

ABSTRACTS OF TECHNICAL PAPERS 1966-1967

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"Petroleum Geochemistry"

Within the last 15 years research in petroleum geochemistry has concentrated on three broad areas involving the origin, migration and accumulation of oil. Conflicting information of various kinds has been obtained by reputable investigators, making it difficult for the geologist in the field to interpret and apply the results. Problems of sampling have contributed to much of the confusion and should be considered more carefully. Pertinent data is brought together in an attempt to provide definitive answers to some of the questions asked most often by wellsite geologists.

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"Geophysics and the Exploration Team"

An outline is presented in which recent geophysical contributions to an improved over-all exploration program is designed to meet accelerating energy demands throughout the World, and declining oil and gas reserve-production ratios in the United States.

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*"Modern Geology Requires Modern
Technology"*

The marked increase in the use of computers by geologists is having a pronounced effect both in the field of oil and gas exploration and in management reporting. The number of geologists who are effectively using new computer techniques is increasing, but unfortunately at a rate slower than is justified by the versatility of these techniques. A number of geologists risk falling behind professionally be-

cause they are not remaining abreast of the latest technology which can be applied to their chosen field.

One of the problems facing the oil and gas industry is the assimilation of the large quantity of information which is being made available for the very first time through various computer file and retrieval systems. During 1966 the various well data systems, which include most of the United States and parts of Canada, released to their subscribers some one billion characters of basic well information in machinable form. The continuation of the work of these systems during 1967 will increase this volume of machinable data to approximately two billion characters of information. This is not new information; it is information which has been buried in the files of the oil and gas companies and the individual geologists because it was previously in a form which could not be analyzed effectively. A natural partner to this generation of large machine files is the development of programming techniques that offer much more powerful methods for analyzing geological data. In most cases, the publication of these new programs has been limited to special releases by state surveys and universities. There has been too little publication of the results of applying these programs to the analyses of geologic data in oil and gas producing basins of economic importance. Through simple illustrations and a few direct examples, it is possible to show how these techniques may lead directly to the finding of oil and gas prospects.

One of the most active areas of progress in management reporting has been the development of statistical data gathering and compilation techniques, led by the AAPG's Committee on Statistics. This effort has come at an opportune time for it fits in perfectly with a greatly increased demand for information, as voiced by the United States Department of Interior, with the increasing awareness of company management and state surveys of the importance of well statistics, and the efforts of the American Petroleum Institute to establish certain basic standards for the handling of well data.