

N.M.O.C.D. COPY  
UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN TRIPPLICATE\*

FOUR FIRST COPIES ON (1)

Form approved.  
Budget Bureau No. 42-R1425.

30-015-22966

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

b. TYPE OF WELL

OIL ☐

GAS WELL ☒

OTHER

SINGLE ZONE ☒

MULTIPLE ZONE ☐

2. NAME OF OPERATOR

Perry R. Bass

3. ADDRESS OF OPERATOR

P O Box 2760 Midland, Texas 79702

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements\*)

At surface

1980' FNL & 1980' FEL Sec. 23, T21S, R28E

At proposed prod. zone

same as above.

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

8 miles NE of Carlsbad New Mexico

10. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)

1980'

16. NO. OF ACRES IN LEASE

640

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.

0

19. PROPOSED DEPTH

12,700'

20. ROTARY OR CABLE TOOLS

Rotary

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

3281.3 GL

22. APPROX. DATE WORK WILL START\*

Upon approval

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
18"	16"	65 #	40'	Ready-mix
15"	11 3/4"	42#	450'	500 sx
11"	8-5/8"	28#	2550'	1250 sx
7 7/8"	5 1/2"	17 & 15	T D	1000 sx

Drilling Procedure, BOPE Diagrams, formation tops and surface use plans are attached.

Gas is dedicated.

RECEIVED

MAY 11 1979

U. S. GEOLOGICAL SURVEY  
ARTESIA, NEW MEXICO

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, 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.

SIGNED

*Gene Young*

TITLE Engineer Assistant

DATE May 16, 1979

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

7-13 79

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

23

3281.3

Morrow

Wildcat

320

X

Unit

**RECEIVED**

**MAY 31 1979**

**U.S. GEOLOGICAL SURVEY  
ARTESIA, NEW MEXICO**



Gary E. Gerhard

Senior Drilling Engineer

BASS ENTERPRISES PRODUCTION CO

May 30, 1979



## United States Department of the Interior

GEOLOGICAL SURVEY

P. O. Drawer U  
Artesia, New Mexico 88210**RECEIVED****JUL 18 1979****O. C. C.  
ARTESIA, OFFICE**

July 13, 1979

Perry R. Bass  
P. O. Box 2760  
Midland, Texas 79702

Gentlemen:

PERRY R. BASS Big Eddy Unit No. 76 1980 FNL 1980 FEL Sec 23, T21S, R28E Eddy County Lease No. LC-069219
--

Above Data Required on Well Sign
----------------------------------

Your APPLICATION FOR PERMIT TO DRILL the above-described well to a depth of 12,700 feet to test the Morrow Formation is hereby approved subject to compliance with the OIL AND GAS OPERATING REGULATIONS (30 CFR 221) and the following conditions:

1. Drilling operations authorized are subject to compliance with the attached General Requirements for Oil and Gas Operations on Federal Leases, dated July 1, 1978.
2. Prior to commencing construction of road, pad, or other associated developments, operator will provide the dirt contractor with a copy of the Surface Use Plan and these Conditions of Approval including the attached General Requirements.
3. Submit a Daily Report of Operations from spud date until the well is completed and the Well Completion Report (form 9-330) is filed. The report should not be less than 8" x 5" in size and each page should identify the well.
4. All permanent above-ground structures and equipment shall be painted in accordance with the attached Painting Guidelines. The color used should simulate Sandstone Brown (Federal Standard No. 595A, color 20318 or 30318).
5. Before drilling below the 8-5/8" casing, the blowout preventer assembly will consist of a minimum of one annular type and two ram type preventers.
6. A kelly cock will be installed and maintained in operable condition.



