EVENING MEETING MAY 10, 1976

DANIEL A. BUSCH — Biographical Review

Daniel A. Busch is a Consulting Geologist in Tulsa, Oklahoma. His special interests are subsurface stratigraphy as applied to petroleum exploration, geometric aspects of clastic reservoir facies, and the reconstruction of paleodepositional environment.

Dr. Busch received a B.S. in Chemistry from Capital University in 1934. He switched to geology and received his M.A. (1936) and Ph.D. (1939) from Ohio State University.

During his long career, Busch has been an Instructor at the University of Pittsburgh (1938-42), a Petroleum Geologist with the Pennsylvania Topographic and Geologic Survey (1942-43), and with Huntley and Huntley (1943-46), a Senior Research Geologist (1946-49) and Staff Geologist (1949-51) with Carter Oil Company and Exploration Manager of Zephyr Petroleum Company (1951-54). In 1954 he became a Consulting Geologist. Since then he also has had time to be a Visiting Professor at The Ohio State University, the University of Tulsa, and the University of Oklahoma.

INTEGRATED DISCIPLINES IN PETROLEUM EXPLORATION (Abstract)

by: Daniel A. Busch

Modern petroleum exploration for major reserves requires the integration of many scientific disciplines. In addition to the basic geological subjects studied at universities, the explorationist must make use of geophysics, micropaleontology, and E-log analysis. Very few, if any, explorationists can qualify as experts in all of these fields. However, it is necessary that they be familiar with what can be accomplished by utilizing the combined contributions of experts in these individual disciplines.

Abundant and abrupt facies changes, growth and postdepositional faulting, and precise correlations (based on a combination of micropaleontology and E-logs) collectively, require the expertise of a team of specialists. This is true both onshore and offshore. Typical examples are taken from the Tertiary of the Gulf Coast, Nigeria, and South Africa where all of these variables are abundantly present. Examples range from the marginal-marine deltaic and inter-deltaic to neritic, bathyal, and abyssal depositional environments.

A model organizational chart is presented which can be modified to fit any stratigraphic-structural situation.