

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

5. LEASE DESIGNATION AND SERIAL NO.

LC 050797

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Government AC

9. WELL NO.

2

10. FIELD AND POOL, OR WILDCAT

Undes. Burton Flat Morrow

11. SEC., T., R., M., OR BLK.  
AND SURVEY OR AREA

Sec. 13-T20S-R28E

12. COUNTY OR PARISH

Eddy

13. STATE

New Mexico

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒DEEPEN ☐PLUG BACK ☐

b. TYPE OF WELL

OIL  
WELL ☐GAS  
WELL ☒

OTHER

SINGLE  
ZONE ☒MULTIPLE  
ZONE ☐

2. NAME OF OPERATOR

Cities Service Oil Company ✓

3. ADDRESS OF OPERATOR

Box 1919 - Midland, Texas 79701

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

At surface

1800'FNL &amp; 1980'FWL of Sec. 13-T20S-R28E, Eddy Co., New Mexico

At proposed prod. zone

Same as above

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

Approx. 16 miles NE of Carlsbad, New Mexico

15. DISTANCE FROM PROPOSED\*

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

1880' N

16. NO. OF ACRES IN LEASE

320

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.

2 miles SW

19. PROPOSED DEPTH

11,500'

20. ROTARY OR CABLE TOOLS

Rotary

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

3255' GR

22. APPROX. DATE WORK WILL START\*

May 1, 1975

23.

## PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	13-3/8"	48#	900'	1000 sacks (circulated)
12-1/4"	9-5/8"	32 & 36#	3000'	1000 sacks (circulated)
8-3/4"	5-1/2"	17 & 20#	11500'	750 sacks (TC to 8500')

It is proposed to drill this well to a T.D. of 11,500' and test the Morrow formation.

The blowout prevention program is as follows:

1. One set of blind rams.
2. One set of drill pipe rams
3. One Hydril.
4. One rotating head.

APR 15 1975

O. C. C.  
ARTEZIA, OFFICERECEIVED  
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U.S. GEOLOGICAL SURVEY  
ARTEZIA, 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 prevention program, if any.

24.

ORIGINAL SIGNED  
BY E. Y. WILDER

SIGNED

TITLE Region Operation Manager

DATE March 14, 1975

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APR 11 1975

APPROVED BY

DISTRICT ENGINEER

DATE

CONDITIONS OF APPROVAL: IF WELL CONTROL  
SUBJECT TO ATTACHED DEEP WELL CONTROL

REQUIREMENTS DATED

JUN 22 1973

THIS APPROVAL IS RESCINDED IF OPERATIONS  
ARE NOT COMMENCED WITHIN 3 MONTHS.

SUFFICIENT TIME TO

ATTACHED CEMENT. THE 978 CASING,

\*See Instructions On Reverse Side

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102  
Supersedes C-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section

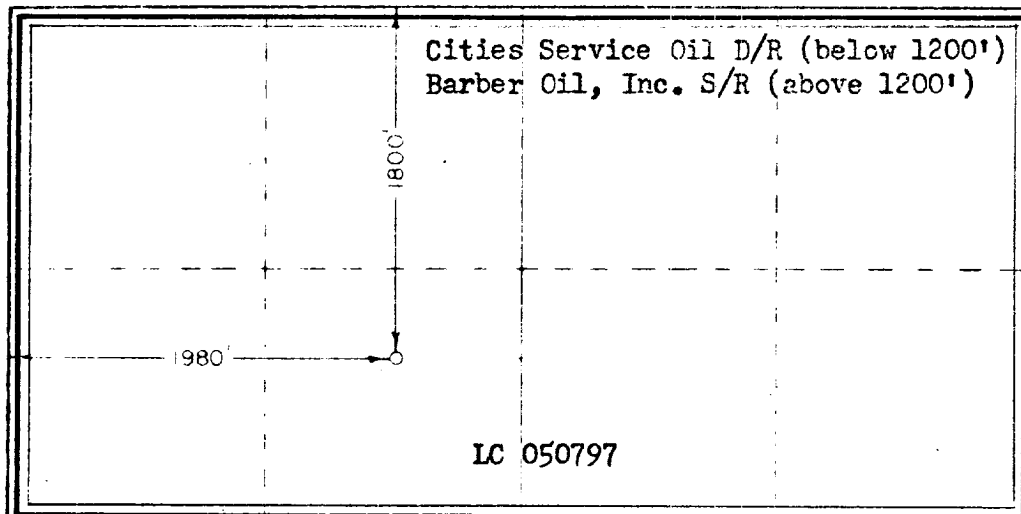
Cities Service Oil Company			Government AC		Well No. 2
F	13	20 South	28 East	Eddy	
1800 feet from the North line and 1980 feet from the West line					
3255.4	Morrow	Undesignated Burton Flat Mor.		320	Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☒ Yes ☐ No If answer is "yes" type of consolidation Unitization