7. After setting the 8-5/8" casing string and before drilling into the Wolfcamp formation, the blowout preventers and related control equipment shall be pressure tested to rated working pressures by an independent service company. Any equipment failing to test satisfactorily shall be repaired or replaced. This office should be notified in sufficient time for a representative to witness the tests and shall be furnished a copy of the pressure test report.
8. Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be installed and operating before drilling into the Wolfcamp formation and used until production casing is run and cemented. Monitoring equipment shall consist of the following:
  - (1) A recording pit level indicator to determine pit volume gains and losses.
  - (2) A mud volume measuring device for accurately determining mud volume necessary to fill the hole on trips.
  - (3) A flow sensor on the flow-line to warn of any abnormal mud returns from the well.
9. Notify the Survey in sufficient time to witness the cementing of the 8-5/8" casing.
10. Cement behind the 11-3/4" and 8-5/8" casing must be circulated.
11. Contact the Bureau of Land Management's Carlsbad Resource Area office (505-887-6544) prior to any road construction, so that an archaeologist may be present.
12. Please have anyone contacting the Survey in regard to this well to identify the well with all of the information required above for the well sign.

Sincerely yours,

Joe G. Lara  
Acting District Engineer

## DRILLING PROCEDURE

BIG EDDY UNIT # 76

Location: 1980' FNL & 1980' FEL, Sec. 23, T21N, R28E.

Conductor Casing: 40' + of 16" conductor casing will be set with a rathole machine and cemented to the surface with readi-mix.

Surface Hole: A 15" OH will be drilled to 450' + (Rustler Anhydrite) and 11 3/4" casing run to total depth. The surface casing will be cemented with 400 sx Class "C" plus 2%  $\text{CaCl}_2$ . Cement must be circulated to the surface.

Total WOC time is 8 hours.

Nippling up 11 3/4" casing: After waiting 4 hours "nipping up" procedures may begin. A 11 3/4" SW 3000# WP x 12" 3000 # RJT casing head will be welded in place. A set of hydraulic operated pipe and blind rams will then be installed. (See BEPCO Drawing II attached) and tested to 1000 psi with the rig pump.

The results of this test must be reported in the daily drillers' log.

Intermediate hole: A 11" OH will then be drilled to 2550' (B/Lamar Lime). 8 5/8" casing will be run to total depth and cemented with 1000 sx of Halliburton "Light" cement tailed in with 250 sx Class "C" plus 2%  $\text{CaCl}_2$ . Cement must be circulated to the surface.

Total WOC time for this casing string will be 12 hours.

Nippling up 8 5/8" Casing: After waiting 4 hours "Nipping up" procedures may begin. The 11 3/4" casinghead will be removed and a 8 5/8" SW 5000# WP x 12" 5000# WP RJT casinghead installed.

A BOP stack consisting of hydrill, pipe rams, and blind rams will be installed as per BEPCO Drawing IV (attached). This BOP stack will be hydro-statically tested to 5000 psi (hydril 1500#) by Yellow Jacket. The USGS will be notified in sufficient time to witness the testing of the 8 5/8" BOP stack. A copy of the test results will also be furnished the USGS.

The results of this test will be recorded in the daily drillers' log.

Production Hole: A 7 7/8" OH will then be drilled to TD (12,525'+). A PVT recorder, flow-show sensor and rotating head will be installed before drilling the Wolfcamp.

5 1/2" casing will then be run to TD. This casing string will be cemented with 1000 sx Class "H" plus 5# KCl per sack. The cement volume should be sufficient to bring the cement top 1000' above the Wolfcamp.

Time: This well is estimated to take 52 days from spud to TD.

MUD PROGRAM

BIG EDDY UNIT #76

1930' FNL & 1980' FEL, Sec. 23, T21S, R28E

Surface Hole:

The 15" surface hole will be drilled with a fresh water native mud, viscosity 34-40, wt. 8.9-9.2 ppg.

Intermediate Hole:

The 11" intermediate hole will be drilled with a 10 ppg brine water fluid, viscosity will be controlled at 28-32 or as hole conditions dictate. Paper may be used to control seepage.

Production Hole:

The 7 7/8" production hole will be drilled with fresh water 8.4-8.9 ppg from 2550' to 9625' (T/Wolfcamp). A fresh water gel 32-34 vis, low solids, non-dispersed system may be used through the Delaware Mountain Group (2550'-4000') for sample evaluation but after penetrating the Indian Draw, 49er sections the system can be watered back.

