

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

30-005-61288

## 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

Transwestern Gas Supply Company ✓

3. ADDRESS OF OPERATOR

P. O. Box 2521 Houston, TX 77001

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

At surface

1980' N

1980' W

of Sec. 28-6S-23E

1980 ft. from North lease line and 1980 ft. West lease line  
At proposed prod. zone same

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

27 miles NNW of Roswell

15. DISTANCE FROM PROPOSED\*

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

1980 ft.

16. NO. OF ACRES IN LEASE

640

17. NO. OF ACRES ASSIGNED

TO THIS WELL 160

18. DISTANCE FROM PROPOSED LOCATION\*

TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

None

19. PROPOSED DEPTH

4500 ft.

20. ROTARY OR CABLE TOOLS

Rotary

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

4151 GL 4133 GL

22. APPROX. DATE WORK WILL START\*

As soon as possible

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	54.5#-48.0 K-55	60'	Redimix CIRCULATE
12 1/4	8 5/8	24.0# K-55	1600'-1800'±	± 950 sx CIRCULATE
7 7/8	4 1/2	10.5# J-55	TD	± 225 sx

13 3/8" Casing set two joints with rathole machine and grout to surface.

8 5/8" Casing 350 sx Thixset-Class C containing 8-10# sx Gilsontite, 1/4#/sx Celoflake, 4% CaCl<sub>2</sub>, 100 sx 50-50 Poz Class C w/2% CaCl<sub>2</sub>  
Total 950 sx CIRCULATE

4 1/2" Casing approximately 250 sx Pozmix-Class "C" w/2% gel 8# salt and 0.4% CFR-2 friction reducer.

GAS IS DEDICATED.

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

J. Oeffner

TITLE Mngr. US Onshore Prod

DATE 10-28-81

(This space for Federal or State office use)

PERMIT NO.

APPROVED

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY

DEC 15 1981

JAMES A. GILLHAM  
DISTRICT SUPERVISOR

\*See Instructions On Reverse Side

All distances must be from the outer boundaries of the Section.

