

SURFACE USE PLAN

Exxon Corporation  
P.P.C. State Federal Comm. No. 1  
1980' FNL & 525' FWL, Section 7, T17S, R29E  
Eddy County, New Mexico  
Lease No. N.M.-14847

1. EXISTING ROADS - Area Map, Exhibit "A", is a reproduction of the Red Wash and Red Wash SE, New Mexico quadrangle maps.
  - A. Exhibit "A" shows the proposed well site as staked.
  - B. From Loco Hills, New Mexico go west on New Mexico State Highway 82 for 6.7 miles. Turn right on Eddy County Road 211 and proceed 2.9 miles to the north. Turn left on the gravel road and travel 1.2 miles to the proposed access route flagged to the left. The proposed location is approximately 900' south of the existing road.
  - C. Approximately 900' of new road will be constructed.
  - D. Existing roads to the point of new construction are in good condition and will be maintained as necessary during drilling operations.
  - E. Existing roads in the vicinity of this well are shown on Exhibit "A".
2. PLANNED ACCESS ROADS - Approximately 900' of new access road will be constructed to access the proposed location.
  - A. The traveled width of the road will be approximately 12'.
  - B. The maximum anticipated grade will be 4% sustained for approximately 600'.
  - C. One turnout will be constructed at approximately the mid-point of the road to maximize visibility. The turnout will be approximately 10' wide and 100' long with 50' transition lengths.
  - D. Side ditches will be constructed at the edges of the road in cut.
  - E. Construction material will be obtained from roadway excavation and sidehill construction techniques.
  - F. Surfacing material if required will be obtained from an existing caliche pit located in the NE 1/4 of the NW 1/4 of Section 8, T17S, R29E or an alternate source unknown.
  - G. The proposed access road has been flagged.

3. LOCATION OF EXISTING WELLS WITHIN A ONE MILE RADIUS

- A. Water wells - NE 1/4 NE 1/4 Section 12, T17S, R28E.
- B. Abandoned wells - see Exhibit "C".
- C. Temporarily abandoned wells - none known.
- D. Disposal wells - none known.
- E. Drilling wells - none known.
- F. Producing wells - see Exhibit "C".
- G. Shut-in wells - none known.
- H. Injection wells - none known.
- I. Monitoring and observation wells - none known.

4. LOCATION OF EXISTING AND/OR PROPOSED PRODUCTION FACILITIES AND/OR PIPELINES CONTROLLED BY EXXON CORPORATION.

- A. No Exxon operated facilities or pipelines exist within a one-mile radius.
- B. In the event of production facilities will be constructed on the well site according to a Sundry Notice to be submitted upon completion of the well.
- C. Rehabilitation will be performed on areas of the well site no longer needed for production operations.

5. LOCATION AND TYPE OF WATER SUPPLY

- A. Water for construction and drilling will be obtained from a large storage tank located in the NE 1/4 of NE 1/4 of Section 12, T17S, R28E or an alternate source not yet determined.
- B. Water will be transported to the location either by truck hauled over the existing and proposed roads or via a surface flowline following these roads.

6. SOURCE OF CONSTRUCTION MATERIALS

- A. If surfacing is required it will be obtained from an existing caliche pit located in the NE 1/4 of NW 1/4 of Section 8, T17S, R29E, or an alternate source not yet determined.
- B. The existing pit is located on private land.

- C. The caliche would be used for surfacing material for the proposed location and access road.
- D. Caliche will be transported by truck to the location via existing and proposed roads. No additional haul roads will be required.

