Form 3160-3
(July 1992)

Month - Year
- 5 2007
OCD - ARTESIA, NM

C/K

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

ATS-07-5
OCD-ARTESIA

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

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK
DRILL [X] R-111-POTASH DEEPEN [ ]

b. TYPE OF WELL
OIL WELL [X] GAS WELL [ ] OTHER SINGLE ZONE [X] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR
17891
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
1400' FNL & 1800' FWL SECTION 34 T23S-R29E EDDY CO. NM
At proposed prod. zone
1980' FNL & 330' FEL SECTION 34 T23S-R29E EDDY CO. NM

5. LEASE DESIGNATION AND SERIAL NO.
NM-86024

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
---

7. UNIT AGREEMENT NAME
---

8. FARM OR LEASE NAME, WELL NO.
35899
CYPRESS "34" FEDERAL # 2H

9. API WELL NO.
30-015-35413

10. FIELD AND POOL, OR WILDCAT
Cedar Canyon; BONE SPRING

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
SECTION 34 T23S-R29E

12. COUNTY OR PARISH
EDDY CO.

13. STATE
New Mexico

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
Approximately 8 miles Southeast of Loving New Mexico

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
330'

16. NO. OF ACRES IN LEASE
640

17. NO. OF ACRES ASSIGNED TO THIS WELL
120

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
4600'

19. PROPOSED DEPTH
MD- 10,777'TVD-7900'

20. ROTARY OR CABLE TOOLS
ROTARY Bond# WYB000238

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
3059' 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
26"	Conductor 20"	NA	40'	Redi-mix cement to surface
17½"	H-40 13 3/8"	48#	550'	550 Sx. circulate cement
12¼"	J-55 9 5/8"	36#	3000'	1000 Sx. " "
8½" & 7 7/8"	N-80 5½"	17#	10,777'	3600 Sx. " "

CARLSBAD CONTROLLED WATER BASIN

Witness Surface Casing

SEE ATTACHED SHEET FOR DETAIL

SEE ATTACHED FOR CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

Drill only NSL - Dai

BRYAN G. ARRANT
DISTRICT II GEOLOGIST - OCD

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 Joel T Janica TITLE Agent DATE 10/10/06

(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 subj

CONDITIONS OF APPROVAL, IF ANY:

If earthen pits are used in association with the drilling of this well, an OCD pit permit must be obtained prior to pit construction.

/s/ Linda S.C. Rundell STATE DIRECTOR

APPROVED BY _____ TITLE _____ DATE JAN 26 2007

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

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

Revised October 12, 2005

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
	11520	Cedar Canyon; BONE SPRING

Property Code	Property Name	Well Number
	CYPRESS "34" FEDERAL	2

OGRID No.	Operator Name	Elevation
017891	POGO PRODUCING COMPANY	3059'

Surface Location

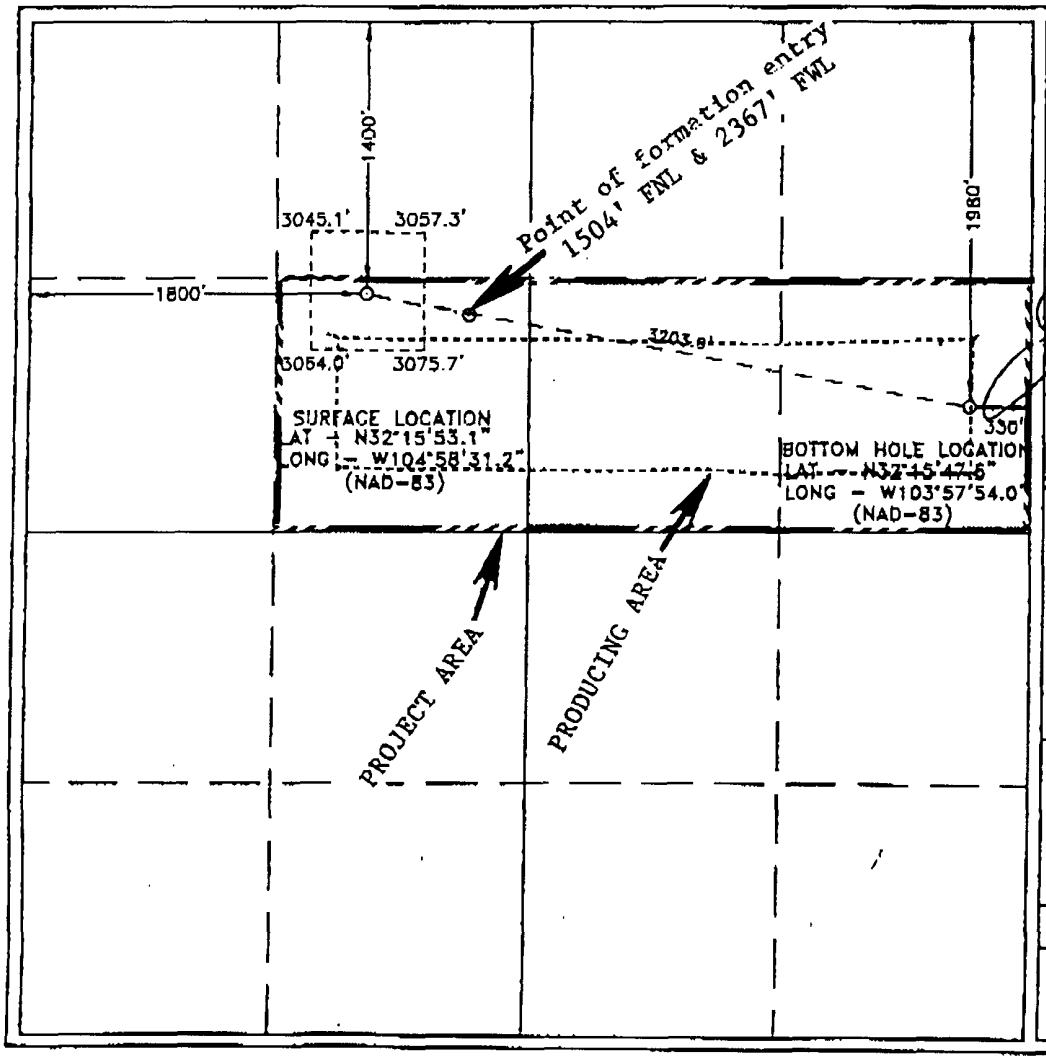
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	34	23 S	29 E		1400	NORTH	1800	WEST	EDDY