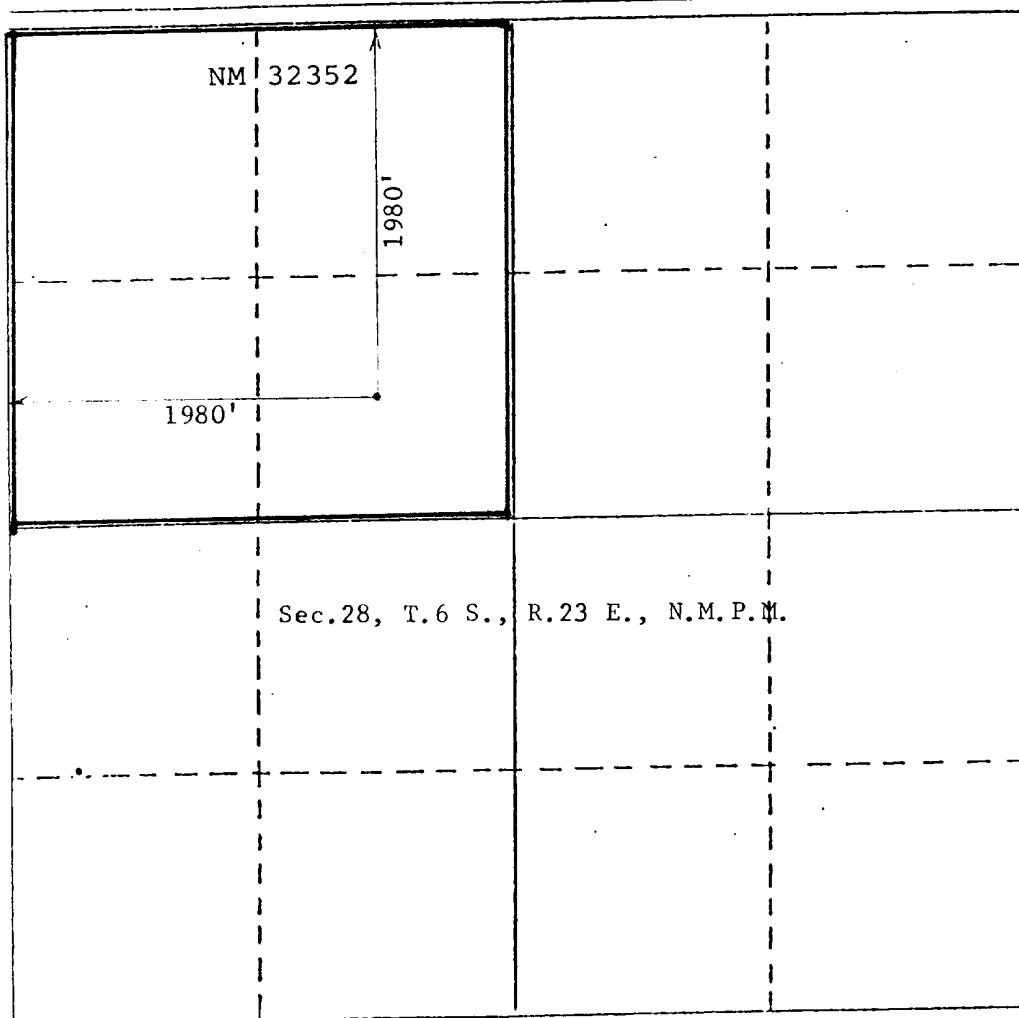
Operator <b>Transwestern Gas Supply Company</b>		Lease <b>McKnight Federal</b>		Well No. <b>#1</b>
Well Letter <b>F</b>	Section <b>28</b>	Township <b>6 South</b>	Range <b>23 East</b>	County <b>Chaves</b>
Actual Postage Location of Well: 1980 feet from the North line and 1980 feet from the West line				
Ground Level Elev. <b>4133</b>	Producing Formation <b>ABO</b>	Pool <b>Undesignation Abo</b>	Dedicated Acreage: <b>160</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). Single lease
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.) \_\_\_\_\_

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 Division.



CERTIFICATION

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

*Jerry W. Long*  
Name  
**JERRY W. LONG**

Position  
**Agent**

Company  
**TRANSWESTERN GAS SUPPLY CO.**

Date  
**December 3, 1981**

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 is true and correct to the best of my knowledge and belief.

**JOHN D. JAQUESS**  
NEW MEXICO

Date Surveyed  
**November 14, 1981**  
Registered Professional Engineer  
and/or Licensed Surveyor  
*John D. Jaquess*  
**John D. Jaquess P.E. & L.S.**  
Certificate No. **6290**

SUPPLEMENTAL DRILLING DATA

TRANSWESTERN GAS SUPPLY COMPANY  
No.1 McKnight Federal  
SE $\frac{1}{4}$ NW $\frac{1}{4}$  Sec.28-6S-23E  
Chaves County, N.M.

NM 32352

The following items supplement Form 9-331C in accordance with instructions contained in NTL-6.

1. SURFACE FORMATION: San Andres Formation
2. ESTIMATED TOPS OF GEOLOGIC MARKERS:

San Andres	- Surface	Tubb	- 2300'
Glorieta	- 750'	Abo	- 3000'
3. ESTIMATED DEPTHS TO WATER, OIL OR GAS FORMATIONS:

Water	- Surface to 300'
Gas	- 3000' to 4500'
4. PROPOSED CASING PROGRAM: See Form 9-331C
5. PRESSURE CONTROL EQUIPMENT: Blowout preventer stack will consist of a double-ram blowout preventer and rotating head rated to 3000#WP. A sketch of the BOP is attached.
6. CIRCULATING MEDIUM: Hole for 13 3/8" conductor pipe will be drilled with a rat hole auger. Air will be used as the circulating medium for the remainder of the drilling. It is anticipated that a foam additive will be necessary until the intermediate casing is cemented.
7. AUXILIARY EQUIPMENT: Full-opening kelly cock, to fit the drill string in use, will be kept on the rig floor at all times.
8. TESTING, LOGGING AND CORING PROGRAM:

