NOON MEETING—MAY 28, 1980

DONALD C. SWANSON—Biography

Donald C. Swanson was born 53 years ago in Canon City, Colorado. He received a B.S. degree in General Arts and Sciences from Colorado State University in 1950. He then worked for a B.S. degree in Geology at Tulsa University in 1955. He also did graduate studies at the University of Oklahoma. He worked as a tax engineer for Carter Oil Company in Tulsa from 1951-1956. He then became a geologist for Carter Oil and worked Kansas, Oklahoma, and the Texas panhandle from 1956-1967. His next move was to Exxon Production Research Company in Houston, where he undertook numerous clastic facies studies, from 1967-1979. In 1979 he became a consultant, in the firm of Swanson and Crow, and Swanson Petroleum Enterprises. His specialties deal primarily with clastic facies, the application of facies analysis, exploration methodology, subsurface stratigraphy, reservoir description, and computer applications in stratigraphy.

DELTAIC DEPOSITS IN THE PENNSYLVANIAN UPPER MORROW FORMATION OF THE ANADARKO BASIN (Abstract)

Rocks of the late Morrowan age represent a variety of deltaic environmental facies. The important reservoirs are both point-bar and stream-mouth-bar sandstones and conglomerates. Significant associated deposits are prodelta claystones, back swamp-marsh claystones, and meander-channel-fill claystones.

Point-bar deposits are the most important reservoirs, and many well documented examples show their characteristic sizes, shapes, trends, and reservoir characteristics. Detailed data from these areas show relationships which would give reliable clues to the existence of nearby point-bar deposits when dry holes are drilled.

Study of the upper Morrow gives insight into processes of deltaic sedimentation which should provide help in local exploration, production operations, and regional exploration in similar rocks encountered throughout the world. Environmental information from only a few points in the most virgin area should lead to the visualization of paleogeography and sedimentologic processes which could be a guide to an exploration program. Where much data are available, environmental facies analysis can be invaluable in production operations such as field development or waterflood projects.

Many different fields of geology are utilized in a complete environmental facies analysis. Sedimentology, paleontology, stratigraphy, petrography, geomorphology, and structural geology contributed and were coordinated to give the final Morrow interpretations. These various fields of geology, when combined through environmental facies analysis, should provide the petroleum geologist with a tool which will enhance his ability to predict subsurface conditions and will improve his knowledge of reservoir deposits.