

**N.M. OIL CO**  
**P. BOX 16**  
**HOBBS**  
**DEPARTMENT OF**  
**BUREAU OF LAND**

OPER. UGRID NO. 3280  
PROPERTY NO. 3355  
POOL CODE 43329  
EFF. DATE 1/22/96  
API NO. 30-025-33259

FORM APPROVED  
OMB NO. 1004-0136  
Expires: February 28, 1995

**APPLICATION FOR PERMIT**

1a. TYPE OF WORK

DRILL

DEEPEN

b. TYPE OF WELL

OIL WELL

GAS WELL

OTHER

SINGLE ZONE

MULTIPLE ZONE

2. NAME OF OPERATOR

CROSS TIMBERS OPERATING COMPANY

3. ADDRESS AND TELEPHONE NO.

P. O. Box 52070, Midland, Texas 79710-2070 (915) 682-8873

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

At surface  
550' FSL, 800' FEL

At proposed prod. zone

Same

Unit P

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

6 miles southeast of Maljamar, New Mexico

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT.

550'

16. NO. OF ACRES IN LEASE

120

17. NO. OF ACRES ASSIGNED TO THIS WELL

20

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

212'

19. PROPOSED DEPTH

4,400'

20. ROTARY OR CABLE TOOLS

Rotary

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

4,029' GL

Roswell Controlled Water Basin

22. APPROX. DATE WORK WILL START\*

1/15/96

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8" J-55	24#	400' 250'	250sx <b>CIRCULATE</b>
7-7/8"	5-1/2" J-55	15.5#	4,400'	975sx

1. Drill 12-1/4" hole & set 8-5/8" surface csg. Circ cmt to surface.

2. NU BOP. Log BOP checks in IADC report & drill 7-7/8" hole to 4,400'.

3. Set 5-1/2" csg at TD. Circ cmt to surface.

4. Run cased hole log. Perforate & stimulate as needed.

EXHIBITS ATTACHED:

Exhibit "A" - Location & Elevation Plat

Exhibit "B" - Ten-Point Compliance Program

Exhibit "C" - Pressure Control Equipment

Exhibit "D" - Surface Use Plan

Exhibit "E" - Existing & Planned Access Roads

Exhibit "F" - Location of Existing Wells

Exhibit "G" - Proposed Well Site Layout

Exhibit "H", "H1" & "H2" - Drill Pad Layout w/Elevations (Cut & fill Diagrams)

Exhibit "I" - Surface Owner Damage Agreement

Approval Subject to  
General Requirements and  
Special Stipulations  
Attached

Dec 1 1995  
MAY 1 1996

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, 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

George E. Ramsey, Jr.

TITLE Drilling Engineer

DATE 12-1-95

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY

/s/ Yolanda Vega

TITLE

ASSISTANT AREA MANAGER

DATE

1-17-96

\*See Instructions On Reverse Side

**OIL CONSERVATION DIVISION**

P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

API Number <b>30-025-33259</b>		Pool Code	Pool Name <b>Maljamar (G-SA)</b>
Property Code <b>3355</b>	Property Name <b>SEMGSU</b>		Well Number <b>107</b>
OGRID No. <b>5380</b>	Operator Name <b>CROSS TIMBERS OPERATING CO.</b>		Elevation <b>4029</b>

**Surface Location**

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	30	17 S	33 E		500	SOUTH	800	EAST	LEA

**Bottom Hole Location if Different From Surface**

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
<b>40</b>			

**NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION**

	<p><b>Federal Lease</b></p>	<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>George E. Ramsey Jr.</i> Signature <b>George E. Ramsey Jr.</b> Printed Name <b>Drilling Engineer</b> Title <b>9/27/95</b> Date</p>
	<p><b>Lease #LC-060967</b></p>	<p><b>SURVEYOR CERTIFICATION</b></p> <p>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 belief.</p> <p><b>JULY 24, 1995</b> Date Surveyed</p> <p><i>John S. West</i> Signature &amp; Seal of Professional Surveyor <b>W.O. Num 95-1161</b> Certificate No. <b>JOHN S. WEST 676</b> <b>RONALD J. EIDSON 3239</b> <b>MARK EIDSON 12641</b></p>

**EXHIBIT "A" - LOCATION AND ELEVATION PLAT**

**EXHIBIT "B"**  
**APPLICATION FOR PERMIT TO DRILL**  
**TEN-POINT COMPLIANCE PROGRAM**  
**CROSS TIMBERS OPERATING COMPANY**  
**SEMGS AU #107**  
**500' FSL, 800' FEL**  
**SEC 30 - T17S - R33E NMPM**  
**LEA COUNTY, NEW MEXICO**

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In conjunction with Form 3160-3, Application for Permit to Drill, Cross Timbers Operating Company submits the following items of pertinent information in accordance with Onshore Oil and Gas Order No's 1 and 2, and with all other applicable Federal and State regulations.

1. The geologic surface formation is Quaternary Alluvium.
2. The estimated geologic markers are as follows:

Top of Salt - 1376'	Queen - 3551'
Base of Salt - 2421'	Grayburg - 3721'
Yates - 2561'	Premier SS - 4213'
Seven Rivers - 2946'	San Andres - 4296'

3. The estimated depths at which water, oil and/or gas are expected to be encountered:

Fresh Water:	None in the area.
Oil and /or Gas:	Grayburg - 3721' to 4213'
	Premier SS - 4213' to 4296'
	San Andres - 4296' to 4400'

4. Proposed Casing Program:

<u>Hole Size</u>	<u>Setting Depth</u>	<u>Size (OD)</u>	<u>Weight, Grade and Joint</u>	<u>New or Used</u>
12 1/4"	400' <del>350'</del> <i>Ad</i>	8 5/8"	24#, J55, STC	Used *
7 7/8"	4400'	5 1/2"	15.5#, J55, STC	Used *

\* USED CASING SHALL MEET NEW CASING'S SPECIFICATIONS.