At 9625' displace the hole with 10 ppg brine water. This system can be used from the top of the Wolfcamp to T.D. with variations in viscosity weight and water loss as hole conditions dictate. A Grant rotating head and SWACO or similar mud-gas separator should also be installed at this time.

At the top of the Strawn (11,250') the weight should be increased to 10.3 ppg with soda ash, viscosity raised to 36 with drispac and XC-polymer. The fluid loss should be lowered to 15 cc or less.

Approximately 100' above the Atoka (11,350') the weight should again be increased to approximately 11#/gal and the water loss lowered to 10 cc (3% KCl should also be added at this time). These properties will be maintained for the remainder of the well. Ground paper may be added to the system to control any fluid seepage. Fluid weight can be increased or decreased as warranted.

MULTI-POINT SURFACE USE AND OPERATIONS PLAN

BIG EDDY UNIT # 76

RECEIVED

1980' FEL 1980' FNL

MAY 31 1979

Sec. 23, T21S, R28E

Eddy County, New Mexico

U.S. GEOLOGICAL SURVEY  
ARTESIA, NEW MEXICO

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of the plan is to describe the location of the proposed well, the proposed construction, activities, and operations plan, the magnitude of necessary surface disturbance involved, and the procedures to rehabilitate the surface after completion of operations so that an appraisal can be made on environmental effects.

1. Existing roads including location of exit from main highway Exhibit "A" is a portion of a map showing existing road. This road is obtained by travelling approx. 2½ miles NE of Carlsbad and turning right at the Sheriffs' Posse Roping Arena. The existing is approximately 8 miles down this road.

2. Planned access road Exhibit "B" is a drawing showing planned access road. This road will be 12' wide by approximately 5000' long. The road & pad will be constructed of watered and compacted caliche. There will be turnouts every 2000'. No gates, cattleguards or culverts are anticipated.

3. Location of existing wells Exhibit "A" shows surrounding existing wells.

4. Location of tank battery and flow lines If a commercial well is obtained, production facilities will be located on the well pad. Refer to Exhibit "C"

5. Location and type of water supply Fresh water to be hauled from Carlsbad.  
Brine water to be hauled from Champion Brine Sales 3½ miles east and 2½ miles  
south of Carlsbad.
6. Source of construction material Exhibit "A" shows approximate location  
of caliche pit.
7. Methods of handling waste disposal:
- A. Drill cuttings will be disposed of in the drilling pits.
  - B. Drilling fluids will be allowed to evaporate in the drilling pits until pits are dry.
  - C. Water produced during tests will be disposed of in the drilling pits. Oil produced during tests will be stored in test tanks until sold.
  - D. Current laws and regulations pertaining to the disposal of human waste will be complied with.
  - E. Trash, paper, garbage, and junk will be buried in a separate trash pit and covered with a minimum of 24 inches of dirt. All waste materials will be contained to prevent scattering by the wind. Location of trash pit is shown in Exhibit "C".
  - F. Trash and debris will be buried or removed from the well site within 30 days after finishing drilling and/or completion operations. (Note: All trash left on well site to be removed or buried within 30 days must be contained to prevent scattering.)
8. Ancillary facilities none required
9. Well site layout Exhibit "C" shows the approximate dimensions of the  
well pad and reserve pit as well as the relative location of major rig  
components. Only minor levelling of the well site will be required. The  
reserve pit will be lined with plastic. The pit and pad area have been staked  
and flagged.



10. Plans for restoration of surface:

- A. Producing well - all pits will be cut, filled, and leveled as soon as practical to original conditions with rehabilitation to commence following removal of drilling and completion equipment.
- B. Dry hole - same as above with dry hole marker to be installed and surface reseeded if required. At the same time of final abandonment, USGS and BLM restoration stipulations will be complied with.

