

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE*
(Other instructions on
reverse side)

FORM APPROVED
OMB NO. 1004-0136

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

APD/ROW

1a. TYPE OF WORK

DRILL ☒ —

DEEPEEN ☐

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

1,460' FNL & 1,005' FEL

At proposed prod. zone

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

Approx 7 miles northeast of the Flora Vista, NM Post Office

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

(Also to nearest drlg. unit line, if any) 1,005'

16. NO. OF ACRES IN LEASE

318.65

17. NO. OF ACRES ASSIGNED
TO THIS WELL

318.65

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

535'

19. PROPOSED DEPTH

2,475' —

20. ROTARY OR CABLE TOOLS

Rotary Tools

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

5,845' Ground Level —

22. APPROX. DATE WORK WILL START*

July 2001

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
8-3/4"	7", J-55	20.0#	200'	75 sx Type III cmt, circ to surface
6-1/4"	4-1/2", J-55	10.5#	2,475' —	235 sx Premium Lite cmt.

Cross Timbers plans to drill the above mentioned well as described in the enclosed Surface Use Program.

This document is subject to review and approval by the Bureau of Land Management, Department of the Interior, pursuant to 43 CFR 3165.4 and appeal pursuant to 43 CFR 3165.4.

EXEMPTED FROM REVIEW ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS"

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

DW Patton

TITLE

Drilling Engineer

DATE

5/4/01

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

6/4/01

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/ Lee Ottent

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.

2001 MAY -8 PM 3:40

DISTRICT I
P.O. Box 1980, Hobbs, N.M. 88241-1980

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

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

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

State of New Mexico
Energy, Minerals & Natural Resources Department

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

OIL CONSERVATION DIVISION

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-30665	² Pool Code 71629	³ Pool Name BASIN FRUITLAND COAL
⁴ Property Code 22620	⁵ Property Name L. C. KELLY	⁶ Well Number 8
⁷ GRID No. 167067	⁸ Operator Name CROSS TIMBERS OPERATING CO.	⁹ Elevation 5845'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	3	30-N	12-W		1460	NORTH	1005	EAST	SAN JUAN

¹¹ 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
¹² Dedicated Acres 318.65 E/2		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ 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>16</p> <p>QTR. CORNER FD. 3 1/2" B.L.M. BC. 1951</p> <p>S 89-36-45 W 2642.32'</p> <p>LAT. = 36-50-40 N. LONG. = 108-04-49 W.</p> <p>3</p> <p>1480'</p> <p>318'</p> <p>132'</p> <p>1005'</p> <p>N 01-30-23 W 2855.82'</p> <p>JUN 2001 RECEIVED OIL CON. DIV DIST. 3</p>	<p>17</p> <p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p>Signature <u>Jeffrey W. Patton</u></p> <p>Printed Name <u>JEFFREY W PATTON</u></p> <p>Title <u>DRILLING ENGINEER</u></p> <p>Date <u>12/29/00</u></p> <p>18</p> <p>SURVEYOR CERTIFICATION</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>Date of Survey <u>12-27-00</u></p> <p>Signature and Seal of Professional Surveyor: <u>[Signature]</u></p> <p>8894</p> <p>Certificate Number</p>
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CROSS TIMBERS OPERATING COMPANY