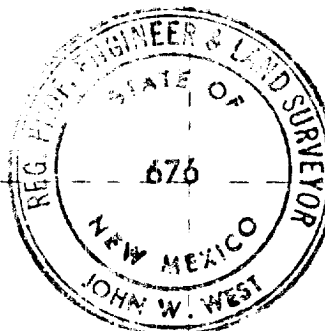
If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



Working interests of participating companies in this well are as follows:

Cities Service Oil	72.9166%
Howard W. Jennings	12.5000%
Edward R. Hudson, Jr.	14.5834%
	100.0000%



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name **ORIGINAL SIGNED BY E. Y. WILDER**

Position **Region Operation Manager**

Company **Cities Service Oil Company**

Date **March 14, 1975**

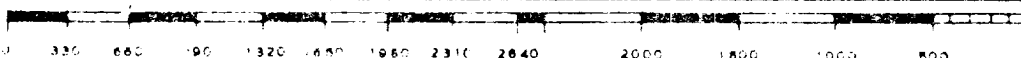
I hereby certify that the well location shown on this plat was plotted from field notes of actual survey made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed **March 5, 1975**

Registered Professional Engineer and/or Land Surveyor

*John W. West*

676





CITIES SERVICE OIL COMPANY

Box 1919  
Midland, Texas 79701  
Telephone: 915 684-7131

March 14, 1975

United States Department of the Interior  
Geological Survey  
Artesia, New Mexico 88210

Gentlemen:

Re: Application for Permit to Drill  
Government "AC" No. 2, Eddy  
County, New Mexico

Cities Service Oil Company respectfully requests permission to drill  
Well No. 2 on the Government "AC" lease, located 1980' FWL, 1800'  
FNL, Section 13-20S-28E, Eddy County, New Mexico.

In support of this application, the following data is submitted:

1. Form 9-331C, Application for Permit to Drill.
2. Form C-102, Well Location and Acreage Dedication Plat.
3. County road map showing existing roads, proposed access road (in red) and location of proposed drilling site in relation to the surrounding area.
4. Plat of location layout showing approximate dimensions and position of the rig, mud pits, reserve pit, etc.
5. Diagram of blow out preventer stack.
6. Diagram showing hookup of BOP's, choke manifold and mud/gas separator.
7. Diagram of casing program, hole size and estimated formation tops.
8. Summary of mud program.
9. Designation of operator from Barber Oil Company.

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Application for Permit to Drill  
Government "AC" No. 2

Page No. 2

The well is located in the midst of Barber Oil Company's shallow water-flood project which is flooding the Yates Sand at an approximate depth of 750' to 850'.

Our original location was staked 1980' FNL and 1980' FWL of the section. One of Barber's shallow wells is located at this particular site; so, an alternate location was staked 1800' FNL and 1980' FWL. This alternate gives us adequate room for our drilling operation without interfering with Barber's flood.

To protect Barber's flood zone, we propose to set our 13-3/8" surface casing at 900' and cement to surface. The 9-5/8" set at 3000' will also be cemented to surface.

The nearest inhabited residence is the home of Mr. A. H. Rains approximately 1/4 mile west of our proposed location. Mr. Rains has a Federal grazing lease covering our proposed road and location.

