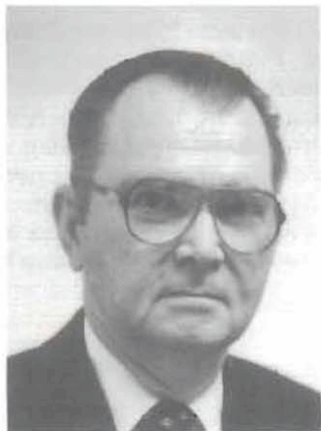


# MEETINGS

## LUNCHEON MEETING— NOVEMBER 21, 1988

ROBERT E. MEGILL—Biographical Sketch



Robert E. Megill was born in Lawrence, Kansas, in 1923, and received his BS in geological engineering from the University of Tulsa in 1948.

After joining Exxon in 1941, Megill held many distinguished positions within the company including Senior Reserve Geologist, Senior Economist, Coordinator of Economic Evaluation-Exploration, And Coordinator of Planning-Exploration. Megill left

Exxon in 1984 to start his own business as a petroleum consultant.

Megill is the author of numerous books and articles on the economics of the oil industry including *Long-Range Exploration Planning* (Pennwell Books, 1985) and "A History of Crude Oil Prices in the USA" (*HGS Bulletin*, October 1986), and is the author of the regular column "Business Side of Oil and Gas" in the *AAPG Explorer*.

### ECONOMICS OF PETROLEUM EXPLORATION AND DEVELOPMENT

In searching for new oil and gas fields, the explorationist is faced with three fundamental questions. First, what are the chances of hydrocarbons being present; second, what is the size of the prize, the prospect; and finally, will it make money?

Contemporary literature in geology is increasingly facing these three fundamental questions. Articles by Peter Rose (*AAPG Bulletin*, January 1988) and David White (*AAPG Bulletin*, August 1988) are among the latest additions.

Geologists too often leave the questions regarding financial results to other functionaries who may or may not understand the exploratory process. Significant misconceptions relating to the question of financial results inhibit exploration for new oil and gas fields. Among these misconceptions are:

1. A lack of understanding of the difference between a discounted cash flow rate (DCFR) and a return on net assets.
2. Not recognizing the need for higher DCFRs for development wells than for prospects.
3. Falsely using the concept of "sunk" costs.

The economic outcome from petroleum exploration and development is not easy to calculate; it peers farther into the future than most functions, and it must assess the greatest degree of uncertainty. Yet results can be estimated and will be meaningful if the data base is large enough to provide a reasonable sample for profit calculations. ■