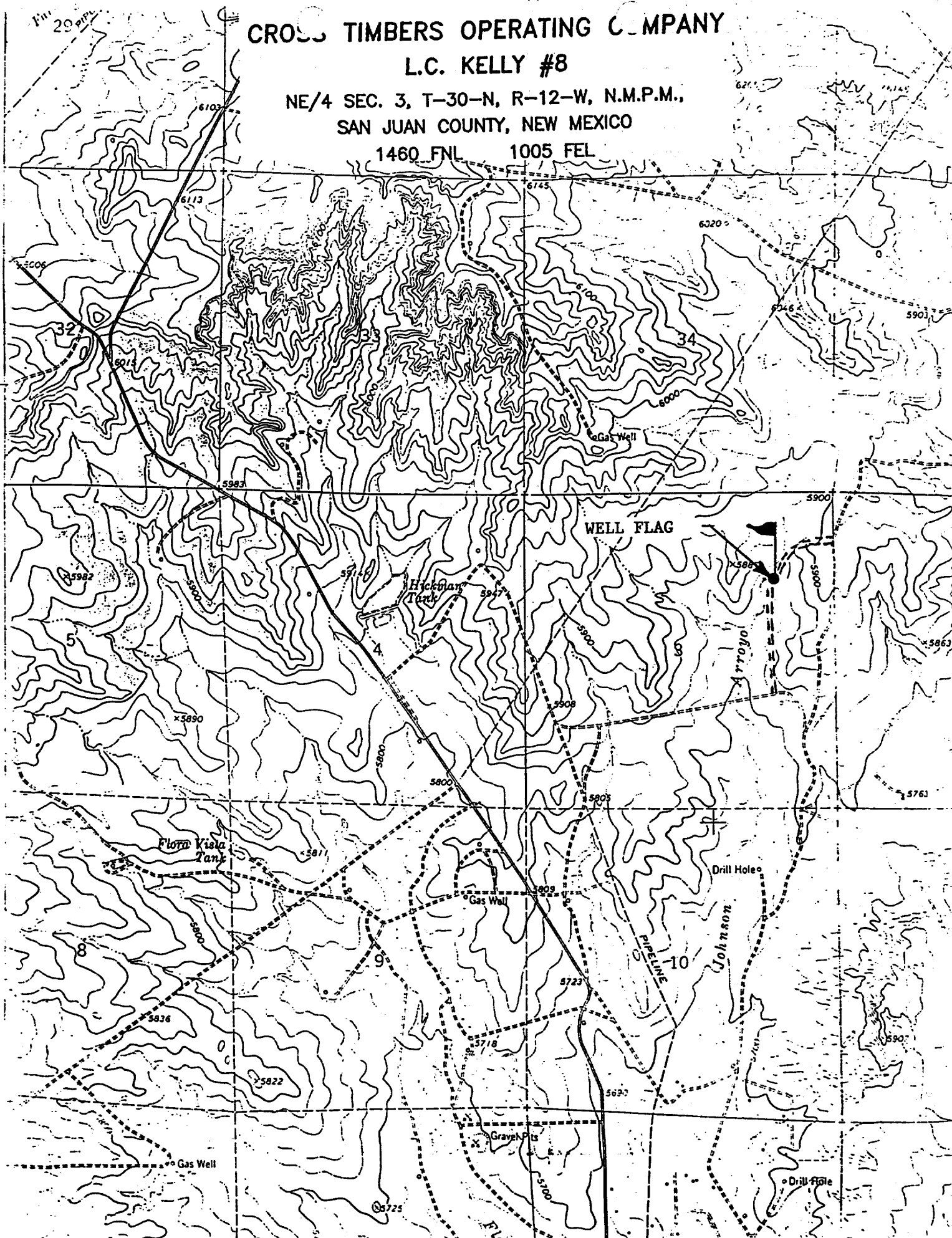
L.C. KELLY #8

NE/4 SEC. 3, T-30-N, R-12-W, N.M.P.M.,

SAN JUAN COUNTY, NEW MEXICO

1460 FNL

1005 FEL



CROSS TIMBERS OPERATING COMPANY

DRILLING PROCEDURE

Bolack "C" #17

Basin Fruitland Coal

May 4, 2001

Location: 1460' FNL & 1005' FEL, Sec 3, T30N, R12W County: San Juan State: New Mexico

PROJECTED TOTAL DEPTH: 2,475' OBJECTIVE: Fruitland Coal GR ELEV: 5,845'

1. MUD PROGRAM:

INTERVAL	0'-200'	200'-TD
HOLE SIZE	8-3/4"	6-1/4"
MUD TYPE	FW/Native	FW/Polymer
MUD WEIGHT, ppg	8.6-9.0	8.6-9.1
VISCOSITY, sec/qt	28-32	28-33
WATER LOSS, cc	NC	NC

Remarks: Drill the surface hole with fresh water. Run and cement 7" surface casing, circulating cement to surface. NU and test BOP equipment, then drill out with fresh water. Use polymer sweeps as needed for hole cleaning. At TD, sweep the hole prior to TOH to log.

