THE SUBSURFACE WILCOX OF SOUTH TEXAS

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ABSTRACT

The Wilcox (Eocene) group in South Texas may be defined as all the sedimentary beds above the marine Midway and below the marine Claiborne. Wilcox sedimentation occurred during a major regression of the sea between the transgressions of Midway and Claiborne time. Gradation of non-marine interbedded sands, clays, and lignites of deltaic origin into shallow-marine and lagoonal sands and shales occurs both in a downdip direction and laterally between deltaic and interdeltaic environments. The variable character of Wilcox deposition coupled with the absence of reliable paleontological markers make regional subsurface correlation and zonation very difficult.

Four major trends of Wilcox production have been arbitrarily established primarily on the basis of depth. Each trend is characterized by structural and stratigraphic conditions that account for most of the oil and gas accumulation. An understanding of the conditions conducive to the accumulation of hydrocarbons in these trends should be a valuable asset in locating new reserves in the Wilcox.

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