

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

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.

2700 Farmington Ave., Bldg. K, Ste 1 Farmington, NM 87401

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

2325' FNL & 1085' FEL Sec 34, T28N, R04W

At proposed prod. zone

1452-1900' FNL & 1970' FEL Sec 34, T28N, R04W

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

Approx 49 from the Post Office in Blanco, NM.

15. DISTANCE FROM PROPOSED*

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

660'

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

185'

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

7,265' Ground Level

5. LEASE DESIGNATION AND SERIAL NO.

NM NM - 14922

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME, WELL NO.

Carson Federal I #1R

9. API WELL NO.

30-039-2650.5

10. FIELD AND POOL, OR WILDCAT

Blanco Mesaverde

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

Sec 34, T28N, R04W

12. COUNTY OR PARISH

Rio Arriba

13. STATE

NM

17. NO. OF ACRES ASSIGNED
TO THIS WELL

N 320

20. ROTARY OR CABLE TOOLS

0-6,600' with Rotary Tools

22. APPROX. DATE WORK WILL START*

Fall of 2000

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8"	32.3#	+/- 400'	215 sx c1 B cmt
8-3/4"	7"	20.0#	+/- 4,500'	500 sx cmt (total)
6-1/4"	4-1/2"	10.5#	+/- 6,600'	200 sx cmt (total)

This action is subject to technical and
procedural review pursuant to 42 CFR 3165.3
and 3165.4.

Surface Csg: Cmt 9-5/8" surf csg @ +/- 400'. Cmt w/215 sx c1 B cmt w/2% CaCl2 & 1/4 pps
celloflake (mixed @ 15.6 ppg & 1.18 cuft/sx). Attempt to circ cmt to surface.

Intermediate Csg: Cmt 7" csg @ +/- 4,500'. Cmt w/(lead) 400 sx c1 B cmt w/2% D-79 extender, 1/4
pps celloflake, 2% CaCl2 (mixed @ 11.4 ppg & 2.87 cuft/sx) followed by (tail) 100 sx c1 B cmt w/2%
D-79 extender, 1/4 pps celloflake & 2% CaCl2 (mixed @ 13.5 ppg & 1.71 cuft/sx). Attempt to circ cmt
to surface.

Production Csg: Cmt 4-1/2" csg @ +/- 6,600'. Cmt w/(lead) 50 sx c1 B cmt w/2% D-79 extender, 1/4
pps celloflake & 2% CaCl2 (mixed @ 11.4 ppg & 2.87 cuft/sx) followed by (tail) 150 sx c1 B w/2% D-79
extender, 1/4 pps celloflake & 2% CaCl2 (mixed @ 13.5 ppg & 1.71 cuft/sx). Est TOC @ 4,000'.

A BOP stack diagram is included in the drilling prog located in exhibit #5.

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

TITLE Drilling Engineer

DATE 7/10/00

(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

TITLE

DATE

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001 makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false,
fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

District I
PO Box 1980, Hobbs, NM 88241-1980

District II
PO Drawer 00, Artesia, NM 88211-0719

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

District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-26525		*Pool Code 72319	*Pool Name BLANCO MESAVERDE
*Property Code 23488	*Property Name CARSON FEDERAL I		*Well Number 1R
*GRID No. 167067	*Operator Name CROSS TIMBERS OPERATING COMPANY		*Elevation 7265'

