Form 3160-5 (November 1994)

# DEPA

UNITED STATES		FORM APPROVED
RTMENT OF THE INTERIOR		Budget Bureau No. 1004-0135 Expires November 30, 2000
ALI OF LAND MANAGEMENT	•	5 / 6 : 12

5	Leas	e Ser	ial No	

	Expires November 30, 2000
5.	Lease Serial No.
1	019414

BUREAU OF	LAND MANAGEMENT	5. Lease Serial No.
SUNDRY NOTICES	NM 019414	
Do not use this form for abandoned well. Use For	6. If Indian, Allottee or Tribe Name	
SUBMIT IN TRIPLICATE	7. If Unit or CA/Agreement, Name and/or N	
1. Type of Well Oil X Gas Well Other		8. Well Name and No. Federal Gas Com 1 #1C
2. Name of Operator  Cross Timbers Operating Company		
3a. Address	3b. PhoneNo. (include area code)	9. API Well No. 30 - 045 - 30144
2700 Farmington Ave., Bldg. K. Ste 4. Location of Well (Footage, Sec., T., R., M., or Survey Descrip		10. Field and Pool, or Exploratory Area Blanco Maseverde
1,060' FNL & 660' FWL in Sec 20	, T32N, R12W	11. County or Parish, State San Juan NM
12. CHECK APPROPR	NATE BOX(ES) TO INDICATE NATURE OF NOTICE, REF	PORT,OROTHERDATA
TYPE OF SUBMISSION	TYPE OF ACT	
X Notice of Intent		duction (Start/Resume) Water Shut-Off
Subsequent Report	Alter Casing Fracture Treat Recl	lamation Well Integrity
Final Abandonment Notice		omplete Other
	Convert to Injection Plug Back Wat	ter Disposal
If the proposal is to deepen directionally or recomy Attach the Bond under which the work will be perfollowing completion of the involved operations. If testing has been completed. Final Abandonment's determined that the final site is ready for final inspect Upon further evaluation of a previous statement of the proposal site is ready for final inspect.	rly state all pertinent details, including estimated starting date of a plete horizontally, give subsurface locations and measured and true frormed or provide the Bond No. on file with BLM/BIA. Requisite operation results in a multiple completion or recompletion in sotices shall be filed only after all requirements, including reclation.)  Viously drilled well in this area, Cross that was submitted with the AFD for the all	e vertical depuis of all pertinent markers and zones. red subsequent reports shall be filed within 30 days a new interval, a Form 3160-4 shall be filed once mation, have been completed, and the operator has Timbers is requesting a change
summary of the drilling prognosis		
	NOV 2000  RECEIVED  ON CONTROL  DIST. 3	3 4 5 6
/	<u> </u>	
14. I hereby certify that the foregoing is true and correct Name (Printed/Typed)  JW Patton	ettles Drilling Engil	neer
//	Date 11/20/00	
THI	S SPACE FOR FEDERAL OR STATE OFFICE US	E
Approved by /8/ Jim Lovato	Title	Date 2 1
Conditions of approval, if any, are attached. Approval certify that the applicant holds legal or equitable title to which would entitle the applicant to conduct operations the	of this notice does not warrant or o those rights in the subject lease ereon.	
out critical are applications contact of criticals an		

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

## **CROSS TIMBERS OPERATING COMPANY**

# Federal Gas Com 1 #1C Drilling Prognosis November 20, 2000

Location: 1,060' FSL & 660' FWL, Sec 20, T32N, R12W

County: San Juan

State: New Mexico

PROJECTED TOTAL DEPTH: ±5,025'

OBJECTIVE:

Mesaverde

GR ELEV: 5,943'

Est KB ELEV: <u>5,955 (12' AGL)</u>

### 1. MUD PROGRAM:

INTERVAL	0' to 160'	160' to 2,350'	2,350' to TD
HOLE SIZE	12-1/4"	8-3/4"	6-1/4"
MUD TYPE	FW/Spud Mud	FW/Polymer	Air/Mist
WEIGHT	8.6-9.0	8.4-8.8	N/A
VISCOSITY	28-32	28-32	N/A
WATER LOSS	NC	NC	N/A

Remarks: Use fibrous materials as needed to control seepage and ost circulation during intermediate part of hole.

## 2. CASING PROGRAM:

Surface Casing:

9-5/8" casing to be set at  $\pm$  160' in 8.6 ppg soud mud

				-	Coll	Burst						
					Rating	Rating	Jt Str	${ m ID}$	Drift	SF	SF	SF
Interval	Length	Wt	Gr	Cplg	(psi)	(psi)	(M-lbs)	(in)	(in)	Coll	Burst	Ten
0'-160'	160'	32.3#	H-40	STC	1,400	2,270	254	9.001	8.845	11.57	18.76	49.14

Intermediate Casing: 7" casing to be set at 2,350' in 8.8 ppg mud or polymer.

