

Abstract:

Lac Blanc Field, Vermilion Parish, Louisiana,\*

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The Lac Blanc Field was discovered in September, 1957 by the Superior Oil Company No. 1 St. Lease 3052. This well was a dual completion in reservoirs on the upthrown side of an essentially down-to-the-south fault and it turned out to be one of the most promising discoveries made that year in the Lower Miocene of southwest Louisiana. The Lac Blanc Field is located in White Lake which occupies the southwest portion of Vermilion Parish, Louisiana, and is approximately 25 miles southwest of Abbeville, and 58 miles southeast of Lake Charles, Louisiana.

The deepest test in the Lac Blanc Field does not reach the Siphonina davisi zone (Lower Miocene) although the Humble Oil Co. No. 2 St. Lease 3055 was drilled to 15,500 feet. The Discorbis bolivarensis zone, which overlies the Siphonina davisi zone, consists of approximately 2,500 feet of sand and shale (discovery well) and is the most outstanding producing section in the field.

Structurally, the field consists of two elongated anticlinal structures along an east-west line. The eastern structure is crossed by an east-west normal fault which dips to the south. Due to increased throw with depth, the east-west fault causes the top of the eastern structure to move southward so that on the deeper horizon maps this feature appears as a north-south elongated anticline. The western structure does not appear to be similarly affected by the fault and consequently remains in its original position at all depths.

Sand E, the deepest sand mapped, shows the fault with a throw of approximately 750 feet. The fault has increased its throw from 140 feet on the Bigennerina humblei horizon to the 750 feet on Sand E horizon.

Isopachous mapping between Cristellaris II and the top of Sand E shows approximately 500 feet of thinning over the upthrown side when compared to the downthrown side of the fault. This feature indicates strongly that faulting was contemporaneous with sedimentation. The structure of the field was probably produced by relative subsidence of an adjacent area which was the scene of the development of a syncline as a result of salt removal. The salt removed went to make the adjoining piercement salt dome reported to occur in the East White Lake Field which lies approximately 1.5 miles to the east. Thus the Lac Blanc Field represents an anticline formed on the outer rim syncline.

From its discovery to December, 1959, the Lac Blanc Field produced an accumulated total in excess of 1.3 billion cubic feet of gas, 33,500 barrels of condensate, and 89,700 barrels of crude oil. All of this production came from 12 wells producing from five or six sands.

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