

MISSISSIPPI DEPARTMENT OF
ENVIRONMENTAL QUALITY
OFFICE OF GEOLOGY
OPEN-FILE REPORT 278

GEOLOGIC MAP
of the
BEATRICE QUADRANGLE

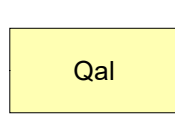
Stone, Harrison, Jackson, and George
Counties, Mississippi



Geology by James E. Starnes, RPG

2016

QUATERNARY
HOLOCENE

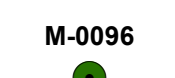


ALLUVIUM
Flood plain sands, silts, and clays.

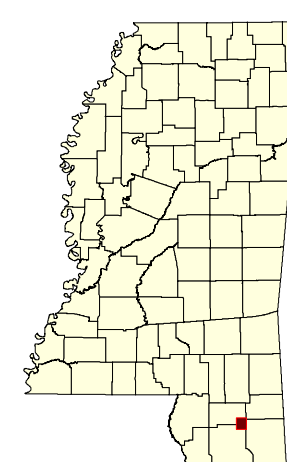
TERTIARY
PLIOCENE



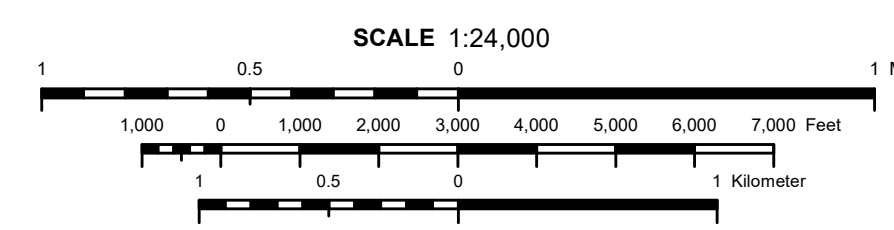
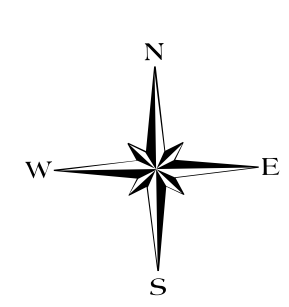
GRAHAM FERRY FORMATION
Sand, dark greenish-gray, yellow to tan, micaceous and glauconitic (exclusively in the fine-grained sands), fine- to coarse-grained, predominantly quartzose, cross-bedded to massive. Weathers to orange, purple, red, pink with reddish-brown colored pebbly ironstone residuum; Clay, green, gray, brown, weathers mottled purple to pink and white to reddish-brown, silty to fine-sandy, locally lignitic and contains pyrite nodules in places. The upper portion of the basal Graham Ferry sand was encountered in Test Hole M-0096. The total thickness of the sand was not fully penetrated through to the contact with the underlying Pascagoula Clay due to the repeated loss of circulation within the sand.



