

NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

MISCELLANEOUS REPORTS ON WELL

Submit this report in triplicate to the Oil Conservation Commission or its proper agent within ten days after the work specified is completed. It should be signed and sworn to before a notary public for reports on beginning drilling operations, results of shooting well, results of test of casing shut-offs, result of plugging of well, and other important operations, even though the work was witnessed by an agent of the commission. Reports on minor operations need not be signed and sworn to before a notary public. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of report by checking below:

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON REPAIRING WELL	
REPORT ON RESULT OF SHOOTING OR CHEMICAL TREATMENT OF WELL	<input checked="" type="checkbox"/>	REPORT ON PULLING OR OTHERWISE ALTERING CASING	
REPORT ON RESULT OF TEST OF CASING SHUT-OFF	<input checked="" type="checkbox"/>	REPORT ON DEEPENING WELL	
REPORT ON RESULT OF PLUGGING OF WELL			

Fort Worth, Texas

March 12, 1938

Place

Date

OIL CONSERVATION COMMISSION

Santa Fe, New Mexico.

Gentlemen:

Following is a report on the work done and the results obtained under the heading noted above at the.....

Texas Pacific Coal & Oil Co., State New Mexico "A" Ac. 2 Well No. 9 in the

Company or Operator

Lease

NE 1/4

of Sec. 7

T.

22-S

R.

36-E

N. M. P. M.,

So. Eunice

Field,

1.0a

County

The dates of this work were as follows: March 3, 1938

Notice of intention to do the work was (was not) submitted on Form C-102 on March 7, 19 38
and approval of the proposed plan was (was not) obtained. (Cross out incorrect words.)

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

7" O.D. Casing tested O.K. with 1000 pound before and after drilling plug. Tested 8 A.M.
March 8, 1938.

Witnessed by

Name

Company

Title

Subscribed and sworn to before me this

12

day of

March

19 38

I hereby swear or affirm that the information given above is true and correct. To best of my knowledge and belief.

Name

Position

Notary Public

Representing

Texas Pacific Coal & Oil Co.

Company or Operator

My Commission expires

June 1, 1939

Address

P.O. Box 2110, Fort Worth, Texas

Remarks:

Oil & Gas Inspector

Title

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, the function $f(x)$ has a horizontal asymptote at $y = \frac{\pi}{2}$ as $x \rightarrow \pm\infty$. The function $f(x)$ is also shown to be odd, i.e., $f(-x) = -f(x)$.

2. In the second part of the paper, the function $f(x)$ is used to define a new function $g(x)$ by the equation

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

It is shown that the function $g(x)$ is also increasing and concave down on the interval $(-\infty, \infty)$. Moreover, the function $g(x)$ has a horizontal asymptote at $y = \frac{\pi^2}{8}$ as $x \rightarrow \pm\infty$.

3. In the third part of the paper, the function $g(x)$ is used to define a new function $h(x)$ by the equation

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

It is shown that the function $h(x)$ is also increasing and concave down on the interval $(-\infty, \infty)$. Moreover, the function $h(x)$ has a horizontal asymptote at $y = \frac{\pi^3}{32}$ as $x \rightarrow \pm\infty$.

4. In the fourth part of the paper, the function $h(x)$ is used to define a new function $k(x)$ by the equation

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

It is shown that the function $k(x)$ is also increasing and concave down on the interval $(-\infty, \infty)$. Moreover, the function $k(x)$ has a horizontal asymptote at $y = \frac{\pi^4}{256}$ as $x \rightarrow \pm\infty$.

The results of this paper are summarized in the following table:

Function	Horizontal Asymptote
$f(x)$	$y = \frac{\pi}{2}$
$g(x)$	$y = \frac{\pi^2}{8}$
$h(x)$	$y = \frac{\pi^3}{32}$
$k(x)$	$y = \frac{\pi^4}{256}$

5. In the fifth part of the paper, the function $k(x)$ is used to define a new function $l(x)$ by the equation

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

It is shown that the function $l(x)$ is also increasing and concave down on the interval $(-\infty, \infty)$. Moreover, the function $l(x)$ has a horizontal asymptote at $y = \frac{\pi^5}{2048}$ as $x \rightarrow \pm\infty$.

6. In the sixth part of the paper, the function $l(x)$ is used to define a new function $m(x)$ by the equation

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

It is shown that the function $m(x)$ is also increasing and concave down on the interval $(-\infty, \infty)$. Moreover, the function $m(x)$ has a horizontal asymptote at $y = \frac{\pi^6}{16384}$ as $x \rightarrow \pm\infty$.

7. In the seventh part of the paper, the function $m(x)$ is used to define a new function $n(x)$ by the equation

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