rite deposition. The present-day Gulf of Mexico, a large gravity maximum, appears to be closely related to the original salt depositional basin.

A more or less continuous bed of Louann salt is believed to underlie the entire Gulf Coastal basin. The Louann is probably the source or mother bed for all the salt found in the piercement domes of the four subbasins, which now exist within the Gulf Coast basin. Although the salt found in the downdip Texas-Louisiana Coastal basin domes theoretically could be younger than Louann, a study of the available evidence points to this salt also being Louann. The absence of salt domes in the "barren" or "void" band, which runs west-east from east-central Texas through central Louisiana and into southern Mississippi, may be due to shifting areas of sediment overburden, and (or) the possibility that salt was thinly depositied in this area.

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Raleigh Field, Smith County, Mississippi—Example of Lower Cretaceous Oil Field

The Raleigh field structure is illustrated at several horizons and in structural cross sections. The multiple-pay sand character of the field is presented as an example of the economic potential of the Lower Cretaceous in Mississippi. The evolution of industry exploration effort in the area is reviewed as an example of many of the other current and future prospects of the Gulf Coast area.

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Lac Blanc Field, Vermilion Parish, Louisiana

The purpose of this study is to show the relation between faulting, sedimentation, and accumulation of hydrocarbons as they occur in the Lac Blanc field. The Lac Blanc field is in White Lake which occupies the southwest part of Vermilion Parish, Louisiana. The structure of the field is that of a north-south striking anticline which is cut by a down-to-the-south normal fault.

Faulting in this area was contemporaneous with sedimentation as evidenced by thickening of sediments with depth on both sides of the fault.

Production comes from several sands which lie between the *Discorbis bolivarensis* and *Siphonina davisi* markers (lower Miocene) and are found on both the upthrown and downthrown sides of the fault.

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Miocene-Oligocene Boundary Problems in Gulf Coast

The Oligocene Vicksburg marine beds, the Frio massive sands and shales, and the Anahuac shales and limestones constitute one of the best known, yet controversial petroliferous sequences in the coastal Louisiana-Texas subsurface. The position of the Miocene-Oligocene boundary within this sequence has been the subject of many debates among Gulf Coast geologists. The problem originated when the middle Anahuac *Heterostegina* species were erroneously identified as *Heterostegina antillea* of the middle Oligocene on the Island of Antigua, British West Indies. The problem resulting from the assignment of the *Heterostegina* zone to the middle Oligocene on the basis of this species determination was further complicated by the application of the Texas surface term Frio to the sands and shales that occur between the Anahuac and Vicksburg. Later it was determined that the surface Frio of Texas was actually the equivalent of the subsurface Vicksburg; and that the so-called subsurface Frio was younger than previously believed.

Many proposals have been made for the placement of the Miocene-Oligocene contact in the Louisiana and Texas subsurface, each at a different stratigraphic level. The purpose of this paper is to establish the relation of the subsurface "*Cibicides*" *hazzardi* zone of the upper Frio with the fossiliferous surface units on the east in Mississippi, Alabama, and Florida by means of Ostracoda; not to establish an indisputable Miocene-Oligocene boundary.

The Tampa limestone (basal Miocene, Florida Geological Survey) has been assigned to the Aquitanian stage of Europe and correlated with the Paynes Hammock sand of Alabama and Mississippi by the United States Geological Survey. A detailed study of the Ostracoda of the basal Tampa and Paynes Hammock formations shows that they contain the same ostracode fauna. A similar study of the Ostracoda of the "*Cibicides*" *hazzardi* zone in the Superior Oil Company's Duplantier well No. 1, University field, East Baton Rouge Parish, Louisiana, points to a correlation of this unit with the basal Tampa and Paynes Hammock formations. Whether the correlation of the Tampa with the Aquitanian is correct is beyond the scope of this study; however, if correct, this does not necessarily establish a definite Miocene age for the upper Frio since the Miocene-Oligocene boundary in Europe is still in dispute.

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Little Creek Field, Lincoln and Pike Counties, Mississippi

The Little Creek oil field is in south-central Mississippi in the belt of production from the lower Tuscaloosa formation of Upper Cretaceous age. Prior to its discovery, only six other fields in this trend in Mississippi were expected to produce relatively large quantities of lower Tuscaloosa oil (in excess of 10,000,000 barrels ultimate). The discovery well, completed in January, 1958, was located on the basis of geophysics. The field developed very rapidly with 129 producing wells and 30 dry holes completed by the end of April, 1960.

Structural data show a gentle south-plunging nose. Only 30 feet of counter-regional dip is present; however, an oil column of about 110 feet indicates the presence of a structural-stratigraphic trap. The producing sand body has an irregular shape both in area and thickness. The thickest known occurrence of the sand is 81 feet and in many places it thins abruptly to zero.

The present daily average production is about 15,000 barrels of oil, or 127 barrels daily per well, and the ultimate production should be on the order of 25,000,000 barrels of oil.

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Turtle Bayou-Kent Bayou-North Turtle Bayou Complex

The Turtle Bayou-Kent Bayou-North Turtle Bayou Complex, located about 65 miles southwest of New Orleans in Terrebonne Parish, Louisiana, consists of three separate fields producing from middle Miocene strata. The producing structures appear to be two domal-like features south of a regional, east-west-trending, down-to-the-south normal fault. As it enters the complex, the regional fault splinters into several separate faults, and on the north side of each of the