

EXHIBIT "B"
HUERFANO UNIT
SAN JUAN COUNTY, NEW MEXICO
GEOLOGIC REPORT
DAKOTA PRODUCING INTERVAL
PROPOSED FORTY-NINTH EXPANSION
OF THE DAKOTA PARTICIPATING AREA

EL PASO NATURAL GAS COMPANY

By:



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INTRODUCTION

The Huerfano Unit, located in the southwestern portion of the San Juan Basin, is comprised of 63,120.70 acres in Townships 25, 26 and 27 North, Ranges 9, 10 and 11 West, San Juan County, New Mexico.

Hydrocarbons are produced in the unit from three horizons of upper Cretaceous age. In descending order these are: (1) Pictured Cliffs sandstone, (2) Gallup member of the Mancos, and (3) Dakota Producing Interval. Within the Huerfano Unit, 157 producing wells have been drilled into the Dakota interval. The "Dakota Producing Interval", as defined by the New Mexico Commission in Rule 25, Order No. R-1670-C, is ". . . from the base of the Greenhorn limestone to a point 400 feet below the base of the said formation and consisting of the Graneros formation, the Dakota formation, and the productive upper portion of the Morrison formation."

Included as part of this report are two maps entitled Exhibit "C". Exhibit "C", Figure No. 1 shows the subsurface structure of the "Dakota Producing Interval" as reflected by using the top of the Graneros formation as the mapping horizon and mean sea level as the datum plane. The overall picture presented by this map is primarily that of gentle, regional northeast dip. Exhibit "C", Figure No. 2 is an isopachous map showing the number of feet of net reservoir sandstone which is interpreted to be present within the "Dakota Producing Interval". Detailed discussions of the stratigraphy and lithology of the "Dakota Producing Interval" in the general area of the Huerfano Unit may be found in geologic reports which have been previously submitted.

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Effective Date: May 1, 1980

The proposed Forty-Ninth Expansion of the Dakota Participating Area is based upon the completion of Huerfano Unit Well No. 275, 800 feet from the south line, 800 feet from the east line, Section 36, T-27-N, R-11-W, San Juan County, New Mexico. On April 9, 1980 the Huerfano Unit No. 275 well, on after frac gauge for sizing equipment only, flowed at the rate of 240 Mcf/D. Casing shut-in pressure was 1,933 psia and tubing shut-in pressure was 1,151 psia.

Proposed Expanded Acreage

Township 27 North, Range 11 West

Section 36: East Half

Township 27 North, Range 10 West

Section 31: West Half, excluding the 40 acres
located in the NW/4 of the NW/4

The subject well produces from the sand zones within the Graneros shale and from the Dakota "A" and "B" zones which are the upper and middle sands of the Dakota formation. These producing horizons are correlative with other wells in the Unit. The proposed acreage is inferred to be capable of producing unitized substances in commercial quantities from the Dakota "A" and "B" zones and the Graneros sandstone. Exhibit "C", Figure No. 2 illustrates the net reservoir sand which is interpreted to be present under the acreage proposed for admission to the Dakota Participating Area by the Forty-Ninth Expansion.