¹⁰ Surface Location

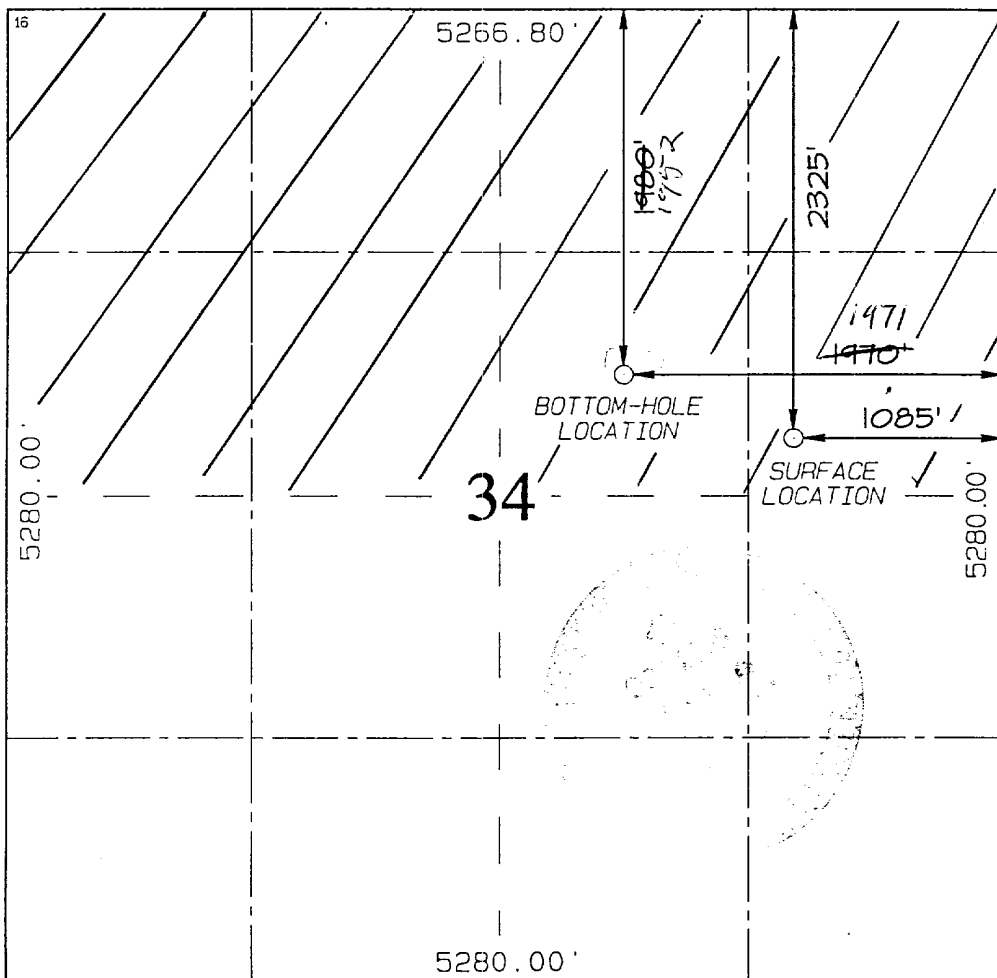
UL or lot no. H	Section 34	Township 28N	Range 4W	Lot Idn	Feet from the 2325	North/South line NORTH	Feet from the 1085	East/West line EAST	County RIO ARriba
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¹¹ Bottom Hole Location If Different From Surface

UL or lot no. G	Section 34	Township 28N	Range 4W	Lot Idn	Feet from the 1980 1972	North/South line NORTH	Feet from the 1970 1971	East/West line EAST	County RIO ARriba
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¹² Dedicated Acres N/2 320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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

	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Signature: <i>Jeff Patton</i> Printed Name: Jeff Patton Title: Production Engineer Date: 7/26/00
	¹⁸ SURVEYOR CERTIFICATION 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. JULY 17, 2000 Date of Survey Signature and Seal of Professional Surveyor: <i>Neale C. Edwards</i> Certificate Number: 6857

CROSS TIMBERS OPERATING COMPANY CARSON FEDERAL | #IR

2325' FNL & 1085' FEL, SECTION 34, T28N, R4W, N.M.P.M.

RIO ARRIBA COUNTY, NEW MEXICO



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires November 30, 2000

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No.

NMNM - 14922

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No

8. Well Name and No

Carson Federal I #1R

9. API Well No.

10. Field and Pool, or Exploratory Area
Blanco Mesaverde

11. County or Parish, State

Rio Arriba NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☐ Notice of Intent
☒ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

- | | | | |
|---|---|--|--|
| <input type="checkbox"/> Acidize | <input type="checkbox"/> Deepen | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Alter Casing | <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Reclamation | <input type="checkbox"/> Well Integrity |
| <input type="checkbox"/> Casing Repair | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete | <input checked="" type="checkbox"/> Other APD Revision |
| <input type="checkbox"/> Change Plans | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Temporarily Abandon | |
| <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back | <input type="checkbox"/> Water Disposal | |

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximated duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleation in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

Cross Timbers Operating Company has revised the APD drilling program attachment for the above mentioned well.