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
H	34	23 S	29 E		1980	NORTH	330	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
120			

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



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature — 10/10/06

Joe T. Janica Agent

Printed Name

SURVEYOR CERTIFICATION

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 supervison, and that the same is true and correct to the best of my belief.

GARY L. JONES
JUNE 21, 2006

Date Surveyed

Signature & Seal of Professional Surveyor

REGISTERED PROFESSIONAL SURVEYOR

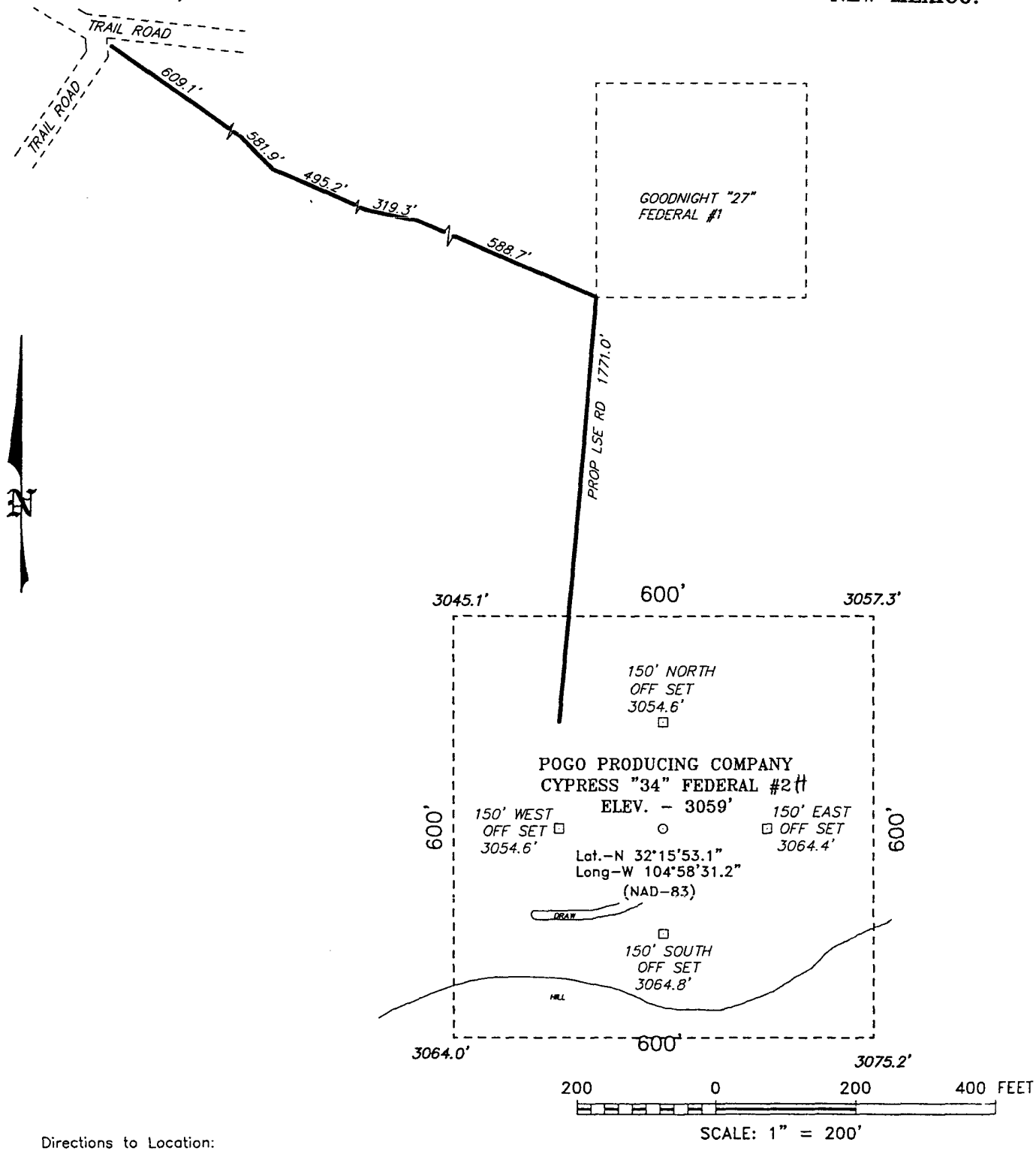
W.O. No. 6794

Certificate No. Gary L. Jones 7977

BASIN SURVEYS

EXHIBIT "A"

SECTION 34, TOWNSHIP 23 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



Directions to Location:

FROM THE JUNCTION OF CO. RD. 793 (RAWHIDE) AND STATE HWY 128, PROCEED SOUTH 3.1 MILE TO END OF PAVEMENT; THENCE WEST 3.3 MILE; THENCE SOUTH 0.4 MILE TO PROPOSED LEASE ROAD.

POGO PRODUCING CO.

REF: CYPRESS "34" FEDERAL #2 Well Pad Topo

THE CYPRESS "34" FEDERAL #2 LOCATED 1400' FROM THE NORTH LINE AND 1800' FROM THE WEST LINE OF SECTION 34, TOWNSHIP 23 SOUTH, RANGE 29 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.

BASIN SURVEYS P.O. BOX 1786 - HOBBS, NEW MEXICO

W.O. Number: 7073	Drawn By: J. SMALL		
Date: 06-22-2006	Disk: JMS 7073W	Survey Date: 06-21-2006	Sheet 1 of 1 Sheets

