

6/24/99

7/14/99

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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION  
- Engineering Bureau -

*Amended Susp. date*  
7-19-99

**ADMINISTRATIVE APPLICATION COVERSHEET**

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

Application Acronyms:

- [NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]
- [DD-Directional Drilling] [SD-Simultaneous Dedication]
- [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
- [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
- [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
- [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
- [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]

- [A] Location - Spacing Unit - Directional Drilling  
 NSL     NSP     DD     SD

JUN 24 1999

Check One Only for [B] or [C]

- [B] Commingling - Storage - Measurement  
 DHC     CTB     PLC     PC     OLS     OLM
- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
 WFX     PMX     SWD     IPI     EOR     PPR

[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or  Does Not Apply

- [A]  Working, Royalty or Overriding Royalty Interest Owners
- [B]  Offset Operators, Leaseholders or Surface Owner
- [C]  Application is One Which Requires Published Legal Notice
- [D]  Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E]  For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F]  Waivers are Attached

[3] **INFORMATION / DATA SUBMITTED IS COMPLETE** - Statement of Understanding

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I further verify that all applicable API Numbers are included. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

JAMES BRUCE  
P.O. BOX 1056  
SANTA FE, NM 87504

Note: Statement must be completed by an individual with supervisory capacity.

*James Bruce*  
Signature

*Attorney for Applicant*  
Title  
6/24/99  
Date

Print or Type Name

**JAMES BRUCE**  
ATTORNEY AT LAW

POST OFFICE BOX 1056  
SANTA FE, NEW MEXICO 87504

3304 CAMINO LISA  
SANTA FE, NEW MEXICO 87501

(505) 982-2043  
(505) 982-2151 (FAX)

June 24, 1999

**Hand Delivered**

Michael E. Stogner  
Oil Conservation Division  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505

Dear Mr. Stogner:

Pursuant to Division Rule 104.F.(2), Nearburg Exploration Company, L.L.C. ("Nearburg") applies for administrative approval of an unorthodox gas well location for the following well:

Vaquero "36" State Com. Well No. 1  
990 feet FSL & 660 feet FWL  
S½ §36, Township 18 South, Range 33 East, NMPM  
Lea County, New Mexico

The well will be drilled to test the Morrow formation (North Quail Ridge-Morrow Gas Pool). The pool is spaced on statewide rules,<sup>1</sup> requiring that wells be no closer than 1650 feet to the end line of a well unit and 660 feet to the side line of a unit, and no closer than 330 feet to a quarter-quarter section line. A Form C-102 for the well will be submitted later. The operator of the well will be Nearburg Producing Company.

The proposed location is based on geologic reasons. Attached as Exhibit A is a structure map on top of the Morrow formation. The structural position of the Morrow sands is important in this area, because several wells located off-structure produce water. The proposed location is situated along the eastern portion of a fault-bounded Morrow structural feature. An orthodox location for a S½ well unit would place the well on the downthrown side of a fault, approximately 170 feet lower than the proposed location. Exhibit B is an isopach of the Morrow "C" sands, the primary zone of interest. It shows the proposed location to be within the main

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<sup>1</sup>Statewide rules apply pursuant to Division Order No. R-5378.

northwest-southeast trending sand fairway, with about 30 feet of potential pay. The proposed location places the well within the main zone of the Morrow "C" sand, and in a favorable structural position, thereby minimizing the risk involved in drilling the well. A geologic discussion is attached as Exhibit C.

Attached as Exhibit D is a land plat of the area. The offset operators and lessees are as follows:

<u>Land</u>	<u>Operator/Lessee</u>
§1	Conoco Inc. Altura Energy Ltd.
E½ §2	Nearburg Producing Company

Notice of this application has been given to the offsets in Section 1, as evidenced by Exhibit E. The E½ §2 well unit has a number of working interest owners, who are being notified of this application by separate letter. That letter will be submitted to you separately.

This application is submitted in duplicate. Please call me if you need anything further regarding this matter.