7. WASTE DISPOSAL

- A. Drill cuttings will be disposed of in the reserve pit.
- B. Drilling fluids will be allowed to temporarily evaporate in the reserve pit until the pit is dry enough for backfilling. If necessary to facilitate timely reclamation, excess fluid may be trucked from the pit by a licensed hauler to an approved disposal point.
- C. Oil produced during tests will be stored in test tanks until sold, at which time it will be hauled by truck from the site.
- D. Sewage from trailer houses will drain into holes at least 10' deep, which will be covered until backfilled. An outdoor toilet will be provided for the rig crews and this hole will also be backfilled during clean up operations.
- E. Trash, waste paper, and garbage will be contained in a trash pit fenced with small mesh wire to prevent wind scattering. This trash will be periodically hauled from the location or burned on site.
- F. When the rig moves out all trash and debris left at the site will be hauled away or buried with at least 24" of cover.

8. ANCILLARY FACILITIES - No camps, airstrips, etc., will be constructed.

9. WELL SITE LAYOUT

- A. Exhibit "B" (Scale 1" - 50') shows the proposed well site layout.
- B. This exhibit indicates the proposed location of mud and reserve pits, pipe racks, the trash pit and other major rig components, living facilities, spoil stockpile, parking areas and turn-in from the access road.
- C. The reserve pit will not be lined unless porous material is encountered, making the lining necessary for the lateral containment of fluids.

10. RESTORATION OF SURFACE

- A. Revegetation and rehabilitation will begin as soon as practical after completion of operations. Oil on pits will be removed or disposed of in a manner approved by the appropriate agency. Upon rig move-out, the reserve pit will be fenced and so maintained until it is backfilled and reshaped.

B. During the first appropriate construction season after drilling operations, pits will be backfilled and contoured with material from the spoil pile. The portion of the drill pad not required for production equipment will be contoured to combat erosion. Stockpiled spoil will be distributed to the extent needed to recontour these areas. The entire stockpiled topsoil will be distributed in the areas to be reclaimed.

11. OTHER INFORMATION

A. Topography in the area consists of low rolling hills interspersed with shallow drainages. The surface exposed soil varies from sandy loam to loamy sand. Vegetation consists of sagebrush, mesquite and native grasses.

B. The proposed well site and access road are situated on land owned and administered by the BLM. The surface is primarily used for grazing.

C. There are no known archeological, historical, or cultural sites and no occupied dwellings in the proximity. A Class III A archeological survey has been performed on the area. Please refer to Archeological Survey Consultants report dated 1-17-86 for the Empire South Phillips Undesignated Federal Well #1, ASC Job #86-7.