1. Drill 26" hole to 40'. Set 40' of 20" conductor pipe and cement to surface with Redi-mix.

2. Drill 17½" hole to 550'. Run and set 550' of 13 3/8" 48# H-40 ST&C casing. Cement with 350 Sx. of 65/35/6 Class "C" POZ/GEL, tail in with 200 Sx. of Class "C" cement + ¼# Flocale/Sx, + 2% CaCl, circulate cement to surface.

3. Drill 12¼" hole to 3000'. Run and set 3000' of 9 5/8" 36# J-55 LT&C casing. Cement with 850 Sx. of 65/35/6 Class "C" POZ/GEL + 5% Salt, tail in with 200 Sx. of Class "C" cement + ¼# Flocele/Sx, + 2% CaCl, circulate cement to surface.

4. Drill 8½" hole to 8123±' (through curve), change to hole size 7 7/8" and drill to total depth of 10,777'±. Run and set 10,777'± of 5½" 17# N-80 LT&C & BTC casing. Cement in two stages with DV Tools at 4500' & 2800'. Cement 1st stage with 2000 Sx. of Premium Plus cement mixed at 14.1 PPG, cement 2nd stage with 850 Sx. of Premium Plus cement mixed at 14.1 PPG, cement 3rd stage with 650 Sx. of Premium Plus Light cement, tail in with 100 Sx. of Premium Plus cement mixed at 14.8 PPG. Circulate cement to surface.

LONG's METHOD OF SURVEY COMPUTATION

OBLIQUE CIRCULAR ARC INTERPOLATION

0	MD OF INTERPOLATION DEPTH,(feet)
#N/A	TVD COORDINATE OF THE DEPTH (feet)
#N/A	N/S COORDINATE OF DEPTH (feet)
#N/A	E/W COORDINATE OF DEPTH (feet)

DISTANCE TABLE

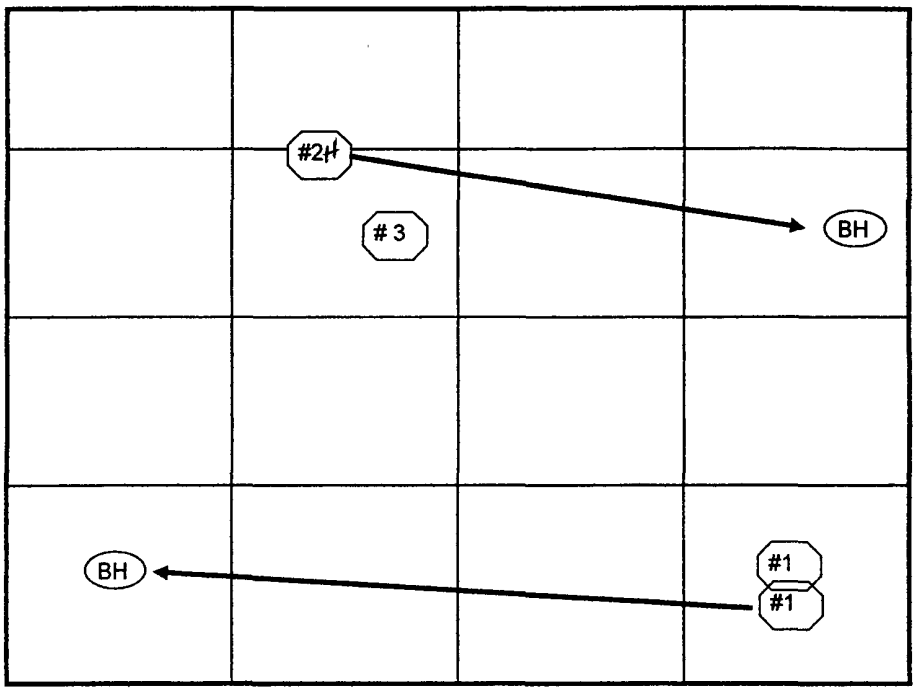
STATION A	STATION B	
3 D DISTANCE BETWEEN STATION A AND STATION B	0.00	ft
	Calculator =	

