

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

30 615-20653

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 4906 - Midland, Texas 79701

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface 760' FSL & 1980' FEL of Sec. 22, T25S, R24E, Eddy Co., New Mexico
At proposed prod. zone
Same as above

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
Approx. 9-1/2 miles SW of White City, N. Mex.

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. line, if any)
760'

16. NO. OF ACRES IN LEASE
1280

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.
2640'

19. PROPOSED DEPTH
7200'

20. ROTARY OR CABLE TOOLS
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
3717' GR

22. APPROX. DATE WORK WILL START*
March 15, 1973

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#	750	Circulate
7-7/8"	5-1/2"	14 & 15.5#	7200	350 sacks
*				

It is proposed to drill to a T.D. of 7200' and test the Strawn and Morrow formations.

The blowout prevention program is as follows:

1. One set of blind rams.
2. One set of drill pipe rams.
3. One Hydrill.

*20" casing will be set at 30' w/rathole machine and cemented with ready mix. An 11" hole will be drilled from 750'-5000' and if conditions dictate, 8-5/8" OD 24# casing will be set and cemented at this depth w/1700 sacks of cement.

IN ABOVE SPACE DESCRIBE PROPOSED ~~PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE~~ AND PROPOSED NEW PRODUCTIVE ZONE. If proposal is to drill or deepen ~~directionally, give position, date, and~~ and true vertical depths. Give blowout preventer program, if any.

SIGNED [Signature] TITLE Region Operation Manager DATE Feb. 21, 1973

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED
K. L. BEEKMAN
ACTING DISTRICT ENGINEER
THIS APPROVAL IS VALID FOR 3 MONTHS
EXPIRES MAY 26 1973

DECLARED WATER BASIN
CEMENT BENTONITE
CASING MUST BE CIRCULATED
DATE 7/3/78
NOTIFY BUREAU AT LEAST 10 DAYS BEFORE TIME TO WITHDRAW CEMENTING THE BASIN.
1378

*See Instructions On Reverse Side

Instructions

General: This form is designed for submitting proposals to perform certain well operations, as indicated, on all types of lands and leases for appropriate action by either a Federal or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

Item 1: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable State or Federal regulations concerning subsequent work proposals or reports on the well.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on this reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal or State agency offices.

Items 15 and 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective production zone.

Item 22: Consult applicable Federal or State regulations, or appropriate officials, concerning approval of the proposal before operations are started.

WELL LOCATION AND ACRESAGE DEDICATED TO WELL

All distances must be from the center of the well.

CITIES SERVICE OIL COMPANY		GOVERNMENT "P"	
Section	Location	Township	Range
0	22	25 SOUTH	24 EAST
Area of Section Dedicated to Well:			
760	Feet from the SOUTH	Line and	1900
Feet from the EAST		Line	
3717'	Produced Formation	Feet	Dedicated Acres
	Morrow	Undes. Washington Ranch Morrow	320

- Outline the acreage dedicated to the subject well by colored pencil or hash and show the same on below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- 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?

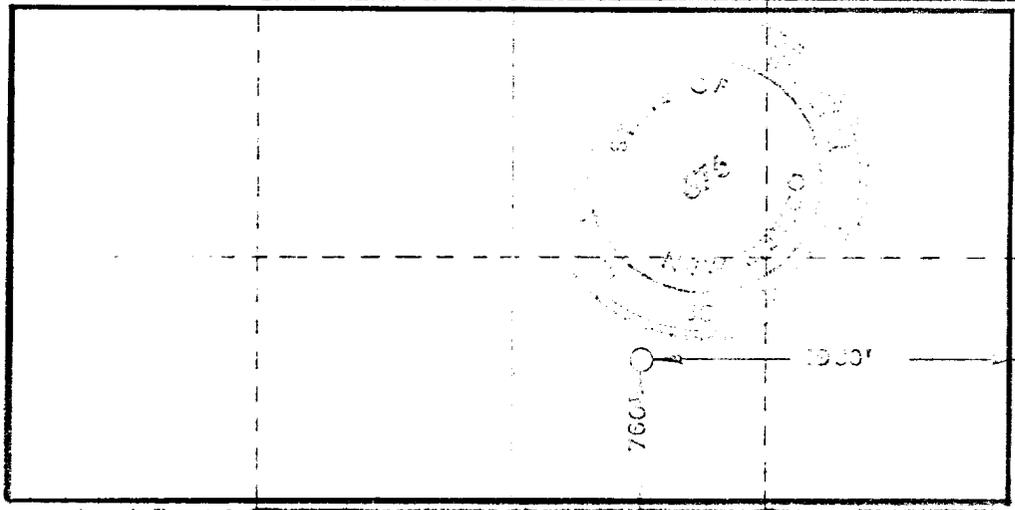
Yes No If answer is "yes," type of consolidation _____