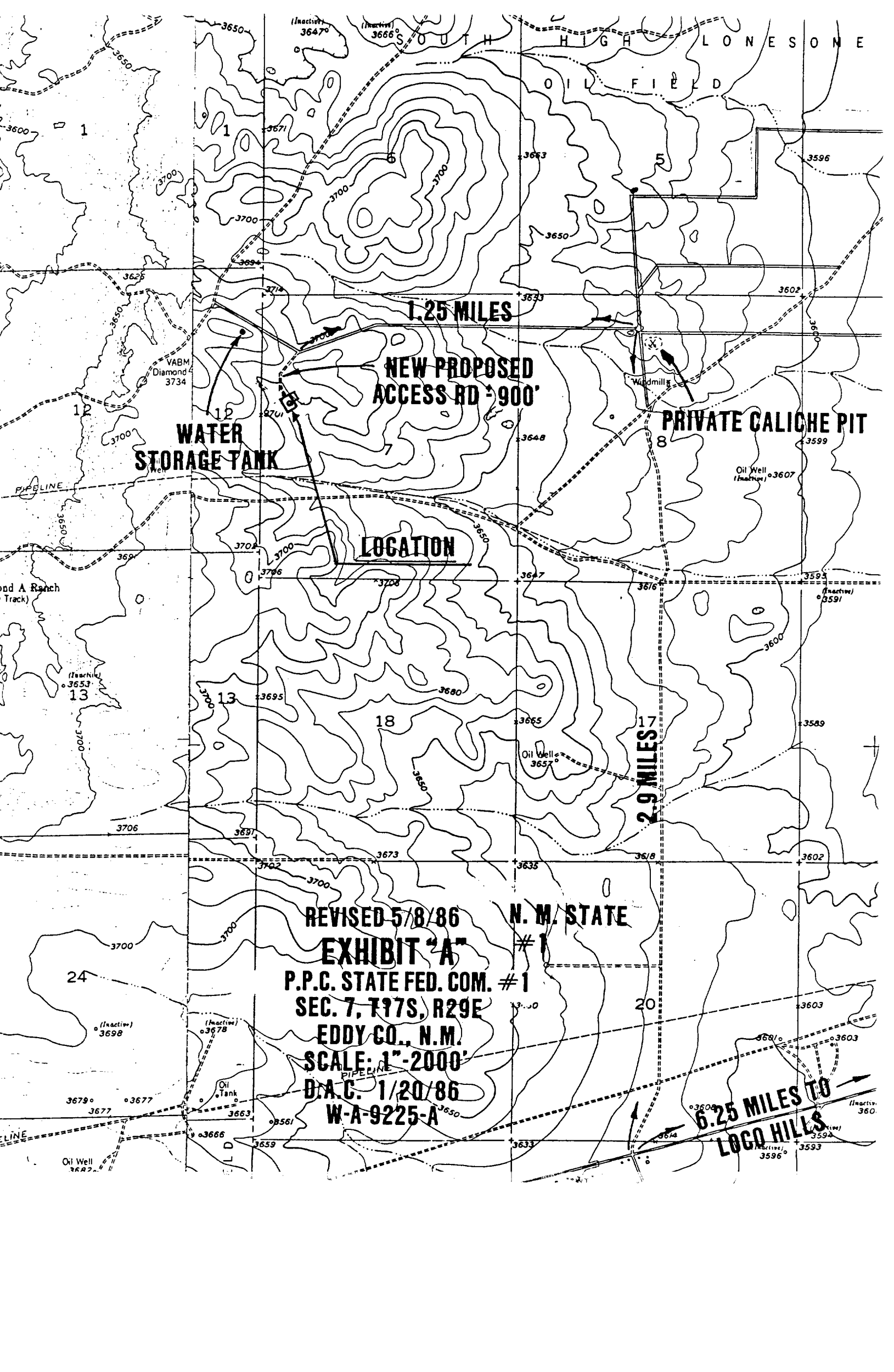
12. OPERATOR'S REPRESENTATIVE - Field representative who can be contacted concerning compliance of this Surface Use Plan is:

M. C. Welborn  
P.O. Box 230  
Midland, Texas 79702

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 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 Exxon Corporation and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. A copy of this plan will be posted at the well site during the drilling of the well for reference by all contractors and subcontractors. This statement is subject to the provision of 18 U.S.C. 1001 for the filing of a false statement.

Date 5-15-86

Name, and Title M. C. Welborn Operations Superintendent



1.25 MILES

NEW PROPOSED  
ACCESS RD - 900'

WATER  
STORAGE TANK

PRIVATE CALICHE PIT

LOCATION

2.9 MILES

REVISED 5/8/86

N. M. STATE

EXHIBIT "A"

#1

P.P.C. STATE FED. COM. #1

SEC. 7, T17S, R29E

EDDY CO., N.M.