11. Other information:

A. Terrain Relatively flat

B. Soil sandy

C. Vegetation sparse, primarily mesquite with very little grass.

D. Surface use grazing

E. Surface water none

F. Water wells none

G. Residences and buildings none

H. Surface ownership The wellsite and access road are on Federal land.

I. Well signs posted at each drilling site.

J. Open pits - all pits containing liquid or gas will be fenced.

K. Archaeological resources none observed.

12. Operator's representative  
(Field personnel responsible for compliance with development plan for surface use)

DRILLING  
Mike Cure  
Box 2760  
Midland, Texas 79702  
915-684-5723

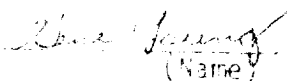
PRODUCTION  
J. L. Willis  
Box 1043  
Permian, Texas 79745  
915-663-0656  
(for) Mike Cure  
Box 2760  
Midland, Texas 79702  
915-684-5723

13. Certification:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently 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 Bass Enterprises Production Company and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

May 16, 1979

(Date)

  
(Name)

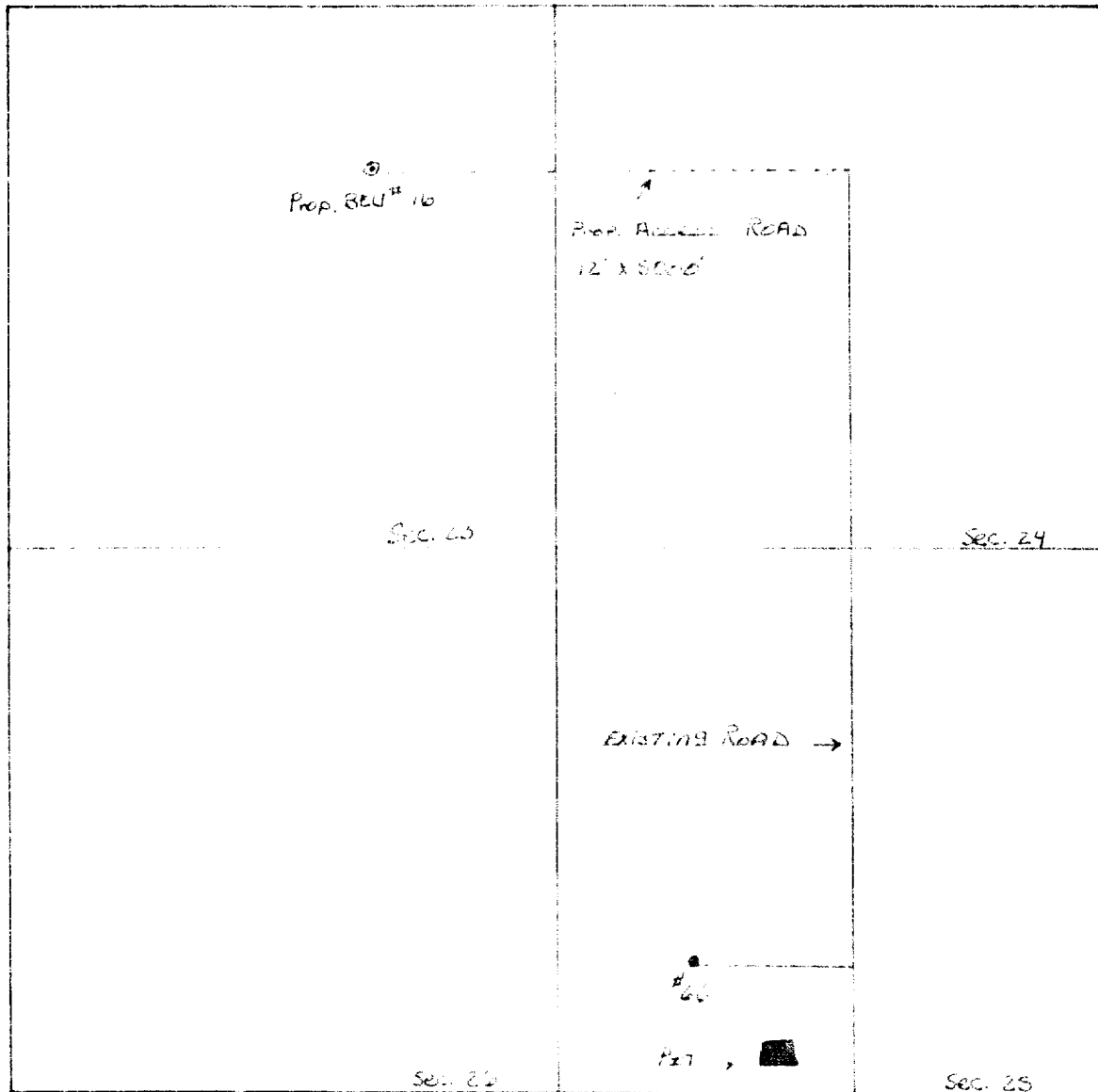
Engineering Assistant

(Title)

