



MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF GEOLOGY
OPEN-FILE REPORT 283

GEOLOGIC MAP
of the
BASIN QUADRANGLE

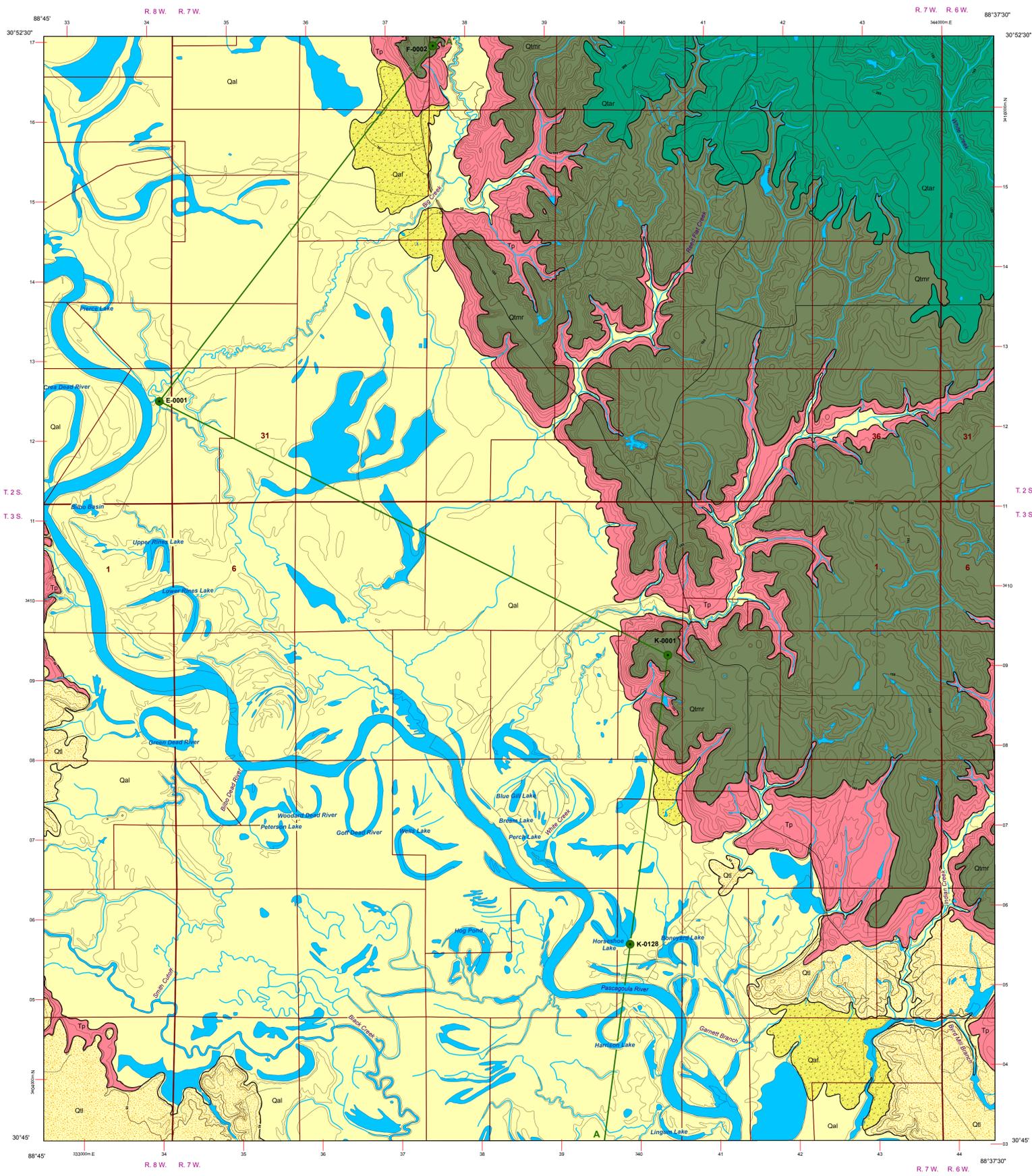
George County, Mississippi



Geology by James E. Starnes, RPG
and R. Tyler Berry, RPG



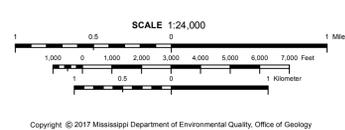
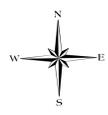
2017



