

**GEOLOGIC MAP**  
of the  
**COFFEEVILLE QUADRANGLE**  
Yalobusha County,  
Mississippi

Geology by Stephen L. Ingram, RPG

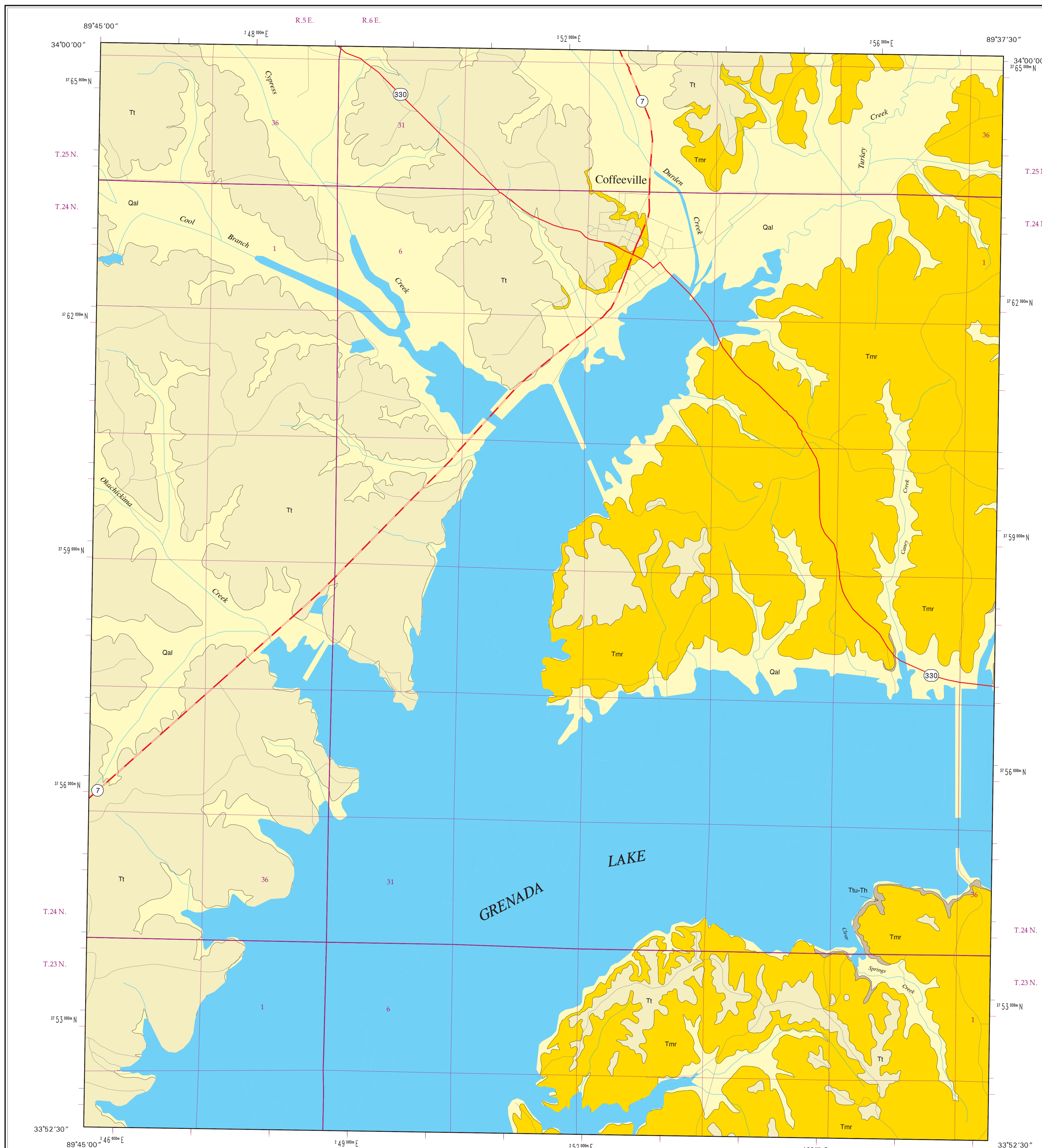
1999

**DESCRIPTION OF MAP UNITS**

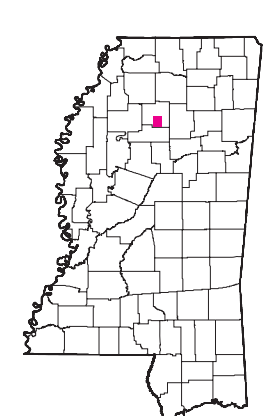
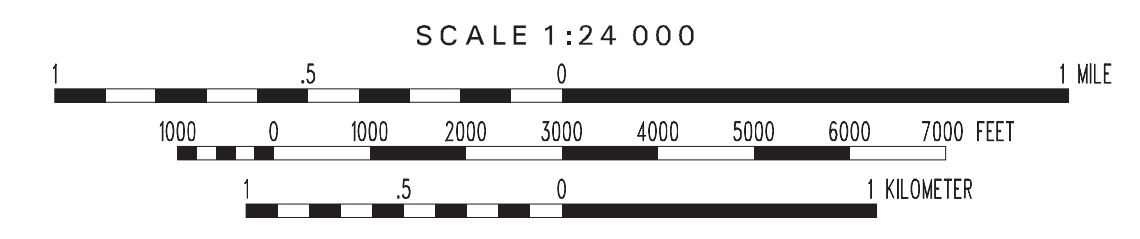
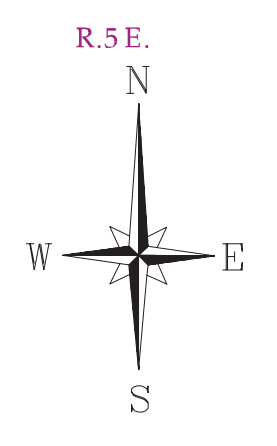
QUATERNARY HOLOCENE	Qal	<b>ALLUVIUM</b> Sand, flood plain sands and silts.
	Tt	<b>TALLAHATTA FORMATION</b> Sand, orange to yellow to white, very fine- to fine- to medium-grained quartz with rare coarse-grained quartz and granules, cross-bedded, micaceous, clay drapes and clay ripple laminae common, thin clay stringers common in places. This sand is equivalent in part to the Neshoba Sand Member. Clay, medium gray to medium brown, weathers light gray to buff to orange brown, laminated, intercalated with very fine-grained sand, micaceous, occasionally carbonaceous, burrows common, kaolinization common, indurated and/or case hardened siliceous claystone in places, quartzitic sand lenses may develop locally. This clay is equivalent in part to the Basic City Shale Member. The contact of the Basic City Shale and the underlying Meridian Sand is transitional, due in part to the development of sand in the lower unit of the Basic City Shale Member.
TERTIARY Eocene CLAIBORNE GROUP	Tmr	<b>MERIDIAN SAND</b> Sand, orange to yellow to white, coarse- to medium- to fine-grained quartz with occasional very fine-grained quartz and granules, cross-bedded to massive, micaceous, clay ripple laminae common, clay rip-up clasts in places, lenses of silty laminated clay in places, petrified wood rare, heavy minerals present. Ironstone and iron-cemented sandstone are common. The Meridian Sand is disconformably incised into the underlying formations as it overlies the underlying Hatchetigbee Formation and overlies the Tusahoma Formation.
