produce profits demands that the geologist prepare a comprehensive economic assessment of his exploratory planning, efforts, and recommendations. Such appraisals will surely sharpen and upgrade the exploratory effort and will do much toward bringing about greater success in the explorer's search for petroleum to meet the demands of the future.

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November 8, 1965

A. A. MEYERHOFF, American Association of Petroleum Geologists, Tulsa

"A.A.P.G. Bulletin — Facts and Fancies"

The future of the A.A.P.G. *Bulletin* depends on the health of the petroleum industry, the willingness of geologists to submit papers to the *Bulletin*, the types of papers that are submitted and published, and the editorial policies of A.A.P.G. It is no longer enough for the *Bulletin* to publish what it gets; the *Bulletin* must recognize the needs of its members, and go out to get some of what is published. The *Bulletin's* reputation for "stuffiness" has, in some cases, been deserved, and this reputation, if it exists, must be put to rest.

Bulletin policies are general and flexible. The *Bulletin* publishes all types of articles that may be related to hydrocarbon exploration. Field studies are encouraged, provided that the lessons to be learned from the field in question have more than just local application. Case histories, including engineering data, are welcome.

Controversial articles, discussions, and book reviews will receive sympathetic consideration, provided that they are written constructively. The *Bulletin* also reprints articles that are highly recommended by local societies. Moreover, color reproduction is now a fact, provided the writer can pay the cost difference between black-and-white and color reproduction.

Members who know of good articles should encourage the authors of such papers to submit them to the *Bulletin*.

Manuscripts take time to process. After receival in Tulsa, they go to reviewers and then to the elected editor. They are next accepted, recommended for revision, or rejected. The speed at which an article is processed depends on the length of time the reviewer has the paper and on the author's willingness to revise promptly, where revisions are needed. The editor and managing editor's jobs are to work with and encourage the authors of the manuscripts. This task may not always be pleasant, but it is always rewarding, if for no other reason than the fact that it is *people* who are being helped.

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November 29, 1965

GORDON I. ATWATER, Atwater, Cowan & Assoc., New Orleans

"The Effect of Decrease in Porosity with Depth on Oil and Gas Reserves in Sandstone Reservoirs"

Geologists and engineers have frequently made the premise that the amount of gas in place per unit volume increases as greater depths are penetrated, because of the attendant higher reservoir pressures. In order to test the validity of this premise, a study was made of the effect of depth of burial upon the other variables in the standard formula used to calculate the amount of oil and gas in place.

Sandstone porosity data were obtained for more than 17,000 samples of conventional cores, including samples from 101 fields of South Louisiana. A curve constructed from these data demonstrates that the amount of void space per unit volume available for the accumulation of oil and gas decreases with increasing depth. This decrease in porosity, 1.285 per cent of total volume per 1,000 feet of burial, is the most important single factor controlling the amount of oil or gas in place per unit volume of sandstone reservoir rock. Exploration and development management should be conscious of the diminishing returns to be anticipated as greater depths are explored.

Porosities associated with abnormally pressured reservoirs were studied, as was the incidence of abnormally pressured reservoirs in South Louisiana as a function of depth burial. The porosities of the abnormally pressured reservoirs, averaged by 1,000 foot depth increments, fit a straight line plot of porosities from all reservoirs.

It appears to be a reasonable hypothesis that the observed decrease in sandstone porosities with depth provides the mechanism creating the abnormal pressures so frequently encountered in oil and gas reservoirs of South Louisiana.

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December 6, 1965

DONALD C. SWANSON, Humble Oil & Refining, Oklahoma City

"Major Controlling Factors in the Accumulation of Oil and Gas in the Anadarko Basin"