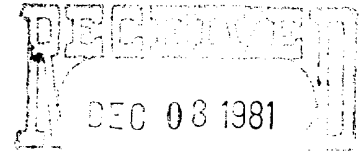
Samples:	Surface casing shoe to TD
DST's:	None anticipated
Logging:	Gamma Ray-Neutron log and other logs as recommended by wellsite geologist.
Coring:	None anticipated

9. ABNORMAL PRESSURES, TEMPERATURES OR HYDROGEN SULFIDE: None anticipated. Maximum bottom-hole pressure should not exceed 1500 psi. Bottom-hole temperature will be about 110°F.
10. ANTICIPATED STARTING DATE: Drilling will commence about December 15, 1981. Drilling should be completed within 10 days. Completion operations (perforations and stimulation) will follow drilling operations.

MULTI-POINT SURFACE USE AND OPERATIONS PLAN

TRANSWESTERN GAS SUPPLY COMPANY  
No.1 McKnight Federal  
1980'/N 1980'/W Sec.28-6S-23E  
Chaves County, N.M.

NM 32352



OFFICE OF GAS  
U.S. GEOLOGICAL SURVEY  
ROSWELL, 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 be followed in rehabilitating the surface after completion of the operation so that a complete appraisal can be made of the environmental effects associated with the operation.

1. EXISTING ROADS:

- A. Exhibit "A" is a portion of a road map showing the location of the proposed well as staked. The well is approximately 27 miles north-northwest of Roswell New Mexico.
- B. Directions: From the intersection of Hwy.285 and Hwy.70, north of Roswell, go 20 miles north on Hwy. 285. Turn west on the County road and go 2.4 miles. Go south  $\frac{1}{2}$  mile to Fred Pool well in the SWSE Sec.21. Go south  $\frac{1}{8}$  mile on Transwestern Pipeline Company right-of-way. Follow new access road  $\frac{1}{2}$  mile south-west to location.

2. PLANNED ACCESS ROAD:

- A. Length and Width: The new access road will be 12' wide (20' ROW) and  $\frac{5}{8}$  mile long.
- B. Surfacing Material: The access road and well pad will be surfaced with about 6" of compacted caliche, if soil conditions deem surfacing to be necessary.
- C. Maximum Grade: Less than 4%.
- D. Turnouts: Two turnouts will be constructed to provide ample room for vehicles to pass.
- E. Drainage Design: The road will be constructed with a 6" crown and adequate drainage.

- F. Culverts: None necessary
- G. Cuts and Fills: The pad area slopes to the southwest and will require about 5' of cut on the northeast corner.
- H. Gates, Cattle Guards: None necessary
3. LOCATION OF EXISTING WELLS:
- A. Existing wells are indicated on Exhibit "A".
4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:
- A. There are no existing facilities on the lease.
- B. If the well is commercial, production and storage facilities will be constructed on the well pad.
5. LOCATION AND TYPE OF WATER SUPPLY:
- A. Water will be purchased from Corn Water Well No.2 in Sec.10-7S-23E. Since this well will be drilled with air, only minimal amounts of water will be required.
6. SOURCE OF CONSTRUCTION MATERIALS:
- A. Necessary caliche will be obtained from a pit on privately-owned land in the SE $\frac{1}{4}$  Sec.21-6S-23E.
7. METHODS OF HANDLING WASTE DISPOSAL:
- A. Drill cutting will be disposed of in the drilling pits.
- B. Drilling fluids will be allowed to evaporate in the drilling pits until the pits are dry.
- C. Water produced during test 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, waste paper, garbage, and junk will be buried in a separate trash pit and covered with a minimum of 24 inches of dirt. All waste material will be contained to prevent scattering by the wind. Location of the trash pit is shown on Exhibit "C".

- F. All trash and debris will be buried or removed from the wellsite within 30 days after finishing drilling and/or completion.

