

INFLUENCE OF THE JACKSON DOME ON SEDIMENTARY FACIES AND WATER-BEARING PROPERTIES OF THE CLAI-BORNE GROUP IN THE JACKSON AREA, MISSISSIPPI

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This paper summarizes the effect of the diastrophic uplift which formed the Jackson dome, beginning in pre-Tertiary time and possibly continuing more or less actively into the middle Eocene, on the sedimentary cycles in the Claiborne group. The uplift and the accompanying compaction of sediments in the rim-syncline area affected the thickness, character, and attitude of the formations and thus established controls on the occurrence and quality of the ground water in them.

Isopachous maps and stratigraphic sections are presented to show the thickness of the Sparta sand and Cockfield formation on and around the dome; they indicate facies and thickness distribution of the sediments in these and several other units, and the size of the structure. Locally, lignitic material in the aquifers produces a straw color in the water which affects its usefulness for some purposes. The pertinent stratigraphic units and the two principal aquifers are described.

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