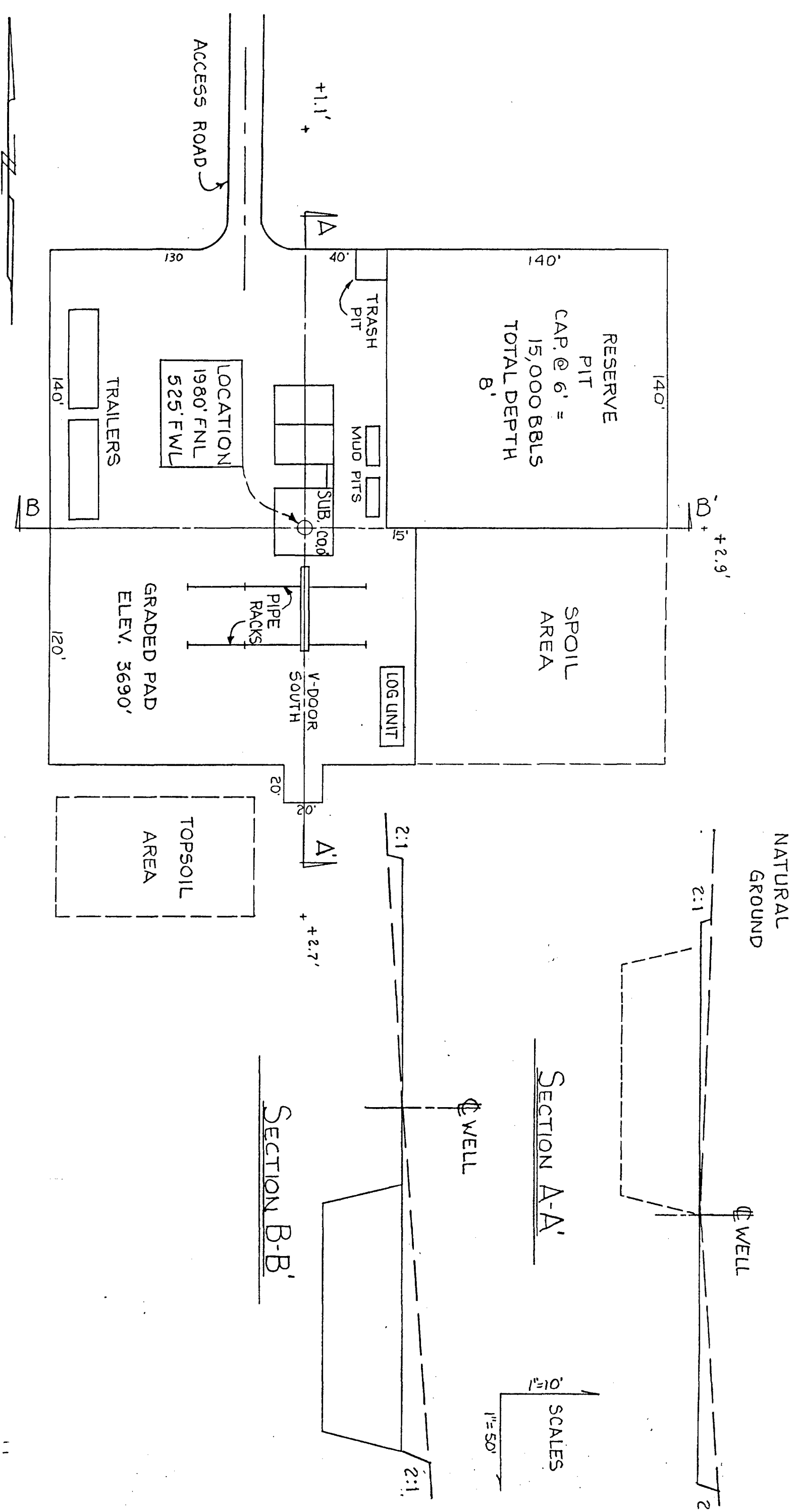
SCALE: 1"=2000'

D.A.C. 1/20/86

W-A-9225-A

6.25 MILES TO  
LOGO HILLS





PLAN  
SCALE: 1"=50'  
+ -2.3'

EXHIBIT "B"  
V-Door SOUTH

WELLSITE LAYOUT - P.P.C. STATE FED. COM. #1		EXXON COMPANY, USA (a division of Exxon Corporation)	
SEC. 7 T17S R29E		PRODUCTION DEPARTMENT	
UNDERS. SOUTH EMPIRE		EDDY CO. N.M.	
DRAWN Derek Cobb	ENGR. SECTION CIVIL	REVISOR 5-9-86	DATE 1-17-86
CHECKED PJB	APPROVED <i>[Signature]</i>	SCALE Noted	JOB NO. W-B-2085
FILE NO.		FILE NO.	