8. ANCILLARY FACILITIES:

- A. None necessary

9. WELL SITE LAYOUT:

- A. Exhibit "C" indicates the relative location and dimensions of the well pad, mud pits, reserve pit and major rig equipment.
- B. The location is sloping to the southwest requiring about a 5' cut on the northeast corner.

10. PLANS FOR RESTORATION OF THE SURFACE:

- A. After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed. Pits will be filled and the location cleaned of all trash and junk to leave the wellsite in an aesthetically pleasing condition as possible.
- B. Any unguarded pits containing fluids will be fenced until they are filled.
- C. If the well is non-productive the disturbed area will be rehabilitated to Federal agency requirements and will be accomplished as expeditiously as possible.
- D. Full consideration will be given to preferences of the fee surface owner.

11. OTHER INFORMATION:

- A. Topography: The topography is sloping to the southwest in the vicinity of the drill pad. Exhibit "B" is a contour map of the area.
- B. Soil: The soil is composed of moderately compacted sandy loam, hosting occasional chert and quartzite cobbles and gravels.
- C. Flora and Fauna: The flora consists of typical desert vegetation, such as yucca, mesquite, cactus and various grasses. Fauna consists of desert wildlife such as coyotes, rodents and snakes.

- D. Ponds or Streams: Drainage is toward the southwest discharging into Arroyo del Macho which is about 2 miles southwest of the location.
- E. Residences and Other Structures: The nearest occupied dwelling is about 2 miles northwest. A windmill is located about 1.1 miles northeast.
- F. Archaeological, Historical and Other Cultural Sites: No artifacts were noted in the area of the pad or access roads. An archaeological survey was conducted by NMAS and a report furnished to BLM and USGS.
- G. Land Use: Grazing
- H. Surface Ownership: The well is located on privately-owned surface. A Surface Owner Agreement is attached.

12. OPERATOR'S REPRESENTATIVE:

Field Operations:

Mr. Hank Spruill  
2801 North Main  
Roswell, N.M. 88201  
Ph. (505) 624-2140-  
624-2141

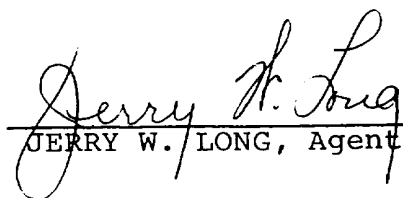
Land and Legal:

Mr. Bill Lawrence  
Midland, TX 79701  
Ph. 915-683-5241  
683-5242  
683-5243

13. CERTIFICATION:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite 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; that the work associated with the operations proposed herein will be performed by TRANSWESTERN GAS SUPPLY COMPANY and its sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

