

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

SUBMIT IN TRIPLICATE\*  
(One ins. on reverse side)

Form approved.  
Budget Bureau No. 42-R1425.

**30-015-21049**

**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

El Paso Natural Gas Company

3. ADDRESS OF OPERATOR

1800 Wilco Building, Midland, Texas 79701

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

At surface

At proposed prod. zone

1980' FNL & 2130' FEL

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

Approximately 32 miles NW of Carlsbad, New Mexico

15. 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

884.30

17. NO. OF ACRES ASSIGNED TO THIS WELL

282.20

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.

3900

19. PROPOSED DEPTH

9300

20. ROTARY OR CABLE TOOLS

X

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

4620.3 Gr.

22. APPROX. DATE WORK WILL START\*

12-15-73

23. PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE | SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT |
|--------------|----------------|-----------------|---------------|--------------------|
| 12 1/4"      | 9 5/8"         | 36#             | 2,000         | 750 sxs            |
| 8 3/4"       | 5 1/2"         | 15.5# & 17#     | 9,300         | 1200 sxs           |

Plan is to drill 12 1/4" hole to 2000', run 9 5/8" csg & cmt to surface, WOC 12 hrs, & test to 1500# for 15 minutes. Drill 8 3/4" hole to 9400'. (DST's may be run on any formation indicating production during this stage of drilling.) Run 5 1/2" csg & cmt to 1000' above top of pay. WOC 24 hrs. If production is indicated, complete well in production zone (s) according to rules and regulations of N.M.O.C.C.

It is our understanding that this location is in a "Declared Water Basin". All pipe settings and cementing operations will be done according to the requirements of the proper authorities.

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.

24.

SIGNED

*[Signature]*

TITLE Production Clerk

DATE 12/13/73

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

DEC 19 1973

DEC 19 1973