Drill-hole locality and identification number



GEOLOGIC MAP
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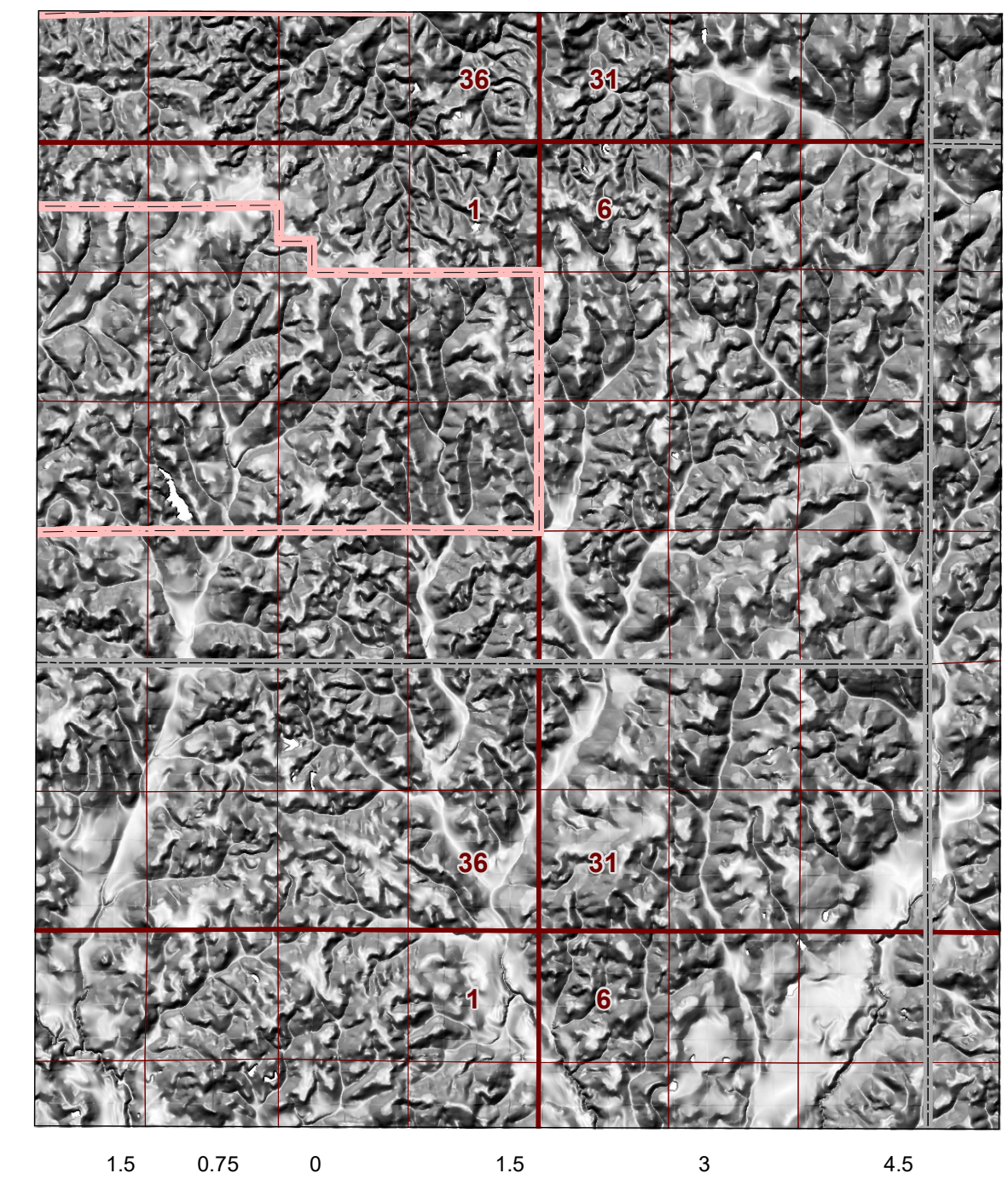
Geology field checked in 2015 using the 2000, revised, U.S. Geological Survey 7.5-minute topographic quadrangle, Universal Transverse Mercator projection, 1927 North American datum, contour interval 10 feet. Universal Transverse Mercator projection, 1983 North American datum, GRS80 spheroid, 1000-meter Universal Transverse Mercator 1983 datum grid ticks, zone 16, shown in red. January 2016, magnetic north declination in quadrangle center is 1°27' west of true north, 0°20' uncertainty, changing by 0°7' 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 7.5 minute Digital 2012 USOTOPO; road features derived from the Mississippi Digital Earth Model (MDEM); Declination, National Oceanic and Atmospheric Administration (NOAA). We thank the US Forest Service for their cooperation and for facilitating the data collection and field work necessary for this mapping project.

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 #G15AC00220.

Digital Elevation Model 10 Meters (DEM10m) of the Beatrice Quadrangle



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

