

**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	<input checked="" type="checkbox"/>	REPORT ON REPAIRING WELL	
REPORT ON RESULT OF ABANDONMENT OF WELL			

Mr. J. D. Hunter, Oil & Gas Inspector Wink, Texas. August 2, 1934  
State Geologist, PLACE DATE  
 Santa Fe, N. Mex.

Following is a report on the work done and the results obtained under the heading noted above at the Repelle Oil Company E. C. Stephens "A" Well No. 2 in the Repelle Lease Oil Field, Lea County, N. M. P. M., 36E of Sec. 13, T. 25S, R. 36E, N. M. P. M., Lea County.

The dates of this work were as follows: August 1, 1934

Notice of intention to do the work was (~~was not~~) submitted on Form SG 105 on 7-30-, 19 34, and approval of the proposed plan was (~~was not~~) obtained. (Cross out incorrect words.)

**DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED**

**Drilled out cement plug and test OK by pump pressure of 750- pounds.**

**DUPLICATE**

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 J. D. Hunter  
 Position District Clerk  
 Representing Repelle Oil Company  
COMPANY OR OPERATOR.  
 Address Drawer P, Wink, Texas.

Remarks:

AUG - 6 1934  
 APPROVED AS O. K.  
J. D. Hunter

NAME

TITLE

*N.C.R.*

THE UNIVERSITY OF CHICAGO  
DEPARTMENT OF CHEMISTRY  
RESEARCH REPORT

SYNTHESIS OF POLYMERIZABLE OLIGOAMIDES

The synthesis of polymerizable oligoamides was carried out by the reaction of diacid chlorides with diamines in the presence of a base. The reaction was carried out in a dry, inert solvent at room temperature. The resulting oligoamides were purified by reprecipitation from a methanol solution into a large volume of diethyl ether. The molecular weights of the oligoamides were determined by gel permeation chromatography (GPC) using a polystyrene calibration. The GPC analysis showed that the oligoamides had a narrow molecular weight distribution, indicating a controlled polymerization process.

The oligoamides were characterized by infrared (IR) and nuclear magnetic resonance (NMR) spectroscopy. The IR spectra showed characteristic absorption bands for the amide group, including a strong carbonyl stretch at approximately 1650 cm<sup>-1</sup> and a broad N-H stretch between 3300 and 3500 cm<sup>-1</sup>. The <sup>1</sup>H NMR spectra showed peaks corresponding to the protons in the oligoamide structure, with the amide protons appearing as a broad multiplet between 7.0 and 8.0 ppm. The molecular weights of the oligoamides were found to be in the range of 10,000 to 20,000 g/mol.

The oligoamides were found to be soluble in a variety of common organic solvents, including chloroform, dichloromethane, and dimethyl sulfoxide. The solubility of the oligoamides was found to be dependent on the length of the oligoamide chain and the nature of the substituents on the amide group.

The oligoamides were found to be stable to heat and light. The thermal stability of the oligoamides was determined by thermogravimetric analysis (TGA). The TGA analysis showed that the oligoamides were stable up to approximately 300°C, after which they began to decompose. The decomposition of the oligoamides was found to be a first-order process, indicating a random degradation mechanism. The oligoamides were also found to be stable to UV light, with no significant weight loss observed after 24 hours of exposure to a UV light source.

The oligoamides were found to be suitable for use as building blocks in the synthesis of polymeric materials. The oligoamides were reacted with diisocyanates to form polyurethanes, and with diisocyanates and diols to form polyurethanes. The polymeric materials formed from the oligoamides were found to have high glass transition temperatures and good mechanical properties.

The authors would like to thank the National Science Foundation for their support of this research. The authors would also like to thank the following individuals for their assistance in the synthesis and characterization of the oligoamides: [Name], [Name], and [Name].

Reprints of this report may be obtained from the University of Chicago Press, 530 North Dearborn Street, Chicago, Illinois 60610. The price of a reprint is \$10.00. Single copies of this report are available free of charge to the authors and their immediate families.