

2. A. I. LEVORSEN, past-president, A.A.P.G., chairman A.A.P.G. research committee, Tulsa, Oklahoma: Research Program of The American Association of Petroleum Geologists.

3. E. E. ROSAIRE, Subterrex, Houston, Texas: Geochemical Prospecting (abstract).

Geochemical prospecting can be divided into surface and subsurface geochemical prospecting.

The former relies upon the analyses of soil samples collected along the surface of the earth at shallow depths, and yields two-dimensional information and maps. Surface geochemical anomalies are associated with the presence and areal extent, but not the depth nor the relief, or favorable structure. Surface geochemical prospecting is further divided into topsoil and subsoil geochemical prospecting.

Subsurface geochemical prospecting relies upon the analyses of well cuttings and cores. It yields information in one dimension, along the vertical, and is commonly referred to as geochemical well logging.

These various forms of geochemical prospecting are discussed, and their salient features described. The geochemical data permit the correlation of various geological and geophysical phenomena which previously appeared unrelated, and, in addition, have brought to light, for the first time, other phenomena of economic as well as theoretical interest.

4. PAUL P. GOUDKOFF, consultant, Los Angeles: Facies Changes in the Upper Miocene of San Joaquin Valley (abstract).

The paper deals with the Delmontian and upper Mohnian strata of the San Joaquin Valley, which are well known for their extreme lithological variations.

On the basis of lithological and paleontological studies of material obtained from 150 wells and several surface sections the whole column has been divided into a number of units representing definite time divisions. An attempt has been made to define the principal types of micro-faunal assemblages found in different parts of each unit, to appraise the ecological significance of these types and to survey their distribution in relation to lithological variations of the sediments of each unit.

The results of the study are illustrated by lantern slides showing: (1) lithological features and organic content of the recognized facies; (2) areal distribution of the facies; and (3) isopachous maps of the Delmontian and upper Mohnian beds.

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5. W. F. BARBAT, Standard Oil Company of California, Los Angeles: Pliocene of the San Joaquin Valley, California (abstract).

The Pliocene of the San Joaquin Valley is defined and a description given of the sediments and the invertebrate fauna. Attention is called to the diastrophic history, the geologic occurrence of land vertebrates, and to the physical conditions under which the sediments were deposited.

To facilitate the presentation of the subject several new names for stratigraphic units, faunal zones and diastrophic disturbances must, unfortunately, be used. To chronologize the Pliocene it will be necessary to refer to some heretofore unused time names. All new names, however, are used informally.

6. MAX STEINEKE, Standard Oil Company of California, Los Angeles: Arabian Geology and Topography (abstract).