

Description of Map Units

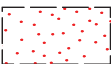
QUATERNARY SYSTEM

HOLOCENE

Ha

Holocene undifferentiated alluvium—Undifferentiated deposits of small upland streams; unconsolidated alluvial deposits of minor streams and creeks filling valleys incised into older deposits, with textures varying from gravelly sand to sandy mud. The Holocene alluvium underlying the flood plain of the Vermilion River also includes sandy and silty sediments of the Red and Mississippi rivers. These sediments were deposited during periods when floodwaters of either river overflowed into the Vermilion River course.

PLEISTOCENE



LOESS—Eolian silt veneer of late Wisconsin age (Peoria Loess) mantling Pleistocene strata. Loess is 3–5 m thick in Lafayette quadrangle (Miller, 1983) and consists of gray to brown clayey silt to silty clay, in places with rootlets, organic matter, calcareous and/or iron-oxide stains and/or nodules, light gray to dark brown mottles, and some very fine to fine sand.

PRAIRIE ALLOGROUP

Ppav

Avogelles alloterrace—Meander-belt deposits of the late Pleistocene Mississippi River, terraced above and parallel to its western valley wall and incised into the underlying Beaumont Alloterrace. The surface is occupied by relict channels of the Lafayette meander belt. Gray, tan, and brown clay, silt, and sand, in places calcareous and/or carbonaceous, or with clay pockets, silt seams, laminae of clayey silt and sand, sand layers, organic matter, iron-oxide stains and/or nodules (≤ 2 mm), and brown mottles. In the Lafayette area and vicinity a thin blanket of overbank sediment overlies the Beaumont Alloterrace adjacent to the edge of the Lafayette meander belt (Mateo, 2015), and could not be mapped.

Ppbe

Beaumont Alloterrace—Coastal-plain deposits of late to middle Pleistocene streams, forming the oldest and topographically highest of the Prairie surfaces of southwestern Louisiana. Gray, tan, brown, and red clay, silt, and sand, in places with Fe nodules (≤ 2 mm). Subsurface data indicate that in its upper 80+ m the unit in places shows a transition from fining-upward gravel, overlain by coarse sand and gravel, to fining-upward sand (coarse to fine) and clay at the surface. In areas to the north and west of the study area the surface exhibits relict channels of the Red, Mermentau, and Calcasieu Rivers, and the unit includes deposits of the Ingleside barrier trend (Houston Ridge).



Open Water, Inundated Area, Wetland

Contact—includes inferred contacts.

Streams

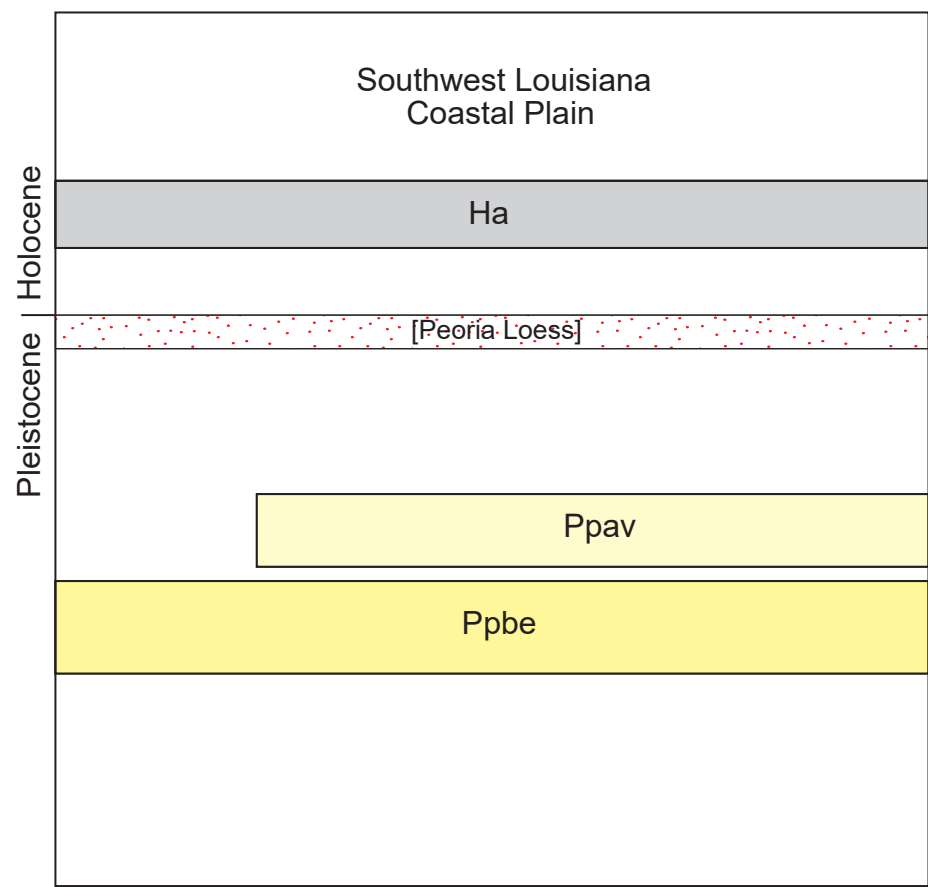
Topographic Contours

References:

Mateo, Z. R. P. 2005. Fluvial response to climate and sea-level change, Prairie Complex, Lower Mississippi Valley. M.S. thesis, University of Illinois, Chicago, 66 p.

