

**MISSISSIPPI
STATE GEOLOGICAL SURVEY**

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**BULLETIN 44
FORREST COUNTY MINERAL
RESOURCES**

GEOLOGY

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CATAHOULA FORMATION

The Catahoula formation is not exposed at the surface in Forrest County but is reached by numerous wells at depths of 300 to 400 feet in the valleys of the Leaf and Bouie Rivers.

HATTIESBURG FORMATION

At Hattiesburg, the Hattiesburg formation, as exposed in the river bluffs, consists of thick beds of massive clays—150 or 200 feet thick—which contain some lime but very little sand. Wells in the vicinity of Hattiesburg and outcrops in the extreme northeastern corner of the county—as well as outcrops in the adjacent parts of Jones County—show that this thick clay bed is underlain by interbedded sands and clays, the sands increasing in prominence and becoming gravelly toward the base. Outcrops along the higher parts of the river bluffs at Hattiesburg and wells at Camp Shelby show that the thick clay bed is overlain by and grades upward into alternating fine-grained silty sands and clays similar to outcrops of the Pascagoula farther south. In some places this upper sand-clay zone—40 or 50 feet thick—is partly consolidated to a soft sandstone. This interval has usually been considered the uppermost member of the Hattiesburg formation and has been so mapped in the past. That is also the present conception of the oil geologists who have worked in the territory. The burning tests in the laboratory, however, show that the pyro-physical properties of this upper interval more closely resemble the burning properties of the known Pascagoula than of the underlying thick clay. Accordingly, one would be inclined to draw the Hattiesburg-Pascagoula contact at the top of the massive clay bed. However, in the absence of definite proof, it can only be stated that the contact between the two Miocene formations—the Hattiesburg and the Pascagoula—is either covered or gradational and so obscure that it cannot be definitely located.

PASCAGOULA FORMATION

Along the Pascagoula River, the type locality of the Pascagoula formation, an unconformity between the Hattiesburg formation and the overlying Pascagoula formation is supposed to be present. A search along the Pascagoula River from Pascagoula to Merrill and along the Leaf River from Hattiesburg to Beaumont failed to locate an unconformity. Although the out-