

Indicate nature of report by checking below.

REPORT ON BEGINNING DRILLING OPERATIONS	X	REPORT ON REPAIRING WELL	
REPORT ON RESULT OF SHOOTING OR CHEMICAL TREATMENT OF WELL		REPORT ON PULLING OR OTHERWISE ALTERING CASING	
REPORT ON RESULT OF TEST OF CASING SHUT-OFF	X	REPORT ON DEEPENING WELL	
REPORT ON RESULT OF PLUGGING OF WELL			

1-3-52

~~Hobbs, New Mexico~~
Place

Phillips Chemical Company Chem Mattix Well No. 2 in the
Company or Operator Lease
NW/4 of Sec. 2 T. 24S R. 37E N. M. P. M.,
Langlie-Mattix Pool Lea County.

The dates of this work were as follows: 12-14-51

Notice of intention to do the work was (~~submitted~~) submitted on Form C-102 on 1-3-52, 1952
and approval of the proposed plan ~~was~~ (was not) obtained. (Cross out incorrect words.)

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

Drilled well to 375'. Ran 12 joints, 362' of 8-5/8" OD 24# J-55 casing set at 372'. Cemented with 250 sacks regular cement. Pumped plug to 360'. Cement circulated to surface. Tested casing before and after drilling plug. Test OK.

Witnessed by Otis Gaines Phillips Petroleum Company Foreman
Name Company Title

APPROVED: *Ray J. Krawczyk*
OIL CONSERVATION COMMISSION
Oil & Gas Inspector
Name
Title

JAN 14 1952

I hereby swear or affirm that the information given above is true and correct.

Name E. J. Wetherby
Position Administrative Assistant

Representing.....**Phillips Chemical Company**
Company or Operator
Address.....**Bartlesville, Oklahoma**

NEW MEXICO OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
MISCELLANEOUS NOTICES

Submit this notice in triplicate to the Oil Conservation Commission or its proper agent before the work specified is to begin. A copy will be returned to the sender on which will be given the approval, with any modifications considered advisable, or the rejection by the Commission or agent, of the plan submitted. The plan as approved should be followed, and work should not begin until approval is obtained. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of notice by checking below:

NOTICE OF INTENTION TO TEST CASING SHUT-OFF	<input checked="" type="checkbox"/>	NOTICE OF INTENTION TO SHOOT OR CHEMICALLY TREAT WELL	
NOTICE OF INTENTION TO CHANGE PLANS		NOTICE OF INTENTION TO PULL OR OTHERWISE ALTER CASING	
NOTICE OF INTENTION TO REPAIR WELL		NOTICE OF INTENTION TO PLUG WELL	
NOTICE OF INTENTION TO DEEPEN WELL			

Hobbs, New Mexico

Place

1-3-52

Date

OIL CONSERVATION COMMISSION,
Santa Fe, New Mexico.

Gentlemen:

Following is a notice of intention to do certain work as described below at the _____

Phillips Chemical Company Chen Mattix Well No. 2 in NW/4
Company or Operator Lease
of Sec. 2, T. 24S, R. 37E, N. M. P. M., Langlie-Mattix Field.
Lea County.

FULL DETAILS OF PROPOSED PLAN OF WORK

FOLLOW INSTRUCTIONS IN THE RULES AND REGULATIONS OF THE COMMISSION

Drill well to 375', run 8-5/8" OD 24# J-55 casing to 372', cement with 250 sacks regular cement, circulate cement to surface and test for shut-off.

Approved _____, 19____
cept as follows:

OIL CONSERVATION COMMISSION,

Ray Garbrough

Agent or Inspector

Phillips Chemical Company

Company or Operator

By E. P. Crathery

Position Administrative Assistant

Send communications regarding well to

Name Phillips Chemical Company

Address Bartlesville, Oklahoma

12

10/10/10

10/10/10

10/10/10

10/10/10

10/10/10

10/10/10

10/10/10

10/10/10

10/10/10

10/10/10

10/10/10

10/10/10

10/10/10

10/10/10

10/10/10

10/10/10

10/10/10

10/10/10

10/10/10

Santa Fe, New Mexico

NOTICE OF INTENTION TO DRILL

Notice must be given to the Oil Conservation Commission or its proper agent and approval obtained before drilling begins. If changes in the proposed plan are considered advisable, a copy of this notice showing such changes will be returned to the sender. Submit this notice in triplicate. One copy will be returned following approval. See additional instructions in Rules and Regulations of the Commission.

