

DEPARTMENT OF THE STATE GEOLOGIST

STATE LAND OFFICE

SANTA FE, NEW MEXICO

MISCELLANEOUS REPORTS ON WELLS

Reports should be made within ten days of completing the work indicated and should be submitted in duplicate.

Indicate nature of report by checking.

Notice of intention to drill	Subsequent record of shooting
Notice of intention to change plans	Notice of intention to pull or otherwise alter casing
Notice of date for test of water shut-off	Notice of intention to abandon well
Report on result of test of water shut-off XX	Supplementary well history
Notice of intention to re-drill or repair well	Monthly report of operations
Notice of intention to shoot	

Mr. R. L. Halley Hobbs, N. Mex. July 2, 1930
 State Geologist
 Santa Fe, New Mexico.

Following is a report giving the results of work done as indicated above at State

Well No. 3 in SW 1/4 of Sec. 4 T. 19S R. 38E,
 N.M.P.M., Hobbs Oil Field Lea County.

DETAILS

State names of and expected depths to objective sands or producing horizon; show sizes, weights, and lengths of casing run or proposed; indicating mudding jobs, cementing points, water horizon, number of days operated, and total depth at end of month, and other important information.

The plan outlined on Form SG-103 was followed.

Bailed well dry and allowed to set. Found that successful water shut-off had been made. Drilling resumed.

Approved July 26, 1930
 (Date)
R. L. Halley
 (Name)

Company The Midwest Refining Company
 By Tom Sartorius
 Title Field Supt.

Title State Oil & Gas Insp.
 Address

Address Hobbs, New Mexico

THE UNIVERSITY OF CHICAGO

DEPARTMENT OF CHEMISTRY

PHYSICAL CHEMISTRY

PROFESSOR ROBERT M. MAYER

LECTURE NOTES FOR PHYSICAL CHEMISTRY

1950-1951

LECTURE 1: INTRODUCTION

The first lecture of the course is devoted to a review of the basic principles of thermodynamics and statistical mechanics. The lecture begins with a discussion of the first law of thermodynamics, which states that the total energy of a system is conserved. This is followed by a discussion of the second law, which states that the entropy of a system always increases. The lecture then turns to a discussion of statistical mechanics, which is the study of the properties of matter from the point of view of the behavior of individual molecules. The lecture concludes with a discussion of the relationship between thermodynamics and statistical mechanics.

The second lecture of the course is devoted to a discussion of the properties of gases. The lecture begins with a discussion of the ideal gas law, which states that the pressure of a gas is proportional to the number of molecules per unit volume and the absolute temperature. This is followed by a discussion of the van der Waals equation of state, which takes into account the attractive and repulsive forces between molecules. The lecture then turns to a discussion of the properties of real gases, such as the critical temperature and the critical pressure.

The third lecture of the course is devoted to a discussion of the properties of liquids. The lecture begins with a discussion of the surface tension of liquids, which is the force that acts to minimize the surface area of a liquid. This is followed by a discussion of the viscosity of liquids, which is the resistance of a liquid to flow. The lecture then turns to a discussion of the properties of solid liquids, such as the glass transition temperature.

The fourth lecture of the course is devoted to a discussion of the properties of solids. The lecture begins with a discussion of the crystal structure of solids, which is the arrangement of atoms in a solid. This is followed by a discussion of the properties of crystals, such as the melting point and the heat of fusion. The lecture then turns to a discussion of the properties of amorphous solids, such as the glass transition temperature.

LECTURE 2

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The fifth lecture of the course is devoted to a discussion of the properties of solutions. The lecture begins with a discussion of the colligative properties of solutions, which are properties that depend only on the number of solute particles in a solution. This is followed by a discussion of the properties of electrolyte solutions, which are solutions of ionic compounds. The lecture then turns to a discussion of the properties of nonelectrolyte solutions, which are solutions of molecular compounds.

The sixth lecture of the course is devoted to a discussion of the properties of polymers. The lecture begins with a discussion of the structure of polymers, which are long chains of repeating units. This is followed by a discussion of the properties of polymers, such as the glass transition temperature and the melting point. The lecture then turns to a discussion of the properties of polymer solutions, which are solutions of polymers in a solvent.

The seventh lecture of the course is devoted to a discussion of the properties of colloids. The lecture begins with a discussion of the structure of colloids, which are dispersions of small particles in a medium. This is followed by a discussion of the properties of colloids, such as the stability and the sedimentation rate. The lecture then turns to a discussion of the properties of colloidal solutions, which are solutions of colloids in a solvent.

The eighth lecture of the course is devoted to a discussion of the properties of surfaces. The lecture begins with a discussion of the structure of surfaces, which are the interfaces between different phases of matter. This is followed by a discussion of the properties of surfaces, such as the surface energy and the surface tension. The lecture then turns to a discussion of the properties of surface films, which are thin layers of material on a surface.