The enclosed drilling program attachment has been revised as follows:

1. Depths have change to reflect the difference in MD and TVD (directionally drilled hole).
2. The open hole logging program has been corrected.
3. The class of cement has been changed from class "B" to class "G". Cement availability has cause local cement service companys to change their supply. The change from class "B" to "G" has made only slight changes in the cement yield and water requirement.

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

W. J. Patton

Title

Drilling Engineer

Date

10/5/00

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Jim J. J. J.

Title

Office

Date

10/16/00

Conditions of approval, if any, are attached. Approval of this notice 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.

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

CROSS TIMBERS OPERATING COMPANY

Carson Federal I #1R

APD Data

October 6, 2000

Surface Location: 2,325' FNL & 1,085' FEL, Sec 34, T28N, R04W County: Rio Arriba State: New Mexico

Bottomhole location : 1980' FNL & 1970' FEL, Sec 34, T28N, R04W

PROJECTED TOTAL DEPTH: ±6,600' (TVD) ±6,698 (MD)

GR ELEV: 7,265'

OBJECTIVE: Mesaverde

Est KB ELEV: 7,277 (12' AGL)

1. MUD PROGRAM:

INTERVAL	0' to 400'	400' to 4,500'	4,500' to TD
HOLE SIZE	12-1/4"	8-3/4"	6-1/4"
MUD TYPE	FW/Native Mud	FW/Polymer	Air
WEIGHT	8.6-8.8	8.6-9.0	
VISCOSITY	28-32	29-34	
WATER LOSS	NC	NC	

Remarks: Use fibrous materials as needed to control seepage and lost circulation. Pump high viscosity sweeps as needed for hole cleaning. RU air compressors after setting the intermediate csg. Drill with air or foam to TD.

2. CASING PROGRAM:

Surface Casing: 9-5/8" casing to be set at ± 400' in 8.6 ppg mud

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0'-400'	400'	32.3#	H-40	STC	1370	2270	254	9.001	8.972	5.98	5.68	15.73

Intermediate Casing: 7" casing to be set at ±4,500' (MD) 4,448' (TVD) in 9.0 ppg mud.

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0' - 4,500' (MD)	4,500'	20.0#	J-55	STC	2257	3740	234	6.456	6.331	1.15	1.31	2.57

Production Casing: 4-1/2" casing to be set at 6,698' (MD) 6,600' (TVD) in air.

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0' - 6,698' (MD)	6,698'	10.5#	J-55	STC	4010	4790	132	4.052	3.927	1.33	1.20	1.90

3. WELLHEAD:

A. Casing Head: 9-5/8" x 4-1/2" 3,000 psig WP (6,000 psig test).

4. CEMENT PROGRAM (Slurry design may change slightly, but the plan is to circulate cement to surface on both casing strings):

A. Surface: 9-5/8", 32.3#, H-40, STC casing to be set at $\pm 400'$.

Lead: 215 sx of Class "G" cement containing 2% CaCl_2 , 1/4 pps celloflake, mixed at 15.8 ppg, 1.145 ft^3/sk , & 4.97 gal wtr/sk.

Total slurry volume is 246 ft^3 , 100% excess of calculated annular volume to 400'.

B. Intermediate: 7", 20.0#, J-55, STC casing to be set at $\pm 4,500'$ (MD).

Lead: 400 sx of Class "G" cement containing 3% D-79 (extender), 1/4 pps D-29 (celloflake) and 2% S-1 (CaCl_2) mixed at 11.4 ppg, 2.88 ft^3/sk , 17.89 gal wtr/sx.

Tail: 100 sx of Class "G" cement containing 3% D-79 (extender), 1/4 pps D-29 (celloflake) and 2% S-1 (CaCl_2) mixed at 13.5 ppg, 1.71 ft^3/sk , 9.15 gal wtr/sx.

Total slurry volume is 1,319 ft^3 , circulated to surface.