The well is projected to test the Morrow Sands with a TD of 11,500'. Other shallower zones will be tested as the well is drilled.

If completed as a producer, producing equipment will be set no closer than 150' from the well with tanks set to collect both oil and water which will be trucked to sale or disposal. The gas purchaser will install necessary gas measuring equipment and gathering line.

The reserve pit will be lined when it is built. If the well is completed as a producer, the pits will be backfilled, levelled, debris removed and surface equipment fenced. If it is a dry hole, the well will be plugged as per United States Geological Survey requirements, the pits backfilled and levelled and all debris removed.

The proposed casing program consists of:

13-3/8" 48# set at 900' with cement circulated.

9-5/8" 32# and 36# set at 3000' with cement circulated.

5-1/2" 17# and 20# set at 11,500' with sufficient cement to fill annular space to 8500'.

In addition to the blow out preventer program shown on the attached plat, the following will be in use prior to drilling into the Wolfcamp formation:

1. Rotating head.
2. Swaco adjustable choke in choke manifold.

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ARTESIA, NEW MEXICO

Application for Permit to Drill  
Government "AC" No. 2

Page No. 3

3. Pit volume totalizer.
4. Flow line sensor.
5. Degasser.

Prior to drilling under the 9-5/8" casing, the BOP's and related control equipment will be pressure tested to rated working pressure by Yellow Jacket Tools and Services, Inc.

The well will be drilled in accordance with USGS requirements stated in their Order No. 30 CFR 221.24, 221.36 and 221.37.

Please contact me if further information is needed to evaluate this request.

