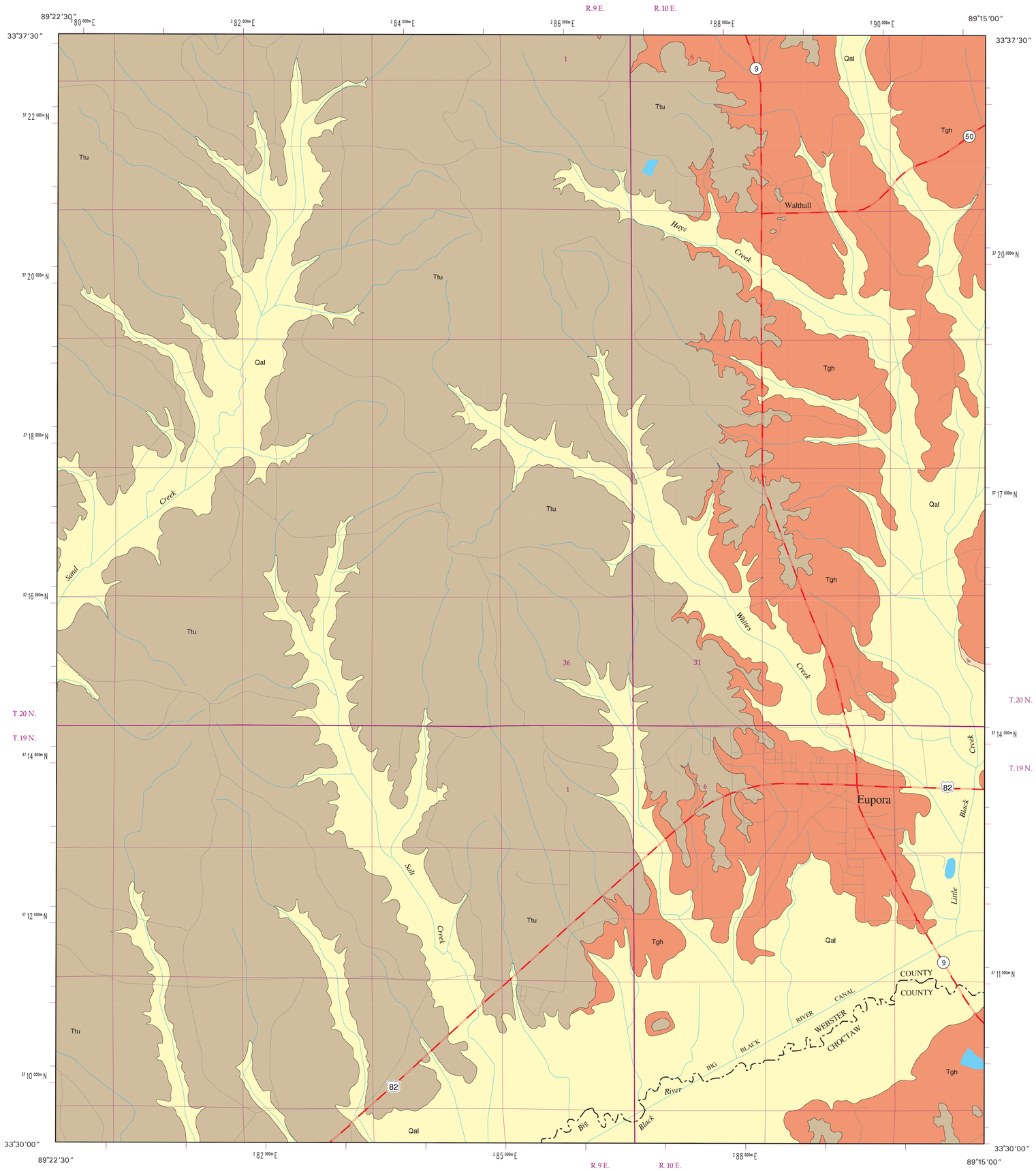

MISSISSIPPI OFFICE OF GEOLOGY
OPEN–FILE REPORT 59

GEOLOGIC MAP
of the
EUPORA QUADRANGLE
Webster and Choctaw Counties, Mississippi

Geology by David E. Thompson

1998

DESCRIPTION OF MAP UNITS

QUATERNARY
HOLOCENE

Qal — ALLUVIUM

Sand, flood plain sands and silts.

TERTIARY
PALEOCENE
WILCOX GROUP

Ttu — TUSCAHOMA FORMATION

Sand, dark greenish gray to light gray, weathers reddish orange to pale yellow orange, very fine- to coarse-grained, quartzose, micaceous, carbonaceous, glauconitic. Interbedded to interlaminated with clay and silt, light olive gray to brownish black, weathers to various shades of red, gray, brown, or white; lignite, contains Red Hills Mine equivalent lignite seams H through L. Total thickness is 400 feet; the maximum thickness present in the quadrangle is approximately 300 feet in the southwestern region. Basal sandy interval constitutes the Middle Wilcox Aquifer.

Tgh — NANAFALIA FORMATION

Grampian Hills Member

Clay and silt, medium gray to pale green, weathers to various shades of red, brown, and gray, carbonaceous, lignitic, contains Red Hills Mine equivalent lignite seams C through G; interbedded to interlaminated with sand, dark greenish gray to medium gray, weathers reddish orange to pale yellowish orange, very fine- to medium-grained, quartzose, micaceous, carbonaceous, and glauconitic. Basal portion is typically sandy. Thickness is 130 feet.

Tgc — Gravel Creek Sand Member

Sand, medium gray to very light gray, weathers reddish orange to pale yellowish orange, very coarse- to fine-grained, typically fining upward, quartzose, micaceous, clay clast conglomerate; upper portion consists of clay, dark gray to light gray, typically dense, occasionally silty, carbonaceous to lignitic. Contains Red Hills Mine equivalent lignite seams A and B. Thickness is 80 to 110 feet; only the upper 10 to 20 feet are exposed along the eastern edge of the quadrangle. Unconformity at base. Basal sandy interval (along with the underlying Coal Bluff sand) constitutes the Lower Wilcox Aquifer.

GEOLOGIC MAP
EUPORA QUADRANGLE
Webster and Choctaw Counties, Mississippi

N S W E

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 1997 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 10 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.