					Coll	Burst						
					Rating	Rating	Jt Str	ID	Drift	SF	SF	SF
Interval	Length	Wt	Gr	Cplg	(psi)	(psi)	(M-lbs)	(in)	(in)	Coll	Burst	Ten
0'-	2,350'	20.0#	J-55	STC	2,270	3,740	234	6.456	6.331	1.48	2.44	4.97
2,350'		1										

Production Liner:

4-1/2" liner to be set from 2,150' to TD in Air/Mist.

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					Coll	Burst						
				1	Rating	Rating	Jt Str	ID	Drift	SF	SF	SF
Interval	Length	Wt	Gr	Cplg	(psi)	(psi)	(M-lbs)	(in)	(in)	Coll	Burst	Ten_
2,150'-	2,875	10.5#	J-55	STC	4,010	4,790	132	4.052	3.875	1.66	1.33	2.44
TD												

#### 3. WELLHEAD:

- A. Casing Head: Larkin Fig 92 (or equivalent), 9-5/8" norminal, 2,000 psig WP (4,000 psig test) with 9-5/8" 8rnd thread on bottom and 11-3/4" 8rnd thread on top.
- B. Tubing Head: Larkin Fig 612 (or equivalent), 6.437" nominal, 2,000 psig WP (4,000 psig test), 7" 8rnd female thread on bottom and a flanged fitting on too.
- 4. <u>CEMENT PROGRAM (Slurry design may change slightly, but the plan is to circulate cement to surface on both the surface and intermediate casing strings and to circulate cement above the liner hanger on the liner string):</u>
  - A. Surface: 9-5/8", 32.3#, H-40, STC casing to be set at  $\pm$  160'.

<u>Lead:</u> 75 sx of Type III cement containing 2% CaCl<sub>2</sub>, ¼ pps celloflake, mixed at 14.6 ppg, 1.39 ft<sup>3</sup>/sk, & 6.30 gal wtr/sk.

Total slurry volume is 104 ft<sup>3</sup>, 100% excess of calculated annular volume to 160'.

C. Intermediate: 7", 20.0#, J-55, STC casing to be set at  $\pm 2,350$ '.

<u>Lead:</u> 300 sx of Type III 65/35 poz with 8% gel, 1% CaCl2 & 1/4 pps celloflake mixed at 12.1 ppg, 2.09 ft<sup>3</sup>/sk, 14.63 gal wtr/sx.

Tail: 100 sx of Class "B" cement containing 1% CaCl2 & ¼ pps celloflake mixed at 14.6 ppg, 1.39 ft³/sk, 6.30 gal wtr/sx..

Total slurry volume is 766 ft<sup>3</sup>, 100% excess of calculated annular volume to 2,350'.

B. Production Liner: 4-1/2", 10.5#, J-55, STC liner to be set from 2,150'-TD (at  $\pm 5,025$ ').

<u>Lead:</u> 100 sx of Class "H" 50/50 poz w/4% gel, 1% CaCl2 and 0.4% FL-52 mixed at 13.2 ppg,  $1.45 \text{ ft}^3/\text{sk}$ , 7.7 gal wtr/sx.

<u>Tail:</u> 200 sx of Class "H" 50/50 poz w/4% gel, 1% CaCl2, 0.4% FL-52, 1/4 pps celloflake & 4% Phenoseal mixed at 13.2 ppg, 1.45 ft<sup>3</sup>/sk, 7.7 gal wtr/sx..

Total estimated slurry volume for the 4-1/2" production liner is 435 ft<sup>3</sup> using 50% excess.

Note: The slurry design may change slightly based upon actual conditions. Final cement volumes will be determined for the caliper logs plus 50%. It will be attempted to circ cement to top of liner hanger.

#### 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 Induction/SFL/GR/SP/density/Cal and Pe fr/TD to the bottom of the intermediate csg. Use logging tools for air drilled hole.

# 6. FORMATION TOPS:

Formation	Subsea Depth	Well Depth
Ojo Alamo SS	+4915'	1040'
Kirtland Shale	+4790'	1165'
Fruitland Formation	+4388'	1567'
Lower Fruitland Coal	+3959'	1996'
Pictured Cliffs SS	+3920'	2035'
Lewis Shale	+2732'	3223'
Cliffhouse SS*	+2208'	3747'
Menefee*	+1938'	4017'
Point Lookout SS*	+1421'	4534'
Mancos Shale	+1137'	4818'
Projected TD	+930'	5025'

<sup>\*</sup> Target Reservoir. Maximum anticipated reservoir pressure will be  $\pm 1,550$  psig.

# 7. COMPANY PERSONNEL:

Name	Title	Office Phone	Home Phone
Jeff Patton	Drilling Engineer	505-324-1090	505-632-7882
Bobby Smith	Drilling Manager	915-682-8873	915-689-8839
Randy Hosey	Project Geologist	817-885-2398	817-427-2475
Barry Voigt	Reservoir Engineer	817-885-2462	817-540-2092

JWP 11/20/00