

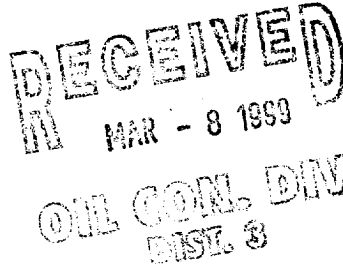


NEW MEXICO ENERGY, MINERALS  
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505  
(505) 827-7131

March 3, 1999

Cross Timbers Oil Company  
810 Houston Street - Suite 2000  
Fort Worth, Texas 76102-6298  
Attention: Edwin S. Ryan, Jr.



Telefax No. (817) 870-1671

Administrative Order NSL-4223

Dear Mr. Ryan:

Reference is made to your application dated February 9, 1999 for an off-pattern non-standard Basin-Fruitland coal gas well location for Cross Timbers Oil Company's proposed Stanolind Gas Com. "D" Well No. 2 to be drilled 600 feet from the South line and 1350 feet from the East line (Lot 15/Unit O) of Section 17, Township 32 North, Range 12 West, NMPM, San Juan County, New Mexico. Lots 9 through 16 (S/2 equivalent) of Section 17 are to be dedicated to this well in order to form a standard 302.63-acre gas spacing and proration unit for the Basin-Fruitland Coal (Gas) Pool.

The application has been duly filed under the provisions of Rule 104.F of the Rules and Regulations of the New Mexico Oil Conservation Division ("Division") and Rule 8 of the "Special Rules and Regulations for the Basin-Fruitland Coal Gas Pool," as promulgated by Division Order No. R-8768, as amended.

The geologic interpretation submitted with this application indicates that a well drilled into the Basin-Fruitland Coal (Gas) Pool at the proposed off-pattern non-standard coal gas well location will be at a more favorable geologic position within the gas productive coal seam interval than a well drilled at a location considered to be standard for this 302.63-acre S/2 equivalent dedication.

By the authority granted me under the provisions of these special pool rules and Division Rule 104.F (2), the above-described unorthodox coal gas well location is hereby approved.

Sincerely,

Lori Wrotenbery  
Director

LW/MES/kv

cc: New Mexico Oil Conservation Division - Aztec  
U.S. Bureau of Land Management - Farmington

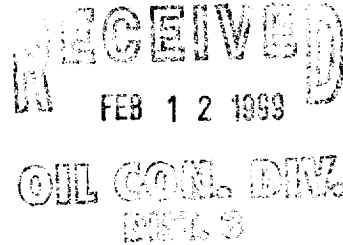
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## Cross Timbers Oil Company

February 9, 1999

Lori Wrotenbery, Director  
New Mexico Oil Conservation Division  
2040 South Pacheco  
Santa Fe, New Mexico 87505



Re: Request for Administrative Approval of an Unorthodox Location  
Basin Fruitland Coal Pool  
Stanolind Gas Com D #2  
S/2 Section 17-32N-12W  
San Juan County, New Mexico

Gentlemen:

Cross Timbers Operating Company hereby requests administrative approval of the following unorthodox location:

Well Name:	Stanolind Gas Com D #2
Pool:	Basin Fruitland Coal
Location:	600' FSL & 1350' FEL
Acreage Dedication:	S/2 Section 17-32N-12W, containing 320 acres, more or less
County/State:	San Juan County, New Mexico
Pool Rules:	Well location in NE/4 or SW/4

Attached is the following support and documentation for said application:

1. C-102 Plat
2. Geologic discussion
3. Copy of certified letter sent to offset operators/owners
  - A. Plat of offset operators
  - B. List of offset operators

We look forward to your approval and please call me at (817) 877-2336 with any questions.

Yours very truly,

Edwin S. Ryan, Jr.

TRIGON SHEEHAN  
PO Box 1980, Hobbs, NM 88241-1980

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

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

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

CROSS TIMBERS  
Energy, Minerals & Natural Resources Department

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

Revised February 21, 1999  
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	Pool Code 71629	Pool Name BASIN FRUITLAND COAL
Property Code	Property Name STANOLINO GAS COM D	Well Number 2
OGASD No. 167067	Operator Name CROSS TIMBERS OPERATING COMPANY	Elevation 5989'

#### 10 Surface Location

UL of lot no. 0	Section 17	Township 32N	Range 12W	Lot 101	Feet from the 600	North/South line SOUTH	Feet from the 1350	East/West line EAST	County SAN JUAN
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#### 11 Bottom Hole Location If Different From Surface

UL of lot no.	Section	Township	Range	Lot 101	Feet from the	North/South line	Feet from the	East/West line	County
12 Dedicated Acres		13 Joint or Drift		14 Consolidation Code		15 Drain 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

