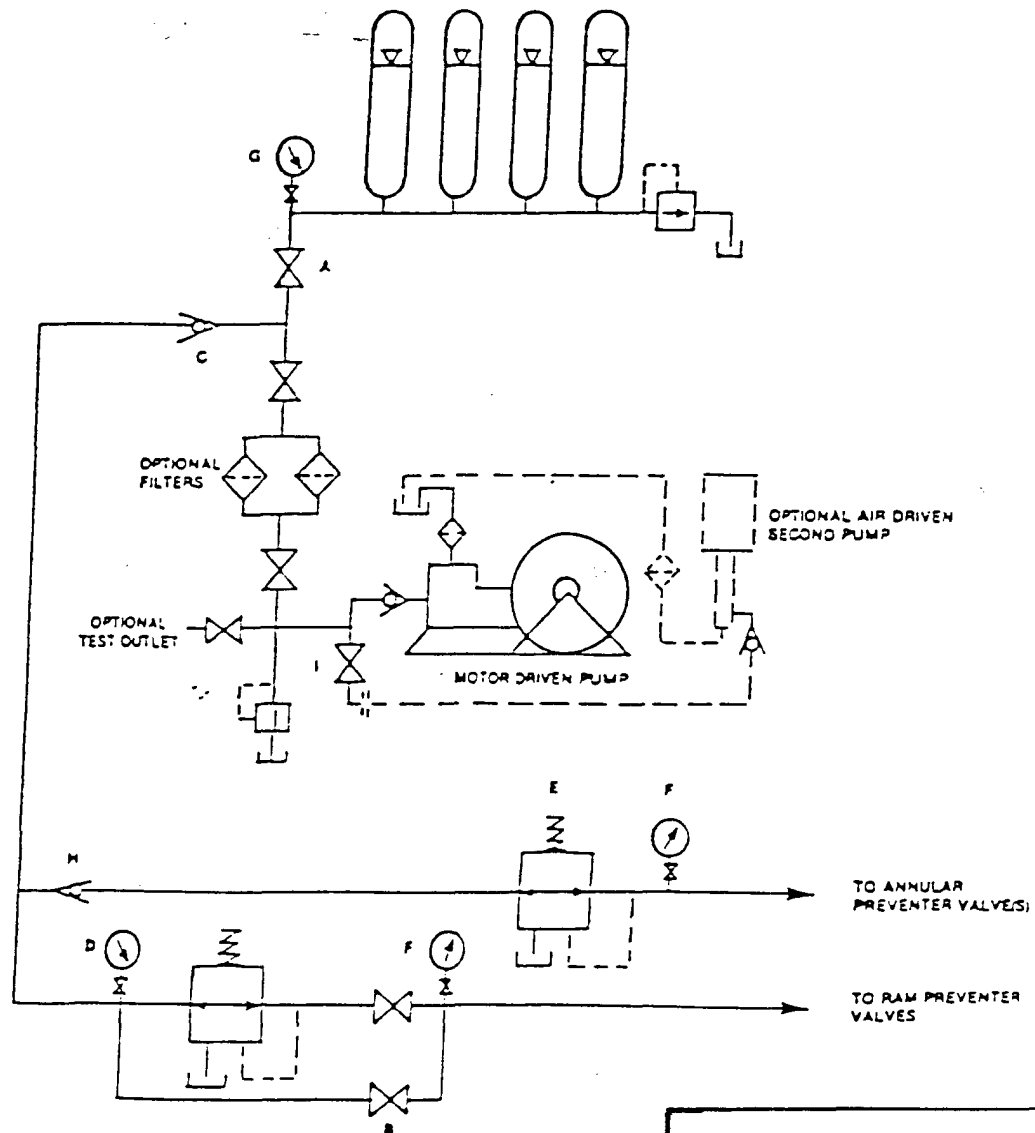


EXHIBIT "E-1"  
CHOKE MANIFOLD & CLOSING UNIT

POGO PRODUCING COMPANY  
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