BLM 8-POINT DRILLING PLAN  
P.P.C. ST. FEDERAL COM. #1  
Section 7, T-17-S, R-29-E  
Eddy County, New Mexico

1. Estimated tops of important geological markers:

Salado (Salt)	300'
San Andres	2400'
Upper Penn	8200'
Morrow	10180'

2. Estimated depths at which the top and the bottom of anticipated water, oil, gas or other mineral bearing formations are expected to be encountered and the plan for protecting such resources.

	<u>TOP</u>	<u>BOTTOM</u>	<u>PROTECTION</u>
Deepest FW	-----	300'	13-3/8" Casing and Cement
Salt	300'	650'	8-5/8" Casing and Cement
San Andres	2,400'	2,520' }	
Upper Penn	8,200'	8,700' }	5-1/2" Casing and Cement
Morrow	10,180'	10,600' }	

3. Minimum specifications for pressure control equipment:

A. Wellhead Equipment:

Flange type, 3000 psi WP for 13-3/8" x 8-5/8" x 5-1/2" casing program with 2-7/8" tubing hanger.

B. Blowout Preventers:

<u>TYPE</u>	<u>PRESSURE RATING</u>	<u>INSTALLED ON CASING</u>
SA-Diverter	----	13-3/8"
RRA	3000 psi	8-5/8"

Refer to attached drawings and list of equipment.

C. BOP Control Unit:

The unit, located at least 40' from the BOP's, will be hydraulically operated and have two control systems.

D. Upon installation, the SA-Diverter will be function tested to ensure proper working condition.

When the TYPE "RRA" BOP is installed, it will be tested to a low pressure (200-300 psi) and to a high pressure of 2000 psi. Casing rams will be tested in a like manner. An operational test of the blowout preventers will be performed



on each round trip (but not more than once each day); the annular and pipe ram preventers will be closed on drill pipe and the blind rams will be closed while pipe is out of the hole.

4. Auxiliary Equipment and Proposed Casing Program:

A. Auxiliary Equipment:

- a. Kelly Cocks: Upper and lower installed on kelly.
- b. Safety Valves: Full opening ball type to fit each type and size of drill pipe in use will be available on rig floor at all times.
- c. Otis "N" Nipple: Placed in the drill string two or three joints above the uppermost drill collar for inside drill string well control while drilling the production hole.

B. Casing:

<u>STRING</u>	<u>HOLE</u>	<u>SIZES/WEIGHTS</u>	<u>DEPTH INTERVALS</u>
Surface	17-1/2"	13-3/8"/54.5#	0- 300'
Intermediate	12-1/4 or 11"	8-5/8"/24.0#, 32.0#	0- 2,650'
Production	7-7/8"	5-1/2"/15.5, 17.0#	0-10,650'

C. Cement:

<u>CASING</u> (Above Salt)	<u>DEPTH</u>	<u>CEMENT TYPE</u>	<u>EST. VOLUME (FT<sup>3</sup>)</u>	<u>EST. TOC</u>
↳ 13-3/8"	300'	Class 'C' Neat	300	Surface
8-5/8"	2650'	Class 'C' w/10% Gel, Class 'C' w/2% CaCl <sub>2</sub>	1600	650'
5-1/2"	10650'	Halliburton Light Cmt Class 'H'	1400	2650'

5. Drilling Fluid:

A. Circulating Medium Characteristics:

<u>Depth Interval</u>	<u>Mud Type</u>	<u>Weight</u>	<u>Funnel Visc.</u>	<u>WL</u>	<u>pH</u>
0' - 300'	FW-SPUD	---	---	---	
300' - 2650'	SBW	10.0	28-32	---	10.0-11.0
2650' - 8000'	CBW	8.8-9.0	28-30	---	10.0-11.0
8000' -10650'	BWM	8.8-9.5	32-36	20	10.0-11.0

B. Monitoring Equipment:

- a. Trip Tank: Will be installed after setting surface casing to insure that the hole is full of fluid and that the hole takes the proper amount of fluid on trips.
- b. Flow Rate Indicator: Will be installed after intermediate casing has been set.
- c. Pit Volume Totalizer: Will not be used unless conditions dictate.