GAY:ea

# EXHIBIT A





T-215

R-288

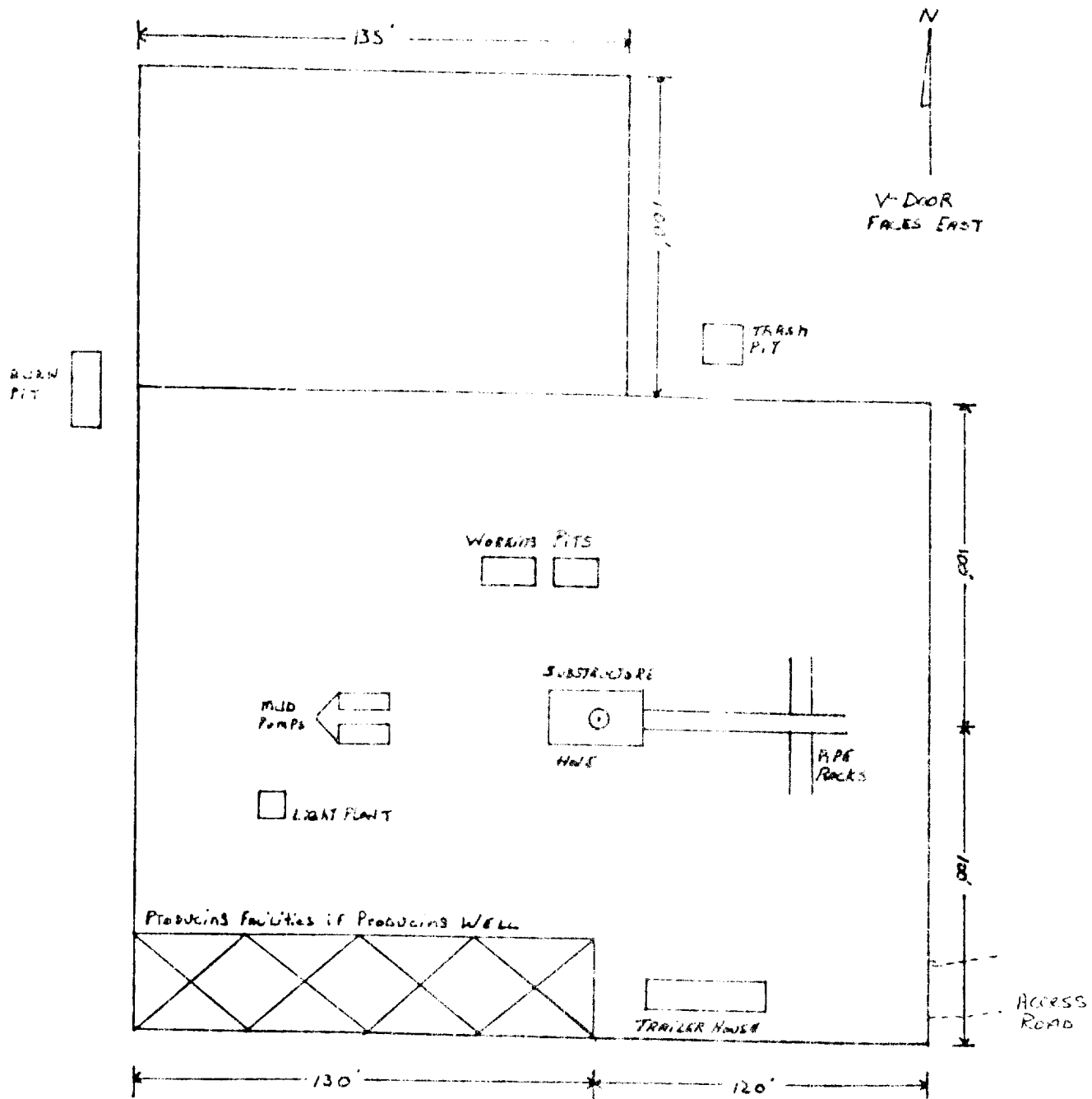
