

MEETINGS

HGS DINNER MEETING—APRIL 12, 1993

Social Period, 5:30 p.m.

Dinner and Meeting, 6:30 p.m.

Post Oak Doubletree Inn

RANDALL S. MILLER—Biographical Sketch



After retiring from seven years of professional baseball, split between the Baltimore Orioles and Montreal Expos, Randy Miller graduated with a degree in chemistry and geology from the University of California at San Diego in association with Scripps Institute of Oceanography in 1980. In 1981, he joined Vetter Research in California and was involved in the research and evaluation of geothermal reservoirs.

In 1982, Randy joined Reservoirs, Inc. in Houston, Texas and pursued graduate studies at the University of Houston. He has twelve years of industry experience as a geologist, specializing in the application of sedimentology and petrography for exploration and development of oil and gas reservoirs. He has conducted and been involved with numerous regional and field core studies in the Gulf Coast, Alaska and North Sea areas. These studies have included the Woodbine, Tuscaloosa, Wilcox, Vicksburg, Yegua, Lobo, Frio, Miocene and Smackover trends in the Gulf Coast and the Jurassic, Triassic and Permian sections in the North Sea. As Vice President of Geology at Reservoirs, Inc., his current work involves a Regional Core and Biostratigraphic Study of the Miocene in the Gulf of Mexico and various international core studies.

CHARACTERISTICS OF DEEP-WATER YEGUA SANDSTONES TEXAS AND LOUISIANA

The downdip Eocene Yegua trend of Texas and Louisiana has been one of the most active trends in the Gulf Coast for the last eight years since the discoveries of Torro Grande and Shanghai fields. The focus of exploration has been and continues to be in the expanded EY and DY sandstone sections. These sandstones were deposited in fluvial-dominated delta and shallow marine environments at or near the shelf margin, as a prograding wedge of a lowstand systems tract.

Only a few deep Yegua tests have been drilled basinward of the Yegua shelf margin trend. These wells have encountered Yegua sandstones in the *Nodosaria mexicana* and *Anomalina umbonatus* sections at depths of 14,500 to 16,300 feet. Sedimentological analysis of conventional cores through these sandstones indicate that they were deposited by gravity-flow mechanisms in lower slope to possibly basin plain settings. The sandstones are thin bedded and commonly graded. The thicker sandstones are massive appearing and the thin bedded sandstones commonly exhibit

Bouma b-c-d and c-d turbidite sequences. They were deposited in channel-levee complexes on a slope fan of a lowstand systems tract.

The sandstones have core porosities up to 23%, but average porosity is 16%. Permeabilities are typically in the 1 to 20 md range. The sandstones are moderately well to well sorted, very fine-to fine-grained and classify as feldspathic litharenites. They are cemented by a combination of quartz overgrowths, dolomite, kaolinite and local chlorite or illite/smectite. Secondary porosity from feldspar dissolution is common. The sandstones have undergone significantly greater cementation than the EY and DY Yegua sandstones.