



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

November 23, 1998

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

RECEIVED
NOV 25 1998

OIL CON. DIV. Administrative Order NSL-4169
DIST. 3

Dear Mr. Ryan:

Reference is made to your application dated November 16, 1998 for Cross Timbers Oil Company to drill its proposed Ute Mountain Tribal "J" Well No. 7 at an unorthodox gas well location in order to test the Undesignated Ute Dome-Paradox Pool 575 feet from the North line and 625 feet from the West line (Unit D) of Section 12, Township 31 North, Range 14 West, NMPM, as projected into the unsurveyed Ute Mountain Indian Reservation, San Juan County, New Mexico. All of Section 12 is to be dedicated to this well in order to form a standard 640-acre, more or less, gas spacing and proration unit for this pool.

The subject application has been duly filed under the provisions of Rule 104.F of the New Mexico Oil Conservation Division Rules and Regulations.

The geologic interpretation submitted with this application indicates that a well drilled at the proposed unorthodox gas well location will be at a more favorable geologic position within the Paradox formation than a well drilled at a location considered to be standard for this 640-acre, more or less, unit.

By the authority granted me under the provisions of the special pool rules governing the Ute Dome-Paradox Pool, set forth in Division Order No. R-46, dated December 29, 1950, Division Memorandum 4-86, dated June 2, 1986, and Division Rule 104.F(2), the above-described unorthodox gas well location for the proposed Ute Mountain Tribal "J" Well No. 7 is hereby approved for gas production from the Undesignated Ute Dome-Paradox Pool.

Sincerely,

Lori Wrotenberg
Director

LW/MES/kv

cc: New Mexico Oil Conservation Division - Aztec /
U. S. Bureau of Land Management - Durango, Colorado



Cross Timbers Oil Company

November 16, 1998

Bureau of Land Management
San Juan Resource Area
701 Camino Del Rio
Durango, Colorado 81301
Attention: Mr. Dan Rabinowitz

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NOV 19 1998
OIL CON. DIV.
DIST. 3

Re: Application for Unorthodox Location
Ute Dome Paradox Pool
Ute Mountain Tribal J #7
Section 12-31N-14W
San Juan County, New Mexico

Gentlemen:

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

Well Name:	Ute Mountain Tribal J #7
Pool:	Ute Dome Paradox
Location:	575' FNL & 625' FWL
Acreage Dedication:	Section 12-31N-14W, containing 640 acres, more or less
County/State:	San Juan County, New Mexico
Pool Rules:	1,650' from lease lines

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

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

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

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

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number	*Pool Code 86760	*Pool Name UTE DOME PARADOX
*Property Code	*Property Name UTE MOUNTAIN TRIBAL J	*Well Number 7
*GRID No. 167067	*Operator Name CROSS TIMBERS OPERATING COMPANY	*Elevation 6108'

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
0	12	31N	14W		575	NORTH	625	WEST	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	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

¹⁶ 2640.00' 575' 625'	1320.00'	1684.32'	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Signature _____ Printed Name _____ Title _____ Date _____ 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. SEPTEMBER 21, 1998 Date of Survey _____ Signature and Seal of _____  Certificate No. _____
5280.00'	12	5279.34'	
2640.00'	1320.00'	1613.04'	

UTE MOUNTAIN TRIBAL "J" #7 GEOLOGIC/GEOPHYSICAL SUMMARY

The Ute Mountain Tribal "J" #7 is a proposed 8700' Pennsylvanian Paradox Formation test to be located 575' FNL, and 625' FWL of Section 12-T31N-R14W, San Juan County, New Mexico. There is currently no Paradox production in Section 12.