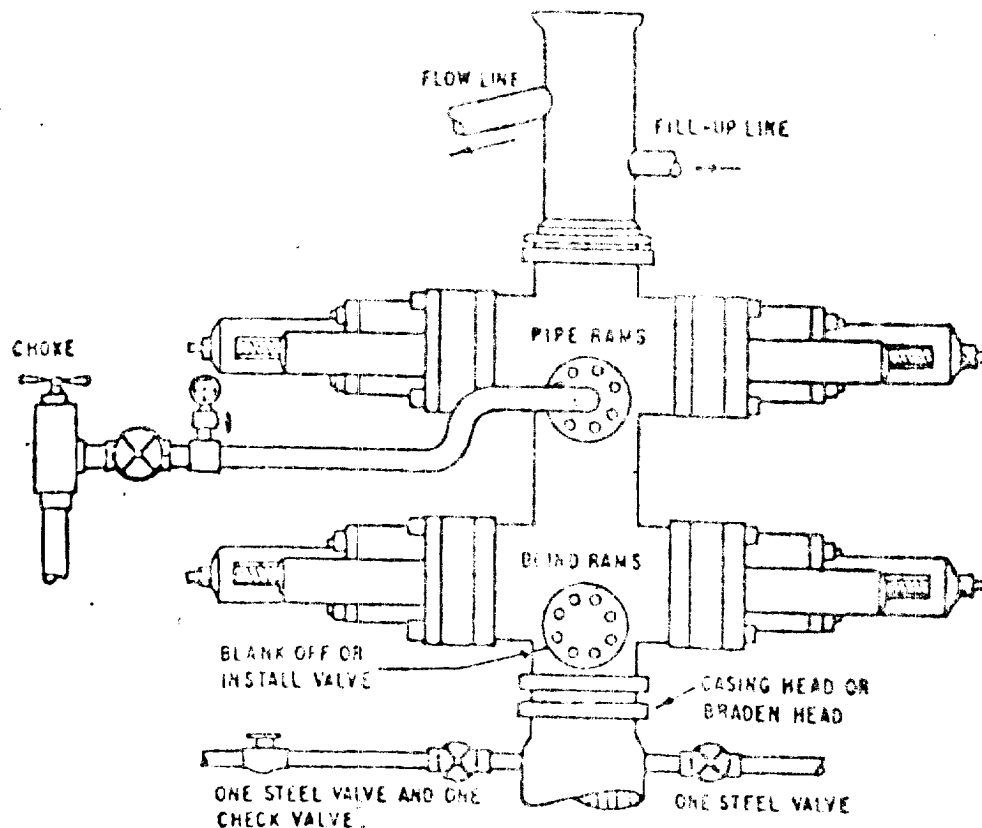