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

DISTRICT ENGINEER

DATE

DECLARED WATER BASIN

CEMENT BEHIND 928  
CASING MUST BE CIRCULATED.

REQUIREMENTS DATED

6-22-73

\*See Instructions On Reverse Side

THIS APPROVAL IS RESCINDED IF OPERATIONS ARE NOT COMMENCED WITHIN 3 MONTHS.

NOTIFY USGS IN SUFFICIENT TIME TO

WITNESS CEMENTING THE

928

CASING.

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.

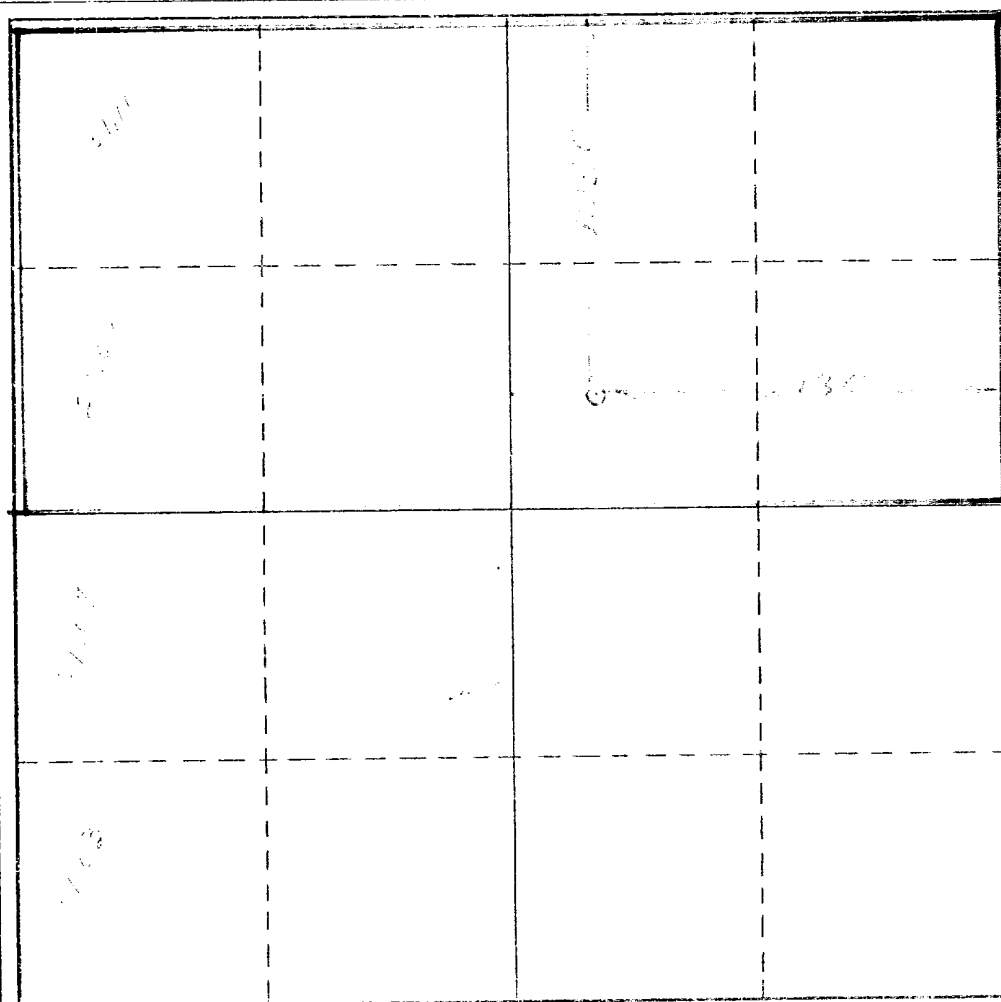
|                                                                                                                                |                                       |                             |                                           |                       |                      |
|--------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------|-------------------------------------------|-----------------------|----------------------|
| Operator<br><b>El Paso Natural Gas Company</b>                                                                                 |                                       |                             | Lease<br><b>Rocky Arroyo E</b>            |                       | Well No.<br><b>1</b> |
| Unit Letter<br><b>G</b>                                                                                                        | Section<br><b>7</b>                   | Township<br><b>22 South</b> | Range<br><b>22 East</b>                   | County<br><b>Eddy</b> |                      |
| Actual Footage Location of Well:<br><b>1980</b> feet from the <b>North</b> line and <b>2130</b> feet from the <b>East</b> line |                                       |                             |                                           |                       |                      |
| Ground Level Elev.<br><b>4620.3</b>                                                                                            | Producing Formation<br><b>Wildcat</b> | Pool<br><b>Morrow</b>       | Dedicated Acreage:<br><b>282.20</b> Acres |                       |                      |

