

NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

REQUEST FOR PERMISSION TO CONNECT WITH PIPE LINE

This request should be SUBMITTED IN TRIPLICATE. See instructions in the Rules and Regulations of the Commission.

Midland, Texas
Place

October 12, 1936
Date

OIL CONSERVATION COMMISSION,
Santa Fe, New Mexico.

Gentlemen:

Permission is requested to connect Humble Oil & Refining Company John D. Fry
Company of Operator Lease
Wells No. 5 in 22/4 of Sec. 10, T. 21-S, R. 24-S, N. M. P. M.
Emiso Field, Lee County, with the pipe line of the
Humble Pipe Line Company Houston, Texas
Pipe Line Co. Address

Status of land (State, Government or privately owned) Private owner
Location of tank battery 5000' East of N. line and 1500' North of South line of Section 20
Description of tanks 2 10' X 10' 500 gal. wood tanks
Logs of the above wells were filed with the Oil Conservation Commission Attached 19

All other requirements of the Commission have [have not] been complied with. (Cross out incorrect words.)

Additional information:

**Necessary firewalls constructed. All brush and trash cleaned out around well.
Tank battery located more than 150' from any producing well.**

Yours truly,

Permission is hereby granted to make pipe line connections requested above.

OIL CONSERVATION COMMISSION,
By Grant Orsely
Title Sec.
Date Oct. 27-1936

Humble Oil & Refining Company
Owner or Operator
By [Signature]
Position Asst. Division Superintendent
Address Brewer W, Midland, Texas

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY

PHYSICAL CHEMISTRY LABORATORY

REPORT ON THE EXPERIMENT

DATE: _____

NAME: _____

NUMBER: _____

The purpose of this experiment is to determine the rate constant of the reaction between hydrogen peroxide and potassium iodide in the presence of a catalyst. The reaction is as follows:

$$2\text{H}_2\text{O}_2 \rightarrow 2\text{H}_2\text{O} + \text{O}_2$$

The rate of reaction is measured by the volume of oxygen gas evolved over a period of time. The reaction is catalyzed by potassium iodide, and the rate is found to be dependent on the concentration of the reactants and the catalyst. The rate constant is determined by plotting the natural logarithm of the concentration of hydrogen peroxide against time, which yields a straight line. The slope of this line is the negative of the rate constant. The experiment is performed at a constant temperature of 25°C to ensure that the rate constant is not affected by temperature changes. The results show that the rate constant is approximately 0.01 s⁻¹.

CONCLUSION: The rate constant of the reaction between hydrogen peroxide and potassium iodide is found to be 0.01 s⁻¹. This value is consistent with the literature values for this reaction at 25°C.

DISCUSSION: The rate of reaction is found to be dependent on the concentration of the reactants and the catalyst. The rate constant is determined by plotting the natural logarithm of the concentration of hydrogen peroxide against time, which yields a straight line. The slope of this line is the negative of the rate constant. The experiment is performed at a constant temperature of 25°C to ensure that the rate constant is not affected by temperature changes. The results show that the rate constant is approximately 0.01 s⁻¹.