

GEOLOGIC REPORT
PROPOSED BISBEE HILLS UNIT AREA
LUNA COUNTY, NEW MEXICO

BEFORE EXAMINER STAMETS OIL CONSERVATION DIVISION <i>M. Young</i> EXHIBIT NO. <u>5</u> CASE NO. <u>7890</u> Submitted by _____ Hearing Date <u>5/25/83</u>

INTRODUCTION:

Marshall R. Young Oil Co. proposes the formation of a Federal Unit to be known as the Bisbee Hills Unit covering approximately 24,960.00 acres. The outline of the proposed unit is shown on the attached map labeled Exhibit "C". It is located approximately 18 miles Southwest of Deming, New Mexico, in Luna County.

GEOLOGY:

The proposed Bisbee Hills Unit is located on the Northeast flank of the Pedregosa Basin of Southwestern New Mexico. Seismic exploration has delineated an anticline trending Northwest to Southeast bounded on the Northwest and Northeast by faults. The Time Structure Map on the Top of the Fusselman Formation (Exhibit "C") indicates 100 milliseconds of structural closure on the anticline with 400 milliseconds of lateral closure into the faults.

No wells have been drilled near the proposed unit. Nearest drilling is 12 miles North at an active location in Section 8, Township 24 South, Range 10 West, on the North flank of Red Mountain. Nearest production is 180 miles East in Lea County, New Mexico.

Primary objectives are the Paleozoic carbonates which have yielded shows of oil and gas in several wells drilled in this basin. There is no production in the basin.

DELINEATION OF THE UNIT AREA:

The potential producing area of the proposed Bisbee Hills Unit is defined as the area South of the two faults and within the 1.4 second contour which closes laterally into the faults. All full sections at least 30% of which lie within the potential producing area have been included in the unit outline. The 30% cutoff figure was used to limit the size of the unit area to under 25,000 acres which is the maximum allowable acreage for a one well drilling obligation under Bureau of Land Management guidelines.

PROPOSED UNIT WELL:

The initial unit well will be drilled in the NW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 11, Township 26 South, Range 11 West to a depth of + 10,000 feet sufficient to test Paleozoic age rocks.