Yours very truly,

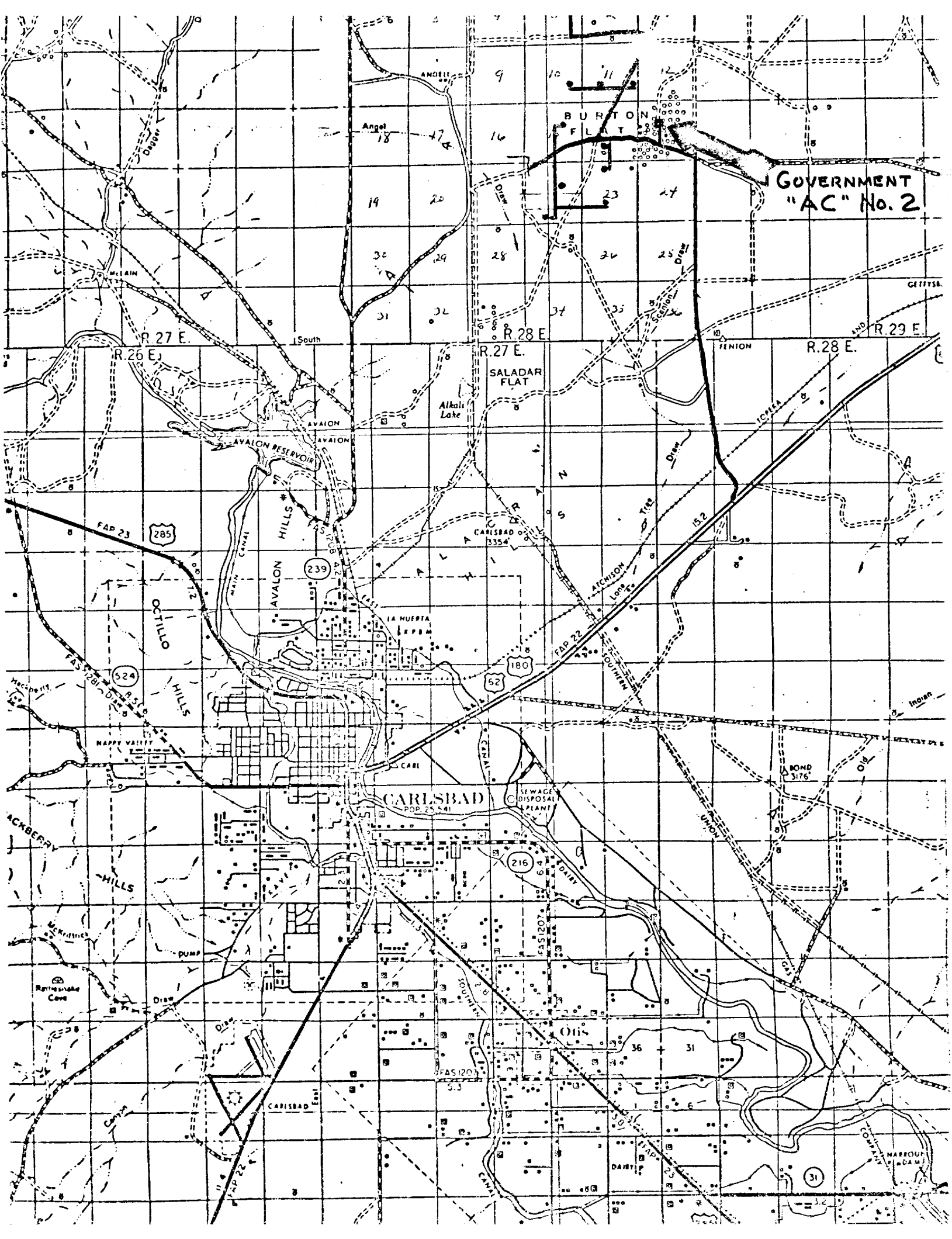


E. Y. Wilder  
Region Operations Manager  
Southwest Region  
E & P Division

EYW/lis

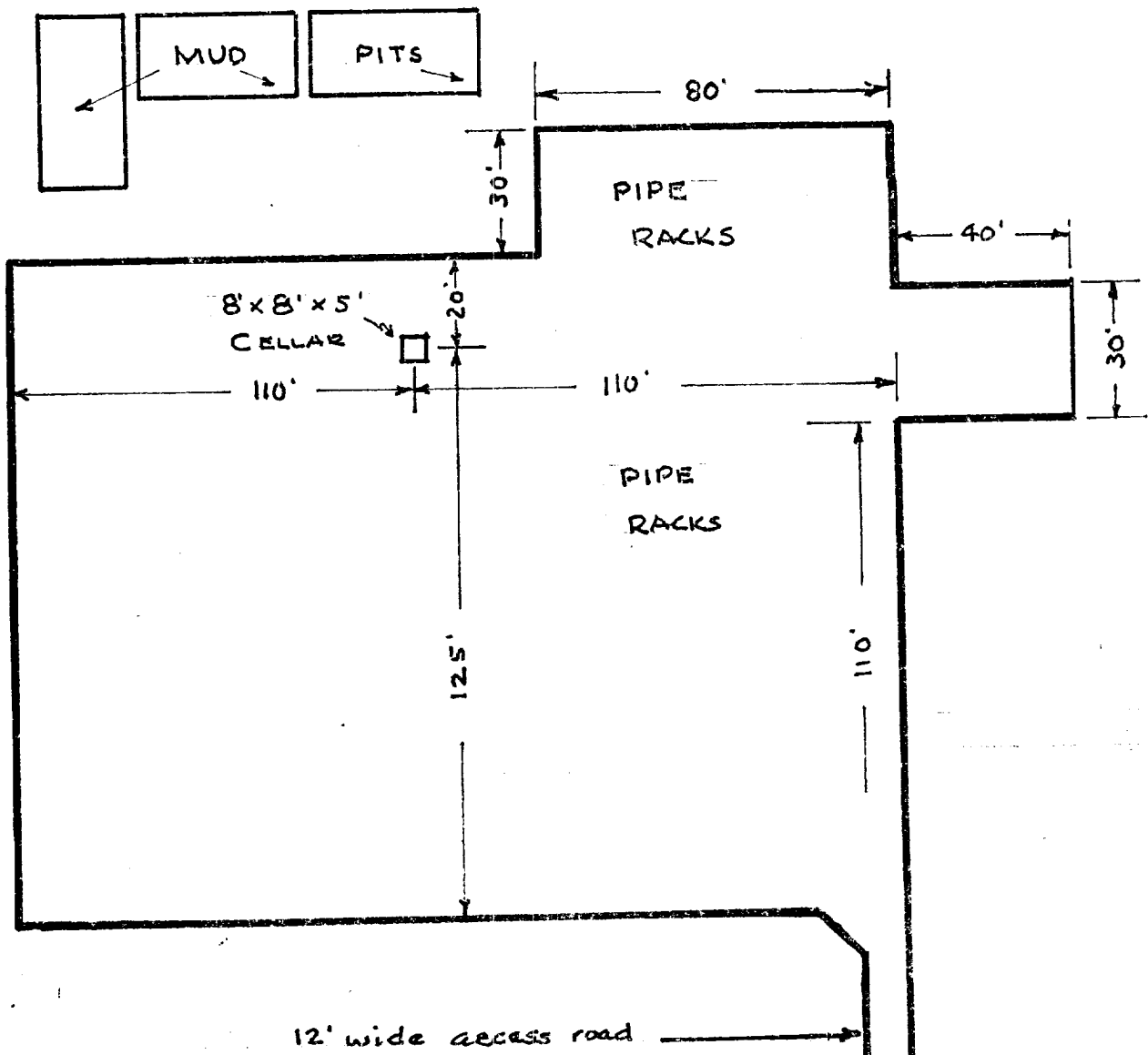