TABLE OF SURVEY STATIONS

STA #	ΔMD ft	INCL deg	AZIM deg	MD ft	TVD ft	N+/S- ft	E+/W- ft	DLS deg/100FT
1	TIE POINT =>	0	0	7300.00	7300.00	0.00	0.00	-
2	100	12	100.4328	7400.00	7399.27	-1.89	10.26	12.00
3	100	24	100.4328	7500.00	7494.20	-7.47	40.60	12.00
4	100	36	100.4328	7600.00	7580.65	-16.51	89.68	12.00
5	100	48	100.4328	7700.00	7654.83	-28.61	155.37	12.00
6	100	60	100.4328	7800.00	7713.50	-43.23	234.79	12.00
7	100	72	100.4328	7900.00	7754.10	-59.74	324.47	12.00
8	100	84	100.4328	8000.00	7774.85	-77.42	420.49	12.00
9	50	86	100.4328	8050.00	7779.21	-86.44	469.47	4.00
10	100	87.7	100.4328	8150.00	7784.70	-104.52	567.67	1.70
11	100	87.7	100.4328	8250.00	7788.71	-122.62	665.93	0.00
12	100	87.7	100.4328	8350.00	7792.73	-140.71	764.20	0.00
13	100	87.7	100.4328	8450.00	7796.74	-158.80	862.47	0.00
14	100	87.7	100.4328	8550.00	7800.75	-176.90	960.74	0.00
15	100	87.7	100.4328	8650.00	7804.77	-194.99	1059.00	0.00
16	100	87.7	100.4328	8750.00	7808.78	-213.08	1157.27	0.00
17	100	87.7	100.4328	8850.00	7812.79	-231.18	1255.54	0.00
18	100	87.7	100.4328	8950.00	7816.81	-249.27	1353.81	0.00
19	100	87.7	100.4328	9050.00	7820.82	-267.37	1452.07	0.00
20	100	87.7	100.4328	9150.00	7824.83	-285.46	1550.34	0.00
21	100	87.7	100.4328	9250.00	7828.85	-303.55	1648.61	0.00
22	100	87.7	100.4328	9350.00	7832.86	-321.65	1746.88	0.00
23	100	87.7	100.4328	9450.00	7836.87	-339.74	1845.14	0.00
24	100	87.7	100.4328	9550.00	7840.89	-357.83	1943.41	0.00
25	100	87.7	100.4328	9650.00	7844.90	-375.93	2041.68	0.00
26	100	87.7	100.4328	9750.00	7848.91	-394.02	2139.95	0.00
27	100	87.7	100.4328	9850.00	7852.93	-412.12	2238.21	0.00
28	100	87.7	100.4328	9950.00	7856.94	-430.21	2336.48	0.00
29	100	87.7	100.4328	10050.00	7860.95	-448.30	2434.75	0.00
30	100	87.7	100.4328	10150.00	7864.97	-466.40	2533.02	0.00
31	100	87.7	100.4328	10250.00	7868.98	-484.49	2631.28	0.00
32	100	87.7	100.4328	10350.00	7872.99	-502.58	2729.55	0.00
33	100	87.7	100.4328	10450.00	7877.00	-520.68	2827.82	0.00
34	100	87.7	100.4328	10550.00	7881.02	-538.77	2926.09	0.00
35	100	87.7	100.4328	10650.00	7885.03	-556.87	3024.35	0.00
36	100	87.7	100.4328	10750.00	7889.04	-574.96	3122.62	0.00
37	27	87.7	100.4328	10777.00	7890.13	-579.84	3149.15	0.00

CYPRESS WELL GROUPINGS

Sec 34, T-23-S, R-29-E, Eddy County, New Mexico



Well Name	Legal Location in 34	Depth and Strata	Current Prod Zone
CYPRESS 34 FD # 2H	1400 FNL & 1800 FWL	PROPOSED Pogo	N/A
CYPRESS 34 FD # 1	430 FSL & 660 FEL	BONE SPRINGS HORIZONTAL	1ST BONE SPRINGS
COCHITA 34 FD # 1	660 FSL & 660 FEL	Staked Not Drilled"Devon"	8300 BS ON PERMIT
BLAKEMORE EST FD 3	1980 FNL & 2130 FWL	Staked Not Drilled"EXXON"	7000 BS ON PERMIT

