Form 3160-3
(July 1992)

BARRY

Oil Cons. N.M. DIV-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.: NM-89819

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

7. UNIT AGREEMENT NAME: ---- 32334

8. FARM OR LEASE NAME, WELL NO.: PATTON "18" FEDERAL # 2

9. API WELL NO.: 30-015-32791

10. FIELD AND POOL, OR WILDCAT: POKER LAKE DELAWARE NW

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: SECTION 18 T24S-R31E

12. COUNTY OR PARISH: EDDY CO. | 13. STATE: NEW MEXICO

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ]

b. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] OTHER 17891 SINGLE ZONE [X] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR: POGO PRODUCING COMPANY (RICHARD WRIGHT 915-685-8140)

3. ADDRESS AND TELEPHONE NO.: P.O. BOX 10340 MIDLAND, TEXAS 79702-7340 (915-685-8100)

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 330' FNL & 330' FEL SECTION 18 T24S-R31E EDDY CO. NM
At proposed prod. zone: SAME

Wt. A

POTASH

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: Approximately 15 miles East Southeast of Carlsbad New Mexico.

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
330	640	40
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
2100'	8500'	ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3516' GR.

Carlsbad Controlled Water Basin

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 20"	NA	40'	Cement to surface with Redi-mix
17½"	H-40 13 3/8"	48	975	1050 Sx. circulate to surface
11"	J-55 8 5/8"	32	4250'	1200 Sx " " "
7 7/8"	J-55 5½"	17 & 15.5	8500'	1750 Sx. 3 stages TOC surface

1. Drill 25" hole to 40'. Set 40' of 20" conductor pipe and cement to surface with Redi-mix.

2. Drill 17½" hole to 975'. Run and set 975' of 13 3/8" 48# H-40 ST&C casing. Cement with 800 Sx. of 65/35/6 Class "C" POZ-GEL, tail in with 250 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 1000 Sx. of 65/35/6 Class "C" POZ-GEL + 5% Salt, tail in with 200 Sx. of Class "C" cement + 2% CaCl, circulate cement to surface.

4. Drill 7 7/8" hole to 8500'. Run and set 5½" casing as follows: 2500' of 5½" 17# J-55 LT&C, 5000' of 5½" 15.5# J-55 LT&C, 1000' of 5½" 17# J-55 LT&C casing. Cement in 3 stages with DV Tools at 8500' & 3700'±. Cement 1st stage with 650 Sx. of Class "H" cement + additives, 2nd stage cement with 600 Sx. of Class "C" cement + 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 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.

SIGNED Joel Janica TITLE Agent DATE 03/21/03

(This space for Federal or State office use)

PERMIT NO. ---------- APPROVAL DATE ----------

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

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/ LINDA S.C. RUNDELL TITLE STATE DIRECTOR DATE MAY 01 2003

*See Instructions On Reverse Side

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.

APPROVAL FOR 1 YEAR

RECEIVED
MAY 2003
OCD - ARTESIA

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

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

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

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

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-102
Revised February 10, 1994
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	Pool Name
	96046	POKER LAKE DELAWARE NORTHWEST

Property Code	Property Name	Well Number
	PATTON 18 FEDERAL	2

OGRID No.	Operator Name	Elevation
17891	POGO PRODUCING COMPANY	3516'