6. Testing, Logging, Coring, and Completion:

A. Logging:

2650' - TD: LDT/CNL/CAL/GR 3000' - TD: MUD LOGGER  
2650' - TD: DLL/MSFL/CAL/GR  
8000' - TD: Dipmeter

B. DST: Upper Penn - 8400'

C. CORE: None

D. Completion:

Production casing will first be perforated underbalanced in the Morrow formation from approximately 10,300' to 10,500'. If needed, the formation will be acidized with 3,000-8,000 gallons of acid.

As a secondary objective, the Upper Penn formation would be perforated from approximately 8400' to 8600'. The formation would be acidized with 10,000-20,000 gallons of acid.

7. Abnormal pressure and other possible hazards:

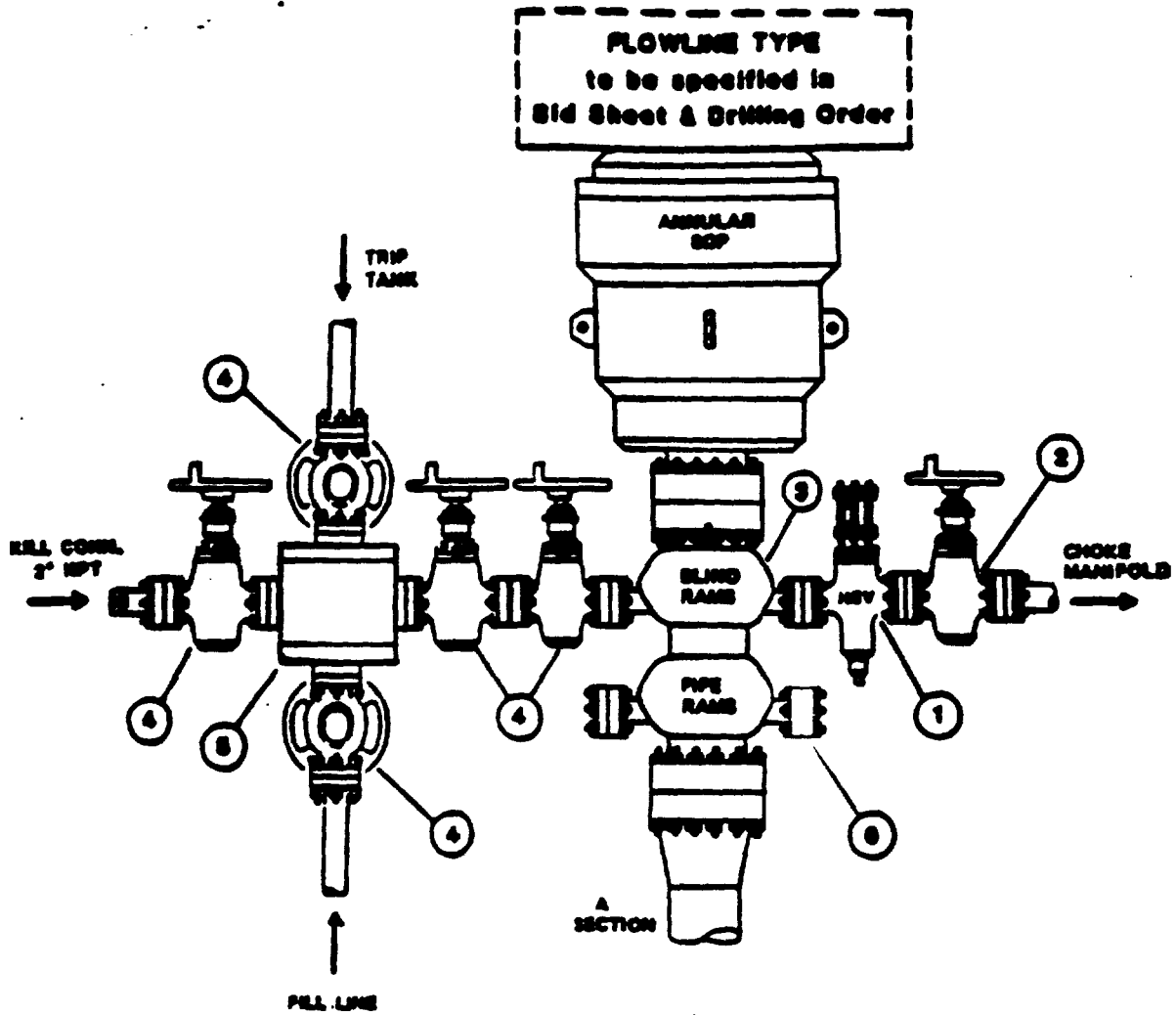
- A. Bottom hole pressure is expected to be less than 4000 psi.
- B. No abnormal pressure is anticipated.
- C. Low concentrations of H<sub>2</sub>S may be present.