APPLICATION TO DRILL

POGO PRODUCING COMPANY
CYPRESS "34" FEDERAL # 2
UNIT "F" SECTION 34
T23S-R29E EDDY CO. NM

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

1. LOCATION: 1400' FNL & 1800' FWL SECTION 34 T23S-R29E

2. ELEVATION ABOVE SEA LEVEL: 3059' GR.

3. GEOLOGIC NAME OF SURFACE FORMATION: Quaternery 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: MD-11075' TVD-7902'

6. ESTIMATED TOPS OF GELOOGICAL MARKERS:

Basal Anhydrite	2950'	Brushy Canyon	5250'
Delaware Lime	3150'	Bone Spring	6900'
Delaware Sand	3200'	1st Bone Spring	7710'
Cherry Canyon	4000'	TD	7900'

7. POSSIBLE MINERAL BEARING FORMATION:

1st Bone Spring	Oil

8. CASING PROGRAM:

Hole Size	Interval	OD of Casing	Weight	Thread	Collar	Grade
26"	0-40	20"	NA	NA	NA	Conductor
17½"	0-550'	13 3/8"	48#	8-R	ST&C	H-40
12¼"	0-3000'	9 5/8"	36#	8-R	ST&C	J-55
8½"-7 7/8"	0-11075'	5½"	17#	8-R BUTT.	LT&C	N-80

APPLICATION TO DRILL

POGO PRODUCING COMPANY
CYPRESS "34" FEDERAL # 2H
UNIT "F" SECTION 34
T23S-R29E 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 550' of 13 3/8" 48# H-40 ST&C casing. Cement with 350 Sx. of 65/35/6 Class "C" POZ/GEL, tail in with 200 Sx. of Class "C" cement + 2% CaCl circulate cement to surface.
9 5/8"	Intermediate	Set 3000' of 9 5/8" 36# J-55 LT&C casing. Cement with 800 Sx. of Class "C" 65/35/6 POZ/GEL + 5% Salt, tail in with 200 Sx. of Class "C" cement + 2% CaCl, circulate circulate cement to surface.
5½"	Production	Set 11,075 of 5½" 17# N-80 LT&C & BTC casing. Cement in three stages with DV Tools at 4500'± & 2800'±. Cement 1st stage with 2000 Sx. of Premium Plus cement mixed at 14.1PPG, cement 2nd stage with 850 Sx. of Premium Plus cement mixed at 14.1 PPG cement 3rd stage with 600 Sx. of Premium Plus Light followed by 100 Sx. of Premium PLus cement mixed at 14.8 PPG circulate cement to 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 nippled 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
40-550'	8.4-8.7	29-36	NC	Fresh water Spud mud use paper to control seepage
550-3000'	10.0-10.2	29-38	NC	Brine water use paper to control water loss and high viscosity sweeps to clean hole.
3000-11,075	8.4-8.8	30-38	NC*	Fresh water use high viscosity sweeps to clean hole. Use a Dris-Pac mud system to control water loss, which may be needed to log well and run casing

* Water loss may have to be controled in order to log well and run casing. Water loss may be reduced to 10cc or less.

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
CYPRESS "34" FEDERAL # 2H
UNIT "F" SECTION 34
T23S-R29E EDDY CO. NM

12. LOGGING, CORING, AND TESTING PROGRAM:

A. Open hole logs: Dual Induction, SNP, LDT, MSFL, Gamma Ray, Caliper from 8150±' back to 9 5/8" casing shoe.

B. Run Gamma Ray, Neutron from 9 5/8" casing shoe back to surface.

C. Rig up mud logger on hole at 3000'± and keep on hole to TD.

D. No DST's or cores are planned at this time.

13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. There is no known presence of H^2S in this area. If H^2S 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 190°.

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 45 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 BONE SPRING formation will be perforated and stimulated in order to establish production. The well will be swab tested and potentialed 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_2S safety instructor to the following:

   A. Characteristics of H_2S
   B. Physical effects and hazzards
   C. Proper use of safety equipment and life support systems.
   D. Principle and operation of H_2S 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_2S Detection and Alarm Systems

   A. H_2S 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_2S present in dangerous concentration. Only emergency personnel admitted to location.

