MISSISSIPPI OFFICE OF GEOLOGY
OPEN–FILE REPORT 76

GEOLOGIC MAP
of the
KINCAID QUADRANGLE
Grenada and Yalobusha Counties, Mississippi

Geology by Stephen L. Ingram, RPG

1999

DESCRIPTION OF MAP UNITS

QUATERNARY — HOLOCENE

Qal — ALLUVIUM

Sand, flood plain sands and silts.

TERTIARY — EOCENE — CLAIBORNE GROUP

Tt — TALLAHATTA FORMATION

Sand, orange to yellow to white, fine- to medium-grained quartz with occasional very fine-grained quartz, cross-bedded, occasionally micaceous and kaolinized, clay drapes and clay ripple laminae common, thin clay stringers common in places, heavy minerals present. 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, silty, occasionally carbonaceous, kaolinization common, indurated and/or case hardened silicic claystone in places, quartzitic sand lenses may develop locally, pebble-sized clay clasts in places at contact with underlying Meridian Sand. 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.

Tmr — MERIDIAN SAND

Sand, orange to yellow to white, fine- to medium-gained quartz with coarse-grained quartz in places, occasional granules and pea-gravel, cross-bedded to massive, micaceous, clay ripple laminae common, thin clay lenses. Ironstone and iron-cemented sandstone are common. The Meridian Sand is disconformably incised into the underlying formations as it oversteps the underlying Hatchetigbee Formation and onlaps the Tuscahoma Formation.

PALEOCENE — WILCOX GROUP

Ttu-Th — TUSCAHOMA-HATCHETIGBEE FORMATION

Interbedded clay and sand. Clay, medium gray to dark gray, weathers to light gray to light brown, laminated, plastic and/or silty in places, intercalated with very fine-grained sand, occasionally kaolinized. Sand, orange, very fine-grained quartz, laminated. Ironstone common in sands and clays. The Hatchetigbee and Tuscahoma formations are indistinguishable in outcrop, but may be distinguished on geophysical logs in the area.

GEOLOGIC MAP

KINCAID QUADRANGLE

Grenada and Yalobusha Counties, Mississippi

SCALE 1:24 000

1 .5 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

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.