

NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

MISCELLANEOUS REPORTS ON WELLS

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-off, result of plugging of well, and other important operations, even though the work was witnessed by an agent of the Commission. Reports on other 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		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			

Roswell, New Mexico

January 18, 1952

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

~~Leonard Oil Company~~ of Sec. 29, T. 25 South, R. 37 East, N. M. P. M.,
Company or Operator Lease Well No. 2 in the
~~Field~~ of Sec. 29, T. 25 South, R. 37 East, N. M. P. M.,
~~Langlie-Mattix~~ Field, Lea County.

The dates of this work were as follows: January 16, 1950

Notice of intention to do the work was [was not] submitted on Form C-102 on January 17, 19 52
and approval of the proposed plan was [was not] obtained. (Cross out incorrect words.)

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

Jan. 18, 1952: After leaving the cement set for 48 hours, the 5-1/2" 14# casing was tested with 1000# pressure for 15 minutes, and there was no drop in pressure. Drilled plug and tested again with 1000# for 15 minutes, and no drop in pressure. Test considered satisfactory. Drilling ahead at 2615'.

Witnessed by _____
Name Company Title

Subscribed and sworn to before me this 17th

18th day of January, 19 52.

Notary Public

My Commission expires Oct. 30, 1955.

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

Name

Position

Representing

Address

Executive Vice President

Leonard Oil Company
Company or Operator

Box 706 - Roswell, New Mexico

Remarks:

Ray Garbrough
Name
Oil Inspector
Title

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
RESEARCH REPORT

1. The purpose of this study was to determine the effect of temperature on the rate of reaction between hydrogen peroxide and potassium iodide in the presence of a catalyst. The reaction was carried out at various temperatures and the rate was measured by the volume of oxygen gas evolved over a fixed period of time.

2. The reaction was carried out in a series of test tubes, each containing a known volume of hydrogen peroxide solution and a known volume of potassium iodide solution. A small amount of a suitable catalyst was added to each mixture. The test tubes were then placed in a water bath at the desired temperature and the reaction was allowed to proceed for a fixed period of time.

3. The volume of oxygen gas evolved was measured by the displacement of water in a graduated cylinder. The rate of reaction was calculated from the volume of oxygen gas evolved and the time taken for the reaction to proceed.

4. The results of the experiment are shown in the following table. It can be seen that the rate of reaction increases with increasing temperature.

5. The following graph shows the effect of temperature on the rate of reaction. The rate of reaction increases rapidly with increasing temperature up to about 40°C, after which it begins to level off.

6. The results of the experiment show that the rate of reaction between hydrogen peroxide and potassium iodide is highly dependent on temperature. The rate increases rapidly with increasing temperature up to about 40°C, after which it begins to level off. This is due to the fact that the activation energy of the reaction is relatively low, and the rate of reaction is therefore highly sensitive to changes in temperature.

7. The following table shows the effect of the concentration of the reactants on the rate of reaction. It can be seen that the rate of reaction increases with increasing concentration of both reactants.

8. The following graph shows the effect of the concentration of the reactants on the rate of reaction. The rate of reaction increases linearly with increasing concentration of both reactants.

9. The results of the experiment show that the rate of reaction between hydrogen peroxide and potassium iodide is highly dependent on the concentration of the reactants. The rate increases linearly with increasing concentration of both reactants.

10. The following table shows the effect of the concentration of the catalyst on the rate of reaction. It can be seen that the rate of reaction increases with increasing concentration of the catalyst.

11. The following graph shows the effect of the concentration of the catalyst on the rate of reaction. The rate of reaction increases linearly with increasing concentration of the catalyst.

12. The results of the experiment show that the rate of reaction between hydrogen peroxide and potassium iodide is highly dependent on the concentration of the catalyst. The rate increases linearly with increasing concentration of the catalyst.

13. The following table shows the effect of the concentration of the catalyst on the rate of reaction. It can be seen that the rate of reaction increases with increasing concentration of the catalyst.

14. The following graph shows the effect of the concentration of the catalyst on the rate of reaction. The rate of reaction increases linearly with increasing concentration of the catalyst.