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

The proposed Treat State Unit is comprised of the following lands: T-21-S, R-35-E, Sections 26, 27 and 34, Lea County, New Mexico. The initial test well will be drilled to a projected total depth of 11,100' feet to test the hydrocarbon potential of the Wolfcamp formation.

The Structure Map, with the top of the Wolfcamp as the datum, shows regional dip generally to the southwest.

The Isopach of the Wolfcamp Interval (see Cross Section A-A') shows a pronounced thick underlying the proposed Treat 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 Field) to the west, thus forming a small mini-basin between them during Wolfcamp time. Carbonate debris was shed into this small basin from the Central Basin Platform shelf edge immediately to the east.

The key well, the Amoco #1 State "DV", is located in Section 34 of T-21S R-35-E. This well was drilled to a total depth of 12,800' and plugged and abandoned in March of 1984. As shown on the Key Well exhibit, the well encountered a thick Wolfcamp interval. Two cores were taken in the upper portion of the Wolfcamp which recovered limestone breccia with abundant fossils, grain size of pebble to boulder with vuggy to cavernous porosity and oil shows. Production tests recovered small amounts of oil and water. As shown on Cross Section A-A', this well is interpreted to be on the west side of the mini-basin and on the edge of a more porous and permeable debris flow.

The Delaware and Bone Spring 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 Treat Unit.

**BEFORE THE  
OIL CONSERVATION DIVISION**  
Santa Fe, New Mexico

Case No. 11653 Exhibit No. 6

Submitted by: Yates Petroleum Corporation

Hearing Date: November 21, 1996