

OPER. OGRID NO. 5380

LICATE\*

Form approved.  
Budget Bureau No. 1004-0136  
Expires: December 31, 1991

UNITED STATES  
DEPARTMENT OF  
BUREAU OF LAND MANAGEMENT

PROPERTY NO. 3372

POOL CODE 43329

SEC. DATE 4/11/97

API NO. 3D-025-33921

APPLICATION FOR PERMIT

1a. TYPE OF WORK

DRILL ☒

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.

3000 N. Garfield, Suite 175, Midland, TX 79705, 915-682-8873

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

330' FNL & 990' FWL, Sec. 33, T17S, R33E, NMPM  
At proposed prod. zone

Same

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

6 Miles Southeast of Maljamar, New Mexico

10. DISTANCE FROM PROPOSED\*  
LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest drlg. unit line, if any)

330'

16. NO. OF ACRES IN LEASE

40

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.

640'

19. PROPOSED DEPTH

4500

20. ROTARY OR CABLE TOOLS

Rotary

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

4071' G.L.

22. APPROX. DATE WORK WILL START\*

4-1-97

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 sx
7-7/8"	5-1/2", J-55	15.5#	4500	850 sx

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 4500'.
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
- " B - Ten Point Compliance Program
- " C - Pressure Control Equipment
- " D - Surface Use Plan
- " E - Existing & Planned Access Roads
- " F - Location of existing wells
- " G - Proposed Well Site Layout
- " H - Cut & Fill Diagrams of Drill Pad
- " I - Surface Owner Damage Agreement

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED

RECEIVED

APR - 1 '97

ROSVILLE, NM

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

Mark A. Gosh

TITLE Drilling Engineer

DATE 3-31-97

(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

ORIO SGO. ION. FERGUSON

TITLE

ADM. MINERALS

DATE

4-7-97

\*See Instructions On Reverse Side

DISTRICT I  
P.O. Box 900, Hobbs, NM 88241-1980

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised February 10, 1994  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

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

DISTRICT IV  
P.O. Box 2088, Santa Fe, NM 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number <b>3D-025-33921</b>	Pool Code <b>43329</b>	Pool Name <b>Maljamar Grayburg San Andres</b>
Property Code <b>003355 3372</b>	Property Name <b>U. S. MINERALS</b>	Well Number <b>4</b>
OGRID No. <b>005380</b>	Operator Name <b>CROSS TIMBERS OPERATING CO.</b>	Elevation <b>4071</b>