C. Production: 4-1/2", 10.5#, J-55, STC casing to be set at $\pm 6,600'$ (TVD) 6,698' (MD).

Lead: 50 sx of Class "G" cement containing 3% D-79 (extender), 1/4 pps D-29 (celloflake) and 2% S-1 (CaCl_2) mixed at 11.4 ppg, 2.88 ft^3/sk , 17.89 gal wtr/sx.

Tail: 150 sx of Class "G" cement containing 3% D-79 (extender), 1/4 pps D-29 (celloflake) and 2% S-1 (CaCl_2) mixed at 13.5 ppg, 1.71 ft^3/sk , 9.15 gal wtr/sx..

Total estimated slurry volume for the 4-1/2" production casing is 400 ft^3 for 2,600' of fill. Est. TOC should be @ 4,000'.

Note: The slurry design may change slightly based upon actual conditions. Final cement volumes will be determined for the caliper logs plus 40%. .

5. LOGGING PROGRAM:

A. Mud Logger: There are no plans to use a mud logger at this time.

B. Open Hole Logs as follows: Run Dual Induction/SFL/GR/CAL/SP/CNL/LDT (lithodensity) from TD to the bottom of the intermediate csg. Run cased hole GR/CCL from TD to surface.



Cross Timbers Operating Company

BOP SCHEMATIC FOR DRILLING OPERATIONS CLASS 1 (2M) NORMAL PRESSURE

1. Test BOP after installation:

Pressure test BOP to 200-300 psig (low pressure) for 5 min.

Test BOP to Working Press or to 70% internal yield of surf csg (10 min).