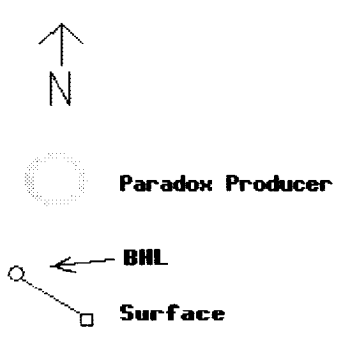
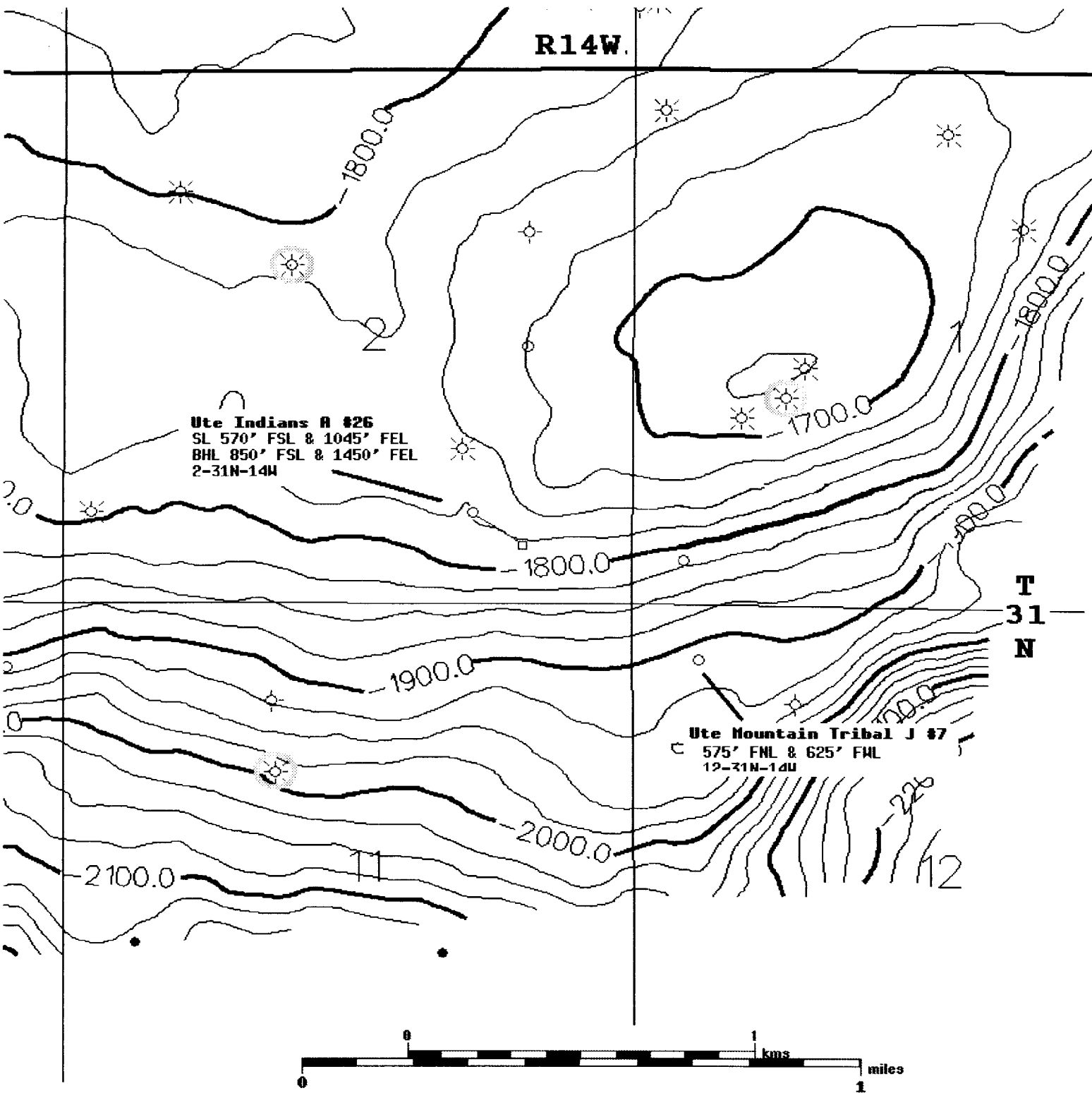
The Paradox Formation at Ute Dome is approximately 700 ft. thick and composed mostly of algal and fossiliferous carbonates deposited in a shallow water, shelf environment. The Paradox has been subdivided into 5 members, which are, in ascending order, the Alkali Gulch, Barker Creek, Akah, Desert Creek and Ismay. All of these members are productive at Ute Dome. It is implied by Neil Whitehead (1993) that there is no natural vertical communication between the various members of the Paradox, as each appear to have their own unique gas/water contact.


The Ute Dome feature is a structural high formed at the crest of an asymmetrical, northeast plunging anticline. Steeper dips are found on the southern and eastern sides of the anticline, which forms the edge of the present day San Juan Basin. The attached seismic structure map on the top of the Akah Member was interpreted from a vibroseis 3-D seismic survey shot by Amoco in 1995, and reprocessed by Cross Timbers in 1998.

