

MEETINGS

DINNER MEETING—OCTOBER 13, 1986

FRANK W. HARRISON, JR.—Biographical Sketch



Frank W. Harrison is a consulting geologist in Lafayette, Louisiana. He received his B.S. degree in Geology from Louisiana State University in 1950. After serving in the United States Army for two years, he was hired by Union Producing Company.

Mr. Harrison worked for Union Producing Company for four years before moving to Seaboard Oil in New Orleans. In 1956, he was hired as District Geologist for Trans-Tex Drilling Company where he stayed until 1957. In 1957, he became head geologist for American Natural Gas Production Company. Since 1959, he has been a consulting geologist.

Frank Harrison has been a member of AAPG since 1954. He has served on numerous committees before becoming AAPG President in 1981-82. He has also been President of the Gulf Coast Association of Petroleum Geologists, the Lafayette Geological Society, the Louisiana Association of Independent Producers and Royalty Owners, and Vice President of the Society of Independent Professional Earth Scientists. Additionally, he is a member of the American Institute of Petroleum Geologists, the Geological Society of America, the Houston Geological Society, and the New Orleans Geological Society. Mr. Harrison has been involved in several publications on South Louisiana geology.

THE GEOLOGY AND DEVELOPMENT HISTORY OF JENNINGS SALT DOME 1901-1985. A CLUE TO THE FUTURE OF GULF COAST SALT DOMES

Historically, salt domes have been the primary target of oil and gas exploration in the Texas and Louisiana Gulf Coast. In South Louisiana, the 89 piercement salt dome fields discovered since 1901 have produced 6,492,462,685 barrels of oil and condensate. This amount represents approximately 60% of all oil and condensate produced in South Louisiana.

Because of the tremendous volume of oil already extracted, there may be doubt about finding significant reserves on these features in the future. However, a current review of Jennings Salt Dome, the first Louisiana oil field, suggests that South Louisiana piercement domes still have large undiscovered reserves.

Jennings Dome, which has produced continuously since its discovery in 1901, has produced, as of 1985, 115 million barrels of oil and condensate. Its long and active exploration history is representative of many piercement domes in South Louisiana. A combination of characteristics explain why Jennings, as well as other domes, continue to be the focus of major exploration efforts. Piercement salt domes are generally complex both stratigraphically and structurally because of their geologic origin. Prolific high angle faulting coupled with

depositional unconformities and rapid stratigraphic changes make it difficult to determine accurately the precise nature and extent of existing hydrocarbon traps. Additionally, the occurrence of multiple sand reservoirs and outstanding recovery rates of oil in place result in areally small reservoirs which contain substantial reserves.