2. Test operation of (both) rams on every trip.

3. Check and record Accumulator pressure on every tour.

4. Re-pressure test BOP stack after changing out rams.

5. Have kelly cock valve with handle available.

6. Have safety valve and subs to fit all sizes of drill string.

TESTING PROCEDURE

**ROTATING HEAD
(OPTIONAL)**

FILL UP LINE

**FLOW LINE
TO PIT**

**BLIND
RAMS**

**PIPE
RAMS**

**KILL LINE
2" dia min.**

**TO CHOKE
MANIFOLD
2" dia min.**

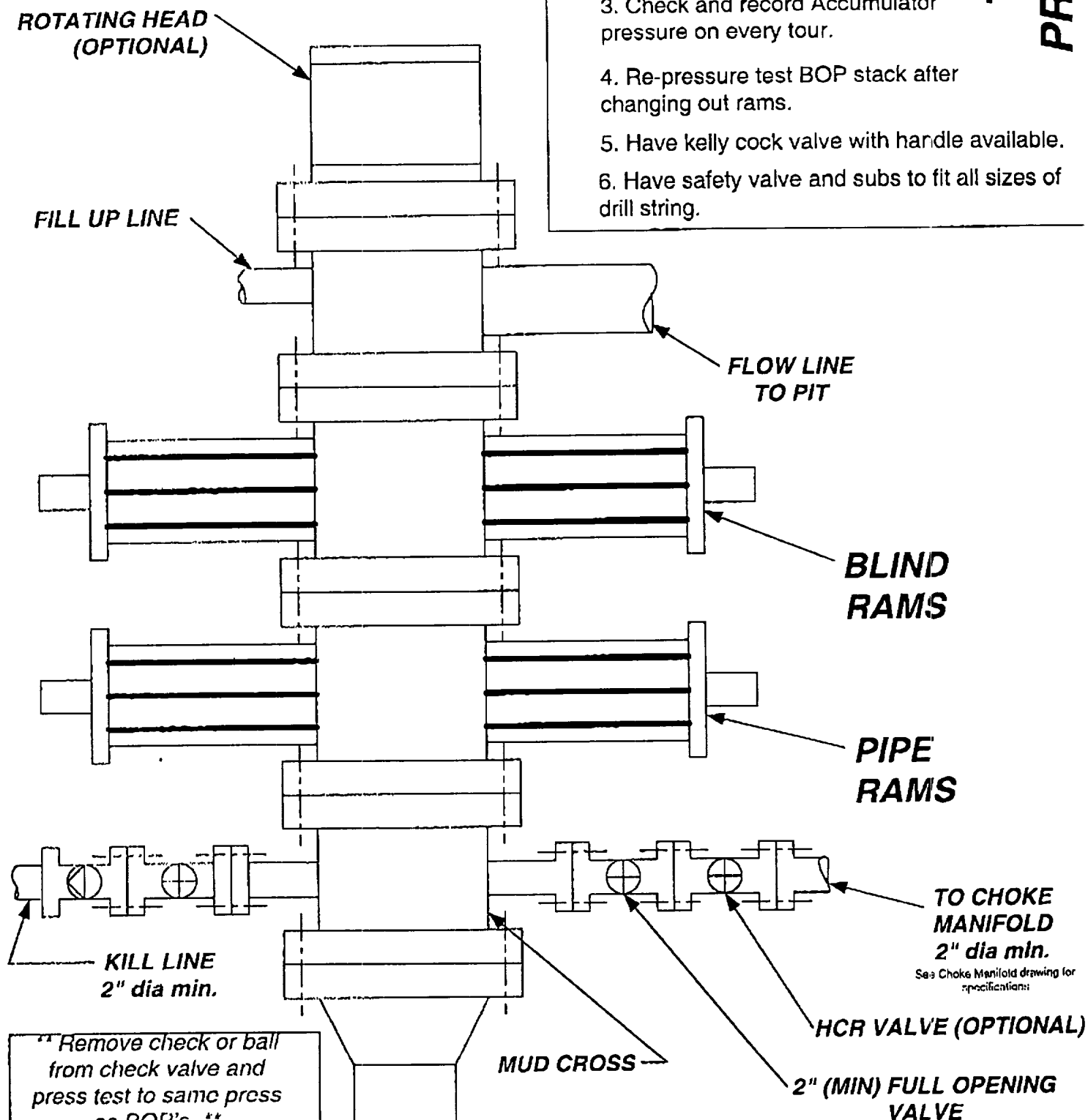
See Choke Manifold drawing for specifications

HCR VALVE (OPTIONAL)

**2" (MIN) FULL OPENING
VALVE**

MUD CROSS

**** Remove check or ball
from check valve and
press test to same press
as BOP's ****



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS
***Do not use this form for proposals to drill or to re-enter an
abandoned well. Use form 3160-3 (APD) for such proposals.***

FORM APPROVED
OMB NO. 1004-0135

Expires: November 30, 2000

5. Lease Serial No.
NMNM 14922

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement Name and/or No.

8. Well Name and No.
CARSON FEDERAL I/112

9. API Well No.
3003926505

10. Field and Pool, or Exploratory Area
BLANCO MESAVERDE

11. County or Parish, and State:
SAN JUAN NM

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well ☐ Oil Well ☒ Gas Well Other

2. Name of Operator
CROSS TIMBERS OPERATING CO.

3a. Address 2700 FARMINGTON AVE., BLDG K, SUITE 1
FARMINGTON, NM 87401

3b. Phone No. (include area code)
505.324.1090 Ext 4007

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

1085FEL 2325FNL

H - 34 - 28 - 4

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> SPUD
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Cross Timbers Operating Company spudded the above mentioned well @ 2:45 a.m. on 4/27/01. On 4/28/01, 9-5/8" surface casing was set @ 418' KB. The casing was cemented w/300 sx Type III cement. 31 bbls of cement was circulated to surface. On 4/29/01, the BOP's and surface casing was pressure tested to 1,000 psig for 30 minutes. Everything held ok. Drilling resumed. SUBMITTING ENGINEER: JEFF W. PATTON SUBMITTAL DATE: 5/4/01

Electronic Submission #4015 verified by the BLM Well Information System for CROSS TIMBERS OPERATING CO. Sent to the Farmington Field Office
Committed to AFMSS for processing by Maurice Johnson on 05/09/2001

Name (Printed/Typed) JEFF W. PATTON

Title ENGINEER

Signature

Date 05/04/2001

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

FOR RECORD

Approved By

Title

Date 5/10/2001

Conditions of approval, if any, are attached. Approval of this notice 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.

Office

Office