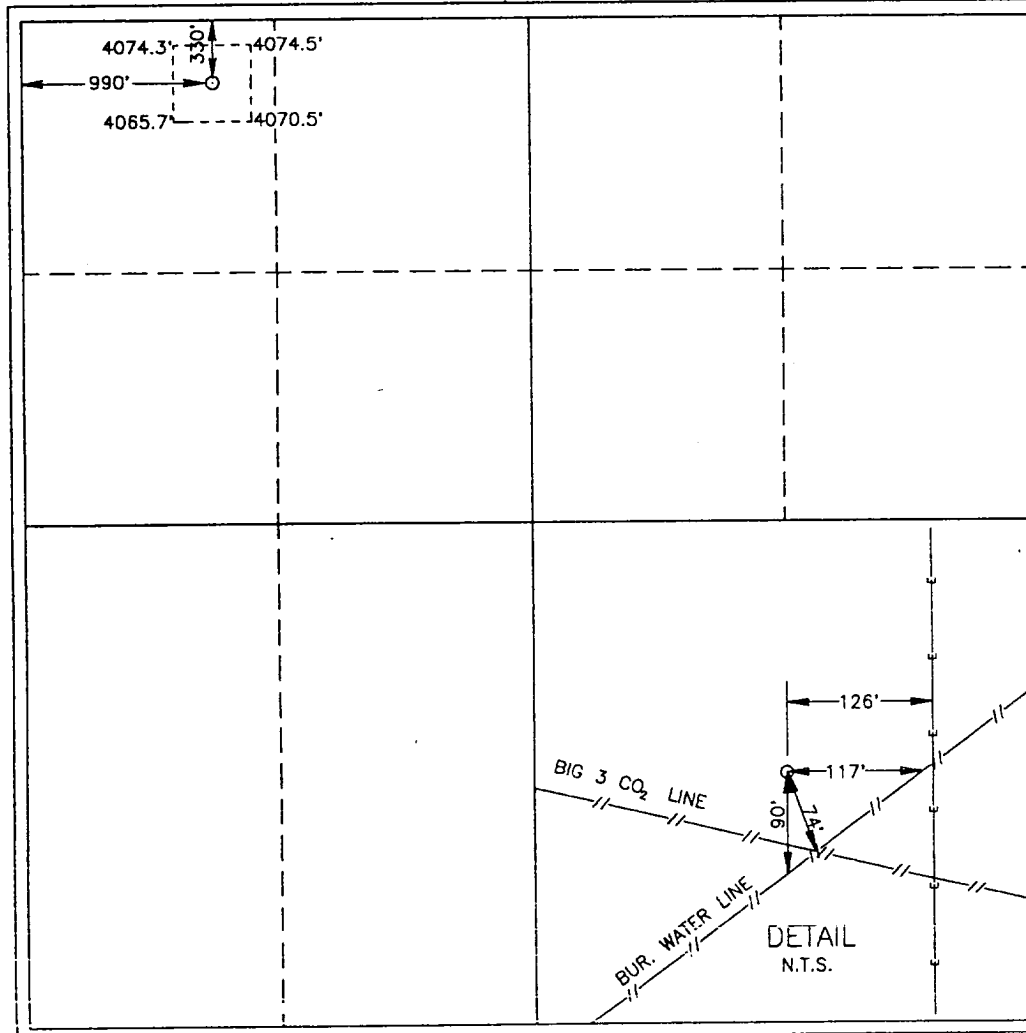
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	33	17 S	33 E		330	NORTH	990	WEST	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 <b>40</b>	Joint or Infill <b>I</b>	Consolidation Code <b>U</b>	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

	<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>Mark A. Gosch</i> Signature</p> <p>Mark A. Gosch Printed Name</p> <p>Drilling Engineer Title</p> <p>3-31-97 Date</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>FEBRUARY 27, 1997</p> <p>Date Surveyed Signature &amp; Seal Professional Surveyor NEW MEXICO JLP</p> <p>W.O. Num. 97-0294</p> <p>Certification No. JOHN W. WEST, 676 JOHN J. EIDSON, 3239 GARY G. EIDSON, 12641</p>
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## DISTRICT I

P.O. Box 1980, Hobbs, NM 88241-1980

## State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102

Revised February 10, 1994  
 Submit to Appropriate District Office  
 State Lease - 4 Copies  
 Fee Lease - 3 Copies

## DISTRICT II

P.O. Drawer DD, Artesia, NM 88211-0719

## DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

## OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

## DISTRICT IV

P.O. Box 2088, Santa Fe, NM 87504-2088

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number <b>30-025-33921</b>	Pool Code 43329	Pool Name Maljamar Grayburg San Andres
Property Code <b>003355 3372</b>	Property Name U. S. MINERALS	Well Number 4
OGRID No. 005380	Operator Name CROSS TIMBERS OPERATING CO.	Elevation 4071

## Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	33	17 S	33 E		330	NORTH	990	WEST	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 40	Joint or Infill I	Consolidation Code U	Order No.
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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