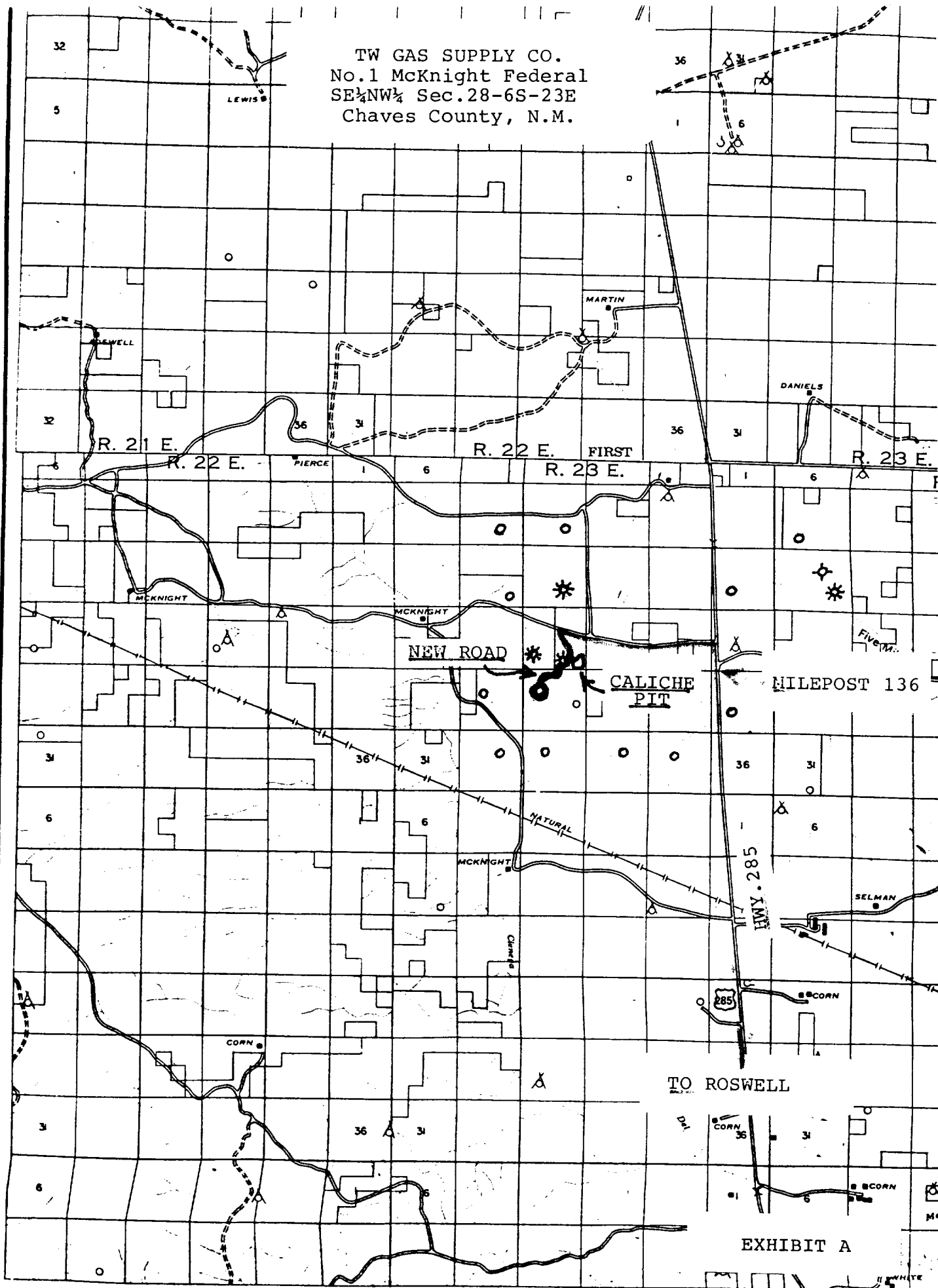
December 3, 1981  
Date:

