

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
 OFFICE OF GEOLOGY
 OPEN-FILE REPORT 220
GEOLOGIC MAP
 of the
BUCKATUNNA QUADRANGLE
 Wayne County, Mississippi



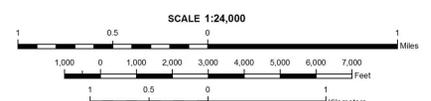
Geology by D. Kenneth Davis
 and James E. Starnes, GIT

2008

DESCRIPTION OF MAP UNITS

- | | | | |
|------------|----------------------|------------|--|
| QUATERNARY | HOLOCENE | Qal | ALLUVIUM
Flood plain sands, silts, gravels, and clays. |
| | PLEISTOCENE | Qt | TERRACE DEPOSITS
Sand, yellow, orange, purple, red, pink, fine- to coarse-grained, predominantly quartzose, sparingly graveliferous, pea to small cobble size, predominantly quartz with lesser amounts of chert. Conglomeratic ironstone ledges are common in the graveliferous sands at the base of the terrace, which unconformably overlie the Catahoula and Hattiesburg formations. Terrace deposits cap the flat-topped divide between the Chickasawhay River and Buckatunna Creek. |
| TERTIARY | MIOCENE | Tha | HATTIESBURG FORMATION
Clay, green, gray, brown, weathers white- to brown and contains opaline concretions in places, silty- to sandy (silt commonly weathers to mottled reddish-purple and gray, dense, ferruginous concretionary masses), locally lignitic near the base of the formation; sand, gray, pale yellow- to white, fine-grained, cross-bedded to massive, often indurated to sandstones and siltstones at the surface, predominantly quartzose with lesser amounts of chert, metaquartzite, mica, and dark-grain heavy minerals. The base of the Hattiesburg Formation is placed at the base of a sand unit of regional extent, which is correlated with the base of the Fleming Formation in Louisiana and the middle-Miocene Amos Sand in Alabama. |
| | MIOCENE - OLI-GOCENE | Tca | CATAHOULA FORMATION
Sand, gray, pale yellow to white, fine- to coarse-grained, cross-bedded to massive with rare thinly-bedded pea gravels (gravels consist of highly-polished, subangular- to well-rounded, black chert and milky quartz), often indurated to sandstones at surface, predominantly quartzose with lesser amounts of chert, metaquartzite, mica, and dark-grain heavy minerals, slightly glauconitic in places, silicified wood and fossil palm common; clay, green, gray, brown, weathers white to brown, silty- to sandy, lignite common in basal clays. |
- Y - 42** Drill-hole locality and identification number

GEOLOGIC MAP
BUCKATUNNA QUADRANGLE
 Wayne County, Mississippi



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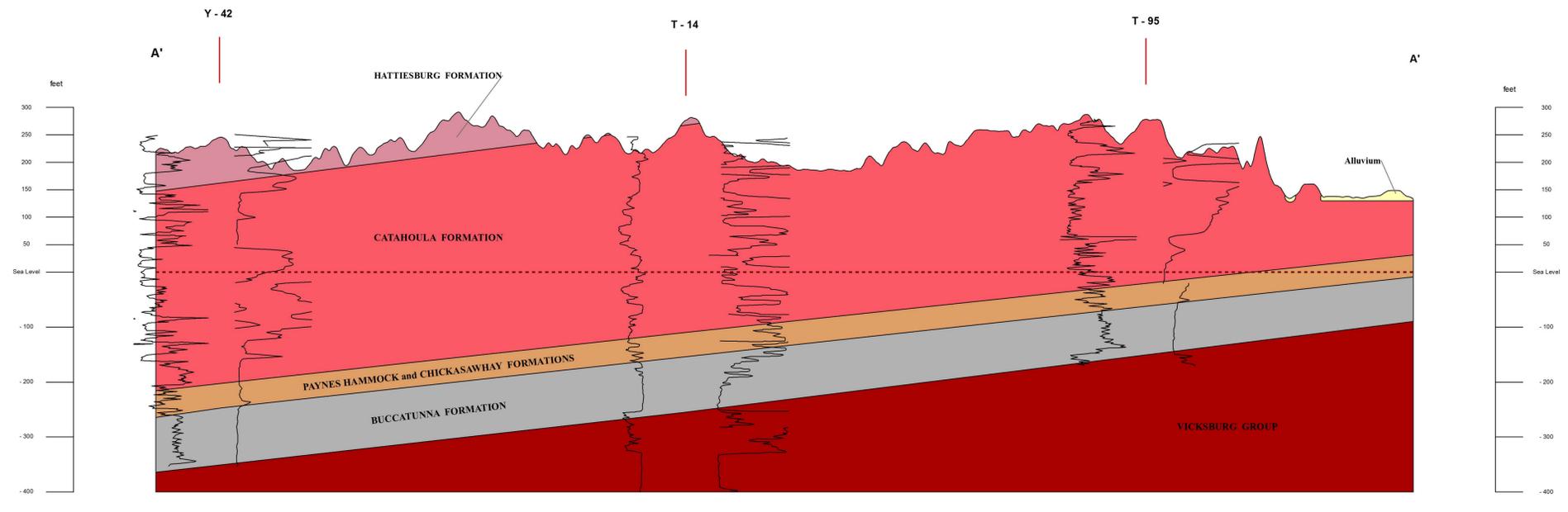
Geology field checked in 2008 using the 1964, photorevised 1982, U.S. Geological Survey 7.5-minute topographic quadrangle, 1927 North American datum, contour interval 10 feet. Mississippi Transverse Mercator projection, 1983 North American datum, GRS80 spheroid, 1000-meter Universal Transverse Mercator grid ticks, zone 16; 1983 datum shown in red; 1927 datum shown in blue. January 2008, magnetic north declination in quadrangle center is 0°54' west of true north.

Sources: Road features, USGS Digital Line Graph data, 1:100,000 scale. Water features, USGS National Hydrography Dataset, 1:24,000 scale. Public Land Survey System and contours, Mississippi Automated Resource Information System (MARIS), 1:24,000 scale. Declination, National Oceanic and Atmospheric Administration (NOAA).

Geographic Information System by Daniel W. Morse, MDEQ does not warrant the accuracy or completeness of the source data. Geologic maps are only a guide to current understanding and do not eliminate the need for detailed investigations of specific sites for specific purposes.

This map was produced by the Mississippi Office of Geology in cooperation with the United States Geological Survey, National Geologic Mapping Program, under STATEMAP grant #07HQAG0066.

Structural Cross-Section of the Buckatunna 7.5-Minute Geologic Quadrangle



Vertical Exaggeration X 20

