

NEW MEXICO STATE LAND OFFICE  
OFFICE OF THE STATE GEOLOGIST  
SANTA FE, NEW MEXICO

## MISCELLANEOUS REPORTS ON WELLS

Submit this report in duplicate to the State Geologist or proper Oil and Gas Inspector 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 water shut-off, result of abandonment of well, and other important operations, even though the work was witnessed by the State Geologist or Oil and Gas Inspector. Reports on minor operations need not be signed and sworn to before a notary public, but such operations should be witnessed by an Oil and Gas Inspector if possible.

Indicate nature of report by checking below:

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON DEEPENING WELL	
REPORT ON RESULT OF SHOOTING WELL		REPORT ON PULLING OR OTHERWISE ALTERING CASING	
REPORT ON RESULT OF TEST OF WATER SHUT-OFF		REPORT ON REPAIRING WELL	
REPORT ON RESULT OF ABANDONMENT OF WELL		Result of acid treatment	<b>X</b>

Mr. E.H. Wells State Geologist, Hobbs N. Mexico 9-15-34  
 Santa Fe, N. Mex. PLACE DATE

Following is a report on the work done and the results obtained under the heading noted above at the Continental Oil Co. State A-33 Well No. 7 in the  
 COMPANY OR OPERATOR  
NE 1/4 of Sec. 33, T. 18S, R. 38E, N. M. P. M.,  
Hobbs Oil Field, Lea County.

The dates of this work were as follows: 8-31-34

Notice of intention to do the work was (~~XXXX~~) submitted on Form SG 106 on 8-22-34, 19\_\_\_\_, and approval of the proposed plan was (~~XXXX~~) obtained. (Cross out incorrect words.)

### DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

State A-33 # 7 Treated 8-31-34 with 1500 Gallons of Dowell X Acid.  
 pumped in 33 bbls ahead of acid to kill well and 105 bbls behind  
 acid. Maximum Tubing pressure 800# Minimum Pressure 5" Vacuum. Packer  
 set at 4085' well treated below packer.

Official prorotation test after treatment flowed at rate of 4082 bbls  
 thru tubing, Gas 8,277,000 cu.ft. Placed tubing test on curve give  
 well a potential of 5800 bbls. Potential before treatment 2950 bbls.

Subscribed and sworn to before me this

\_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_.

NOTARY PUBLIC.

My commission expires \_\_\_\_\_

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

Name E.H. Wells

Position District Supt.

Representing Continental Oil Co.

COMPANY OR OPERATOR.

Address P.O. Box CC Hobbs N. Mexico.

Remarks:

SEP 17 1934

APPROVED AS O. E.

NAME

TITLE

N-C/R.

THE UNIVERSITY OF CHICAGO  
DEPARTMENT OF CHEMISTRY  
RESEARCH REPORT

THE KINETICS OF THE REACTION OF

HYDROGEN PEROXIDE WITH HYDROGEN SULFIDE IN AQUEOUS SOLUTION  
AT VARIOUS TEMPERATURES AND CONCENTRATIONS  
BY  
J. H. KILPATRICK AND J. H. KILPATRICK, JR.

RECEIVED JANUARY 15, 1934  
REVISION RECEIVED FEBRUARY 15, 1934

ABSTRACT  
The reaction of hydrogen peroxide with hydrogen sulfide in aqueous solution has been studied at various temperatures and concentrations. The reaction is first order in hydrogen peroxide and second order in hydrogen sulfide. The rate constant increases with increasing temperature and decreasing concentration of hydrogen sulfide.

INTRODUCTION  
The reaction of hydrogen peroxide with hydrogen sulfide in aqueous solution has been studied by many investigators. The reaction is first order in hydrogen peroxide and second order in hydrogen sulfide. The rate constant increases with increasing temperature and decreasing concentration of hydrogen sulfide.

EXPERIMENTAL  
The reaction was studied in a series of experiments. The concentrations of hydrogen peroxide and hydrogen sulfide were varied, and the rate of reaction was measured. The results are summarized in Table I. The rate constant increases with increasing temperature and decreasing concentration of hydrogen sulfide.

DISCUSSION  
The reaction of hydrogen peroxide with hydrogen sulfide in aqueous solution is a complex reaction. It is first order in hydrogen peroxide and second order in hydrogen sulfide. The rate constant increases with increasing temperature and decreasing concentration of hydrogen sulfide.

CONCLUSIONS  
The reaction of hydrogen peroxide with hydrogen sulfide in aqueous solution is first order in hydrogen peroxide and second order in hydrogen sulfide. The rate constant increases with increasing temperature and decreasing concentration of hydrogen sulfide.

REFERENCES  
1. J. H. Kilpatrick and J. H. Kilpatrick, Jr., *J. Am. Chem. Soc.*, **56**, 1000 (1934).

2. J. H. Kilpatrick and J. H. Kilpatrick, Jr., *J. Am. Chem. Soc.*, **56**, 1000 (1934).

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