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

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

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 ARTESIA, NEW MEXICO

E. Fuller
 Region Operation Manager
 Cities Service Oil Co.
 Feb. 21, 1973



I hereby certify that the well location shown on this plot was located from field notes of land surveyors made by me or under my supervision and no other source was used for correct measurement of the well location.



CITIES SERVICE OIL COMPANY

Box 4906
Midland, Texas 79701
Telephone: 915 684-7131

February 21, 1973

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

Re: Application to Drill
Government "P" No. 1
Washington Ranch Pool
Eddy County, New Mexico

Gentlemen:

Cities Service Oil Company respectfully requests permission to drill Well No. 1 on the Government "P" Lease, located 1980' FEL and 760' FSL, Section 22-25S-24E, 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. Development Plan for Surface Use, which includes the following information:
 - a. Plat showing existing roads, planned access road and location of nearby wells.
 - b. Plat showing distances from location of Government "P" No. 1 to Rattlesnake Springs, Ralph Hood's house, Ralph Hood's fresh water pond and the Washington Ranch airstrip.
 - c. Plat showing location layout, including position of the rig, mud tanks, reserve pit, pipe racks, etc.
 - d. Blow out preventer diagram.
 - e. Xerox copy of mud program.

The location falls on a rocky hillside that will require considerable leveling. It borders an irrigated alfalfa field that lies directly to the south. It is planned to rig up with the V-door to the north and reserve pit to the west.

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Government "P" No. 1 is located 2740' north of Cities Service Oil Company's Government "M" No. 3 which is completed as a Morrow gas well and is flowing to El Paso Natural Gas Company.

The planned access road to the new location will be an extension of the existing road to Government "M" No. 3. It will border the east side of Ralph Hood's irrigated alfalfa field then turn west into the location.

Mr. Ralph Hood is the surface landowner (no royalty). He lives 2640' from the proposed location. His address is Pine Springs Route, Carlsbad, New Mexico, and his telephone number is 505/785-2307. It is planned to buy water for drilling the well from Mr. Hood and he is agreeable. He has been contacted and has given his verbal approval to our proposed access road.

If completed as a Morrow gas producer, the Government "P" No. 1 will not require a tank battery at a distant location. A production unit will be set 150' from the well on the drilling pad, and a 100 barrel tank will be set on the same drilling pad to collect small volumes of connate water produced with the gas. The gas purchaser will set a meter run nearby and downstream from the production unit.

Due to the possibility of lost returns the proposed casing program will consist of:

20" at 30', set with rat hole machine and cemented to base of cellar with Redi-mix.

13-3/8" at 750', set in 17-1/2" hole with cement circulated.

A 12-1/4" hole will be drilled out from under the 13-3/8" to 5,000'. If no lost circulation problems have developed, will reduce hole size at 5,000' to 7-7/8" and drill to T.D. 7,200'. A full string of 5-1/2" casing will be run to T. D. and cemented back to 5,000'.

If lost circulation is a problem under the 13-3/8", the 12-1/4" hole will be drilled to 5,000' and a string of 8-5/8" casing will be run to 5,000' and cemented up to the loss zone. Underneath the 8-5/8", a 7-7/8" hole will be drilled to total depth 7,200', and a 5-1/2" liner will be run and cemented to tie-back into the 8-5/8" casing.

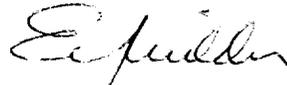
If the well is completed as a producer, the pits will be back-filled and levelled, debris removed, and surface equipment fenced. If it

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ALBUQUERQUE, NEW MEXICO

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is a dry hole, the well will be plugged as per United States Geological Survey requirements, the pits back-filled and levelled and all debris removed.