Surface Location

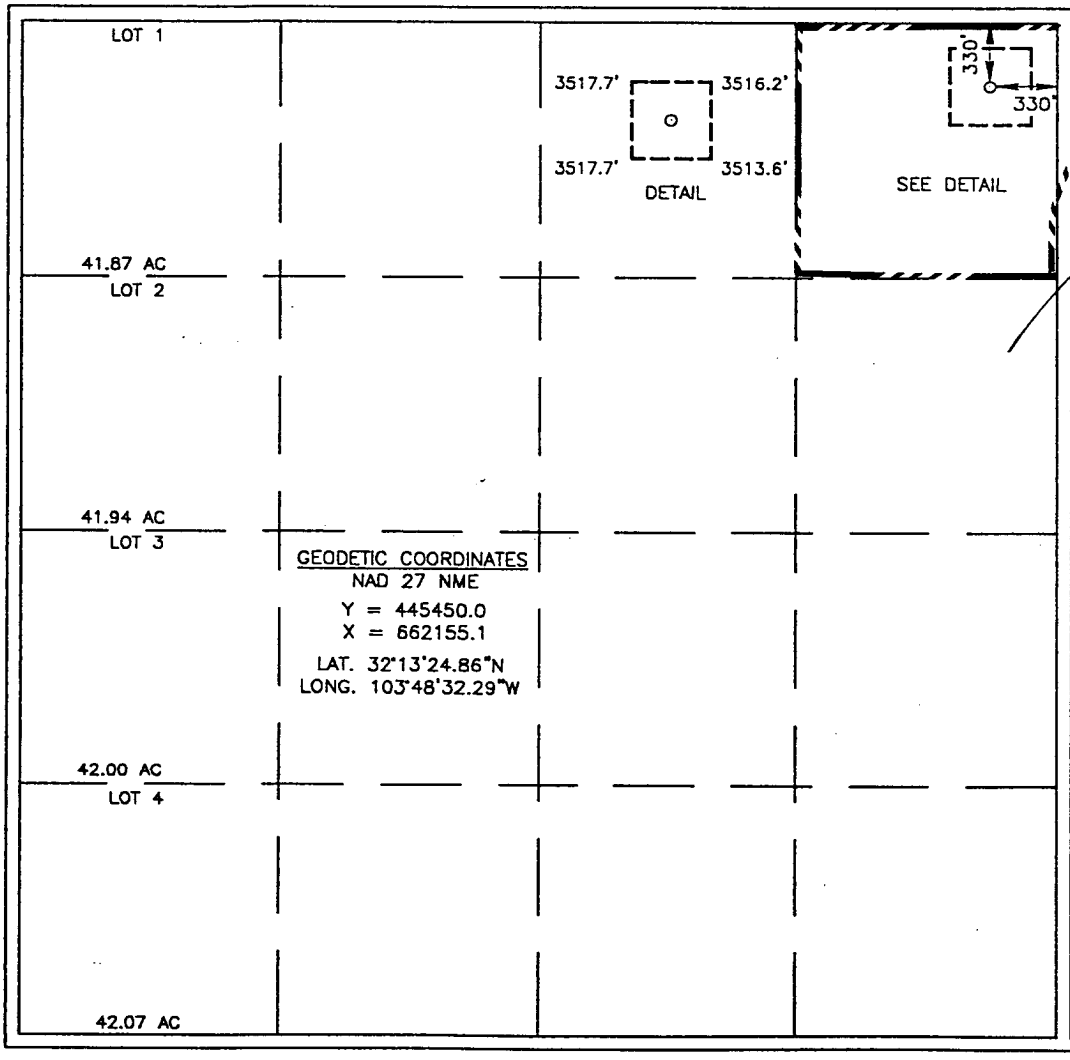
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	18	24-S	31-E		330'	NORTH	330'	EAST	EDDY

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	Joint or Infill	Consolidation Code	Order No.
40			

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 the the information contained herein is true and complete to the best of my knowledge and belief.

Joe T. Janica
Signature

Joe T. Janica
Printed Name

Agent
Title

03/21/03
Date

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.

MARCH 06, 2003
Date Surveyed A.W.B

Signature & Seal of Professional Surveyor

Gary L. Eidson 3/11/03

03.11.0280

Certificate No. RONALD J. EIDSON 3239
GARY EIDSON 12641

EXHIBIT "A"

APPLICATION TO DRILL

POGO PRODUCING COMPANY
PATTON "18" FEDERAL # 2
UNIT "A" SECTION 18
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 providedfor your consideration.