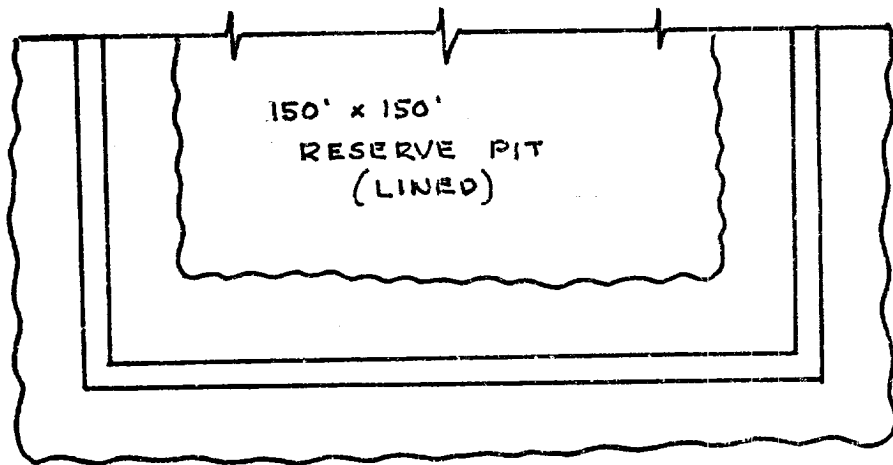
Attachments

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GOVERNMENT "AC" No. 2  
1800' FNL, 1980' FWL SECTION 13-20s-28E  
EDDY COUNTY, NEW MEXICO