5. Well control equipment

   A. See exhibit "E"

6. Communication

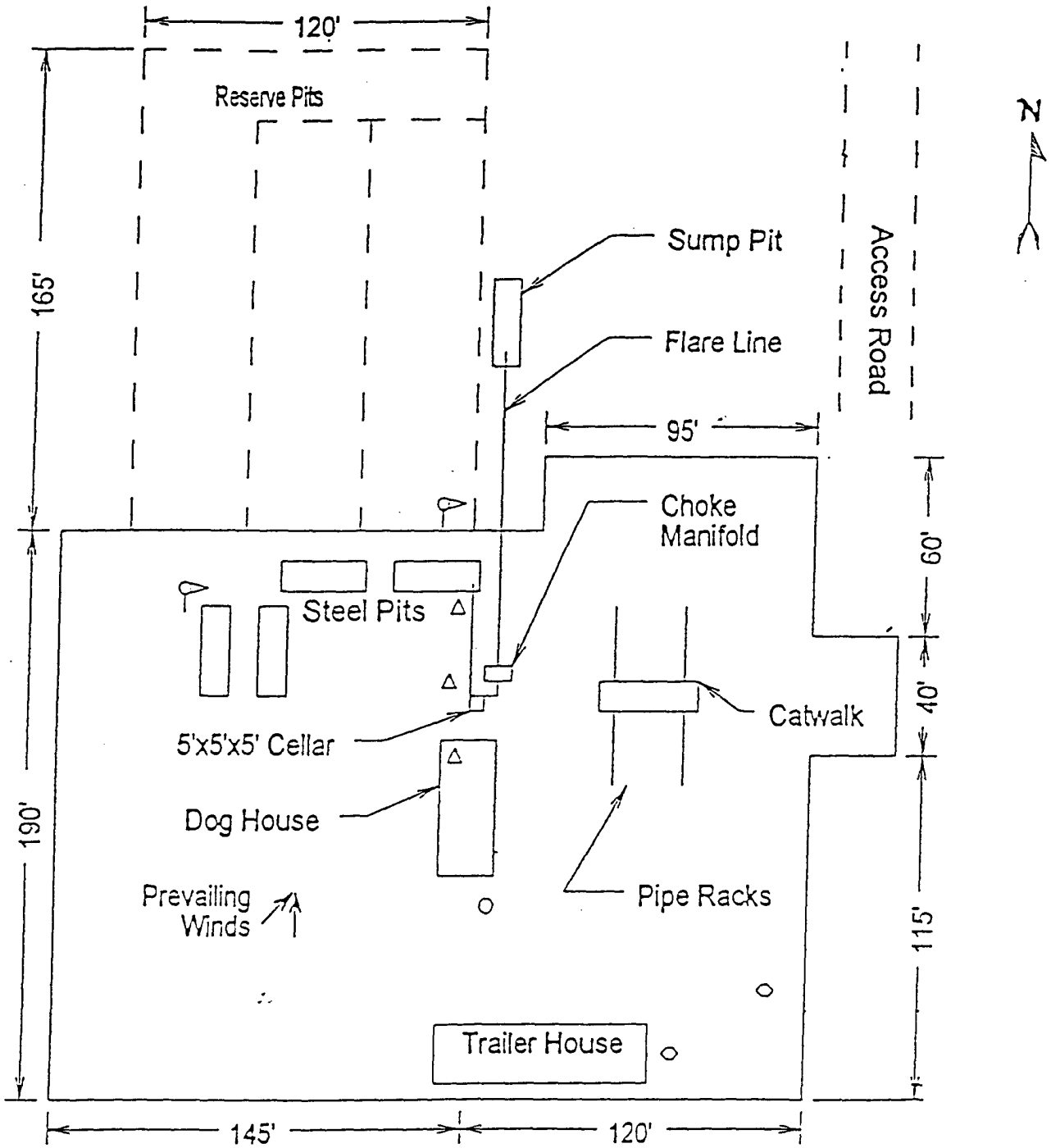
   A. While working under masks chalkboards will be used for communication.
   B. Hand signals will be used where chalk board is inappropriate.
   C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephoned will be available at most 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 location is near any dwelling a closed D.S.T. will be performed.

8. Drilling contractor supervisor will be required to be familiar with the effects H_2S has on tubular goods and other mechanical equipment.

