

Form 3160-3  
(July 1992)

N.M. OIL CONS. CO.  
P.O. BOX 2080  
HOBBS, N.M. 78901  
UNITED  
DEPARTMENT OF  
BUREAU OF LAND  
**APPLICATION FOR PERM**

OPER. GRID NO. ~~4882~~ **5380**

PROPERTY NO. **3355**

POOL CODE **43320**

EFF. DATE **5/3/96**

API NO. **30-025-33408**

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

5. LEASE DESIGNATION AND SERIAL NO.

**LC-060967**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

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

1900' FSL, 104' FEL, Sec. 30, T17S, R33E, NMPM

At proposed prod. zone

Same

**UNORTHODOX LOCATION:**

Subject to  
Like Approval  
By State

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME, WELL NO.

SEMGAU #108

9. API WELL NO.

10. FIELD AND POOL, OR WILDCAT

Maljamar Grayburg San Andres

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

Sec. 30, T17S, R33E, NMPM

12. COUNTY OR PARISH

Lea

13. STATE

New Mexico

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.

(Also to nearest drlg. unit line, if any)

104'

16. NO. OF ACRES IN LEASE

120

18. DISTANCE FROM PROPOSED LOCATION\*

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

561'

19. PROPOSED DEPTH

4,400'

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

20 40

20. ROTARY OR CABLE TOOLS

Rotary

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

4,049' GL

22. APPROX. DATE WORK WILL START\*

5/15/96

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'	250sx
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 "H1" & "H2" - Drill Pad (Cut & Fill Diagrams)
- Exhibit "I" - Surface Owner Damage Agreement

Approval Subject to  
General Requirements and  
Special Stipulations  
Attached

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 F. Ramsey, Jr.**

TITLE **Drilling Engineer**

DATE **3/28/96**

(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 **(ORIG. SGD.) RICHARD L. MANUS**

TITLE

DATE

\*See Instructions On Reverse Side

Form C-102  
Revised February 10, 1984  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number		Pool Code	Pool Name	
			MALJAMAR (G-SA)	
Property Code	Property Name			Well Number
	SEMGSAU			108
UGRID No.	Operator Name			Elevation
	CROSS TIMBERS OPERATING COMPANY			4049

### Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	30	17 S	33 E		1900	SOUTH	104	EAST	شمال

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 40	Joint or Infill	Consolidation Code	Order No.						

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

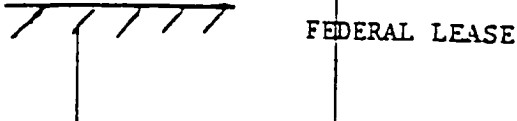
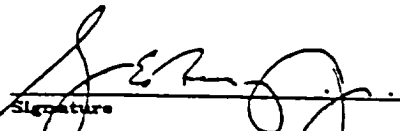
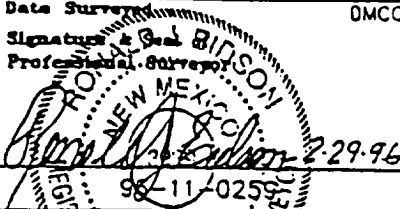
LOT 1	 <p style="text-align: center; font-weight: bold;">FEDERAL LEASE</p>	<h3 style="text-align: center;">OPERATOR CERTIFICATION</h3> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <div style="margin-top: 20px;">               Signature  <u>George E. Ramsev, Jr.</u>              Printed Name  <u>Drilling Engineer</u>              Title  <u>03/06/96</u>              Date         </div>
42.11 ACRES <hr/> LOT 2	<div style="text-align: right; margin-right: 50px;">                     400'                      4052.4' — 4053.5'                      400'   ○                      4046.9' — 4048.7'                      Road                      DETAIL                 </div>	
42.13 ACRES <hr/> LOT 3	<div style="text-align: right; margin-right: 50px;">                     SEE DETAIL                       104' — ○                 </div>	
42.15 ACRES <hr/> LOT 4	<p style="text-align: center; font-weight: bold;">LEASE #LC-060967</p>	<h3 style="text-align: center;">SURVEYOR CERTIFICATION</h3> <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 style="text-align: right; font-weight: bold;">FEB. 23, 1996</p> <div style="margin-top: 10px;">                 Date Surveyed _____ OMCC                  Signature &amp; Seal                  Professional Surveyor   </div> <div style="margin-top: 10px;">                 Certified Copy No. JOHN W. BOWEN 878                  RONALD W. BENSON 3239                  REGISTERED PROFESSIONAL SURVEYOR 12641             </div>
42.17 ACRES		