1. Location of well: 330' FNL & 330' FEL SECTION 18 T24S-R31E EDDY CO. NM

2. Ground Elevation above Sea Level: 3516' GR

3. Geological age of surface formation: QUATERNARY

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: 8500'

6. Estimated tops of geological markers:

Rustler Anhydrite	621'	Cherry Canyon	5160'
Top Salt	990'	Manzanita	5340'
Delaware Lime	4240'	Brushy Canyon	6400'
Bell Canyon	4260'	Bone Spring	8070'

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"	0-975'	13 3/8"	54.5	8-R	ST&C	J-55
11"	0-4250'	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
PATTON "18" FEDERAL # 2
UNIT "A" SECTION 18
T24S-R31E EDDY CO. NM

9. CEMENTING & SETTING DEPTH:

20" Conductor	Set 40' of 20" conductor and cement to surface with Redi-mix.
13 3/8"Surface	Set 975' of 13 3/8" 48# H-40 ST&C casing. Cement with 800 Sx of 65/35/6 Class "C" POZ-GEL, tail in with 250 Sx. of Class "C" cement + 2% CaCl, + ¼# Flocele/Sx. circulate cement.
8 5/8" Intermediate	Set 4250' of of 8 5/8" 32# J-55 ST&C casing. Cement with 1000 Sx. of 65/35/6 Class "C" POZ-GEL + 5% Salt, tail in with 200 Sx. of Class "C" cement + 2% CaCl, circulate cement.
5½" Production	Set 8500' of 5½" casing as follows: 2500' of 5½" 17# J-55 LT&C, 5000' of 5½" 15.5# J-55 LT&C, 1000' of 5½" 17# J-55 LT&C casing. Cement in 3 stages. 1st stage cement with 650 Sx. of Class "H" cement + additives, 2nd stage cement with 600 Sx. of Class "C" cement + 8# Gilsonite/Sx., 3rd stage cement with 400 Sx. of 65/35/6 Class "C" POZ-GEL, tail in with 100 Sx. of Class "C" cement + 1% CaCl, circulate cement to surface.

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 nippled 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 the drill pipe is out of hole on trips. Full opening stabbing valve and upper kelly cock will will be utilized. Exhibit "E-1" shows a hydraulically operated closing unit and a 3" 3000 PSI choke manifold with dual adjustable chokes. No abnormal pressures or temperatures are expected in this well.

11. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE SYSTEM
40-975'	8.4-8.7	29-34	NC	Fresh water Spud Mud add paper to control seepage.
975-4250	10.0-10.2	29-38	NC	Brine water add paper to control seepage and use high viscosity sweeps to clean hole.
4250-8500'	8.4-8.6	29-38	NC*	Fresh water use high viscosity sweeps to clean hole.

* If water loss control is required to log and run casing go to a fresh water Polymer system to control water loss and a fresh water Gel for viscosity.

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, & casing the viscosity and/or water loss may have to be adjusted to meet these needs.

12. LOGGING, CORING, AND TESTING PROGRAM:

A. Open hole logs: Dual Induction, SNP, LDT, Gamma Ray, Caliper from TD back to 4250' (8 5/8" casing shoe).

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

C. Rig up mud logger on hole at 4250' and keep on hole to TD.

D. No cores or DST's 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 4200 PSI, and Estimated BHT 160°.

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 30 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" & "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