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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 \_\_\_\_\_

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

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.



**CERTIFICATION**

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

*C. D. Kysar*

Name  
**C. D. Kysar**

Position  
**Production Clerk**

Company  
**El Paso Natural Gas**

Date  
**December 18, 1973**

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 supervision, and that the same are true and correct to the best of my knowledge and belief.

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

Date Surveyed  
**December 14, 1973**

Registered Professional Engineer and/or Land Surveyor

Certificate No.  
**#2126**

0 330 660 990 1320 1650 1980 2310 2640 2970 3300 3630 3960 4290 4620 4950 5280 5610 5940 6270 6600

EL PASO NATURAL GAS COMPANY  
Rocky Arroyo "E" #1  
Sec. 7, T-22-S, R-22-E  
Eddy County, New Mexico

PROPOSED BLOWOUT PREVENTOR PROGRAM

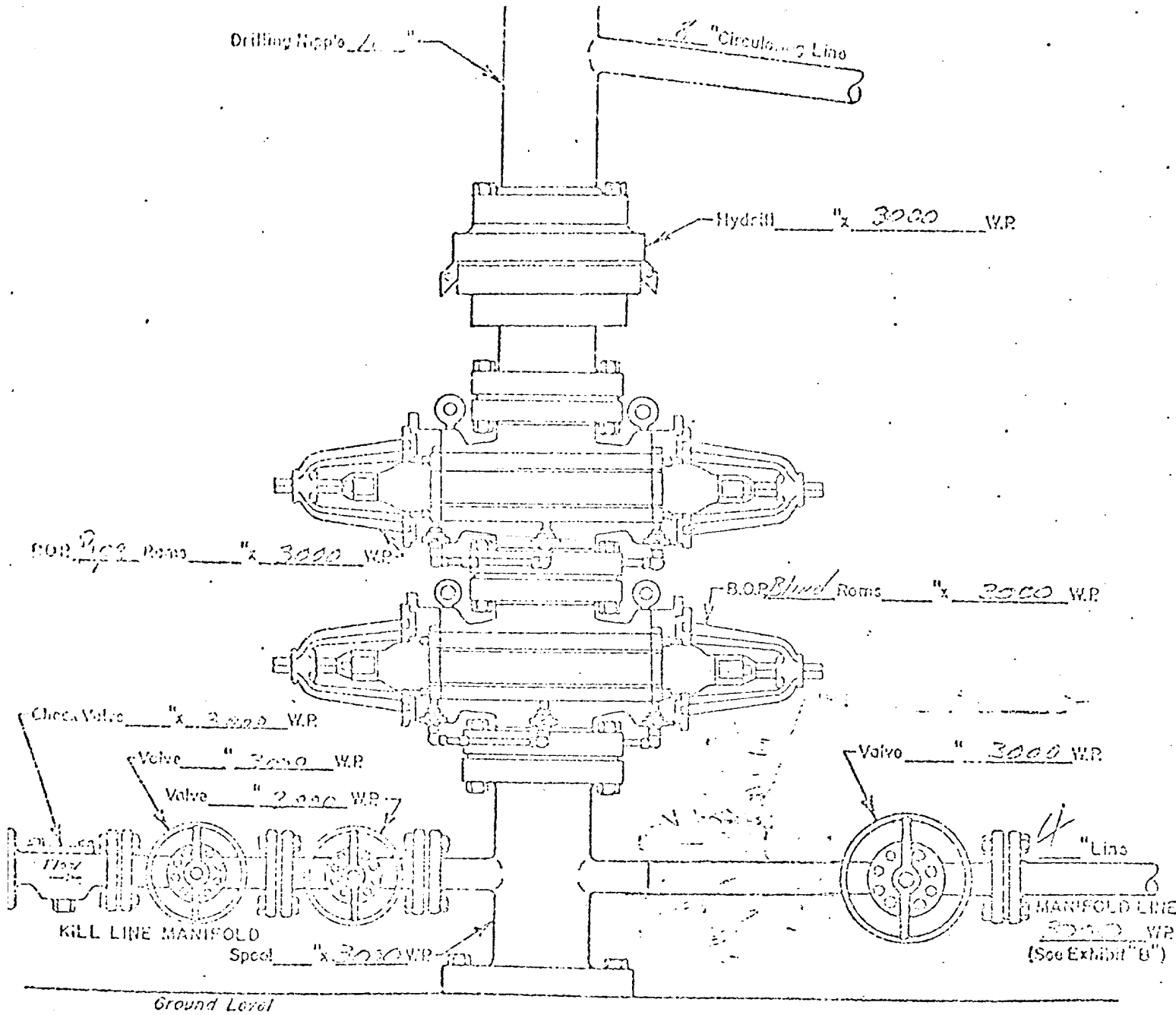
- 1 - on 20" casing, use rotating head tested for 500#.
- 2 - on 13 3/8", use double (pipe rams & blinds) with hydril tested to 3000#.
- 3 - on 9 5/8", use single (pipe rams), single (pipe rams & blinds) with hydril and with rotating head.  
TESTED:      rotating head      -      500#  
                 hydril                -      3000#  
                 double & single    -      3000#

Will have mud separator system, all manifolding tested to 3000#.