Yours very truly,



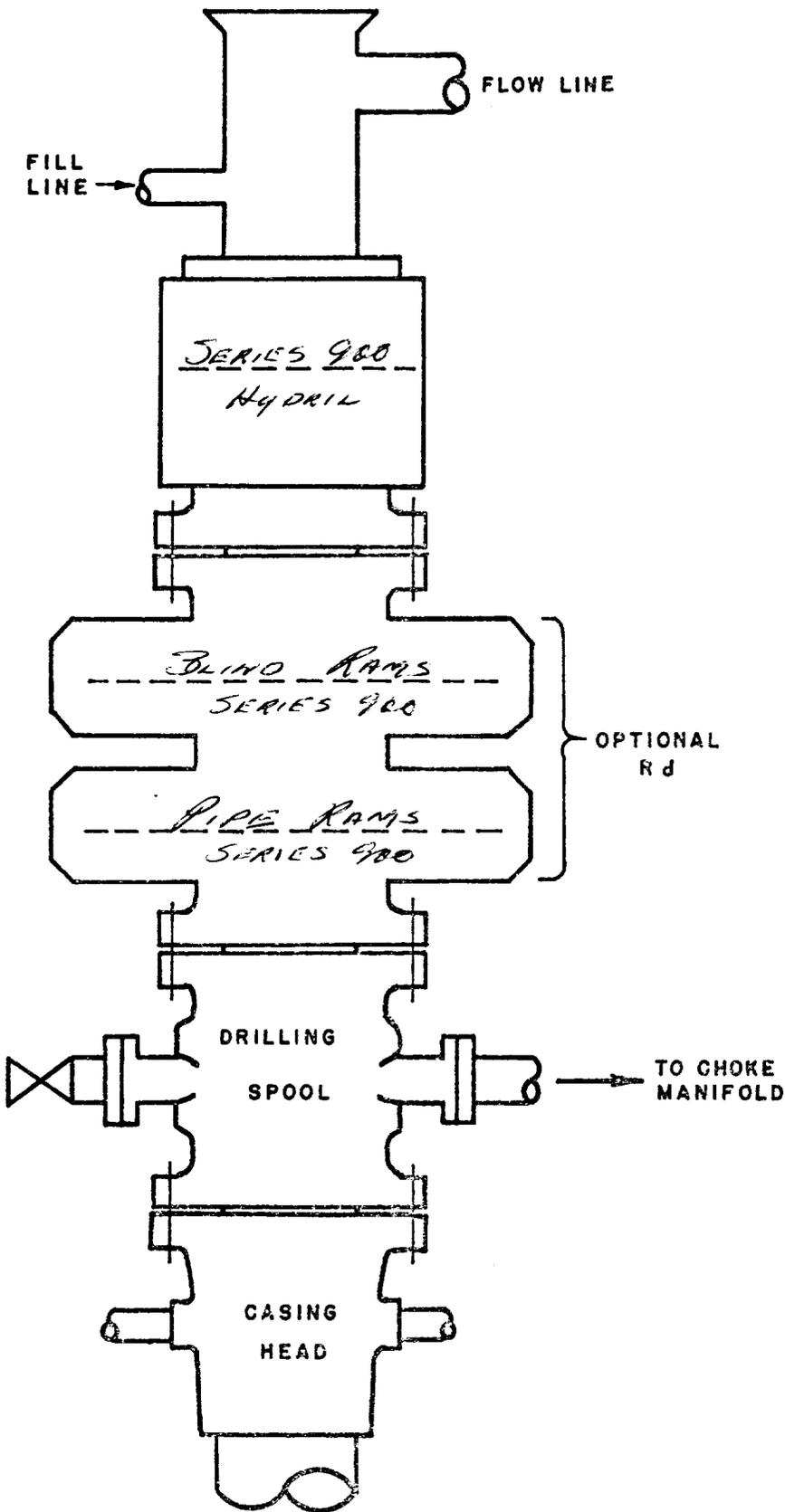
E. Y. Wilder
Region Operations Manager
Southwestern Region
Production Division

EYW:dlp
Attachments

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BLOWOUT PREVENTER REQUIREMENTS

API _____ M- _____ - SRRA
SRdA



CLOSING METHOD

SUFFICIENT ACCUMULATOR VOLUME SHALL BE AVAILABLE TO OPERATE BOTH THE BAG PREVENTER AND PIPE RAM PREVENTER WITH A SNAP-ACTION THROUGH THE FOLLOWING STEPS: CLOSE-OPEN-CLOSE.

