Bathymetry and Sediments of Bay of Campeche, Gulf of Mexico

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During February and March, 1957, the Department of Oceanography and Meteorology, Agricultural and Mechanical College of Texas, conducted a cruise to the Bay of Campeche. Twenty-nine cores and one grab sample were collected at 30 stations. Approximately 1,5000 nautical miles of sounding tract was accomplished.

The sediment and bathymetric data indicate that the area can be subdivided into three broadly defined sedimentary and geomorphic provinces: (1) Western Bay, separated from the Southern Bay by a deep-water re-entrant of the Gulf of Mexico centered along 95° W. Longitude; (2) Southern Bay, separated from the Eastern Bay by Campeche Canyon; and (3) Eastern Bay.

The concave upper part and step-like lower part of the continental slope in the Western Bay suggest that the slope is structurally controlled and little modified by sedimentation. The convex upper part and highly irregular lower part of the continental slope in the Southern Bay suggest that the topography of the slope is the result of the behavior of unstable sediment under stress, as Gealy (1955) suggested for the topography of the Northwest Gulf of Mexico. It was not possible to shed new light on the origin of the continental slope off Campeche Bank in the Eastern Bay.

The sediments from the Western and Southern Bay were found to be composed mainly of clastic material which grades sharply seaward from sands near shore to silts and clays on the continental slope. The CaCO₃ content of the surface sediments increases seaward because of a relative increase in the quantity of Foraminifera and decrease in the quantity of clastic material. The clay mineral type changes seaward from dominantly kaolinite-illite on the continental shelf to dominantly montmorillonite on the continental slope. Calcareous sediments dominate the Eastern Bay Campeche Bank. Conclusive evidence of sediment displacement was found in cores from Campeche Canyon, and evidence suggesting sediment displacement was found in cores from the deep-water re-entrant between the Western and Southern Bay.

Challenge to Oil Exploration Management

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Domestic oil and gas exploration faces the greatest crisis in a generation, even without prejudice concerning foreign imports. Petroleum economist S. B. Jurenev has correctly analyzed the exploration end of operations as the crap game of oil and gas organizations. This gamble with its built-in speculative factor requires daring and imaginative and creative thinking of the non-conformist individual. Such persons must be given proper incentive and have a management willing to live with and benefit from a certain number of dry holes.

Responsibility rests with authority. More authority must be developed along decentralized lines down to the division and district level before better results can be achieved in the future. Parallel task forces of practical oil-finding personnel and research groups must combine their points of view to find oil at a profit. This requires better human relations and communications inside a company and across corporate fences with other companies.

45TH ANNUAL MEETING, ATLANTIC CITY, APRIL 25-28, 1960

Next year's A.A.P.G. annual meeting will be held at the Chalfonte-Haddon Hotel at Atlantic City, New Jersey, April 25-28, 1960. As usual, it will be a joint meeting with the Society of Economic Paleontologists and Mineralogists.

No over-all theme has been chosen. Instead the program is being arranged around