Cement Program:

Surface Casing:	250 sx Premium Plus cement with 2% CaCl and 1/4 #/sx Flocele.
Production Casing:	Lead with 775 sx Premium Plus cement with 3% Econlite and 1/4 #/sx Flocele, Tail in with 200 sx Premium Plus cement with 0.2% Halad-322 and 0.4% Halad-9.

5. Pressure Control Equipment:

The BOPE will be a Shaffer type double gate preventer Series 900 - 3000# W.P. Exhibit "C" is a schematic diagram of the minimum blowout preventer stack that will be used. The BOP's will be hydraulically tested to half the working pressure after nipping up and after any use under pressure. Pipe rams will be operationally checked each 24 hour period, as will the blind rams each time pipe is pulled out of the hole. Such checks will be noted on the daily tour reports.

Accessories to the BOPE will include an upper kelly cock, floor safety valve, and choke manifold with pressure rating equivalent to the BOP stack.

6. Mud Program:

Surface: Fresh water native spud mud.

Production: Brine Envirodrill-NS.

<u>Depth</u>	<u>Mud Weight</u>	<u>Viscosity</u>	<u>API Filtrate</u>
<i>Adm</i> 0' - <del>300'</del> 400'	8.4 - 8.8 ppg	32 - 36 sec	No Control
400' - 4400'	10.0 - 10.1 ppg	28 - 30 sec	No Control

7. Auxiliary Equipment:

- An upper kelly cock valve will be used in the kelly.
- A safety valve will be on the floor at all times, to be stabbed into the drill string when the kelly is not in the string.
- H2S compliance package will be installed prior to drilling the Grayburg formation to monitor the system for H2S.

8. Testing, Logging, and Coring Program:

- No drill stem tests are anticipated.
- No open hole logs will be run, a cased hole CNL/Spectral GR will be run prior to completion.
- No coring is anticipated.

9. Anticipated Abnormal Pressure, Temperatures, or Other Hazards:

No abnormal pressures or temperatures have been noted or reported in wells drilled in the area to the anticipated depth of this well.

Anticipated Bottom Hole Pressure (BHP) = 1930 psi.

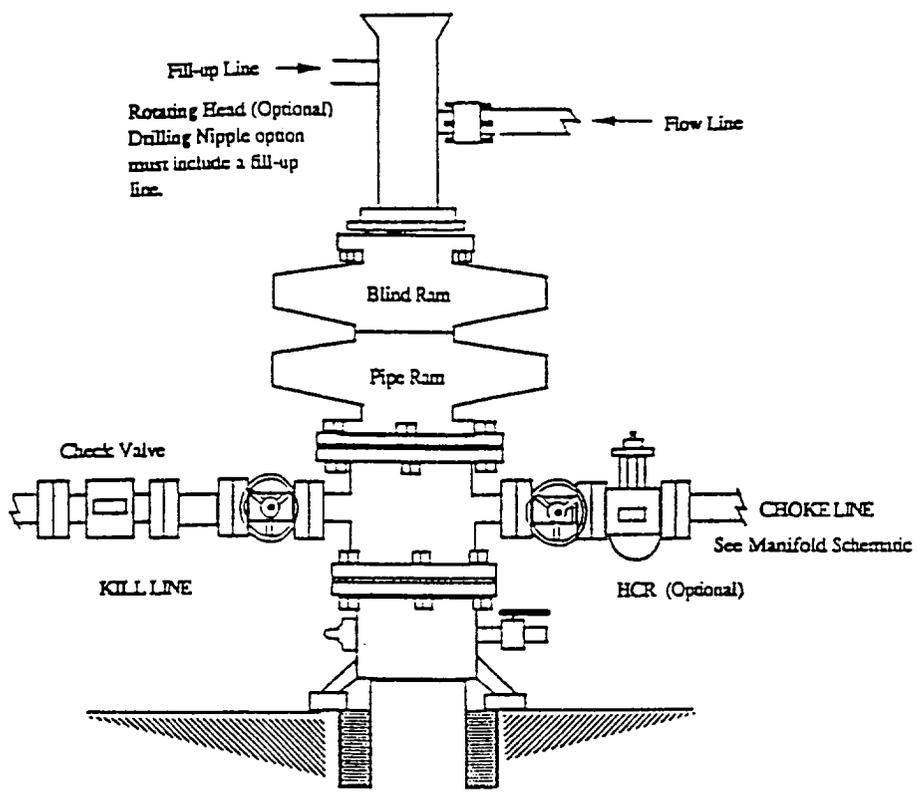
Hydrogen Sulfide is known to exist in formations at the depths the wellbore will penetrate, a H2S compliance package will be rigged up prior to drilling those formations.

10. Anticipated Starting Date and Duration of Operations:

The anticipated starting date will be as soon as possible after examination and approval of drilling requirements. Drilling operations should be completed within 10 days after spudding the well and drilling to TD.

# EXHIBIT "C" - PRESSURE CONTROL EQUIPMENT

BOPE SCHEMATIC FOR DRILLING OPERATIONS  
 CLASS 1 - NORMAL PRESSURE  
 CROSS TIMBERS OPERATING COMPANY STANDARD



CHOKE MANIFOLD SCHEMATIC FOR DRILLING OPERATIONS  
 2M & 3M SERVICE  
 CROSS TIMBERS OPERATING COMPANY STANDARD