EXHIBIT "A" - LOCATION AND ELEVATION PLAT

**EXHIBIT "B"**  
**APPLICATION FOR PERMIT TO DRILL**  
**TEN-POINT COMPLIANCE PROGRAM**  
**CROSS TIMBERS OPERATING COMPANY**  
**SEMGSAU #108**  
**1900' FSL, 104' 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	- 1350'	Queen	- 3530'
Base of Salt	- 2400'	Grayburg	- 3680'
Yates	- 2540'	Premier SS	- 4200'
Seven Rivers	- 2920'	San Andres	- 4230'

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 - 3680' to 4200'
	Premier SS - 4200' to 4230'
	San Andres - 4296' to 4400'

4. Proposed Casing Program:

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

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>
0' - 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.

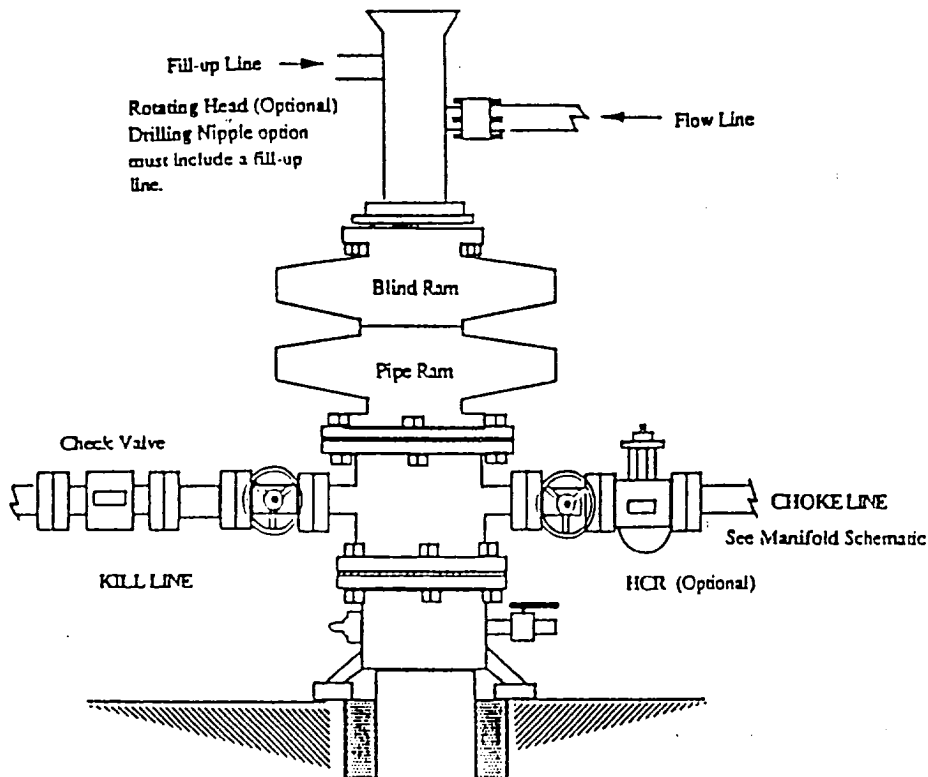
Hydrogen Sulfide is known to exist in formations at the depths the wellbore will penetrate, a H2S compliance package will be rigged up prior to drilling those formations.

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