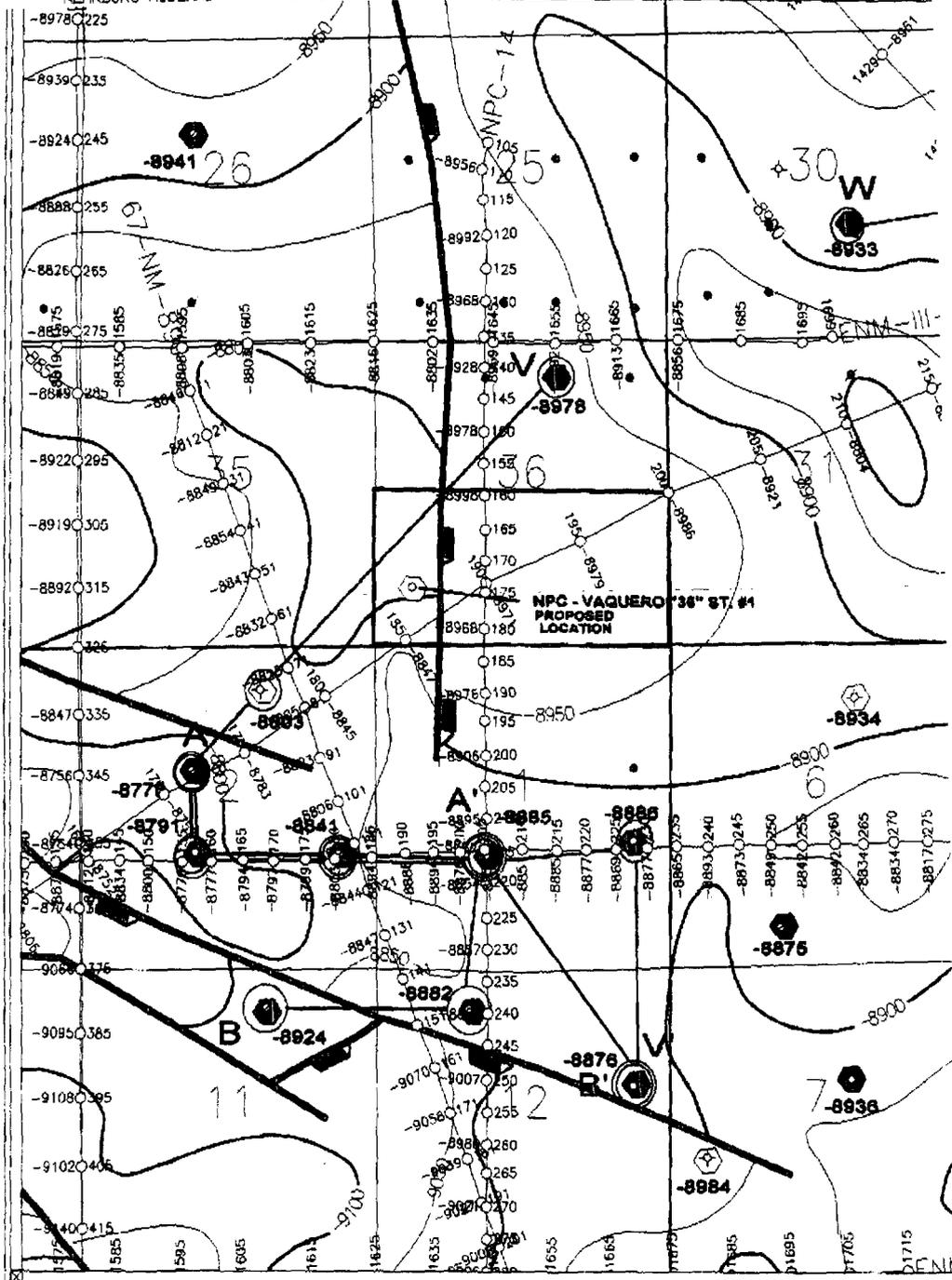
Very truly yours,



James Bruce

Attorney for Nearburg  
Exploration Company, L.L.C.