  
JERRY W. LONG, Agent

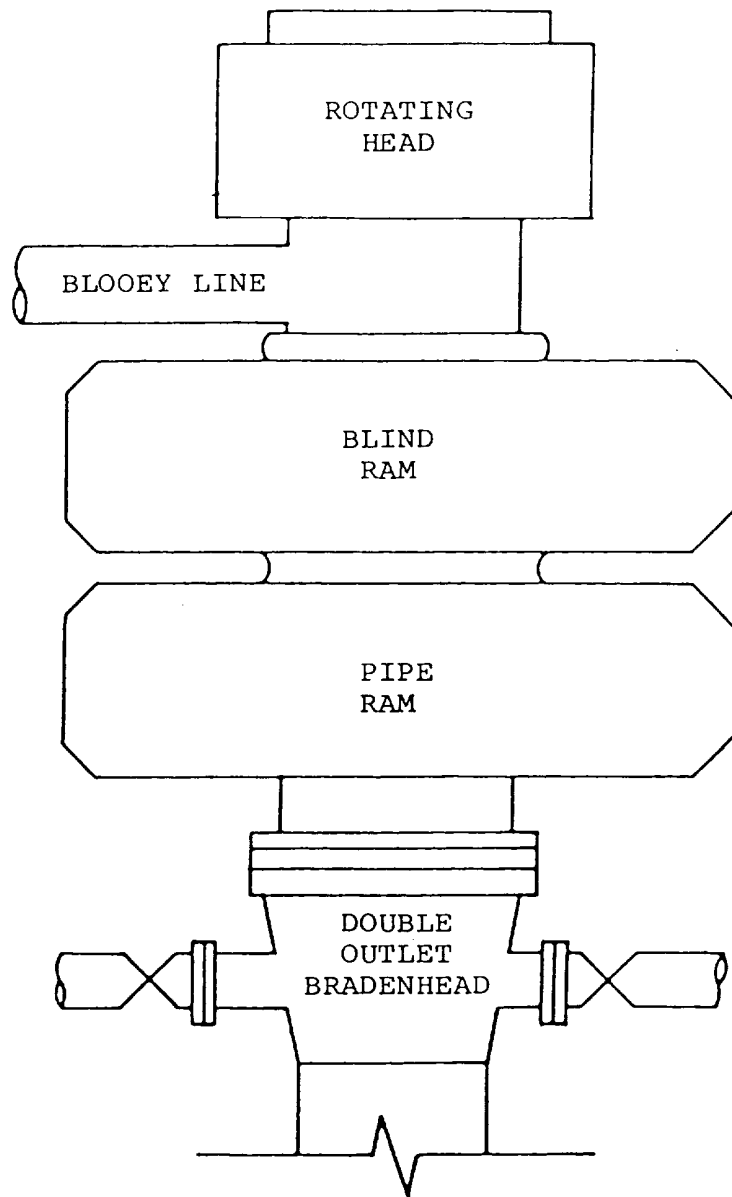


TW GAS SUPPLY CO.  
No.1 McKnight Federal  
SE $\frac{1}{4}$ NW $\frac{1}{4}$  Sec.28-6S-23E  
Chaves County, N.M.

SE-7



TRANSWESTERN GAS SUPPLY COMPANY  
No.1 McKnight Federal  
SE $\frac{1}{4}$ NW $\frac{1}{4}$  Sec.28-6S-23E  
Chaves County, N.M.



BOP STACK

3000 PSI WORKING PRESSURE

# REHABILITATION PLAN

Lease No.: \_\_\_\_\_; Well Names and No.: McKnight Federal #1  
Subdivision: NW/4, Section 28, T. 6 S., R. 23 E.,  
County Chaves, State New Mexico

Transwestern Gas Supply ~~Oil~~ Company intends to drill a well on surface owned by William D. McKnight. The lessee/operator agrees to complete the following rehabilitation work if the well is a producer:

- ☒ Yes ☐ No Maintain access road and provide adequate drainage from road.  
☒ Yes ☐ No Reshape and seed any area not needed for maintenance of the production facilities.

Other requirements: \_\_\_\_\_

The following work will be completed when the well is abandoned/dry hole:

## WELL LOCATION

- ☒ Yes ☐ No Pit will be fenced until dry, then filled to conform to surrounding topography.  
☐ Yes ☒ No Water bars will be constructed as deemed necessary.  
☒ Yes ☐ No Site will require reshaping to conform to surrounding topography.  
☒ Yes ☐ No Entire disturbed area will be seeded with the following seed mixture:  
To be decided later

## ACCESS ROAD

- ☒ Yes ☐ No Access road will be closed, rehabilitated and seeded using the same seed mixture as above.  
☒ Yes ☐ No Water bars will be constructed on the access road as deemed necessary.

Other requirements: \_\_\_\_\_

## SURFACE OWNER

Name: William D. McKnight  
Address: \_\_\_\_\_  
City: Roswell,  
State: New Mexico  
Phone No.: (505) 623-6403  
Date: 12-7-81

## OPERATOR/LESSEE

Name: Transwestern Gas Supply Co.  
Address: 2801 N. Main  
City: Roswell  
State: New Mexico  
Phone No.: 624-2140  
Date: 12-7-81

I CERTIFY rehabilitation has been discussed with me, the surface owner:

William D. McKnight  
(Surface owner's signature)

This plan covers rehabilitation requirements only and does not affect any other agreements between the lessee/operator and surface owner.