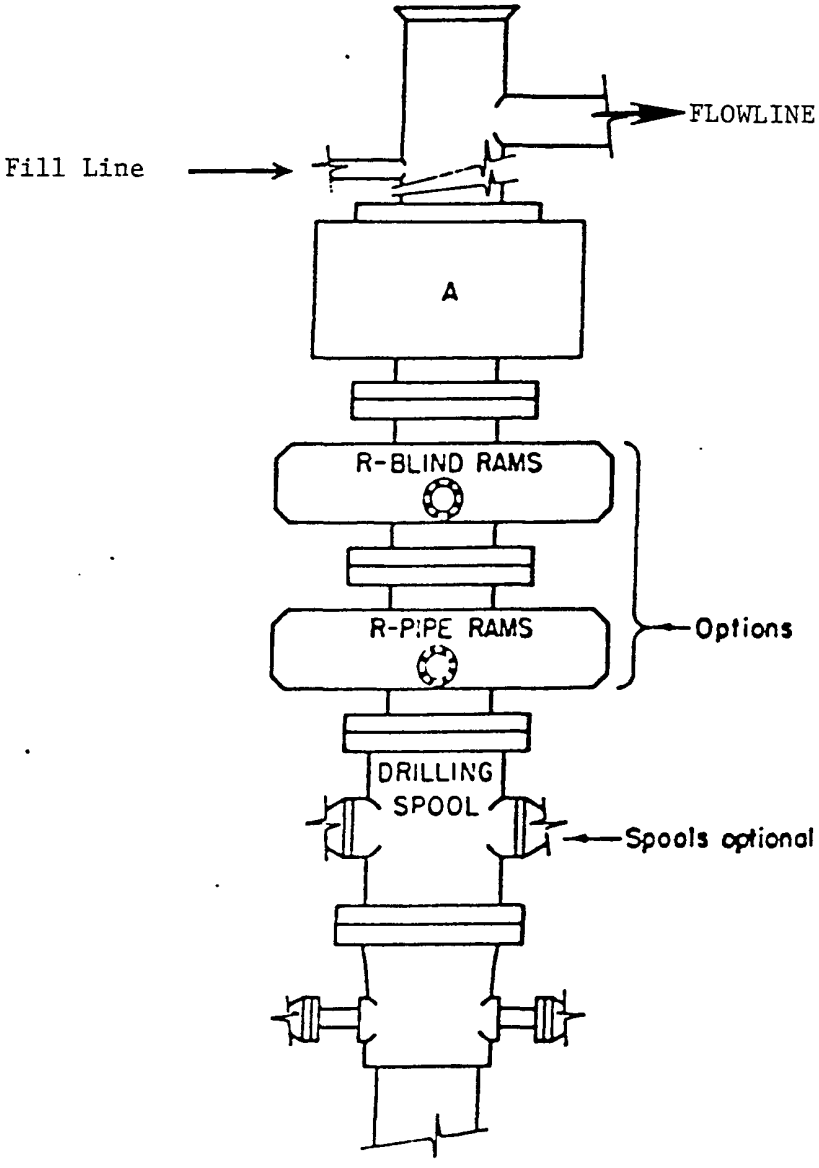
9. If H_2S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas seperator will be brought into service along with H_2S scavengers if necessary.



- 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
CYPRESS "34" FEDERAL #2
UNIT "F" SECTION 34
T23S-R29E EDDY CO. NM