	Ttu-Th	<b>TUSCAHOMA-HATCHETIGBEE FORMATION</b> Interbedded clay and sand. Clay, medium gray to dark gray, weathers to light gray to light brown, laminated, intercalated with very fine-grained sand, occasionally carbonaceous to lignitic. Sand, orange to yellow, fine- to very fine-grained quartz, laminated to cross-bedded, micaceous. Ironstone common in sands and clays. The Hatchetigbee and Tusahoma formations are indistinguishable in outcrop, but may be distinguished on geophysical logs in the area.

**STRUCTURE**

A significant change in structural relations occurs along the Tallahatta Formation outcrop belt between the Coffeeville and Kincaid quadrangles. In the Kincaid Quadrangle, to the south, the Tallahatta outcrop belt trends northwest, diagonally across that quadrangle. However, in the Coffeeville Quadrangle, the Tallahatta outcrop turns abruptly northeast, diagonally across that quadrangle, at roughly 90 degrees, normal to the outcrop in the Kincaid quadrangle. This change in structural relations appears to coincide with structure associated with evolution of the Mississippi Embayment. Several similar structural offsets also occur further north along the Tallahatta outcrop belt, up to the Mississippi-Tennessee state line.



GEOLOGIC MAP  
COFFEEVILLE QUADRANGLE  
Yalobusha County,  
Mississippi



Geology field checked in 1998 using the Provisional Edition 1983 U.S. Geological Survey 7.5-minute topographic quadrangle, 1927 North American datum, contour interval 20 feet, supplementary contour interval 5 feet.  
Mississippi Transverse Mercator projection, 1983 North American datum, GRS80 spheroid, 1000-meter Universal Transverse Mercator grid ticks, zone 16; 1983 datum shown in red, 1927 datum shown in blue.  
Sources: Road and water features, USGS Digital Line Graph data, 1:100,000 scale. Public Land Survey System, Mississippi Automated Resource Information System (MARIS), 1:24,000 scale. Geographic Information System by Daniel W. Morse.