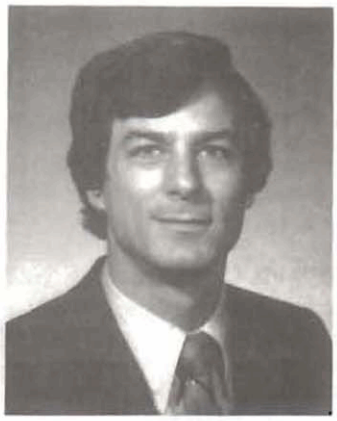
EVENING MEETING—APRIL 13, 1981

JOHN H. OEHLER—Biographical Sketch



John Oehler received a Bachelor's degree in zoology from the University of California at Los Angeles (UCLA) in 1966. He then served 2 years as a Peace Corps volunteer in Nepal, teaching high-school science and helping to modernize the science curriculum for all Nepalese secondary schools. In 1973, he received a PhD in geology from UCLA. His thesis research was in the areas of Precambrian paleontology, organic geochemistry, and silica diagenesis.

From 1973 through 1976, Dr. Oehler worked for the Commonwealth Scientific and Industrial Research Organization (CSIRO) in Australia, concentrating on biological factors involved in the formation of Precambrian sedimentary mineral deposits. He joined Conoco in 1977 as an organic geochemist, working mainly on methods of source-rock evaluation. His current position with Conoco is Senior Research Geochemist and Technical Assistant to the Manager of the Exploration Research Division in Ponca City, Oklahoma.

CARBONATE SOURCE ROCKS IN THE JURASSIC SMACKOVER TREND OF MISSISSIPPI, ALABAMA, AND FLORIDA (Abstract)

The Smackover trend is a belt of carbonate, evaporite, and clastic rocks of Late Jurassic age which rims the U. S. Gulf Coast from Texas to the Florida Panhandle. It has been a major petroleum fairway for decades and continues to yield new discoveries each year. One area of recent intensive activity within this trend encompasses southern Mississippi, southern Alabama, and extreme western Florida.

Pertinent Jurassic stratigraphy in the area includes, in descending order, the Haynesville formation (shallow-water carbonate rocks with minor interbedded clastic units); the Buckner Anhydrite; the Upper Smackover (carbonate grainstones); the Lower Smackover (carbonate mudstones); the Norphlet Formation (mainly sandstones), and the Louann Salt.

Most of the oil and gas in this area is reservoired in the Upper Smackover and Norphlet. Geochemical data suggest that these oils and gases belong to one family and that all were sourced from algal-rich "lime" mudstones of the Lower Smackover. The geochemical data include light hydrocarbon compositions, n-paraffin distributions, saturate and aromatic group-type distributions, tetracycloalkane distributions, and carbon-isotopic composition of saturate and aromatic fractions.

Some of the richest potential source beds are sabkha-type, algal-laminated micrites of the basal Smackover.