RIG UP WITH V-DOOR TO EAST AND  
RESERVE PIT TO NORTH

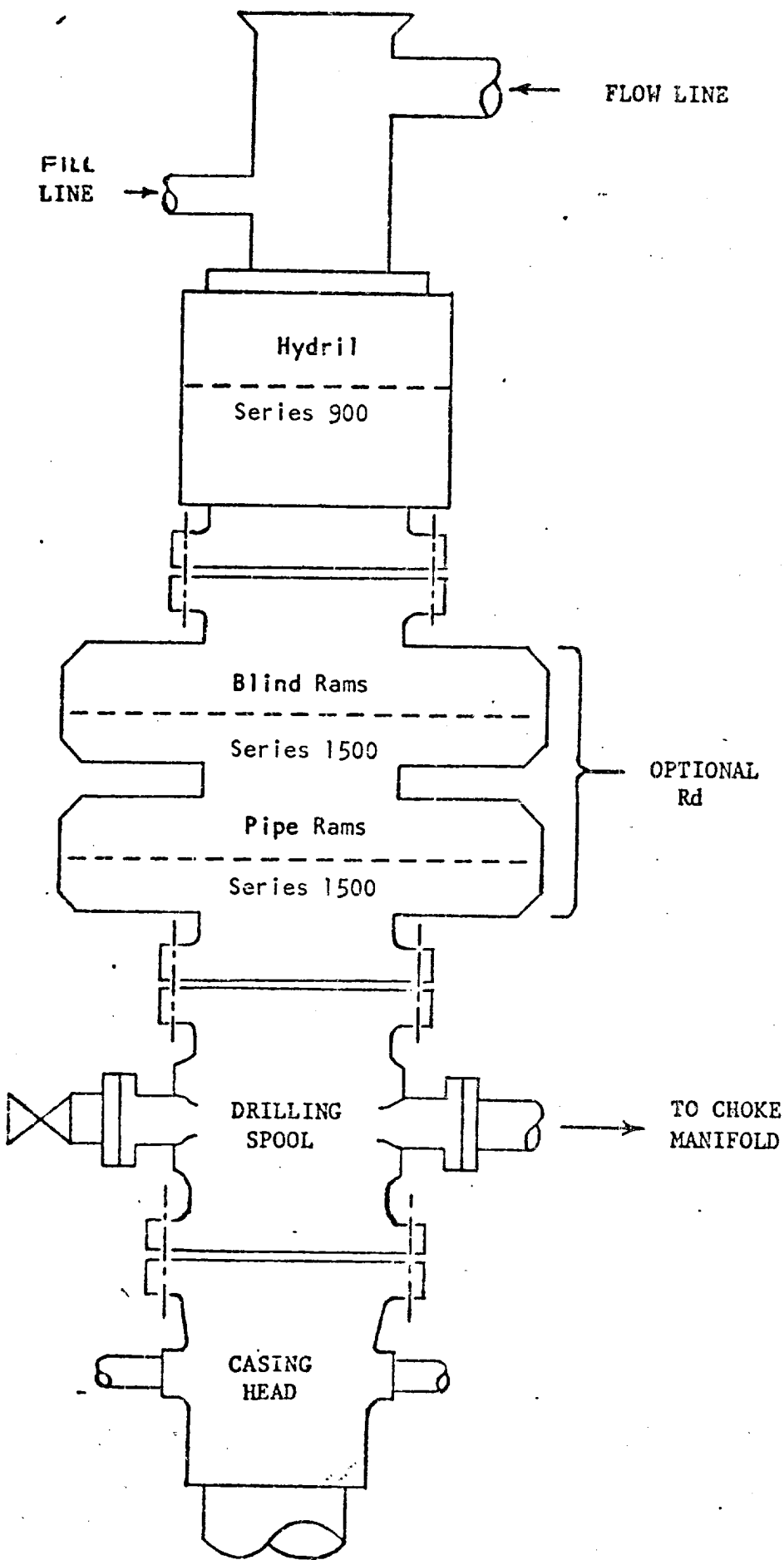


# BLOWOUT PREVENTER REQUIREMENTS

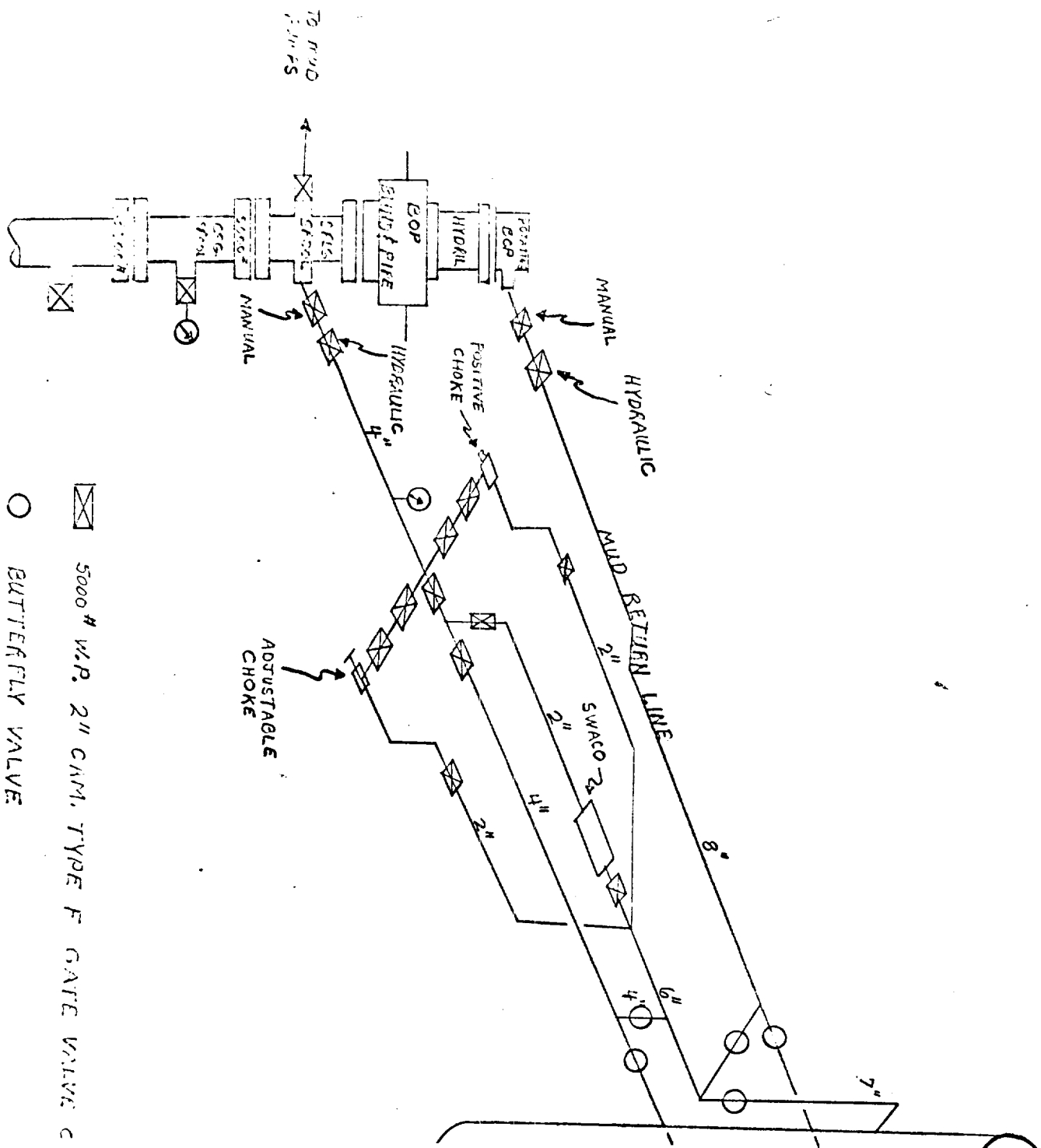
## CLOSING METHOD

Sufficient accumulator volume shall be available to operate both the bag type preventer and pipe ram preventer with a snap-action through the following steps: close-open-close.

"  
"







