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Sedimentary Cycles in Eocene of Texas Gulf Coastal Plain

A typical sedimentary cycle of the Gulf Coastal Eocene consists of cross-bedded sands, well bedded sands, silty brown shale, unctuous brown shale, glauconitic brown shale, massive glauconite marl, gray calcareous shale, impure limestone, gray calcareous shale, unctuous brown shale, silty brown shale, well bedded sands, and cross-bedded sands listed in ascending order. Cycles of this type are rarely complete, most of them are broken or interrupted by disconformities. Most of the disconformities occur either at the base of the cross-bedded sands at the beginning of the cycle (regressional hiatus) or at the base of the massive glauconite marl (transgressional hiatus). The positions of the disconformities in the stratigraphic section of eastern and central Texas are shown. The magnitude of the hiatuses is estimated with the aid of new methods.

WEST TEXAS

16. TAYLOR COLE, University Lands, Midland, Texas
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Developments in West Texas and Southeastern New Mexico

Development in West Texas continued at about the same rate as during the previous two years, with 1,747 field wells being completed, and 119 wildcats. The percentage of wildcat strikes was unusually high in that 47 were producers while the percentage of dry holes was only 5.6%. Eighteen new discoveries (twice as many as during 1939) were recorded with fourteen from Permian rocks ranging from the Yates sand (upper Whitehorse) down to the upper portion of the Clear Fork. The four pre-Permian discoveries included one each from the Lower Pennsylvanian, Silurian, Simpson (Middle Ordovician), and Ellenburger (Lower Ordovician). Five of the new discoveries are in Crockett County. Many of the fields were extended considerably, and several geologically important wildcats were drilled.

The trend in exploration seems to be toward more and deeper wildcatting with probably a slow orderly development of the new discoveries except where near-expiration leases are held.

There have been very few improvements in drilling and production practices. Activity in geophysical exploration was at a high level in the central and southern portions of the Midland Basin and along the Eastern platform.

Development in southeastern New Mexico was less than the previous year with 542 wells being drilled. The percentage of dry holes (13.5%) ran higher than previously because of hazardous development in lenticular, irregularly cemented "sands" flanking the Artesia-Maljamjar nose on the south and north. Few deep exploratory tests were drilled in spite of contiguous areas of West Texas being productive from pre-Permian formations. Only two new discoveries were recorded from southeastern New Mexico, but several fields were extended considerably.

17. W. T. SCHNEIDER, Honolulu Oil Corporation, Midland, Texas
Geology of Wasson Field, Gaines and Yoakum Counties, Texas

The Wasson field is near the central part of the Staked Plains or "Llano Estacado," in southern Yoakum and northwestern Gaines counties. At present it occupies a triangular-shaped area 15 miles long and 14 miles wide containing approximately 59,000 acres or 93 square miles. It is still in an active state of development and has been defined at only a few points by dry holes.

Geologically, the field lies on the extended axis of the Central Basin platform, but appears to be separated from it by a trough in northern Gaines County. For the purpose of this paper the structural-stratigraphic feature under discussion will be referred to as part of North Basin platform.

Two major axes, one trending N. 60° W., the other N. 30° E., combine with several minor parallel axes to form a compound structure. The combined effect of the structural elements gives the whole the appearance of a terraced platform which has been tilted to the northeast by post-Permian movement.

The problem of stratigraphy is typical of West Texas in that massive, porous dolomites with fewer clastics form the highs and grade basinward into thicker sections of interbedded dolomite and anhydrite containing more clastic materials.