QUATERNARY	HOLOCENE	PLEISTOCENE	TERTIARY	MIOCENE	
ALLUVIAL FAN Alternating silts, sands, and gravels. Coarsest at the apex of the fan, fining laterally (radially) from the apex of the fan.		ALLUVIUM Flood plain sands, silts, gravels, and clays.		LOW TERRACE Stream terrace. Sand, orange to tan colored, fine- to coarse-grained, predominantly quartzose, cross-bedded to massive; graveliferous, pea- to cobble-size, predominantly chert and milky quartz; clay, kaolinitic, pink to white, generally occurring as discontinuous lenses.	
MOVELLA HIGH TERRACE Sand, orange to tan colored, fine- to coarse-grained, predominantly quartzose, cross-bedded to massive; graveliferous, pea- to cobble-size, predominantly leached to chalky brown, grey, and white-colored chert and milky quartz; clay, kaolinitic, pink to white, generally occurring as discontinuous lenses. Ironstone and botryoidal pyrolite common in basal contact with the underlying Pascagoula Formation.		AGRICOLA HIGH TERRACE Sand, orange to tan colored, fine- to coarse-grained, predominantly quartzose, cross-bedded to massive; graveliferous, pea-size, predominantly leached to chalky brown, grey, and white-colored chert and milky quartz; clay, kaolinitic, pink to white, generally occurring as discontinuous lenses. Ironstone and botryoidal pyrolite common in basal contact with the underlying Pascagoula Formation.		PASCAGOULA FORMATION Shallow marine to intertidal and deltaic deposits, contains the marker fossil, <i>Rangia johnsoni</i> . Clay, green, gray, brown, and white, locally lignitic, locally calcareous and fossiliferous. Weathers mottled purple to pink and white to reddish-brown, silty to fine-sandy. Sand, dark greenish-gray and glauconitic, micaceous, locally lignitic, fine- to coarse-grained, predominantly quartzose; graveliferous, pea- to small-cobble size consisting of black, brown, and grey-colored chert and milky quartz, subangular to well rounded. Silicified wood common.	



GEOLOGIC MAP
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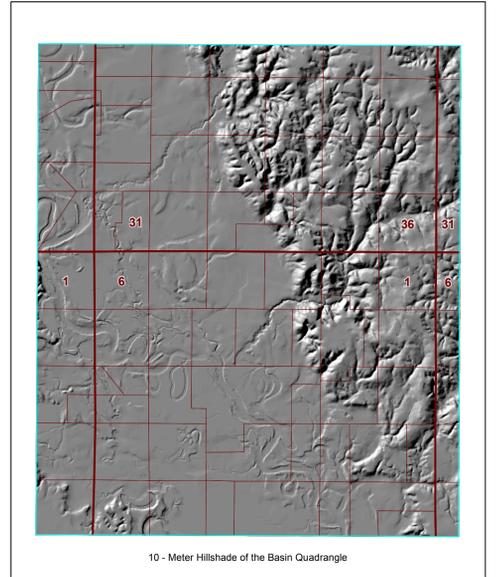


Geology field checked in 2016 - 2017 using the 1982, Provisional Edition, United States Geological Survey (USGS) 7.5-minute topographic quadrangle, Universal Transverse Mercator projection, 1927 North American datum, contour interval 10 feet, Universal Transverse Mercator projection, 1983 North American datum, GRS80 spheroid, 1000-meter Universal Transverse Mercator 1983 datum grid ticks, zone 16, shown in red. January 2017, magnetic north declination in quadrangle center is 1°45' west of true north, ± 0'20" uncertainty, changing by 0'6" west per year.

Sources: Contours derived from Mississippi Automated Resource Information System (MARIS); Public Land Survey System, 1:24,000 scale, from MARIS; water features derived from the USGS National Hydrography Dataset (NHD); road features derived from the Mississippi Department of Transportation (MDOT) road centerlines, 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 Cooperative Geologic Mapping Program, under STATEMAP grant #G16AC00289.



10 - Meter Hillshade of the Basin Quadrangle

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