Bartlesville, Oklahoma

December 19, 1951

OIL CONSERVATION COMMISSION,
Santa Fe, New Mexico,

Place

Date

Gentlemen:

You are hereby notified that it is our intention to commence the drilling of a well to be known as

Phillips Chemical Company, Chem-Mattixwell No. 2 in NW/4

Company or Operator

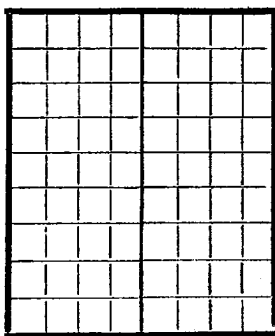
Lease

of Sec. 2, T. 24S, R. 37E, N. M., P. M., Langlie-Mattix Field, Lea County.

N

The well is 1964 feet (~~NW~~ (S.) of the North line and 662 feet ~~NW~~ (W.) of the East line of NW/4

(Give location from section or other legal subdivision lines. Cross out wrong directions.)

If state land the oil and gas lease is No. B-9974 Assignment No. ---If patented land the owner is ---Address ---If government land the permittee is ---Address ---The lessee is Phillips Chemical CompanyAddress Bartlesville, OklahomaWe propose to drill well with drilling equipment as follows: Rotary

AREA 640 ACRES

LOCATE WELL CORRECTLY

The status of a bond for this well in conformance with Rule 39 of the General Rules and Regulations of the Commission is as follows: Blanket Bond

We propose to use the following strings of casing and to land or cement them as indicated:

Size of Hole	Size of Casing	Weight Per Foot	New or Second Hand	Depth	Landed or Cemented	Sacks Cement
<u>11"</u> <u>7 7/8"</u>	<u>8 5/8"</u> <u>5 1/2"</u>	<u>26#</u> <u>14#</u>	<u>New</u> <u>New</u>	<u>350'</u> <u>3400'</u>	<u>Cemented</u> <u>Cemented</u>	<u>Circulate</u> <u>Circulate</u>

If changes in the above plan become advisable we will notify you before cementing or landing casing. We estimate that the first productive oil or gas sand should occur at a depth of about 3600 feet.

Additional information: Well to be drilled to depth sufficient to test Queen Sand.

Approved [Signature], 1951
except as follows:

Sincerely yours,

PHILLIPS CHEMICAL COMPANY

Company or Operator

By [Signature]Position Administrative Assistant

Send communications regarding well to:

Name Mr. C. P. DimitAddress Phillips Building
Bartlesville, Oklahoma

OIL CONSERVATION COMMISSION,

By [Signature]Title [Signature]

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 $f(x)$ is bounded on the interval $(-\infty, \infty)$ and its range is the interval $(0, \pi/2)$.

2. In the second part of the paper, we study the properties of 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, the function $g(x)$ is bounded on the interval $(-\infty, \infty)$ and its range is the interval $(0, \pi/2 + \pi/4)$.

3. In the third part of the paper, we study the properties of 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, the function $h(x)$ is bounded on the interval $(-\infty, \infty)$ and its range is the interval $(0, \pi/2 + \pi/4 + \pi/6)$.

4. In the fourth part of the paper, we study the properties of 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, the function $k(x)$ is bounded on the interval $(-\infty, \infty)$ and its range is the interval $(0, \pi/2 + \pi/4 + \pi/6 + \pi/8)$.

5. In the fifth part of the paper, we study the properties of the function $l(x)$ defined by the equation

$$l(x) = \int_0^x \frac{1}{1+t^2} dt + \int_0^x \frac{1}{1+t^4} dt + \int_0^x \frac{1}{1+t^6} dt + \int_0^x \frac{1}{1+t^8} dt + \int_0^x \frac{1}{1+t^{10}} dt.$$

It is shown that the function $l(x)$ is increasing and concave down on the interval $(-\infty, \infty)$. Moreover, the function $l(x)$ is bounded on the interval $(-\infty, \infty)$ and its range is the interval $(0, \pi/2 + \pi/4 + \pi/6 + \pi/8 + \pi/10)$.

