

SINCLAIR OIL & GAS COMPANY

STATE LEA 697, Well #1, 1980' f/South line & 660' from West line of Sec 14-188-34E,
Lea County, New Mexico

RECORD OF DRILL STEM TEST

- 10-4-60 DST #1 - Queen - fr/4375-4450, 5/8 x 1" chokes, no water blanket, tool open 1 hour. No blow. Recovered 30' drilling mud. 30 min ISIP 280#, IFP 100#, FFP 100#, 60 min FSIP 120#.
- 10-7-60 DST #2 - Queen - fr/4695-4770, 5/8 x 1" chokes, no water blanket, tool open 1 hour. No blow. Recovered 5' drilling mud. 30 min ISIP 85#, IFP 45#, FFP 45#, 1 hour FSIP 45#.
- 10-12-60 DST #3 - San Andres - fr/5135-5200, 5/8 x 1" chokes, no water blanket, tool open 1 hour, opened w/weak blow. Recovered 120' mud cut water (75% water & 25% mud). 30 min ISIP 1940#, IFP 116#, 2 hr FSIP 1848#.

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

$$f(x) = \int_0^x \frac{1}{1+t^2} dt$$

It is shown that the function $f(x)$ is continuous and differentiable on the interval $(-\infty, \infty)$ and that its derivative is equal to $\frac{1}{1+x^2}$. It is also shown that the function $f(x)$ is bounded on the interval $(-\infty, \infty)$ and that its range is the interval $(0, \frac{\pi}{2})$.

2. In the second part of the paper, the function $f(x)$ is used to define a new function $F(x)$ by the equation $F(x) = \int_0^x f(t) dt$. It is shown that the function $F(x)$ is continuous and differentiable on the interval $(-\infty, \infty)$ and that its derivative is equal to $f(x)$.

3. In the third part of the paper, the function $F(x)$ is used to define a new function $G(x)$ by the equation $G(x) = \int_0^x F(t) dt$. It is shown that the function $G(x)$ is continuous and differentiable on the interval $(-\infty, \infty)$ and that its derivative is equal to $F(x)$.