

MISSISSIPPI OFFICE OF GEOLOGY
OPEN-FILE REPORT 52

GEOLOGIC MAP
of the
ACKERMAN QUADRANGLE
Choctaw County, Mississippi



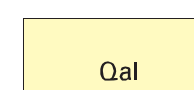
Geology by David E. Thompson

1997

DESCRIPTION OF MAP UNITS

QUATERNARY
HOLOCENE

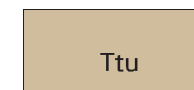
ALLUVIUM



Sand, flood plain sands and silts.

TERTIARY
PALEOCENE
WILCOX GROUP

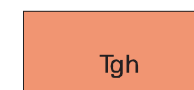
TUSCAHOMA FORMATION



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 lignite seams H through L. Total thickness is 400 feet; however, the thickness present in the quadrangle is approximately 330 feet in the southwest corner. Basal sandy interval constitutes the Middle Wilcox Aquifer.

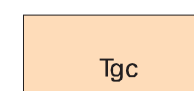
NANAFALIA FORMATION

Grampian Hills Member

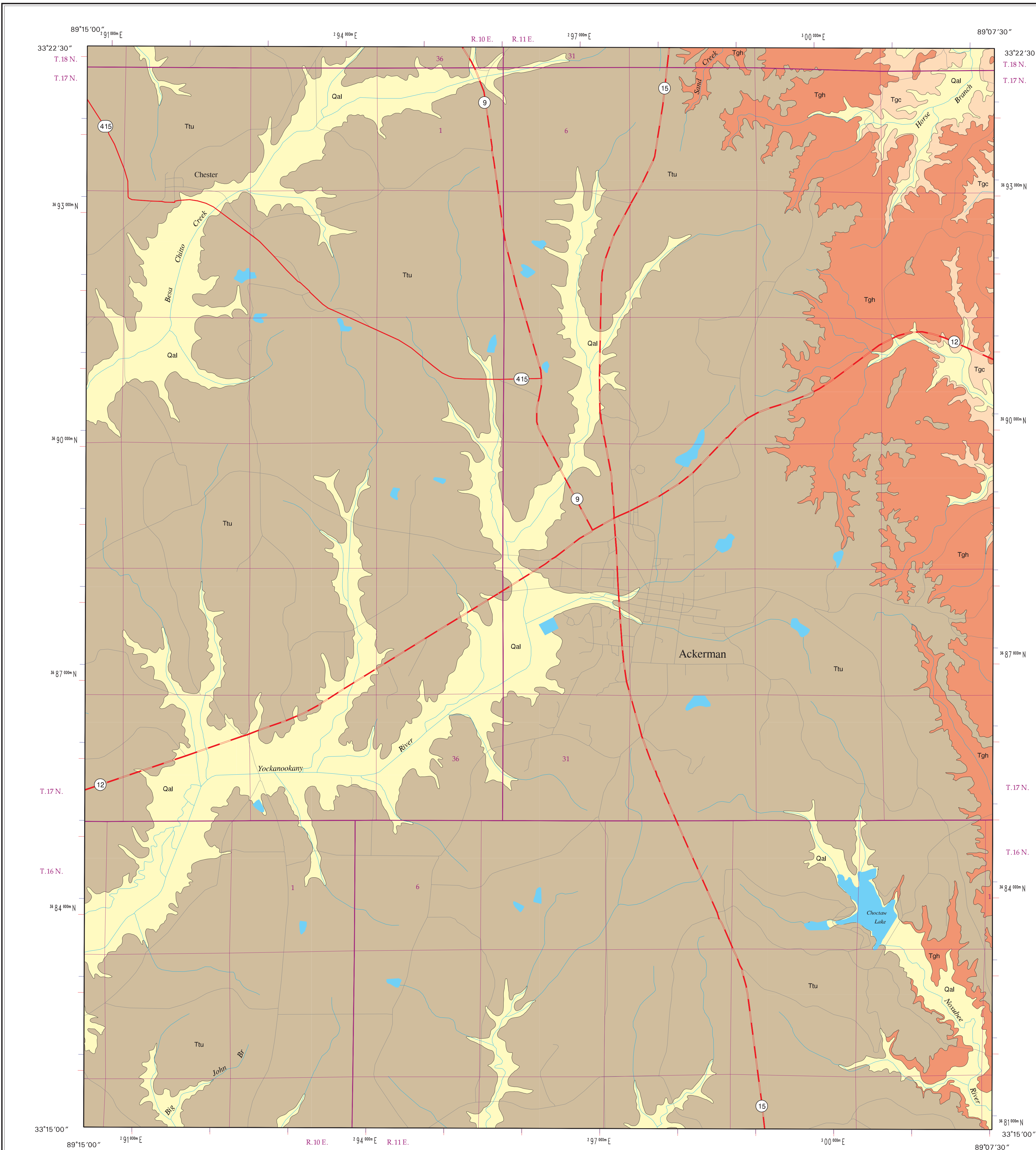


Clay and silt, medium gray to pale green, weathers to various shades of red, brown, and gray, carbonaceous, lignitic, contains Red Hills Mine lignite seams C through G; interbedded to interlaminated with sand, dark greenish gray to medium gray, weathers reddish orange to pale yellowish orange, very fine-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

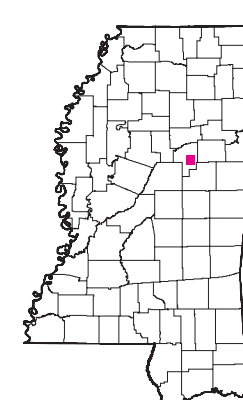
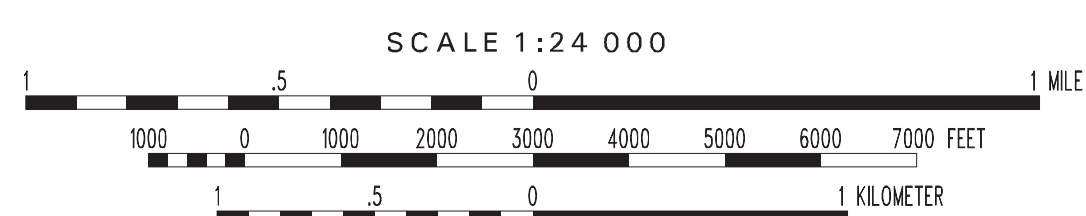
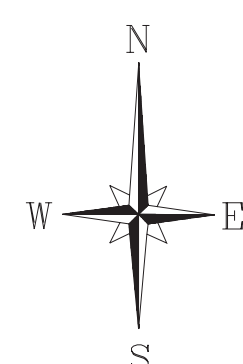
Gravel Creek Sand Member



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 lignite seams A and B. Thickness is 80 to 110 feet; only the upper 70 feet are exposed in the northeastern portion of the quadrangle. Unconformity at base. Basal sandy interval (along with the underlying Coal Bluff sand) constitutes the Lower Wilcox Aquifer.



GEOLOGIC MAP
ACKERMAN QUADRANGLE
Choctaw County, Mississippi



Geology field checked in 1997 using the 1972 U.S. Geological Survey 7.5-minute topographic quadrangle, 1927 North American datum, contour interval 20 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.