**RECEIVED**

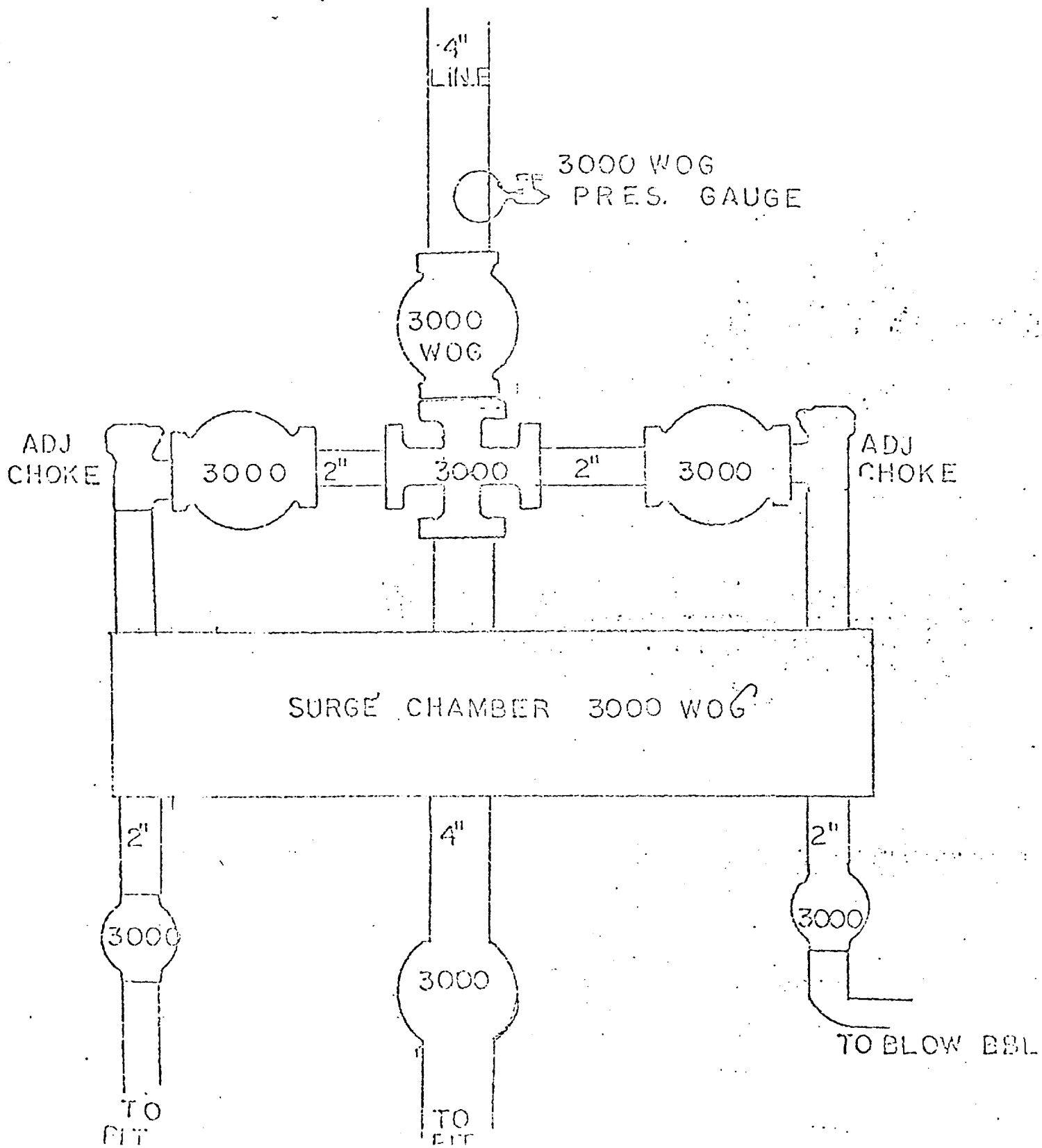
DEC 12 1973

U. S. GEOLOGICAL SURVEY  
ARTESIA, NEW MEXICO



WELL HEAD B.O.P.  
3000 W.P.

- ☐ Manual.
- ☒ Hydraulic



El Paso Natural Gas Company

Rocky Arroyo "E" #1

Sec. 7, T-22-S, R-22-E

Eddy County, New Mexico

Suggested Mud Program:

0' - 200': Spud with AQUAGEL flocculated with lime. Treat with cottonseed hulls, FIBERTEX and HYSEAL. If severe loss occurs, blind drill ahead to casing point with water. Spot in hole prior to coming out to run casing, 200 barrels AQUAGEL viscous and treat with cottonseed hulls, HY-SEAL and FIBERTEX. This usually helps when cementing casing.

Surface casing - 13 3/8" at 200'

200' - 2000': Drill out with water and use HY-SEAL for seepage loss of fluid. If severe loss of circulation occurs, drill ahead blind to casing point. If severe loss occurs, spot on bottom prior to coming out to run casing, 300 barrels AQUAGEL viscous mud treated with cottonseed hulls, HY-SEAL and FIBERTEX.