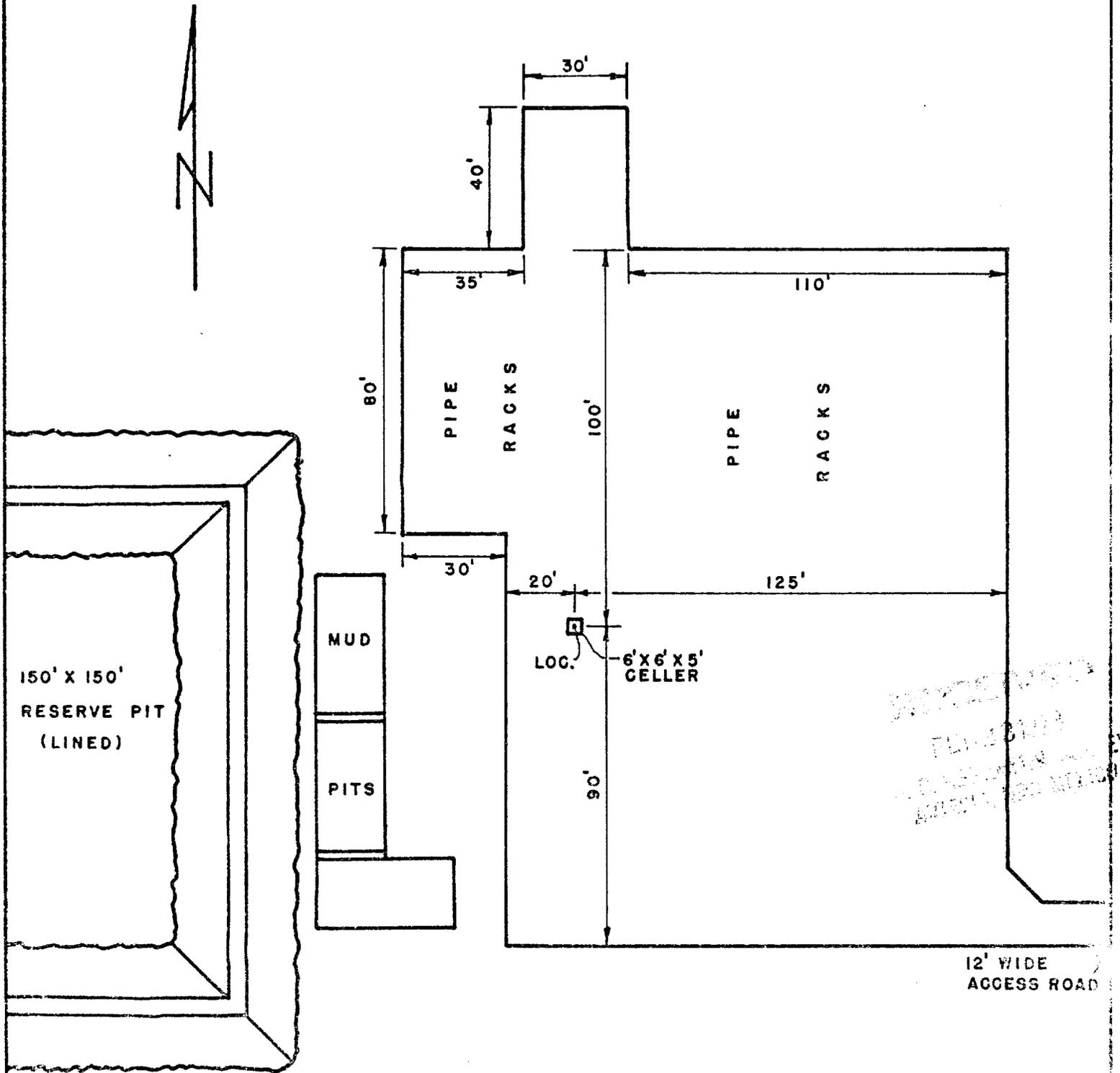
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FIG. 2