cc: Michael Gray



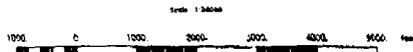
**LEGEND**

-  MORROW PRODUCER
-  PRORATION UNIT

Nearburg Producing Company  
Exploration and Production  
Midland, Texas

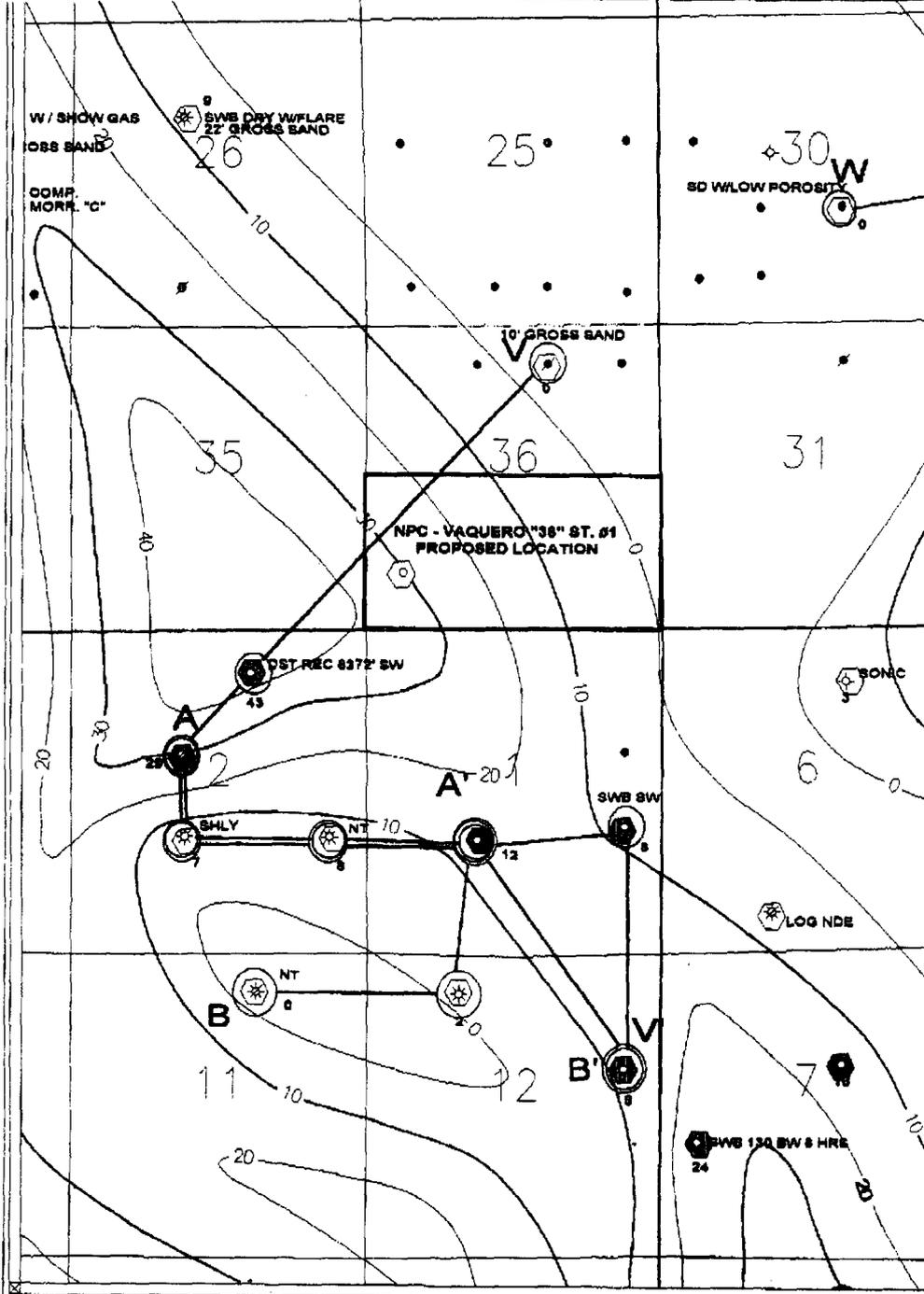
**VAQUERO PROSPECT**  
EDDY COUNTY, NEW MEXICO