2634.72'				2441.34'				<b>17 OPERATOR CERTIFICATION</b> I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  Signature Gary L. Morkestad Printed Name Vice-President / Production Title  Date  <b>18 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.  JANUARY 3, 1999 Date of Survey Signature NEALE C. EDWARDS NEW MEXICO 6857 Certificate Number 6857	
4	3	2	1						
5	6	7	8						
12	11	10	9						
2635.38'				2645.28'					
2615.90'				2643.96'					
13	14	15	16	1350'					
4996.85'				600'					

## STANOLIND GAS COM "D" #2 GEOLOGIC SUMMARY

The Stanolind Gas Com "D" #2 is a proposed 2000' Fruitland Coal test to be located 600' FSL and 1350' FEL of Section 17-T32N-R12W San Juan County, New Mexico. There is currently no Fruitland Coal production in the section.

The Fruitland Coal in this area can be divided into an upper coal sequence, which is actually 3 or more 5-10 ft. thick coals over a 50-100 ft. interval, and a lower coal, which is 30-35 ft. thick in the prospect area, and overlies the Pictured Cliffs Formation.

The proposed well lies within a NE-SW trending structural flexure (see attached structure map). To the NW of the axis of structural flexure, the beds are steeply dipping to the SE. To the SE of the flexure, the beds are gently dipping to the SE. The axis of flexure, in theory, should be an area of intense fracturing, which in turn would correspond to highly productive Fruitland Coal wells. Outstanding coal production has been established along this trend 2 mi. to the NE and 3 mi. to the SW.

The primary risk in this area is in the amount of water production associated with the coal gas. The Fruitland Formation outcrops approximately 2 mi. NW of the producing trend, and is a recharge area for water which flows down towards the producing wells. Wells nearer to the outcrop (and structurally higher) produce more water. The water inhibits gas production, and consequently, wells that are too far updip produce too much water and too little gas to be economic. This effect can be seen on resistivity logs; as the water saturation increases, the amount of resistivity greater than 80 ohms (used as a cutoff for gas production) decreases.

*Gary K. Burch*  
1/29/99

Stanolind Gas Com "D" #2  
Geologic Summary  
Page 2

The following table shows the effect of structure on gas and water production rates on coal wells along trend to the NE:

	STRUCT. TOP OF FRUITLAND COAL	INITIAL STABILIZED GAS RATE (MCF/MO)	INITAL STABILIZED WATER RATE (BBL/MO)	CURRENT GAS RATE (MCF/MO.)	CURRENT WATER RATE (BBL/MO)
Southern Ute #6-24 SE SW Sec. 24-32N-12W La Plata Co., Colorado	+5361	10,000	20,000	15,000	12,000
Cundiff "A" #2 NE ¼ Sec. 17-32N-12W San Juan Co., NM	+5168	NA	NA	0*	0*
Stanolind Gas Com "B" #1E SE ¼ Sec. 9-32N-12W San Juan Co., NM	+4334	-----	-----	36,000**	1,800**
Southern Ute 32-11 #19-2 SW ¼ Sec. 19-32N-11W	+4175	30,000	6,000	120,000	1,000
* Well was tested in the Fruitland, but never put online and is now inactive (assumed to be uneconomic).					
** Well has just recently been put on-line.					

The Cundiff "A" #2 tested the Fruitland Coal at a legal location in Sec. 17 and did not make an economic well and is now inactive. A well at a legal location in the SW ¼ of Section 17 would likely be wet in the upper coals and may produce a substantial amount of water from the lower coal. In our opinion, the most geologically favorable, lowest risk, and best location from an economic standpoint would be in the SE¼. Therefore, in order to best capture the reserves in the SE¼ of Section 17, an unorthodox location is necessary.

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LA PLATA COUNTY  
STATE OF COLORADO

R12W

STATE OF NEW MEXICO  
SAN JUAN COUNTY

7

8

9

OUTCROP  
AREA

CONSOLIDATED O&G  
BOWIE-THATCHER

+5860 est  
(not logged) -5037

18

MERIDIAN OIL INC  
(EL PASO NAT GAS)  
CUNDIFF "A"

+5168

17

UNIVERSAL RESOURCES

AMOCO PROD

STANOLIND GAS COM(B)-E

+4334

1

WO

7109

+4200

+4100

+4000

+4300

+4200

+4100

+4000

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## Cross Timbers Oil Company

February 9, 1999

CERTIFIED MAIL

TO: Offset Operators - See Attached

Re: Unorthodox Location  
Stanolind Gas Com D # 2  
S/2 Section 17-32N-12W  
San Juan County, New Mexico

Gentlemen:

Cross Timbers Operating Company filed the attached application for administrative approval of the above Unorthodox Location with the New Mexico Oil Conservation Division on February 9, 1999. If you object to the application, you must file a written objection with the Oil Conservation Division within twenty (20) days of the date the application was filed.