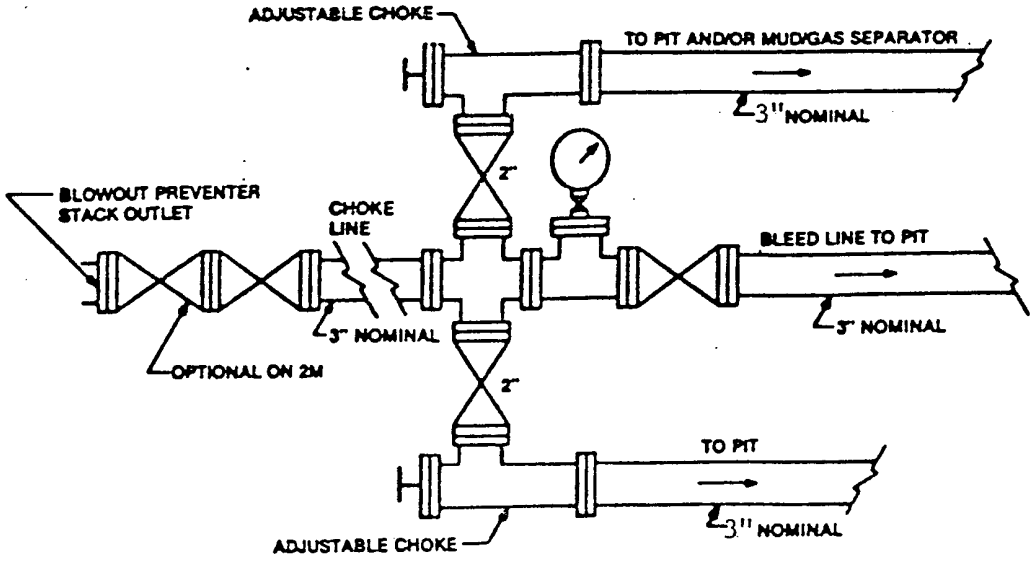


ARRANGEMENT SRRA

SERIES 900 3000 PSI WP

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

POGO PRODUCING COMPANY
CYPRESS "34" FEDERAL #2
UNIT "F" SECTION 34
T23S-R29E EDDY CO. NM



Typical choke manifold assembly for 3M WP system

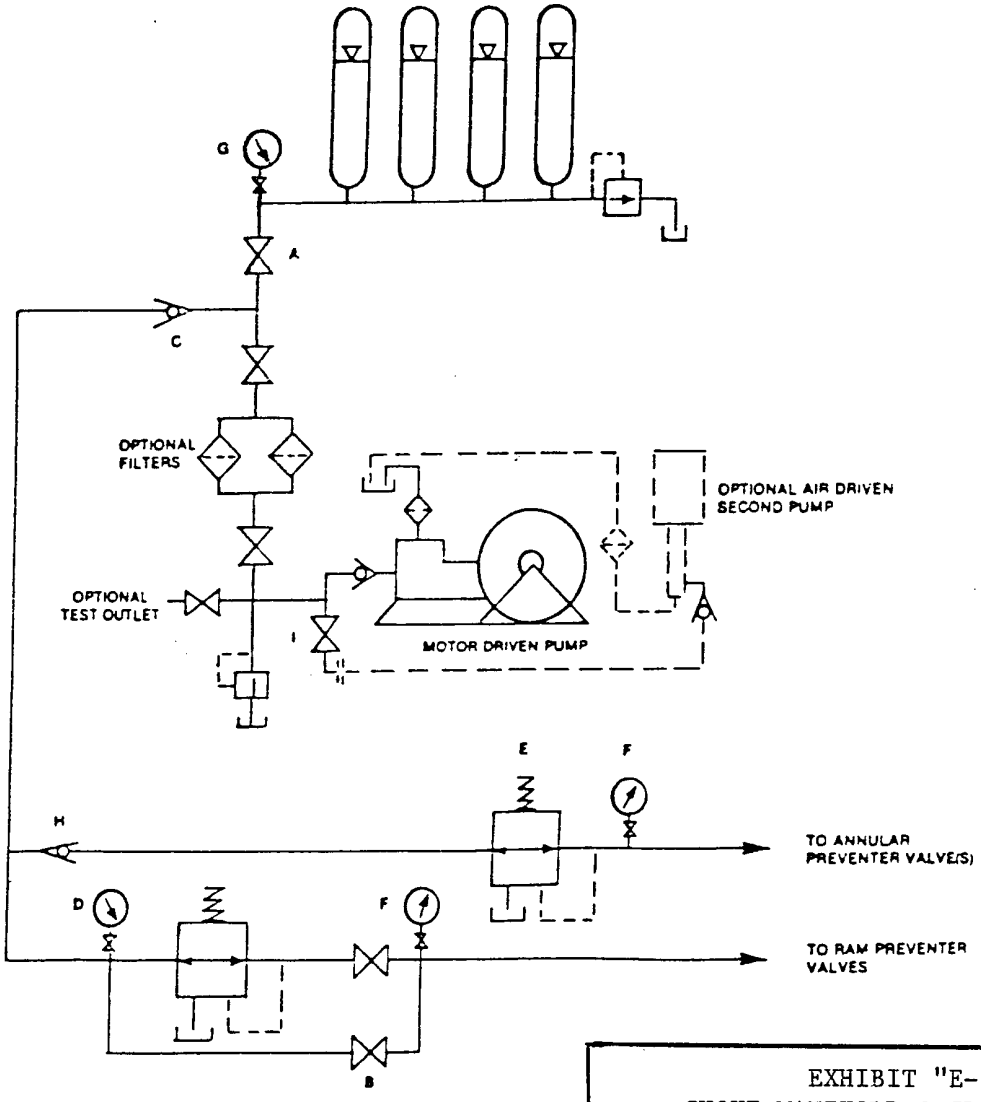


EXHIBIT "E-1"
CHOKE MANIFOLD & CLOSING UNIT

POGO PRODUCING COMPANY
CYPRESS "34" FEDERAL #2 H
UNIT "F" SECTION 34
T23S-R29E EDDY CO. NM

CONDITIONS OF APPROVAL - DRILLING

Well Name & No. 2- Cypress "34" Federal #2H
Operator's Name: Pogo Producing Company
Location SHL: 1400FNL, 1800FWL, Section 34, T-23-S, R-29-E
Location BHL: 1980FNL, 0330FEL, Section 34, T-23-S, R-29-E
Lease: NM-86024

I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 234-5972 or (505) 361-2822 (After hours) - for wells in Eddy County in sufficient time for a representative to witness:

A. Spudding

B. Cementing casing: 13-3/8 inch 9-5/8 inch 5-1/2 inch

C. BOP tests

2. Although no Hydrogen Sulfide (H2S) has been reported in the area, it is always a possible hazard.

3 Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

4. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15 day time frame.

5. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.

6. A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales.

7. Gamma-Ray/Neutron logs shall be run from the base of the Salado Formation to the surface; cable speed not to exceed 30 feet per minute.

II. CASING:

1. The 13-3/8 inch surface casing shall be set **a minimum of 25 feet into the Rustler Anhydrite approximately 550 feet**, below usable water and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.

Possible lost circulation in the Delaware and Bone Spring formations.

High potential for karst and cave features.

2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is **circulate cement to the surface.**

3. The minimum required fill of cement behind the 5-1/2 inch production casing is **cement shall circulate to surface.**

4. Whenever a casing string is cemented in the R-111-P Potash Area, cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

III. PRESSURE CONTROL:

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the **13-3/8** inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling the surface and intermediate casing shall be **3M** psi. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling below the **9-5/8** inch casing shall be **3M** psi.

3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.
- The tests shall be done by an independent service company.
- The results of the test shall be reported to the appropriate BLM office.
- Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- Testing must be done in a safe workman-like manner. Hard line connections shall be required.

Engineer on-call phone: 505-706-2779

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