**STRUCTURE MAP**  
TOP MORROW



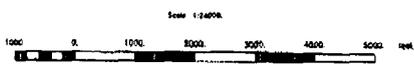
G.I. # 11			
GEOLOGIST	DATE	DRAWN BY	FILE NO.
T. R. GAYTON	688	PLD	TRM702P





**LEGEND**

-  MORROW "C" PRODUCER
-  MORROW "C" WET
-  PRORATION UNIT



Nearberg Producing Company  
Exploration and Production  
Midland, Texas

**VAQUERO PROSPECT**  
LEA COUNTY NEW MEXICO

**ISOPACH MAP**  
MORROW "C"  
POROSITY ≥ 8%

DATE	BY	FILE
11/1/98	MLC	1000



**UNORTHODOX LOCATION  
NEARBURG PROD. CO. ,  
VAQUERO "36" ST. #1  
990' FSL & 660' FWL, SEC. 36-T18S-R33E  
LEA COUNTY, NEW MEXICO**

**GEOLOGICAL DISCUSSION**

The Nearburg Producing Co., Vaquero "36" St. #1 well is situated along the northern portion of the Delaware Basin in central Lea County, New Mexico. The proposed 13,700' test is projected to encounter the gas productive sands of the (Pennsylvanian) Morrow Formation. The Morrow Formation, in this area of Lea County, produces from multiple sand lenses within the Morrow "B" and "C" sections from both structural and stratigraphic traps.

The Vaquero "36" St. #1 well has been placed at an unorthodox location of 990' FSL & 660' FWL principally to maintain a positive structural position. The structural position of the Morrow sands is important in this area of Lea County. There are several wells situated off structure that produce water. In fact, the Grace Petroleum, Buffalo East Unit # 1 well, located just 1/2 mile southwest of the proposed location, recovered 8372 ft. of formation water on a production test across the Morrow "C" sand interval. The enclosed structure map shows that the proposed location is situated along the eastern portion of a fault bounded Morrow structural feature. A standard location for a S/2 spacing unit of 1650 ft. FWL would place the proposed well on the downthrown side of the fault. This would put the well in a structural position ~ 170 ft. lower than the proposed unorthodox location.

The enclosed Morrow "C" sand isopach also shows that the proposed location to be within a well developed NW-SE trending sand fairway. However, as you move to the east - northeast the Morrow "C" sand thins and eventually is gone in the northeast portion of section 36 (cross section V - V'). The proposed unorthodox location would place the well not only within a favorable structural position but also within the thick portion of the Morrow "C" sand trend.

The proposed unorthodox location places the well within the main Morrow "C" sand trend in a favorable structural position thereby increasing the chances of recovering gas from the Morrow formation.