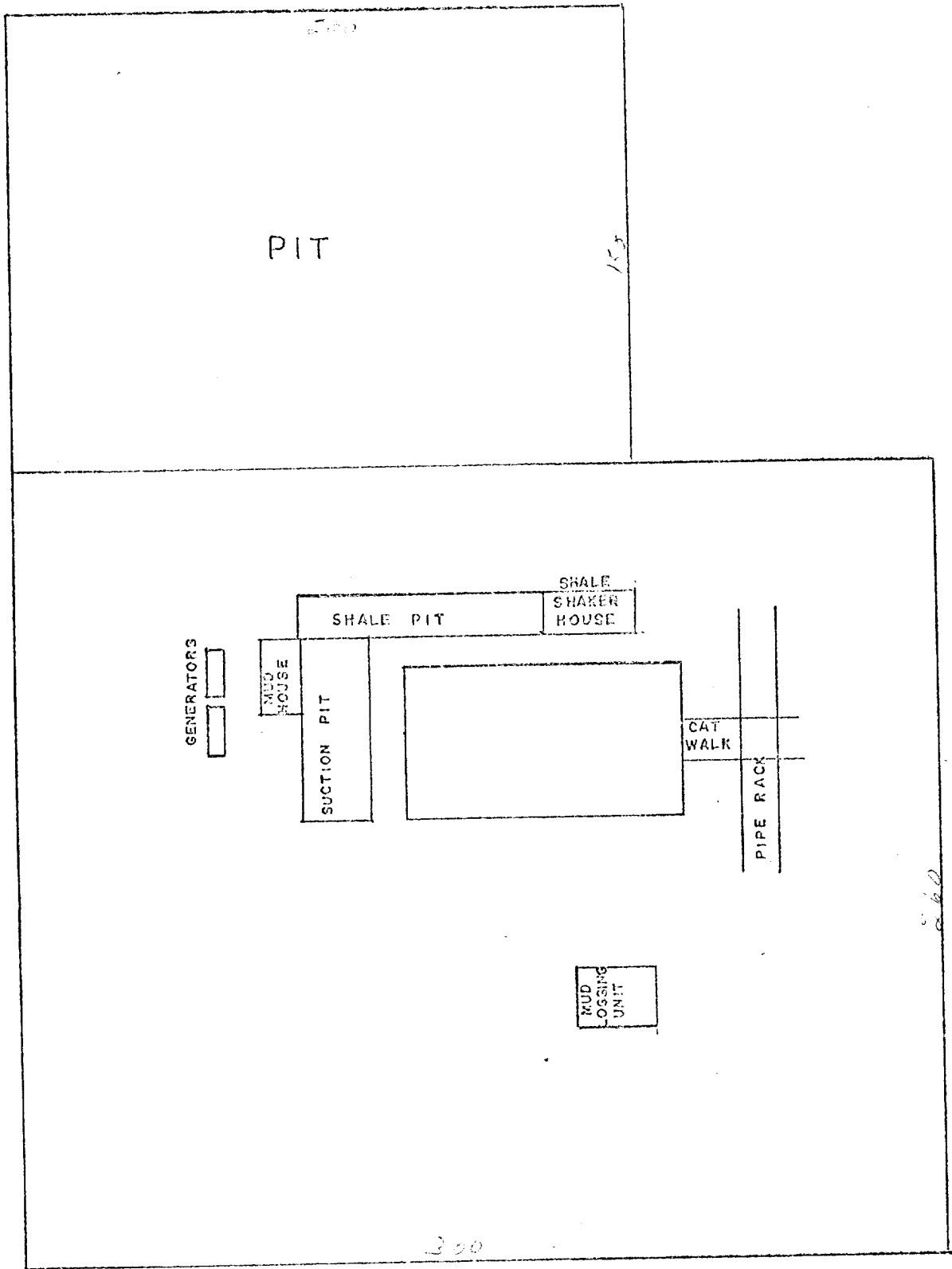
Intermediate casing -- 8 5/8" at 2,000'.

2,000' - 6,500': Drill out with fresh water. Treat with Ben-Ex to reduce solids buildup and treat with lime for a pH of 10.5 to help reduce corrosion. Use HY-SEAL for seepage loss of fluid. At 5,000' add 3% KCl and maintain in system. Possible mud up for DST at 5,400'± depending on hole conditions.

6,500' - 8,800': Mud up at 6,500' or prior to drilling into the lower Wolfcamp porosity. Increase KCl content to 5%. Use soda ash to reduce the hardness below 200 ppm, DEXTRID/DRISPAC to reduce the filter loss at 25cc±, FLOSAL to increase the viscosity to 32-34 seconds and add 45 PPB of salt (NaCl) or brine water to help stabilize shale and increase the mud weight to 9.0-9.1 ppg. Maintain these properties to 8,800' unless hole conditions warrant a change. Use HY-SEAL for seepage loss of fluid.

8,800' - 9,600': To the existing mud, lower the fluid loss to below 10 cc with DEXTRID/DRISPAC and add 5% KCl to help prevent damage to the Morrow formation. Maintain viscosity 34-36 seconds and mud weight 9.1-9.2 ppg. Use TORQ-TRIM for defoamer and to reduce torque.

This program is designed for maximum hole stability, formation protection, geological data recovery, and penetration.



N



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DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