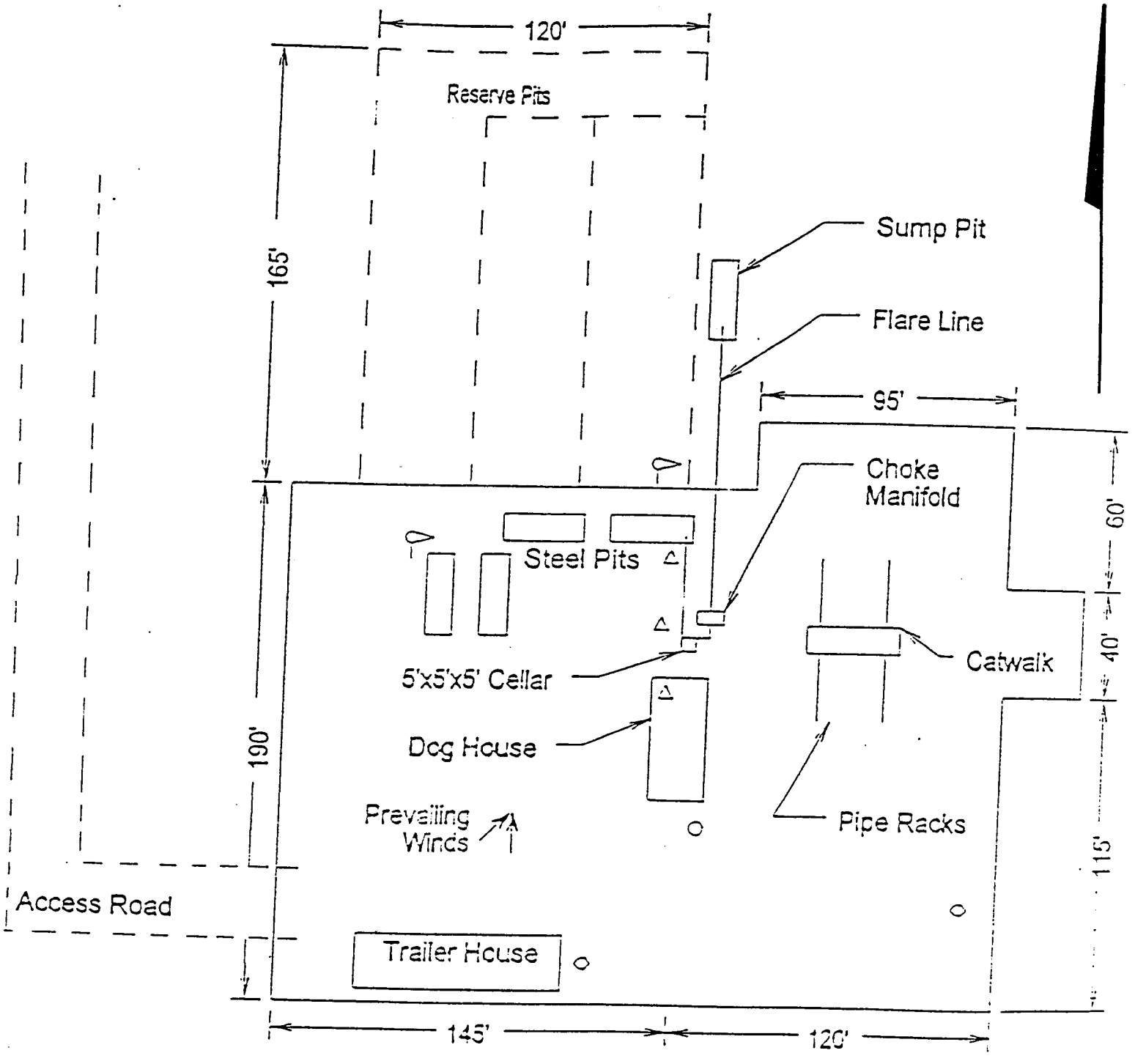
   A. Exhausts will be watered.
   B. Flare line will be equipped with an electric ignitor or a propane pilot light in case gas reaches the surface.
   C. If the location is near to a dwelling a closed DST will be performed.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

8. Drilling contractor supervisor will be required to be familiar with the effects H_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.