	<b>OPERATOR CERTIFICATION</b> I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. <u>Mark A. Gosch</u> Signature <u>Mark A. Gosch</u> Printed Name <u>Drilling Engineer</u> Title <u>3-31-97</u> Date	
	<b>SURVEYOR CERTIFICATION</b> 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. FEBRUARY 27, 1997 Date Surveyed Signature and Seal of Professional Surveyor 	
	P.O. Num. 97-1-40294 Certificate No. JOHN W. WEST, 678 RONALD J. EIDSON, 3239 RONALD J. EIDSON, 12641	
	EXHIBIT "A" Location and Elevation Plat	

**EXHIBIT "B"**  
**APPLICATION FOR PERMIT TO DRILL**  
**TEN-POINT COMPLIANCE PROGRAM**  
**CROSS TIMBERS OPERATING COMPANY**  
**U.S.MINERALS #4**  
**990' FWL & 330' FNL**  
**SEC 33 - T17S - R33E**  
**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	-	1456'
Base of Salt	-	2476'
Grayburg	-	3776'
Premier SS	-	4286'
San Andres	-	4376'

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 - 3776' to 4270'
	Premier SS - 4270' to 4376'
	San Andres - 4376' to 4500'

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'	8 5/8"	24#, J55, STC	Used
7 7/8"	4500'	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% Econolite 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 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' - 4500'	10.0 - 10.1 ppg	28 - 30 sec	No Control

7. Auxiliary Equipment:

An upper kelly cock 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 Pressures, 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) = 1975 psi.

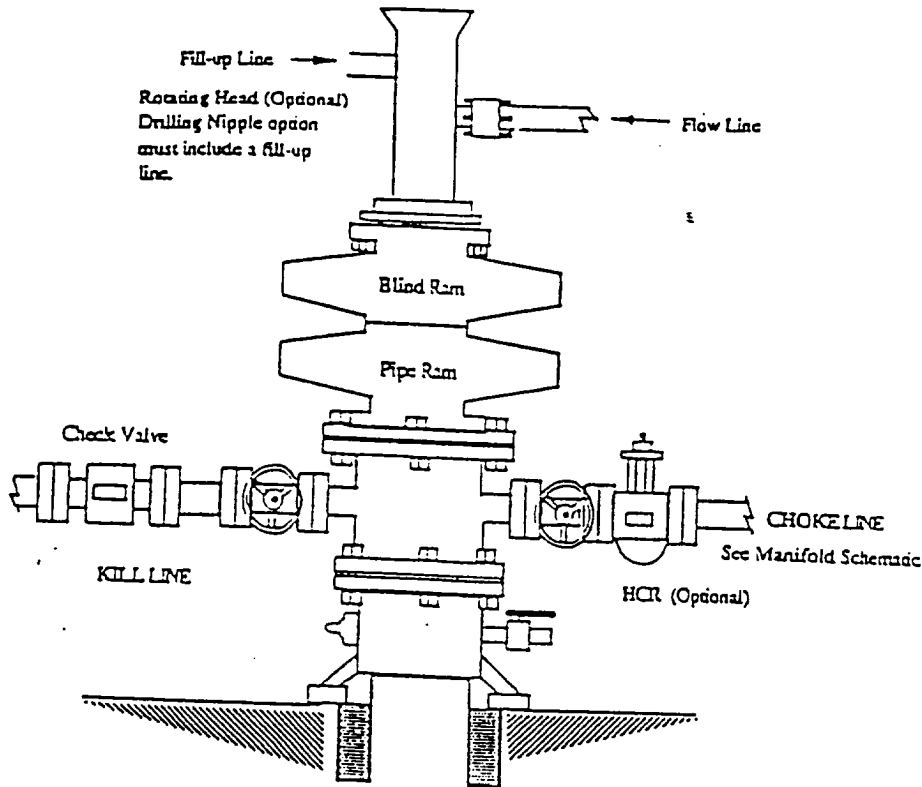
Hydrogen Sulfide is known to exist in formations at the depths the wellbore will penetrate, a H<sub>2</sub>S compliance package will be rigged up prior to drilling those formations.

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.

# EXH. 31T "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