GOVERNMENT "P" NO.1 LOCATION

1980' FEL, 760' FSL, SEC. 22-21S-24E
EDDY COUNTY, NEW MEXICO

RIG UP WITH V-DOOR TO NORTH
RESERVE PITS TO WEST
SCALE 1" = 40'



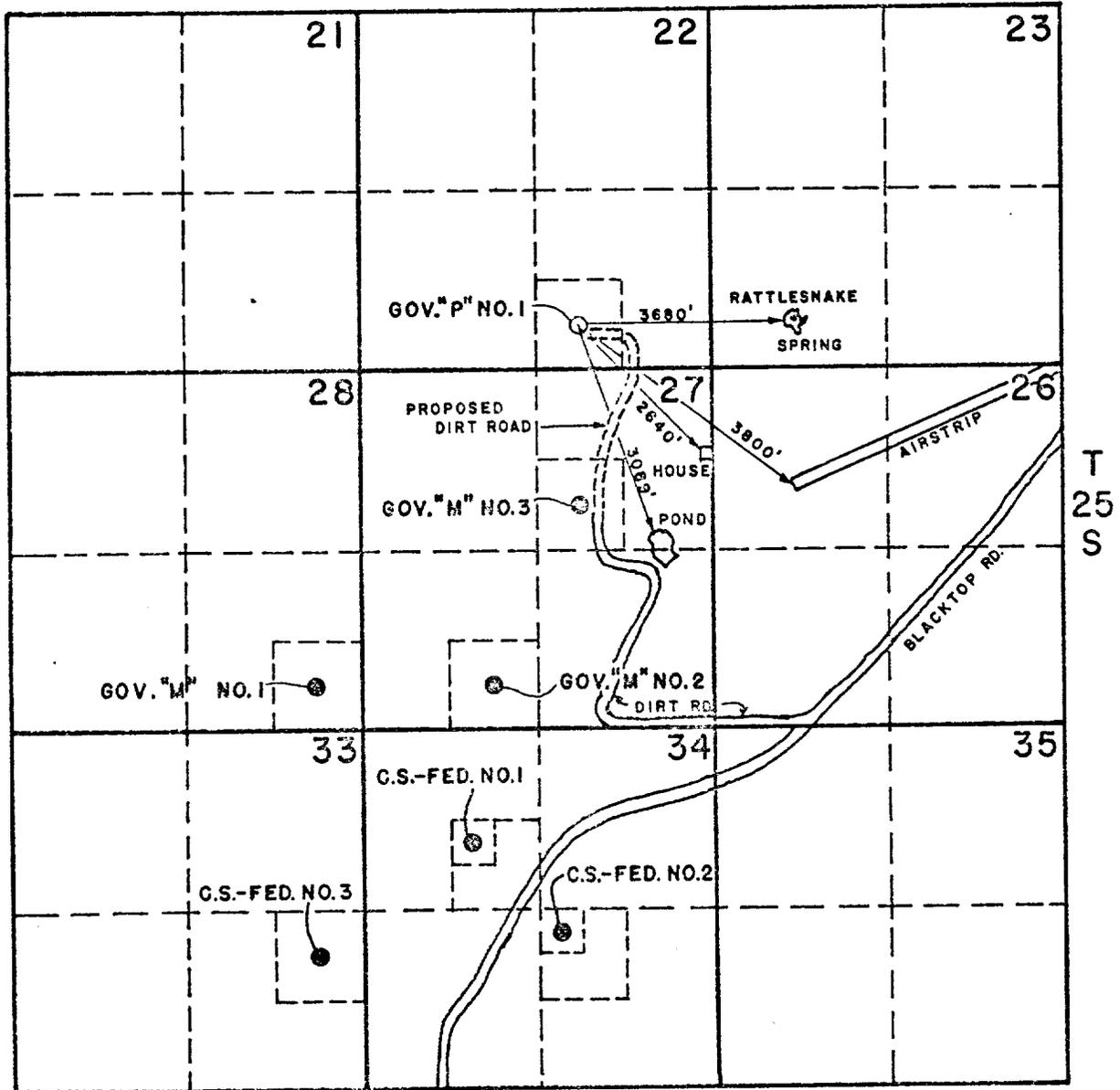
GOVERNMENT "P" NO.1 LOCATION

1980' FEL, 760' FSL, SEC. 22-21S-24E

EDDY COUNTY, NEW MEXICO

SCALE 2" = 1 MILE

R 24 E



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OILFIELD PRODUCTS DIVISION
Dresser Industries, Inc.