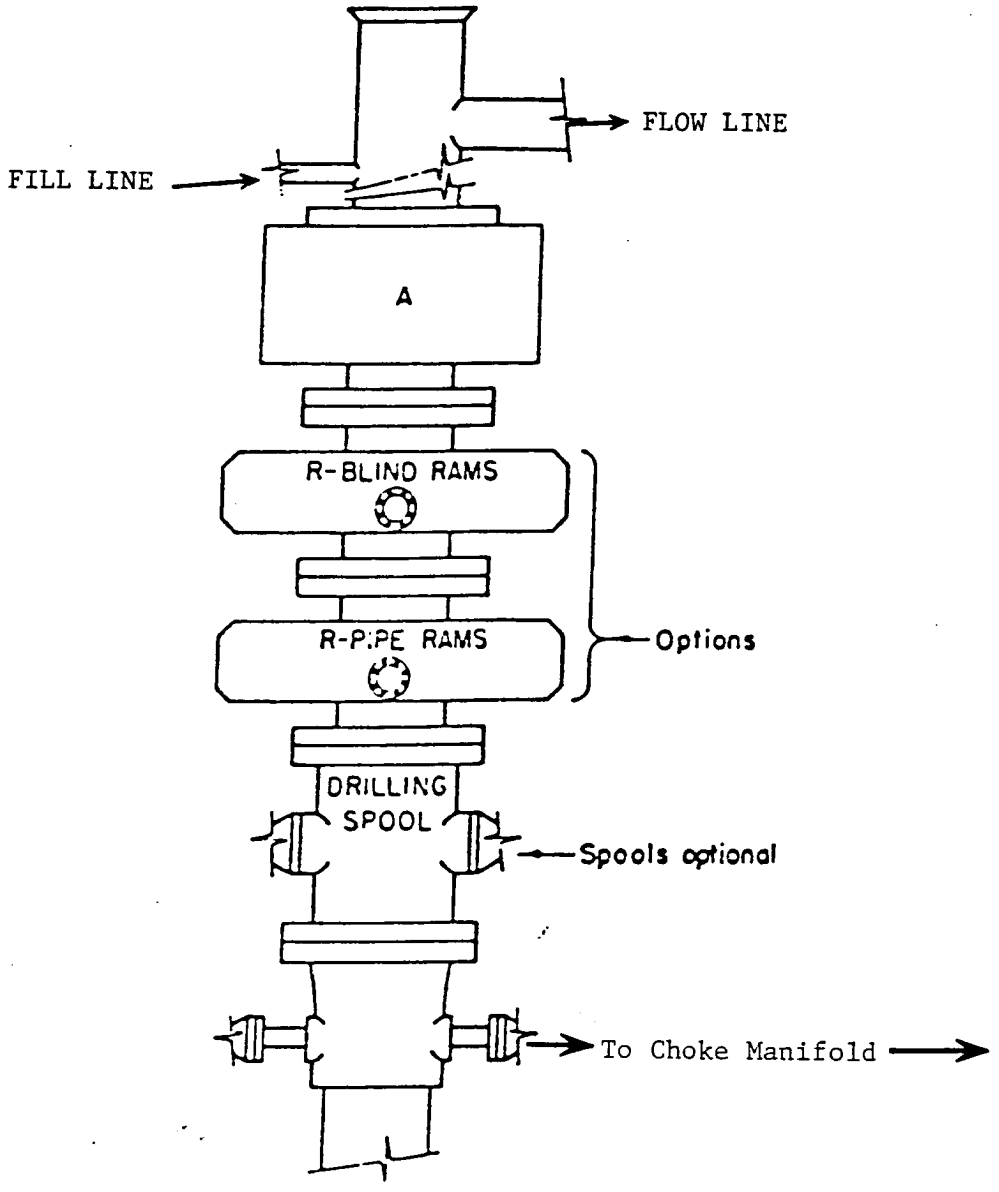
N



- 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
PATTON "18" FEDERAL # 2
UNIT "A" SECTION 18
T24S-R31E EDDY CO. NM