EXHIBIT C



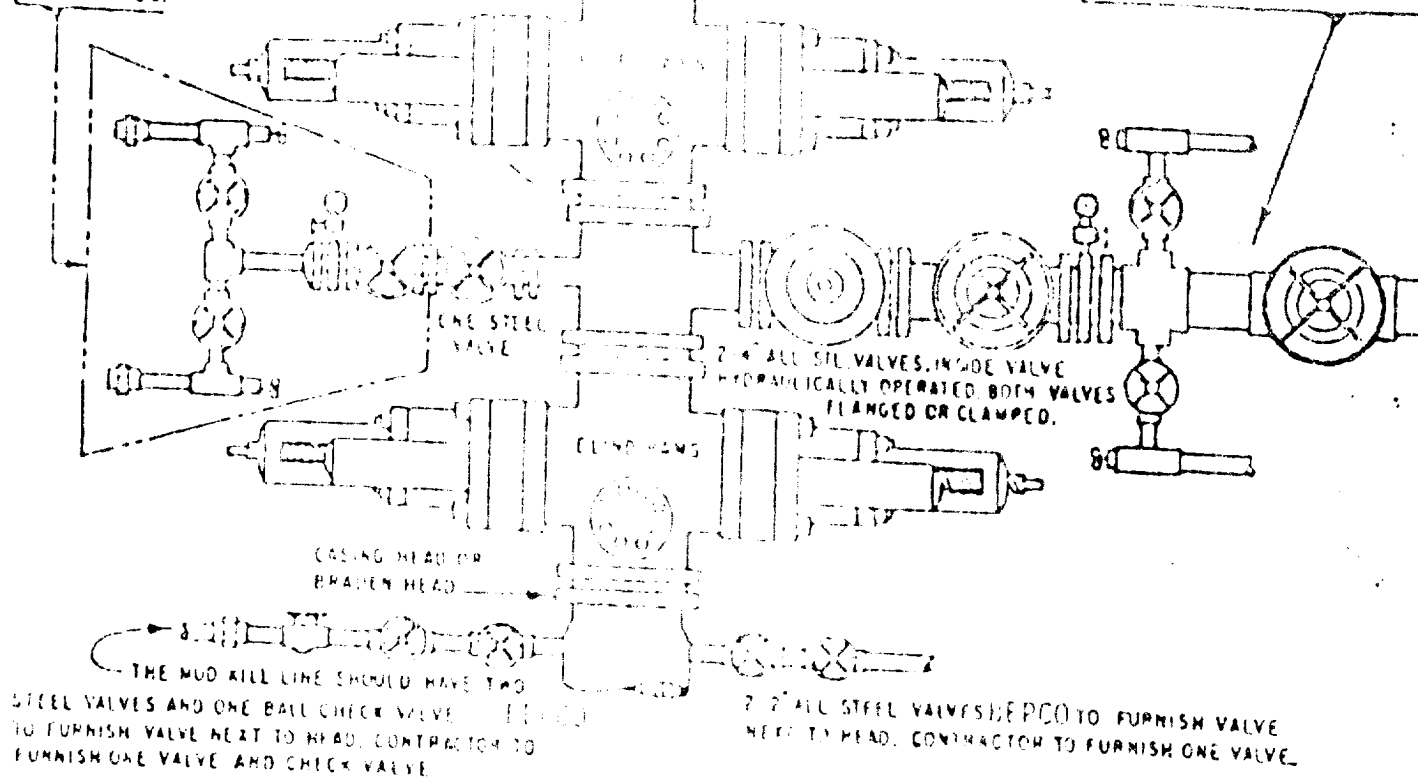
## THE FOLLOWING CONSTITUTE MINIMUM BLOWOUT PREVENTER REQUIREMENTS

- A. ONE DOUBLE GATE BLOWOUT PREVENTER WITH LOWER RAMS BLIND AND UPPER RAMS FOR PIPE, ALL HYDRAULICALLY CONTROLLED. OPENING ON PREVENTERS BETWEEN RAMS.
- B. OPENING TO BE FLANGED, STUDDED OR CLAMPED AND AT LEAST TWO INCHES DIAMETER.
- C. ALL CONNECTIONS FROM OPERATING MANIFOLD TO PREVENTERS TO BE ALL STEEL HOSE OR TUBE A MINIMUM OF ONE INCH IN DIAMETER.
- D. THE AVAILABLE CLOSING PRESSURE SHALL BE AT LEAST 15% IN EXCESS OF THAT REQUIRED WITH SUFFICIENT VOLUME TO OPERATE THE PREVENTERS.
- E. ALL CONNECTIONS TO AND FROM PREVENTERS TO HAVE A PRESSURE RATING EQUIVALENT TO THAT OF THE B.O.P.
- F. MANUAL CONTROLS TO BE INSTALLED BEFORE DRILLING CEMENT PLUG.
- G. VALVE TO CONTROL FLOW THROUGH DRILL PIPE TO BE LOCATED ON RIG FLOOR.
- H. CHOKE MAY BE EITHER POSITIVE OR ADJUSTABLE. Choke spool may be used between rams.

REDCO II  
ONE HYDRAULIC DUAL BLOWOUT PREVENTER

ALTERNATE POSITION FOR CHOKER MANIFOLD  
MASTER VALVES TO BE FLANGED  
OR CLAMPED.

CHOKER MANIFOLD TO HAVE  
LEAST ONE 2" VALVE TO CONTROL  
EACH CHOKER AND ONE 4" VALVE  
CONTROL CONTINUATION OF THE  
LINE IF LOCATED REMOTELY.  
WELL HEAD, ANOTHER MASTER  
VALVE SHOULD BE INSTALLED AT THE  
LOCATION. ONE CHOKER IS TO BE  
ADJUSTABLE. THE OTHER MAY BE  
POSITIVE.



