

MEETINGS

DINNER MEETING—NOVEMBER 12, 1986

BERNOLD M. (BRUNO) HANSON —Biographical Sketch



Bernold M. (Bruno) Hanson, current president of the American Association of Petroleum Geologists, first undertook the challenge of exploring for oil and gas in the Permian Basin in 1951. After receiving a B.S. degree in engineering geology from the University of North Dakota, he accepted a job as geologist with Magnolia Petroleum Company (Mobil). He received his M.A. in geology from the University of Wyoming.

In 1955, Hanson was employed by Humble Oil & Refining Company (now Exxon) as district geologist in New Orleans. He was in charge of Exxon's Alaskan Project in the mid-50's before being transferred to Midland in 1957. He became an independent consulting geologist in 1960 and worked both in the United States and abroad. For the past 26 years, he has been president of Hanson Corporation and has been successful in finding oil and gas reserves.

Hanson has authored a number of publications. He has served in many offices and chaired numerous committees for the AAPG, West Texas Geological Society, Society of Economic Paleontologists and Mineralogists, American Institute of Professional Geologists, and the Society of Independent Professional Earth Scientists. He is a 25-year member of the Society of Petroleum Engineers and a Fellow in the Geological Society of America. He received the Distinguished Service Award and Honorary Membership from AAPG as well as Honorary Membership from WTGS. He is an All-American Wildcatter. He presently chairs the advisory boards of the geology departments of both the University of North Dakota and the University of Wyoming, and holds the highest alumni awards from each.

OUR FUTURE

There are still areas in North and South America with future recoverable reserves in the 20-100 billion-barrel range. Africa, Europe, and the Middle East contain the most exciting petroleum provinces in the world. The Far East is dominated by West Siberia and China. This vast region has an energy future, but is largely unexplored. Indonesia remains the pearl of Southeast Asia and has tremendous potential for gas. Australia is coming into her own with recent discoveries.

A majority of old oil and gas fields in the world are from 500 to 5,000 feet in depth. Studying the world's crude reserves by geographic area, we notice that the areas south of the equator do not contain the reserve amounts found in the northern hemisphere. This shows where oil is likely not to be found. Partially explored areas are so for geologic reasons, and it is likely that they will never be significantly productive.

Very large amounts of petroleum have already been discovered throughout the world. There are 723 billion barrels of reserves, which is about 36 times the annual production rate of 20 billion barrels per year. A mode of about 550 billion

barrels of oil remains to be recovered. Studying the discovery rate in five-year increments over the past 60 years, it is apparent that today's rate is down from the high of the late 1950's and early 60's when some 35 billion barrels of oil per year were found. At the present time, the discovery rate is somewhere between ten and 15 billion barrels per year. Production, currently at about 20 billion barrels per year, has now outpaced discovery by a factor of almost two.

Through our efforts, we have found a lot of oil. The geologically acceptable narrow distribution of these resources, however, suggests that there will always be some form of barrier limiting the freedom of use. These barriers take on the dimensions of national security issues when we realize that twice as much oil could be blocked in the Straits of Hormuz as is currently available around the world in surplus daily production capacity. Even with continued frontier exploration efforts and successes, the distribution reality is not likely to change.

The United States still produces 24 percent and uses 40 percent of the free-world's petroleum. We must conduct an exploration and development program in the U.S. to maintain a supply of 65 to 70 percent of our petroleum needs. This goal was met during the last five years when oil prices were high enough to encourage a high level of exploration. As we look into the future and compare oil reserves versus demand, we are going to be in serious trouble in the United States by 1992 when we will definitely be on the negative side of production.

We cannot survive on fast foods and computers. Our basic industries must be rejuvenated and oil is one of the most important. We must ask ourselves "Do we want to support a marginal resource?" If so, our only hope for survival is for the government to impose an import fee. I don't know how deep your pockets are, but mine are getting shallow. The front-line role of geologists in the energy equation is to identify resources worldwide, both in quality and quantity. We can do this only if we have the right economic climate in which to achieve these goals.

ANDY ROONEY