5000 # W.P. 2" C.M. TYPE F GATE VALVE

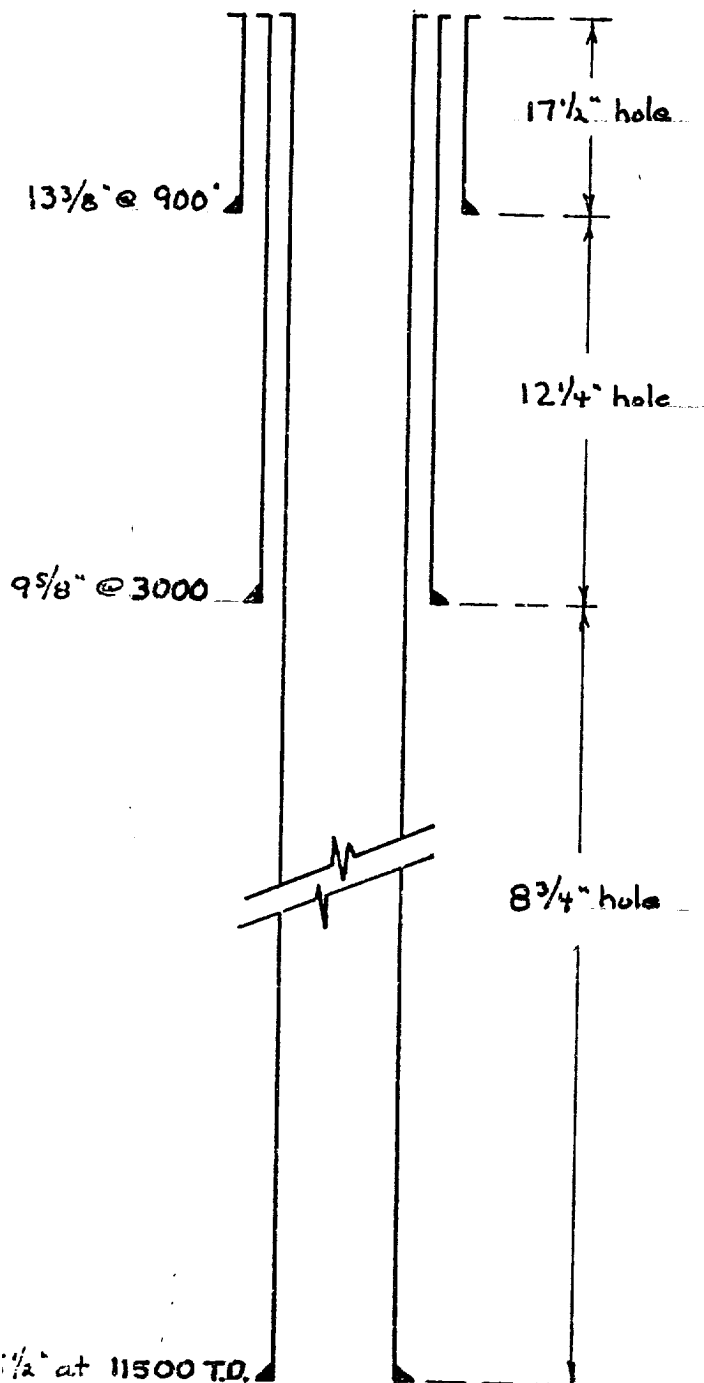
BUTTERFLY VALVE

GOVERNMENT "AC" No. 2

1800' FNL, 1980' FWL SECTION 13-20s-28E  
EDDY COUNTY, NEW MEXICO

HOLE SIZE &  
CASING PROGRAM —

ESTIMATED  
FORMATION TOPS —



— Bone Spring 5200

— Dean 8450

— Wolfcamp 8800

— Canyon 9400

— Strawn 10150

— Morrow 11100

— Chester 11450

— T.D. 11500

\_\_\_\_ GOVERNMENT "AC" No. 2 \_\_\_\_  
1800' FNL, 1980' FWL SECTION 13-20s-28E  
EDDY COUNTY, NEW MEXICO

MUD PROGRAM

0' - 900'	Drill with fresh water mud. Mud wt. approximately 8.5 ppg. Viscosity 30-34. Set 13-3/8" csg. at 600'.
900' - 3000'	Drill with fresh water. If returns are lost and cannot be regained, dry drill to casing depth of 3000'. Mud wt. 8.5-9.0 ppg. Viscosity 28-31. Set 9-5/8" csg. at 3000'.
3000' - 7000'	Drill with fresh water. Add caustic for pH control. Mud wt 8.5-9.0 ppg. Viscosity 28-31.
7000' - 8800'	Start raising mud weight to approximately 9.6 ppg. with potash brine. Viscosity 28-31.
8800' - 9800'	Drill with potash brine. Mud wt 9.6 ppg. Viscosity 28-31.
9800' - 11500'	Mud up with Morrow protection fluid. Maintain mud wt. and fluid loss as hole conditions dictate. Set 5-1/2" csg. at TD 11600'