8. Any other facets of the proposed operation:

No special drilling operations are expected.

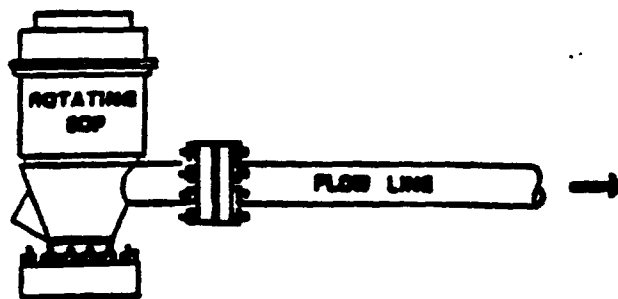
# TYPE RRA BOP STACK

## THREE PREVENTERS



## TYPE-RG

### ROTATING HEAD FOR GRAVITY TRIP TANK



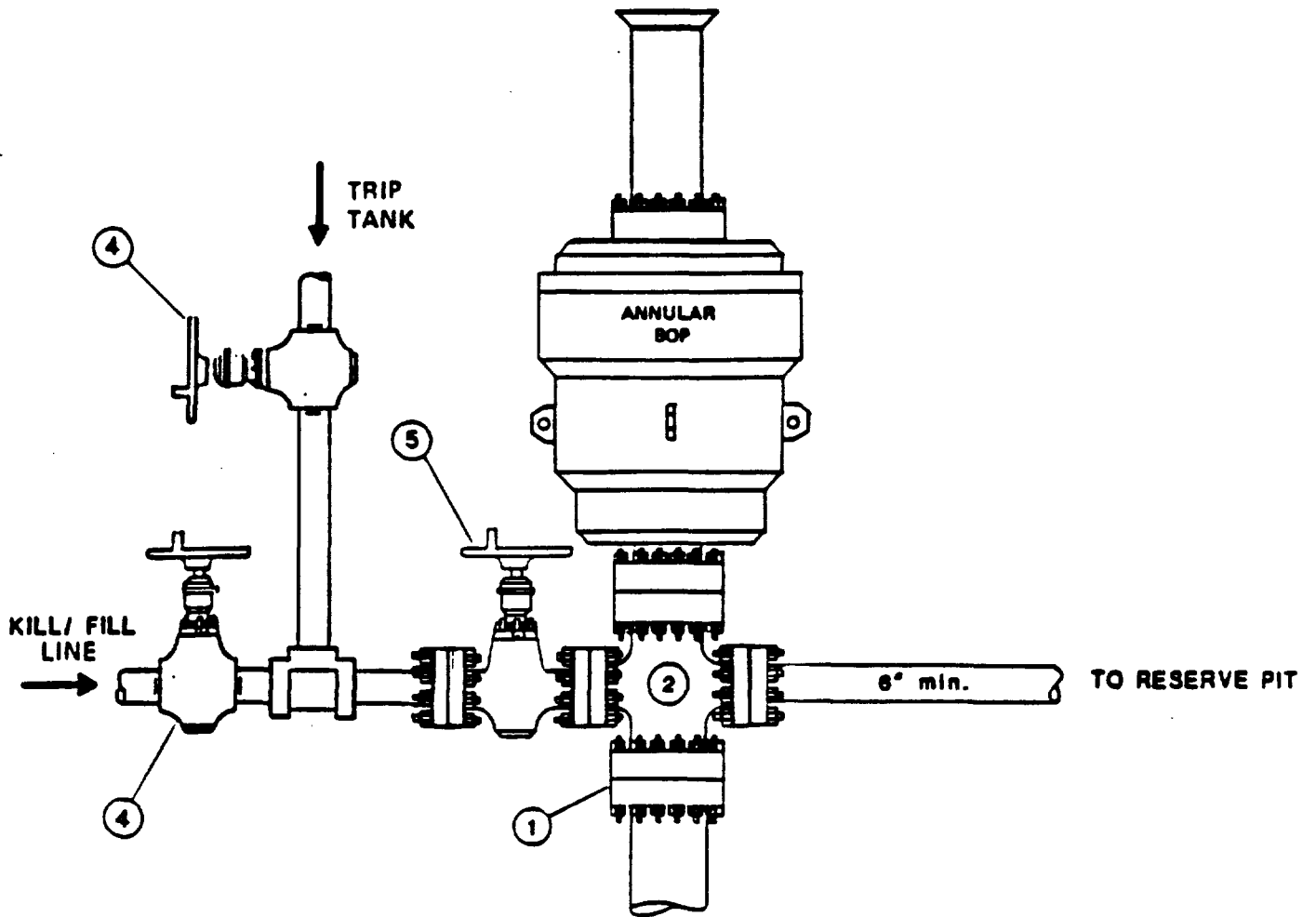
## **COMPONENT SPECIFICATIONS**

### **Type RRA BOP Stack**

1. Flanged hydraulically controlled gate valve -- 3" minimum nominal diameter -- same working pressure as BOP stack.
2. Flanged plug gate valve -- 3" minimum nominal diameter -- same working pressure as BOP stack.
3. BOP outlets must be 2" minimum nominal diameter for kill line and 3" minimum diameter for choke line.
4. Flanged plug or gate valve -- 2" minimum nominal diameter -- same working pressure as BOP stack.
5. Flanged cross or two (2) flanged tees.
6. Any BOP side outlet flange, located below the bottom ram, must be equipped with a blind flange.

**NOTE:** Each BOP stack must have separate side outlet connections for kill and choke lines, unless specific approval for a single side-outlet is obtained from the Exxon Division Drilling Manager prior to rig-up. Such approval will not be granted unless the equipment arrangement conforms to the specifications shown on pages 14 and 15 of this Section.

# TYPE SA DIVERTER



## COMPONENT SPECIFICATIONS

### Type SA Diverter

1. Wellhead or BOP Companion flange - screwed or welded to casing.
2. Flanged Drilling Spool.
3. Diverter line minimum size 6" internal diameter, steel pipe. Diverter lines must be securely anchored. Only flanged or welded connections can be used for pipe joint connections and 45° or 90° ells must not be installed on the end of diverter lines to direct flow downward.
4. Flanged or screwed gate or plug valve -- 2" minimum nominal diameter and 2000 psi minimum working pressure.
5. Full opening flanged gate or plug valve -- 2" minimum -- 2000 psi minimum working pressure.