LUNCHEON MEETING—APRIL 25, 1984

H. SCOTT HAMLIN—Biographical Sketch

H. Scott Hamlin was born in Carlsbad, New Mexico and grew up in San Benito, Texas. He received his B.A. in anthropology from the University of Texas at Austin in 1975 and will receive his M.A. in geology from UT Austin in the spring of 1984. From 1977 to 1981 he was with the Texas Bureau of Economic Geology doing subsurface investigations in the Texas Gulf Coast. In 1982 and 1983 he was a geological consultant with Resource Assessments, Inc. working in oil and gas exploration in Oklahoma. In November of 1983 he returned to the Bureau to work on the Coastal Salt Dome project. He is a member of AAPG and the American Association for the Advancement of Science.

FLUVIAL DEPOSITIONAL SYSTEMS OF THE CARRIZO-UPPER WILCOX IN SOUTH TEXAS

In the Rio Grande embayment of South Texas, the Carrizo-Upper Wilcox interval (Eocene) consists of two sand-rich coastal plain fluvial depositional systems that grade basinward into several deltaic complexes. The bedload channel system is dominated by multi-story multi-lateral fluvial channel-fill sandstones. This system is typically greater than 90 percent sandstone. Shales are thin and laterally discontinuous, the remnants of abandoned channel fills. Bedload channel sandstones dominate the major fluvial axes and form the depositional framework of the interval. The mixed alluvial system consists of a more typical suite of coastal plain facies. Mixed-load channel-fill sandstones tend to be isolated and surrounded by overbank shales and thin sandstones. Crevasse splay and lacustrine facies occur in the floodplain area.

Total-interval isopach patterns, sandstone geometries, and depositional systems distributions indicate that fluvial sediment input was converging upon the embayment from the west, northwest, and north.

Economically, the Carrizo-Upper Wilcox of South Texas has a three-fold significance. The updip Carrizo Sandstone is a major source of fresh groundwater, includes several large oil fields, and also contains deposits of uranium minerals. The downdip Upper Wilcox trend is an area of active hydrocarbon exploration.