ARRANGEMENT SRRA

900 Series
3000 PSI WP

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

POGO PRODUCING COMPANY
PATTON "18" FEDERAL # 2
UNIT "A" SECTION 18
T24S-R31E EDDY CO.NM

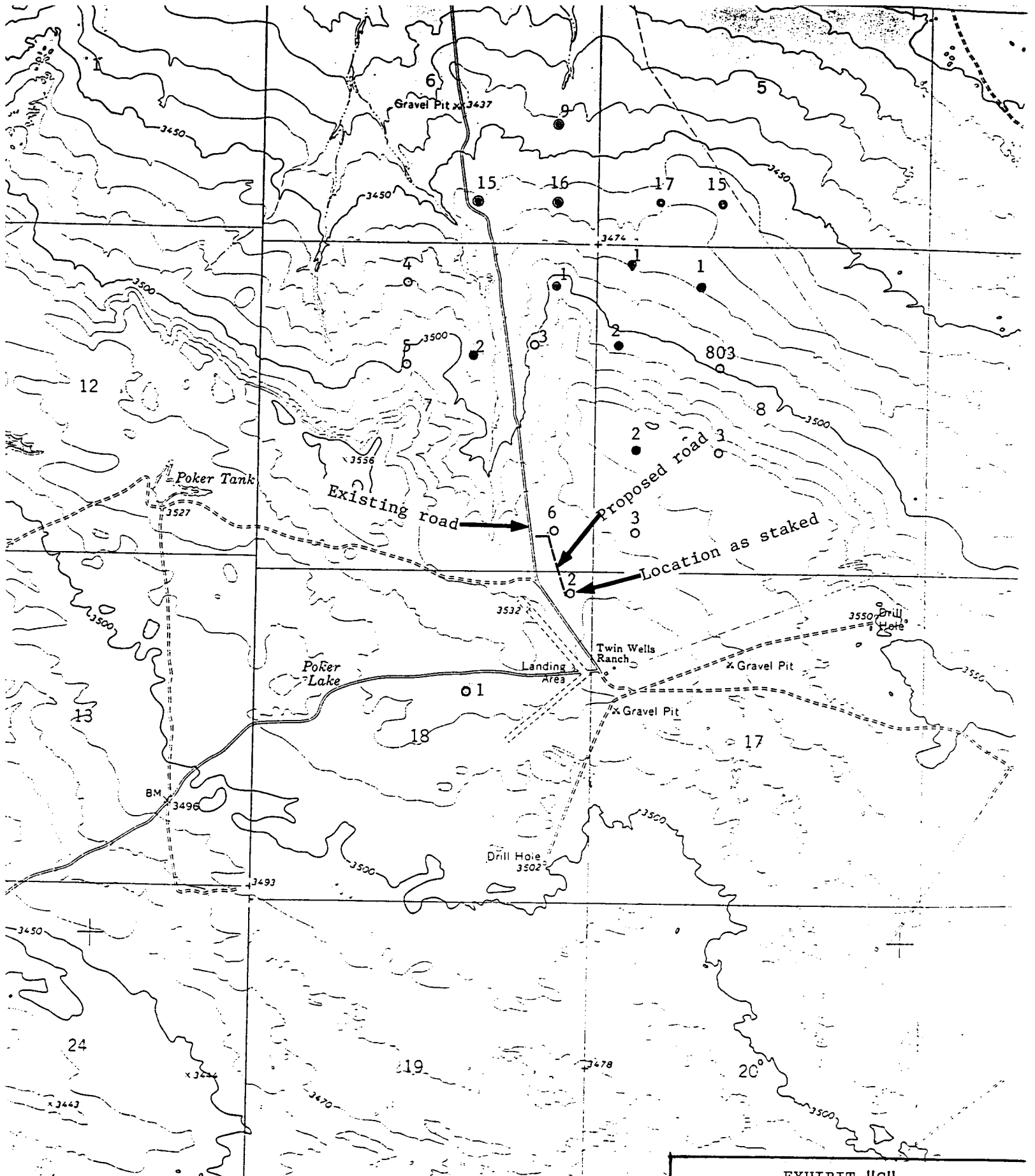


EXHIBIT "C"
TOPOGRAPHIC MAP SHOWINT
ROADS & DIRECTIONS TO

POGO PRODUCING COMPANY
PATTON "18" FEDERAL # 2
UNIT "A" SECTION 18
T24S-R31E EDDY CO. NM

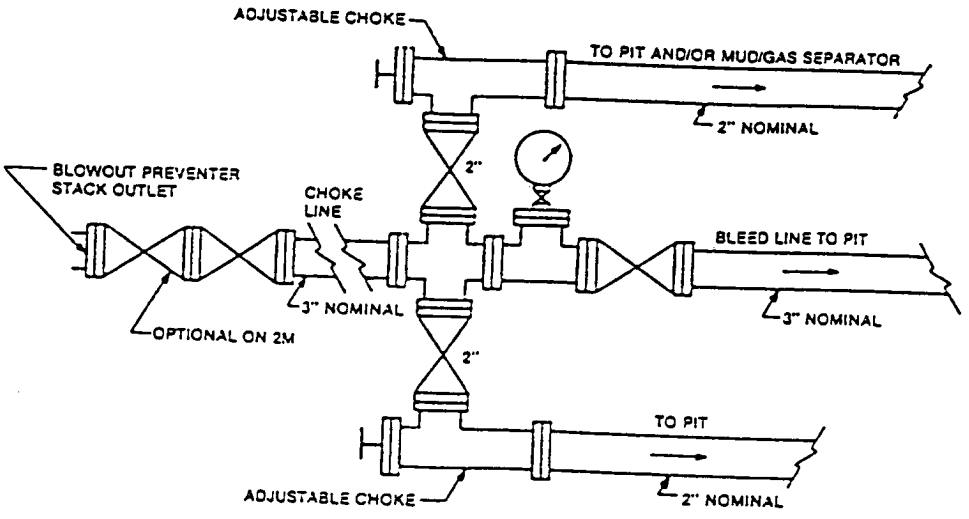