SUGGESTED MUD PROGRAM

February 20, 1973

Mr. E. Y. Wilder
Cities Service Oil Company
800 Vaughn Building
Midland, Texas 79701

Dear Mr. Wilder:

The following is a suggested drilling fluid and casing program with estimated mud cost for your Government "P" #1 to be drilled 1,980' FEL and 760' FSL in Section 22-25S-24E, Eddy County, New Mexico.

CONDUCTOR: 30' of 20"

Rathole machine.

SURFACE: 750' of 13 3/8"

Suggest spudding with a fresh water, Magcogel and Lime type drilling fluid with a 60 to 70 sec/1000 cc viscosity and add 8 to 10 lbs/bbl. loss circulation material to system (Cottonseed Hulls, Cedar Fiber and Mud Fiber).

COMMENT:

1. There is a good possibility you may encounter severe loss circulation in the Gravel Bed and Water Sand sections.

In the event loss circulation is encountered, suggest dry drilling to casing point and run casing.

PRODUCTION: 7,200' of 5 1/2"

Suggest drilling out from under surface with fresh water, using Lime for pH control (10 to 11 pH).

There is a possibility you may encounter a seepage to complete loss circulation around 4,125'. Suggest pretreating the drilling fluid system with loss circulation material (Dicks Mud Seal and Mud Fiber) prior to 4,125'.

This type drilling fluid should be sufficient to drill to 5,000'.

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In the event you do not encounter seepage or loss while drilling down to 5,000', suggest pressure up on hole to the equivalent of a 9.2 - 9.5 lbs/gal. drilling fluid weight and if not loss occurs, suggest reducing hole size and continue drilling with fresh water, using Lime for pH control.

This type drilling fluid should be sufficient to drill to 6,500'.

In the event fill-up occurs, suggest adding Visquik (Flosal) to the drilling fluid system in sufficient quantities to clean the hole and prevent fill-up, or maintain a 40 to 50 sec/1000 cc Visquik slurry in fifth pit and pump a 100 barrel slug through hole every 12 to 24 hours.

At 6,500' suggest mudding up with a fresh water, low solids Magcogel, Magco CMC, Spersene type drilling fluid with the following characteristics:

Weight:	9.0 to 9.2 lbs/gal.
Viscosity:	38 to 45 sec/1000 cc
Water Loss:	5.0 cc or less
Initial Gel:	0
10 Min. Gel:	0 to 5
pH:	9.0 to 10.0

This type drilling fluid should be sufficient to drill to 7,200' with exception of weight which may need altering as hole conditions dictate.

COMMENTS:

1. A Swaco adjustable choke, super screen shale shaker and a flow line sensor will be beneficial from 6,500' to total depth.
2. In the event you encounter loss circulation prior to 5,000' or loss or seepage occur while pressuring up at 5,000', suggest running 8 5/8" casing at 5,000'. Then drilling out below 8 5/8" casing with fresh water, using Lime for pH control and mudding up at 6,500' as stated above.
3. In the event severe loss circulation is encountered around 4,125', suggest dry drilling to 5,000', pumping a 50 to 75 barrel Visquik sweep through hole every 4 to 6 hours and prior to trips to prevent fill-up and clean the hole.

ESTIMATED MUD COST: \$4,000.00 to \$7,000.00

The estimated cost is under normal operating conditions and does not include any extensive loss circulation, gas problems, fishing jobs, etc. This cost is also based on a normal drilling rate per day; therefore, any excessive time spent on drilling due to crooked hole, testing, breakdown, etc. would increase mud cost.

I hope the above information will be of benefit to you and if we may be of further service, please do not hesitate to call.

Yours very truly,

MAGCOBAR


R. F. Parker
Regional Engineer



