

**INTERNATIONAL EXPLORATIONISTS
GROUP EVENING MEETING
JANUARY 13, 1988**

THOMAS J. SCHULL—Biographical Sketch



Thomas J. Schull received his B.S. degree in Geology in 1964, from Wittenberg University, Springfield, Ohio. In 1966 he received an M.A. degree in Geology from Indiana University, Bloomington, Indiana.

Schull began his career with Chevron U.S.A. in 1966, working as a geologist and geophysical interpreter for East Texas, Oklahoma, and the Texas Panhandle. From 1972 to

1983 he was involved in international exploration with Chevron Overseas Petroleum, Inc., first in Columbia, South America, and then in southeast Asia and the Sudan. In 1983 Schull became District Supervisor of Onshore Coastal California, again with Chevron, U.S.A. Currently, he is Rocky Mountain and Mid-Continent Division Manager for Chevron and is located in Denver, Colorado.

Thomas Schull is a member of the Rocky Mountain Association of Geologists and the Denver Geophysical Society, and is a Distinguished Lecturer and member of the American Association of Petroleum Geologists.

**OIL EXPLORATION IN NONMARINE RIFT BASINS
OF INTERIOR SUDAN**

In early 1975, Chevron Overseas Petroleum Inc. commenced what became a major petroleum effort in previously unexplored interior Sudan. With the cooperation of the Sudanese government, Chevron has acquired a vast amount of geologic and geophysical data during the past 11 years. These data include extensive aeromagnetic and gravity surveys, 36,000 mi (58,000 km) of seismic data, and results from 86 wells. This information has defined several large rift basins that are now recognized as a major part of the Central African rift system.

The sedimentary basins of interior Sudan are characterized by thick Late Jurassic-Cretaceous and Tertiary non-marine clastic sequences. More than 35,000 ft (10,671 m) of sediment has been deposited in the deepest trough, and extensive basinal areas are underlain by more than 20,000 ft (6,098 m) of sediment. The depositional sequence includes thick lacustrine shales and claystones; flood-plain claystones; and lacustrine, fluvial, and alluvial sandstones and conglomerates. The lacustrine claystones that were deposited in an anoxic environment provide good oil-prone source rocks. Reservoir sandstones have been found in various nonmarine sandstone facies.

The extensional tectonism that formed these basins began during the Late Jurassic to Early Cretaceous. Movement along major fault trends continued intermittently into the Miocene. This deformation resulted in a complex structural history, which led to the formation of several deep fault-bound troughs, major interbasin high trends, and complex basin flanks. This tectonism has created a variety

of structures, many of which have become effective hydrocarbon traps.

During the past 7 years, Chevron has made several important oil discoveries. Significant accumulations have been delineated in the Heglig and Unity areas, where estimated recoverable reserves of 250-300 million bbl of oil have been established.