Miller, B. J. (compiler), 1983. [Distribution and thickness of loess in Lake Charles, Louisiana 1 x 2 degree quadrangle]: Louisiana State University Department of Agronomy, Louisiana Agricultural Center, Louisiana Agricultural Experiment Station, Baton Rouge, unpublished map, Louisiana Geological Survey, scale 1:250,000.

Correlation of Map Units



Produced and published by the Louisiana Geological Survey
3079 Energy, Coast & Environment Building, Louisiana State University
Baton Rouge, LA 70803 • 225/578-5320 • www.lsu.edu/lgs/

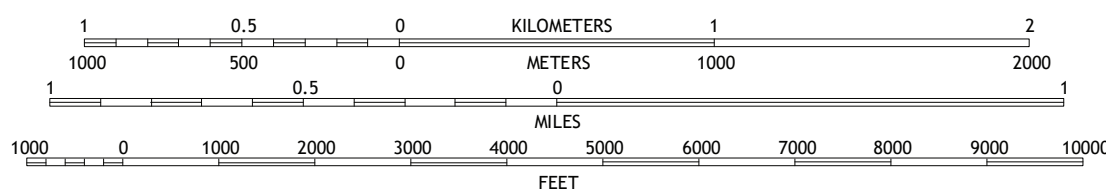
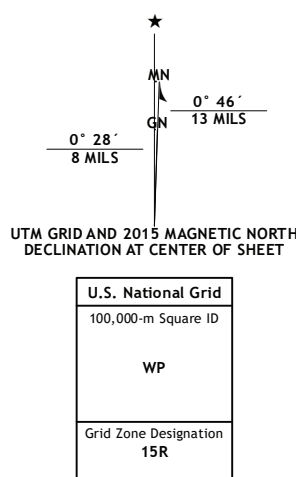
This geologic map was funded in part by the USGS National Cooperative Geologic Mapping Program under STATEMAP award number G16AC00183, 2016.

Copyright ©2017 by the Louisiana Geological Survey

Geology by: Paul V. Heinrich and Richard P. McCulloh

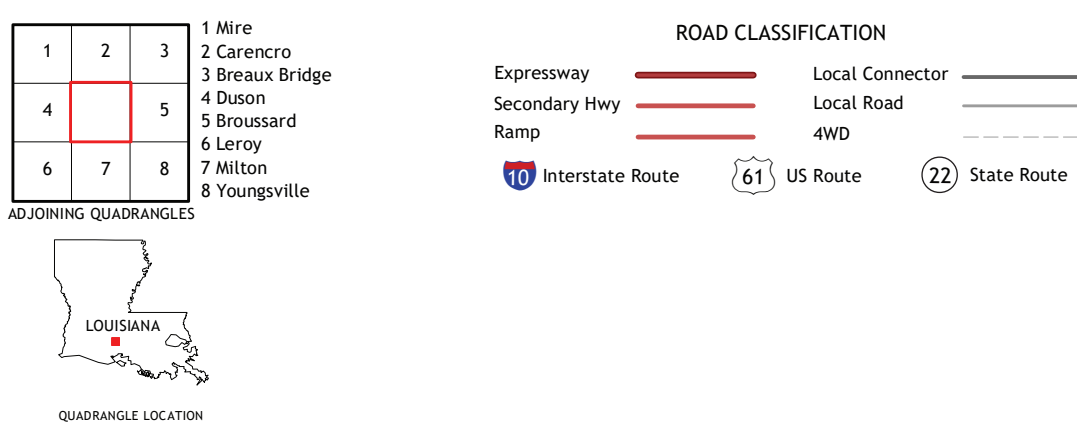
GIS Compilers: Robert Paulsell, Richard P. McCulloh, and Paul V. Heinrich

Cartography by: Lisa Pond and Robert L. Paulsell



SCALE 1:24,000

Base map from U.S. Geological Survey 1:24,000 GeoPDF
National Geospatial Program US Topo Product Standard, 2011.
Universal Transverse Mercator Projection, Zone 15
North American Datum 1983 (NAD 83)
Contour Interval 5 Feet
National Geodetic Vertical Datum 1988



Base Map.....United States Geological Survey, 2020
Boundaries.....LaDOTD, 2007
Contours.....National Elevation Dataset, 2008 - 2011
Hydrography.....National Hydrography Dataset, 2002 - 2017
Names.....GNIS, 1980 - 2017
Roads.....U.S. Census Bureau, 2017
Wetlands.....FWS National Wetlands Inventory 2021

Geologic Map of the Lafayette 7.5 minute quadrangle
Lafayette and Vermillion Parishes, Louisiana