## THE FOLLOWING CONSTITUTE MINIMUM BLOWOUT PREVENTER REQUIREMENTS

- CONDITIONS MAY BE MET BY AN ANNULAR TYPE BLOWOUT PREVENTER ON TOP AND A CHOKER SPOOL BELOW AND EITHER
  - TWO RAM TYPE BLOWOUT PREVENTERS BELOW THE SPOOL, THE LOWER UNIT CONTAINING BLIND RAMS AND THE UPPER UNIT CONTAINING PIPE RAMS, OR
  - A DUAL BLOWOUT PREVENTER BELOW THE SPOOL WITH BLIND RAMS ON BOTTOM AND PIPE RAMS ON TOP.
- CLOSING ON CHOKER SPOOL TO BE FLANGED, STUDDER OR CLAMPED.
- ALL CONNECTIONS FROM OPERATING MANIFOLDS TO PREVENTERS TO BE ALL STEEL PIPE OR TUBE A MINIMUM OF ONE INCH IN DIAMETER.
- THE AVAILABLE CLOSING PRESSURE SHALL BE AT LEAST 10% IN EXCESS OF THAT REQUIRED WITH SUFFICIENT VOLUME TO OPERATE THE
- ALL CONNECTIONS TO AND FROM PREVENTER TO HAVE A PRESSURE RATING EQUIVALENT TO THAT OF THE B O P.
- MANUAL CONTROLS TO BE INSTALLED BEFORE DRILLING COMMENCEMENT.
- PISTON COCK TO BE INSTALLED IN ALL
- INSIDE BLOWOUT PREVENTER TO BE AVAILABLE ON ALL SPOOLS.
- DUAL OPERATING CONTROLS ONE LOCATED AT OPERATING POSITION AND THE OTHER LOCATED A SAFE DISTANCE FROM THE RIG FLOOR.

FIGURE 17

## THREE CLOSURE HYDRAULIC BLOWOUT PREVENTERS

FORMATION TOPS

T/Salt	500'
B/Salt	2200'
T/Delaware Group	2550'
T/Delaware Sand	2650'
T/Indian Draw	3500'
T/Bone Spring	6250'
T/Wolfcamp	9625'
T/Strawn	10750'
T/Atoka	11350'
T/Middle Morrow	12000'
T/Lower Morrow	12250'