6. In the sixth part of the paper, we study the properties of the function $m(x)$ defined by the equation

$$m(x) = \int_0^x \frac{1}{1+t^2} dt + \int_0^x \frac{1}{1+t^4} dt + \int_0^x \frac{1}{1+t^6} dt + \int_0^x \frac{1}{1+t^8} dt + \int_0^x \frac{1}{1+t^{10}} dt + \int_0^x \frac{1}{1+t^{12}} dt.$$

It is shown that the function $m(x)$ is increasing and concave down on the interval $(-\infty, \infty)$. Moreover, the function $m(x)$ is bounded on the interval $(-\infty, \infty)$ and its range is the interval $(0, \pi/2 + \pi/4 + \pi/6 + \pi/8 + \pi/10 + \pi/12)$.

7. In the seventh part of the paper, we study the properties of the function $n(x)$ defined by the equation

$$n(x) = \int_0^x \frac{1}{1+t^2} dt + \int_0^x \frac{1}{1+t^4} dt + \int_0^x \frac{1}{1+t^6} dt + \int_0^x \frac{1}{1+t^8} dt + \int_0^x \frac{1}{1+t^{10}} dt + \int_0^x \frac{1}{1+t^{12}} dt + \int_0^x \frac{1}{1+t^{14}} dt.$$

It is shown that the function $n(x)$ is increasing and concave down on the interval $(-\infty, \infty)$. Moreover, the function $n(x)$ is bounded on the interval $(-\infty, \infty)$ and its range is the interval $(0, \pi/2 + \pi/4 + \pi/6 + \pi/8 + \pi/10 + \pi/12 + \pi/14)$.

8. In the eighth part of the paper, we study the properties of the function $o(x)$ defined by the equation

$$o(x) = \int_0^x \frac{1}{1+t^2} dt + \int_0^x \frac{1}{1+t^4} dt + \int_0^x \frac{1}{1+t^6} dt + \int_0^x \frac{1}{1+t^8} dt + \int_0^x \frac{1}{1+t^{10}} dt + \int_0^x \frac{1}{1+t^{12}} dt + \int_0^x \frac{1}{1+t^{14}} dt + \int_0^x \frac{1}{1+t^{16}} dt.$$

It is shown that the function $o(x)$ is increasing and concave down on the interval $(-\infty, \infty)$. Moreover, the function $o(x)$ is bounded on the interval $(-\infty, \infty)$ and its range is the interval $(0, \pi/2 + \pi/4 + \pi/6 + \pi/8 + \pi/10 + \pi/12 + \pi/14 + \pi/16)$.

9. In the ninth part of the paper, we study the properties of the function $p(x)$ defined by the equation

$$p(x) = \int_0^x \frac{1}{1+t^2} dt + \int_0^x \frac{1}{1+t^4} dt + \int_0^x \frac{1}{1+t^6} dt + \int_0^x \frac{1}{1+t^8} dt + \int_0^x \frac{1}{1+t^{10}} dt + \int_0^x \frac{1}{1+t^{12}} dt + \int_0^x \frac{1}{1+t^{14}} dt + \int_0^x \frac{1}{1+t^{16}} dt + \int_0^x \frac{1}{1+t^{18}} dt.$$

It is shown that the function $p(x)$ is increasing and concave down on the interval $(-\infty, \infty)$. Moreover, the function $p(x)$ is bounded on the interval $(-\infty, \infty)$ and its range is the interval $(0, \pi/2 + \pi/4 + \pi/6 + \pi/8 + \pi/10 + \pi/12 + \pi/14 + \pi/16 + \pi/18)$.

10. In the tenth part of the paper, we study the properties of the function $q(x)$ defined by the equation

$$q(x) = \int_0^x \frac{1}{1+t^2} dt + \int_0^x \frac{1}{1+t^4} dt + \int_0^x \frac{1}{1+t^6} dt + \int_0^x \frac{1}{1+t^8} dt + \int_0^x \frac{1}{1+t^{10}} dt + \int_0^x \frac{1}{1+t^{12}} dt + \int_0^x \frac{1}{1+t^{14}} dt + \int_0^x \frac{1}{1+t^{16}} dt + \int_0^x \frac{1}{1+t^{18}} dt + \int_0^x \frac{1}{1+t^{20}} dt.$$