

THE FUTURE OF AMERICAN PETROLEUM GEOLOGYFRANK B. CONSELMAN¹

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The profession of petroleum geology has been in a continuing status of evolution since its inception a half century ago, and many more changes are to be expected in the years to come. This will undoubtedly influence the careers of the majority of geologists now engaged in professional work, and presumably revise the orientation of newly trained personnel.

Petroleum and natural gas are unique among mineral resources in that the various applications of the law of capture have called for a highly competitive exploratory effort. This has been responsible for a constant search for new and improved techniques, as the more obvious structural discoveries are made and the more obscure stratigraphic accumulations are sought. The abundance of geological prospects on this continent has made petroleum exploration a typically American specialty, but changing geographic factors are now coming into play, as emphasis shifts from the United States to foreign areas. These have economic, strategic, diplomatic and political ramifications, as well as personal and professional.

The future of petroleum geology is inextricably tied to the future of petroleum and natural gas as commodities. Technological changes within the industry will have a marked influence. They include refinery balance, increased use of natural gas and LPG products, fuel and power plant changes, automation, and competition from atomic and solar energy, and from H. E. chemical and "exotic" fuels, as well as others not yet apparent but inevitable.

Petroleum geology is now the dominant field of geological application, in terms not only of jobs, but college enrollments, faculty alignments, investment opportunities, and administrative or executive requirements. Changing economic factors will vitally affect the present balance and distribution of specialties and types of employment or sponsorship. Among other things, commercial geological emphasis will shift in part from oil finding to the geologically neglected phases of oil development and secondary recovery. Natural gas in this country will receive an increasing amount of attention as oil is sought more cheaply abroad.

As the profession comes of age, it will evidence its maturity by a decided improvement in its professional standards, as regards breadth and quality of training (including post-academic refresher courses), ethics, public relations, and intra-professional communication.

Statistical and graphical data are offered in illustration and extension of the foregoing, in an attempt to evaluate our present status and to analyze future trend possibilities.

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