

# HUMBLE OIL & REFINING COMPANY

MIDLAND, TEXAS

August 29, 1958

New Mexico Oil Conservation Commission  
Box 871  
Santa Fe, New Mexico

Inre: Application for Dual Completion  
New Mexico State "V" Well #1  
Blinebry & Drinkard Fields  
Lea County, New Mexico

Attention: Mr. A. L. Porter, Jr.

Gentlemen:

Humble Oil & Refining Company respectfully requests Administrative Approval for dual oil-oil completion in the subject fields. In support of this application we submit the following information.

1. The New Mexico State "V" No. 1 well is located 660' from the South and West lines of Section 10, T-21-S, R-37-E, Lea County, New Mexico.
2. The subject well was dually completed in July 1957. The Blinebry Zone was perforated and it was thought that gas production would result; however, the formation was oil bearing. The Drinkard Zone was completed as an oil producing formation and shut in. An allowable was assigned to the Blinebry Zone of the well and has been produced continuously.
3. We propose to dually complete the well by removing the existing 2" string of tubing and re-running parallel strings of  $1\frac{1}{2}$ " non-upset tubing. Sufficient flow area will be provided by the  $1\frac{1}{2}$ " tubing to produce both wells to depletion either by natural flow or artificial lift.
4. The dual completion of this well will be in the interest of conservation and the mechanics of the dual are feasible and practical.
5. Approval of the subject application will not cause waste nor impair correlative rights.
6. The production from each zone will be produced and stored separately and the well head connections will be labeled in such a manner that the producing formation can be easily determined.
7. The Oil Conservation Commission by Order No. R-1236 approved a similar installation for Aztec Oil and Gas Company for a dual oil-oil completion.

1. The first part of the paper is devoted to the study of the properties of the function  $f(x)$  defined by the equation

$$f(x) = \int_0^x \frac{1}{1+t^2} dt, \quad x \in \mathbb{R}.$$

It is shown that the function  $f(x)$  is strictly increasing and concave down on the interval  $(-\infty, \infty)$ .

2. In the second part of the paper, we consider the function  $g(x)$  defined by the equation

$$g(x) = \int_0^x \frac{1}{1+t^2} dt, \quad x \in \mathbb{R}.$$

It is shown that the function  $g(x)$  is strictly increasing and concave down on the interval  $(-\infty, \infty)$ .

3. In the third part of the paper, we consider the function  $h(x)$  defined by the equation

$$h(x) = \int_0^x \frac{1}{1+t^2} dt, \quad x \in \mathbb{R}.$$

It is shown that the function  $h(x)$  is strictly increasing and concave down on the interval  $(-\infty, \infty)$ .