

OIL CONSERVATION COMMISSION

P. O. BOX 2045

HOBBS, NEW MEXICO

March 6, 1956

Date _____

TO:
Skelly Oil Co.

Box 38

Hobbs, New Mexico

Gentlemen:

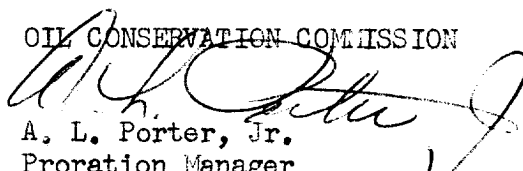
R-767

In accordance with the provisions of Commission Order No. _____,
your Ellen Sims #3-F 3-23-37
Lease and Well No. S-T-R
which is producing from the Queen formation, has been
placed in the Anglie-Lattix Pool, and from this date forward
will be subject to the Commission's rules and regulations governing
that pool.

You are hereby instructed to file Form C-110 in quintuplicate with
the Hobbs office showing the change in pool designation.

All future Commission reports for this well must be filed under
the name of the pool in which it is now located.

OIL CONSERVATION COMMISSION


A. L. Porter, Jr.
Proration Manager

cc: CCC, Santa Fe
Transporter-

Shell P L

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 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 $x \rightarrow -\infty$.

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

$$g(x) = \int_0^x \frac{1}{1+t^2} dt + \int_0^x \frac{1}{1+t^4} dt.$$

It is shown that the function $g(x)$ is increasing and concave down on the interval $(-\infty, \infty)$. Moreover, it is proved that the function $g(x)$ has a horizontal asymptote at $y = \frac{\pi}{2} + \frac{\pi}{4}$ as $x \rightarrow \infty$ and a vertical asymptote at $x = 0$ as $x \rightarrow -\infty$.

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

$$h(x) = \int_0^x \frac{1}{1+t^2} dt + \int_0^x \frac{1}{1+t^4} dt + \int_0^x \frac{1}{1+t^6} dt.$$

It is shown that the function $h(x)$ is increasing and concave down on the interval $(-\infty, \infty)$. Moreover, it is proved that the function $h(x)$ has a horizontal asymptote at $y = \frac{\pi}{2} + \frac{\pi}{4} + \frac{\pi}{6}$ as $x \rightarrow \infty$ and a vertical asymptote at $x = 0$ as $x \rightarrow -\infty$.

4. In the fourth part of the paper, we consider the function $k(x)$ defined by the equation

$$k(x) = \int_0^x \frac{1}{1+t^2} dt + \int_0^x \frac{1}{1+t^4} dt + \int_0^x \frac{1}{1+t^6} dt + \int_0^x \frac{1}{1+t^8} dt.$$

It is shown that the function $k(x)$ is increasing and concave down on the interval $(-\infty, \infty)$. Moreover, it is proved that the function $k(x)$ has a horizontal asymptote at $y = \frac{\pi}{2} + \frac{\pi}{4} + \frac{\pi}{6} + \frac{\pi}{8}$ as $x \rightarrow \infty$ and a vertical asymptote at $x = 0$ as $x \rightarrow -\infty$.