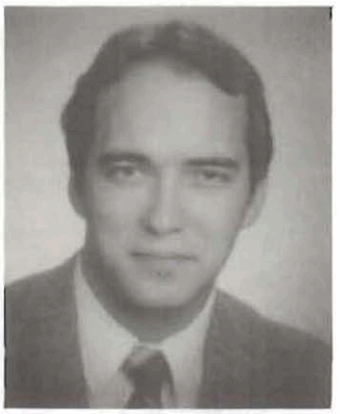
LUNCHEON MEETING—MARCH 28, 1984

EDWARD A. DUNCAN—Biographical Sketch



Edward A. Duncan is an exploration geologist in Sohio Petroleum Company's Western Region Exploration - Appraisal Group in San Francisco. He is presently working north Alaska's Beaufort Sea Basin, utilizing seismic stratigraphy and depositional framework studies and preparing for O.C.S. lease sale #87. He was raised in Houston, Texas and attended the University of Texas at Austin from 1974 to 1982. While working on his Bachelor of Science and Master of Arts degrees, Ed assisted on various geological projects at the Bureau of Economic Geology including East Texas and Palo Duro Basin waste isolation studies. His initial studies of depositional systems and processes centered on master's research of the Frio - Norias delta system of South Texas. Continued work on the Frio - Norias delta system as well as studies concerning the application of genetic stratigraphy to hydrocarbon exploration are his present goals. Ed is a member of A.A.P.G.

DELINEATION OF DELTA TYPES: NORIAS DELTA SYSTEM, FRIO FORMATION, SOUTH TEXAS

The Norias delta system was the major depositional component of the Frio Formation, South Texas. The Norias was an expansive, sandy, predominantly progradational complex fed by the updip Gueydan fluvial system. This depositional complex effectively filled the Rio Grande Embayment of South Texas by the end of Frio deposition. Norias deltaic sedimentation was probably initiated during the early rise in sea level following a lowstand. The delta system was flanked by time equivalent depositional systems including a northerly strandplain and to the south possibly a delta system in northern Mexico. Incorporated within the complex body of the generally progradational sequence, a well defined evolution of Norias delta types can be documented through the time of Frio deposition. Early Norias deltas developed a strongly dip-oriented lobate geometry interpreted as reflecting a high constructive fluvially dominated regime. Middle Norias deltas continued to be generally high constructive lobate in style, but evidence for significant strike reworking of deltaic sediments can be inferred based on development of a north flanking strandplain system. Late Norias deltas were high destructive wave dominated features. Essentially the Norias delta system had evolved into a broad alluvial plain feeding a strandplain with little physiographic expression of a delta lobe.