

AFFIDAVIT

Before me, the undersigned authority, on this day personally appeared Curtis J. Little of 2929 Monte Vista, NE, Albuquerque, New Mexico, known to me to be a credible person of legal age, who after being by me first duly sworn, on oath, deposes and says:


On June 6 and 7, 1964 deviation tests were conducted by employees of Scott Bros. Drilling Company in the 11-27 Navajo located 260' from the West line and 1360' from the North line of Section 27, T. 32N, R. 17W, NMPM, San Juan County, New Mexico.

Eastman Oil Well Surveying Company equipment was used as follows:

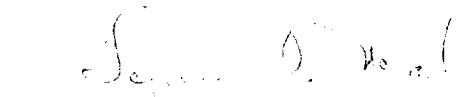
1. First survey at approximate depth of 500' below the surface indicated a drift of  $1/4^{\circ}$  from vertical.
2. Second survey at approximately 969' below the surface showed a drift of  $1/2^{\circ}$  from vertical.
3. Third survey at approximately 1642' below the surface showed a drift of  $3/4^{\circ}$  from vertical.

The records of the above surveys are on file in the office of Curtis J. Little.

Affiant further states that he is his own agent and representative and operator of the 11-27 Navajo well and as such is duly authorized to make this affidavit.

  
CURTIS J. LITTLE  
Operator

SUBSCRIBED AND SWORN TO, before me, this the 26th day of June, A. D., 1964.

  
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Notary Public

My Commission Expires January 13, 1967



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  $(-\infty, \infty)$ . Moreover, it is proved that the function  $f(x)$  has a horizontal asymptote at  $y = \frac{\pi}{2}$  as  $x \rightarrow \infty$  and a vertical asymptote at  $x = 0$  as  $x \rightarrow -\infty$ .

It is also shown that the function  $f(x)$  is bounded on the interval  $(-\infty, \infty)$  and that its range is the interval  $(-\frac{\pi}{2}, \frac{\pi}{2})$ . Finally, it is proved that the function  $f(x)$  is continuous on the interval  $(-\infty, \infty)$ .

The second part of the paper is devoted to the study of the properties of the function  $g(x)$  defined by the equation

$$g(x) = \int_0^x \frac{1}{1+t^4} dt, \quad x \in \mathbb{R}.$$

It is shown that the function  $g(x)$  is strictly increasing and concave down on the interval  $(-\infty, \infty)$ . Moreover, it is proved that the function  $g(x)$  has a horizontal asymptote at  $y = \frac{\pi}{4}$  as  $x \rightarrow \infty$  and a vertical asymptote at  $x = 0$  as  $x \rightarrow -\infty$ .

It is also shown that the function  $g(x)$  is bounded on the interval  $(-\infty, \infty)$  and that its range is the interval  $(-\frac{\pi}{4}, \frac{\pi}{4})$ . Finally, it is proved that the function  $g(x)$  is continuous on the interval  $(-\infty, \infty)$ .