FIGURE K-1. Typical choke manifold assembly for 2M and 3M rated working pressure service — surface installation.

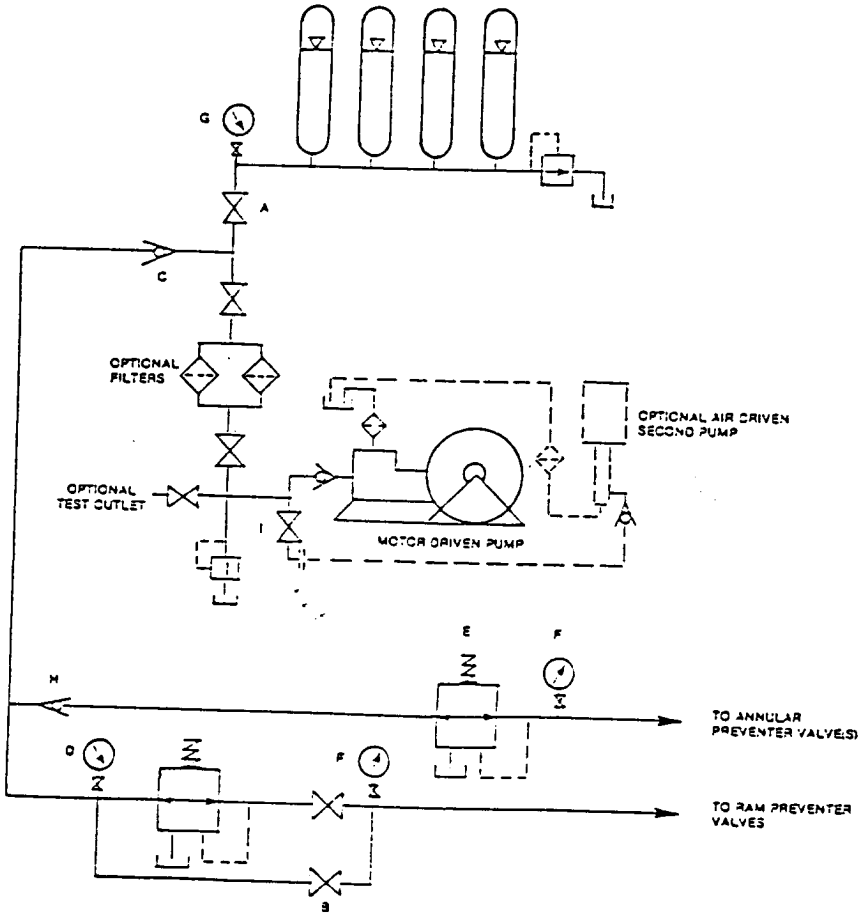


FIGURE K6-1. The schematic sketch of an accumulator system shows required and optional components.

EXHIBIT "E-1"
CHOKE MANIFOLD & CLOSING UNIT

POGO PRODUCING COMPANY
PATTON "18" FEDERAL # 2
UNIT "A" SECTION 18
T24S-R31E EDDY CO. NM