2. CASING PROGRAM:

Surface Casing: 7" casing to be set at $\pm 200'$ in 8.8 ppg mud.

Interval	Length	Wt (ppf)	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	DD (in)	SF Coll	SF Burst	SF Tension
0'-200'	200'	20#	J-55	STC	2,270	3,740	234	6.456	6.331	9.99	4.59	58.5

Optimum makeup torque for 7" 20#, J-55, STC casing is **2,340 ft-lbs** (Min - 1,760 ft-lbs, Max - 2,930 ft-lbs).

Production Casing: 4-1/2" casing to be set at $\pm 2,475'$ in 8.8 ppg mud.

Interval	Length	Wt (ppf)	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	DD (in)	SF Coll	SF Burst	SF Tension
0'-TD	2,475'	10.5#	J-55	STC	4,010	4,790	132	4.052	3.927	3.57	3.33	5.24

Optimum makeup torque for 4-1/2", 10.5#, J-55, casing is **1,320 ft-lbs** (Min - 990 ft-lbs, Max - 1,650 ft-lbs).

Capacity of 7", 20# casing is: 0.04048 bbl/ft

Capacity of 4-1/2", 10.5# casing is: 0.01595 bbl/ft

3. **WELLHEAD:**

Casinghead: Larkin Fig 92 (or equivalent) 2,000 psig WP (4,000 psig test) with 7", 8rd pin on bottom and 8-5/8" API Modified 8rd thread on top.

Tubinghead: Larkin Model 612 (or equivalent) 2,000 psig WP (4,000 psig test) with 4-1/2", 8rd bottom thread and 8-5/8" 8rd API Modified top body thread, 4.090" minimum bore.

4. **CEMENT PROGRAM:**

A. Surface: 7", 20#, J-55, STC casing at $\pm 200'$.

Lead: 75 sx Type III cement (or equivalent) containing ¼ pps celloflake, 2% CaCl₂ (mixed at 14.6 ppg, 1.39 ft³/sk, 6.67 gal wtr/sk).

Total slurry volume is 104.25 ft³, 250% excess of calculated annular volume required to circulate cement to surface.

B. Production: 4-1/2", 10.5#, J-55, STC casing at $\pm 2,475'$.

Lead: 235* sx of 35:65 Poz/Type III cement containing 10 PPS CSE, 2% CaCl₂, ¼ PPS Celloflake, 0.65% bwoc FL-62, 6% gel (mixed at 12.5 ppg, 2.07 ft³/sk, 10.95 gal wtr/sk).

Total estimated slurry volume is 455 ft³, 100% excess of calculated annular volume required to circulate cement to surface.

* Actual cement volumes will be determined using log caliper volume plus 30% excess.

5. **DRILLING HAZARDS:**

- H₂S or other Poisonous Gases: No formations known to contain H₂S or any other poisonous gases will be penetrated with this wellbore.
- Abnormal Pressures: No overpressured zones are known to exist or are anticipated to be encountered during the drilling of this well.
- Lost Circulation: Seepage and/or lost circulation may be encountered below surface casing and can be controlled with conventional lost circulation materials added to the mud system.

6. **LOGGING PROGRAM:**

Array Induction/DFL/GR/SP/Cal
DSN/Spectral Density/GR/Cal/Pe

TD to bottom of surf csg.
TD to 1600' & 1000' to 700'

No mud logger to be used on this well.



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