**NEARBURG EXPLORATION COMPANY, L.L.C**

**Ownership Plat**

**Vaquero "36" State Com No. 1**

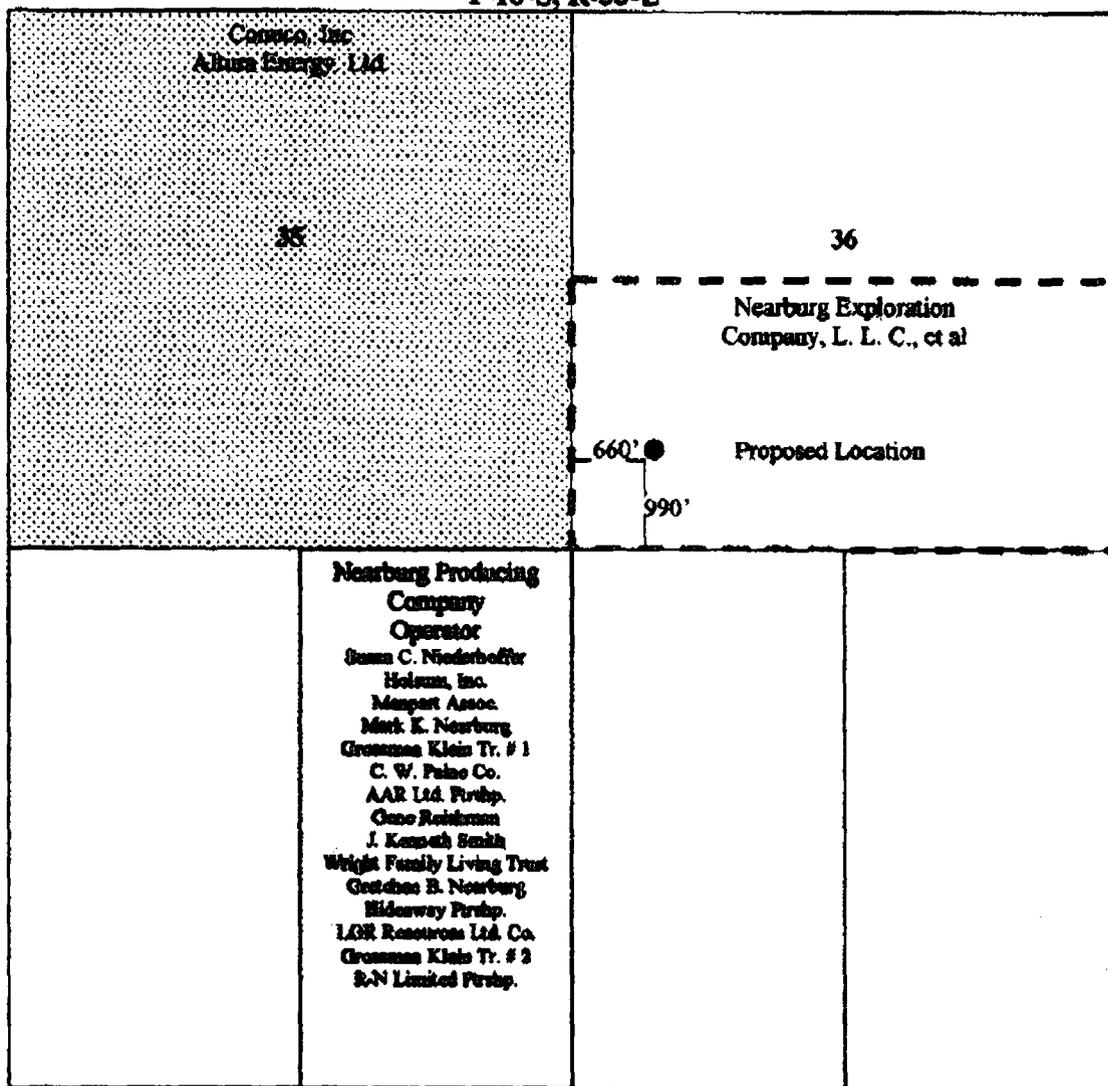
**T-18-S, R-33-E**

**Section 36: S/2**

**990' FSL & 660' FWL**

**Lea County, New Mexico**

**T-18-S, R-33-E**



**T-19-S, R33-E**



**JAMES BRUCE**  
ATTORNEY AT LAW

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(505) 982-2043  
(505) 982-2151 (FAX)

June 24, 1999

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

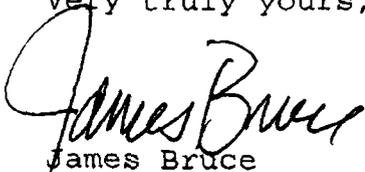
Jerry D. West  
Altura Energy Ltd.  
P.O. Box 4294  
Houston, Texas 77210-4294

Carl Sherrill  
Conoco Inc.  
Suite 100W  
10 Desta Drive  
Midland, Texas 79705

Gentlemen:

Enclosed is a copy of an application for administrative approval of an unorthodox gas well location, filed with the New Mexico Oil Conservation Division by Nearburg Exploration Company, L.L.C., regarding its proposed Vaquero "36" State Com. Well No. 1, located 990 feet from the South line and 660 feet from the West line of Section 36, Township 18 South, Range 33 East, NMPM, Eddy County, New Mexico. The well will be drilled to test the Morrow formation, and the S $\frac{1}{2}$  of Section 36 will be dedicated to the well. If you object to the well location, you must notify the Division in writing no later than Wednesday, July 14, 1999. The Division's address is 2040 South Pacheco Street, Santa Fe, New Mexico 87505. Failure to object will preclude you from contesting this matter at a later date.

Very truly yours,

  
James Bruce

Attorney for Nearburg Exploration  
Company, L.L.C.