Should you have any questions please feel free to call me at (817)877-2336.

Yours very truly,

Edwin S. Ryan, Jr.

OFFSET OPERATORS/OWNERS  
UNORTHODOX LOCATION  
STANOLIND GAS COM D #2  
S/2 SECTION 17-32N-12W  
SAN JUAN COUNTY, NEW MEXICO

Dugan Production Corporation  
P.O. Box 420  
Farmington, New Mexico 87499

Burlington Resources Oil and Gas Company  
P.O. Box 4289  
Farmington, New Mexico 87499



R-13-W

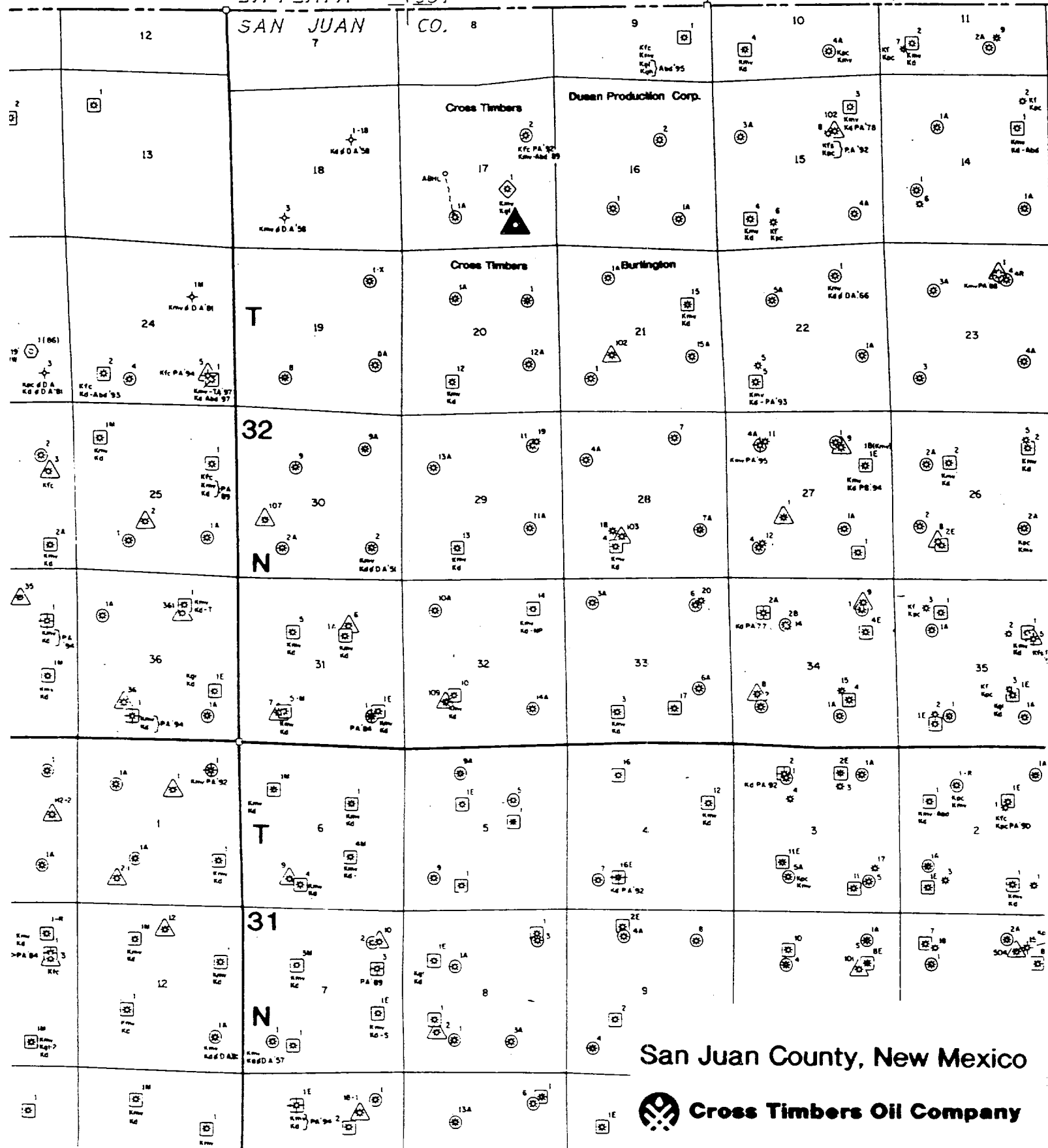
LA PLATA

CO.

R-12-W

SAN JUAN  
7

CO. 8



San Juan County, New Mexico



Cross Timbers Oil Company