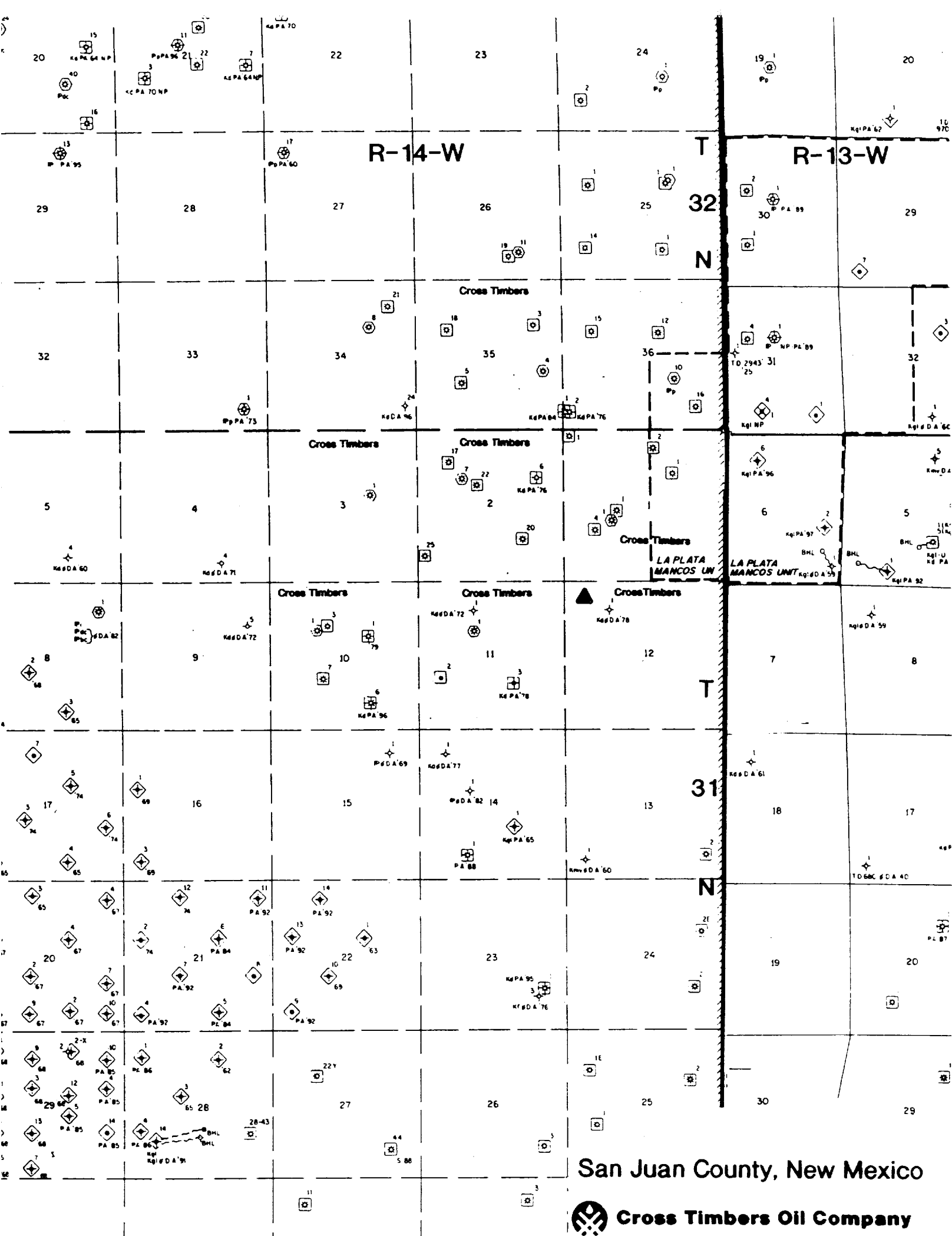
Several wells around the downdip margins of the productive area have experienced problems with water encroachment. In particular, the Ute Mountain Tribal "D" #1 well in Section 10 saw production rates in 1971 plummet from over 50,000 MCF/month to around 2000 MCF/month. Numerous attempts were made through the years to shut off the water production and get the gas rate back up to where it should be according to its previous decline rate, but all were unsuccessful. To avoid this problem, it is imperative that any future wells be drilled as far updip on the structure as practical.

Structural mapping in conjunction with production data such as shown above places approximately 80-100 acres of the NW¼ of Section 12 above the expected gas/water contacts in the various members of the Paradox Fm. At the Akah level, a well at the proposed location would be approximately 85 ft. high to the Ute Mountain Gas Com "M" #1 well in Section 11 and 90 ft. high to the Ute Mountain Tribal "D" #1 well in Section 10. An unorthodox location is requested in order to get as structurally high as possible, thereby greatly reducing the risk of encountering water which would seriously affect the performance of the well.

Gary K. Burch
Nov. 13, 1998



 Cross Timbers Oil Company
UTE DOME FIELD San Juan County, New Mexico
STRUCTURE: Top of Akah
November, 1998
GKB/MSV



OFFSET OPERATORS/OWNERS

Cross Timbers Oil Company, Applicant, is the only offset operator.