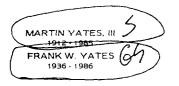


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S. P. YATES CHAIRMAN DE THE BOARD JOHN A. YATES <u>PRESIDENT</u> PEYTON YATES EXECUTIVE VICE PRESIDENT RANDY G. PATTERSON SECRETARY DENNIS G. KINSEY TREASURER

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GEOLOGICAL EXPLANATION OF THE PROPOSED TRICK STATE UNIT, LEA COUNTY, NEW MEXICO

The proposed Trick State Unit is comprised of the following lands: T-22-S, R-34-E, Sections 13 and 24, T-22-S, R-35-E, all or portions of Sections 8, 9, 16, 17, 18, 19, 20, 21, 28, 29 and 30, Lea County, New Mexico. The initial test well will be drilled to a projected total depth of 9500 feet to test the hydrocarbon potential of the upper Permian Bone Spring formation.

The Structure Map, with the top of the Bone Spring Interval as the datum, shows a prominent structural nose with dip generally to the southwest.

The Isopach of the Second Sand/Shale Sequence (Using 14% Density Porosity Cutoff, please see Cross Section A-A') within the upper Bone Spring section shows a thick underlying the proposed Trick Unit. This depositional thick is controlled by two separate structural features, the Central Basin Platform Edge to the east and a large fault block (The Grama Ridge and Antelope Ridge Fields) to the west. The sands are interpreted as turbidites deposited in a structural low with a sediment source to the north.

The key well, the Gulf Oil #1 North Rock Lake Unit, is located in Section 16 of T-22-S R-35-E. This well was drilled to a total depth of 13,370' in December of 1981 and was completed from the Morrow sands. It is still producing from the original Morrow zone. As shown on the Key Well exhibit, the well encountered 55' of greater than 14% density porosity. Log calculations indicate this interval to be potentially oil productive.

Production history in the upper Bone Spring sands have shown that a minimum of 25' of 14% porosity is necessary for economic production. The interpreted economic limits are shown on the Isopach map.

The Delaware sands are also prospective in the area. Yates Petroleum Corporation intends to fully evaluate all hydrocarbon shows in order to establish economic production from the Trick Unit.

BEFORE THE OIL CONSERVATION DIVISION Santa Fe, New Mexico

Case No. <u>11652</u> Exhibit No. <u>7</u>

Submitted by: Yates Petroleum Corporation

Hearing Date: November 21, 1996