

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.
- Hb** **Backswamp deposits**—fine-grained Holocene deposits of rivers, underlying the flood basins between meander belts.
- Hm1u** **Natural levee complex of Mississippi River meander belt 3, upper deposits**—Deposits composing low natural levees flanking the younger (Bayou Teche) of two occupations of Mississippi River meander belt 3.
- Hm2u** **Crevasse complex of Mississippi River meander belt 3, upper deposits**—silty to sandy crevasse channel and splay deposits originating from the youngest (Bayou Teche) occupation of Mississippi River meander belt 3.
- Hm3** **Meander-belt of the Teche course of the Red River**—brownish red point bar and overbank deposits of the relict course of the Red River that have accumulated within the Bayou Teche occupation of Mississippi River meander belt No. 3. Locally, these deposits may include younger natural levee and overbank deposits of the modern Bayou Teche that are too small to map at this scale.
- Hm3l** **Mississippi River meander belt 3, lower deposits**—Point bar deposits of an older (Bayou Portage) occupation of Mississippi river meander belt 3.

QUATERNARY UNDIFFERENTIATED

- Qc** **Quaternary colluvium**—undifferentiated colluvial deposits forming lobate to apronlike landforms.

PLEISTOCENE

- LOESS**—Eolian silt veneer of late Wisconsin age (Peoria Loess) mantling Pleistocene strata. Loess is 3-5 m thick in Broussard 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

- Ppbcu** **Upper Big Cane alluviation**—Stratigraphically higher sequence underlying the lower of two geomorphic surfaces developed on the Big Cane alluviation. Gray to brown sand and silty sand, in places with traces of gravel.
- Ppbcl** **Lower Big Cane alluviation**—Stratigraphically lower sequence underlying the higher of two geomorphic surfaces developed on the Big Cane alluviation. Brown sand, in places with traces of gravel, iron-oxide stains, and organic matter.
- Ppav** **Ppav**—Avoiselles alluviation—Meander-belt deposits of the late Pleistocene Mississippi River, terraced above and parallel to its western valley wall and incised into the underlying Beaumont Alluviation. 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 (5-2 mm), and brown mottles. In the Lafayette area and vicinity a thin blanket of overbank sediment overlies the Beaumont Alluviation adjacent to the edge of the Lafayette meander belt (Mateo, 2015), and could not be mapped.
- Ppbe** **Ppbe**—Beaumont Alluviation—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 (5-2 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).

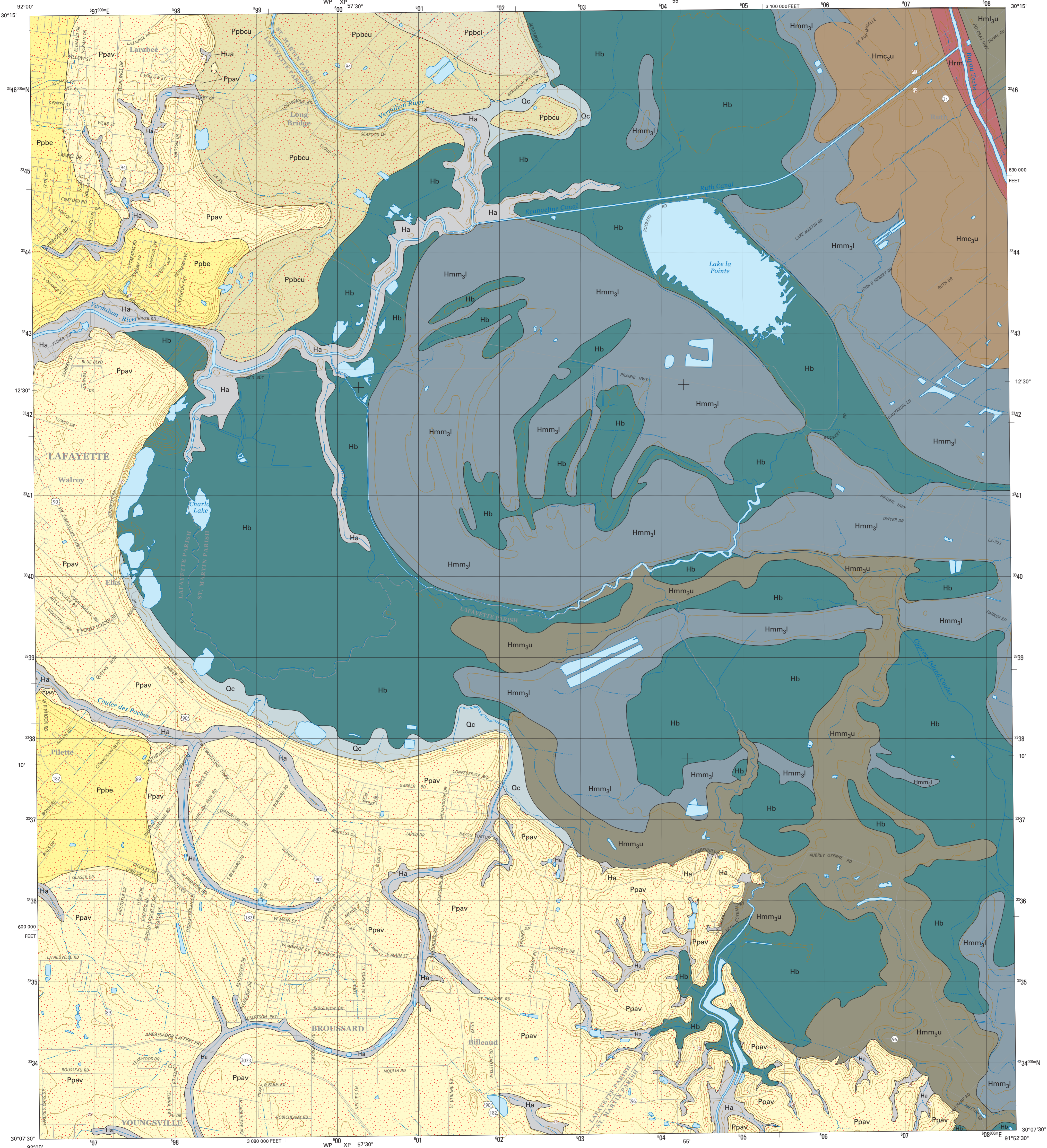
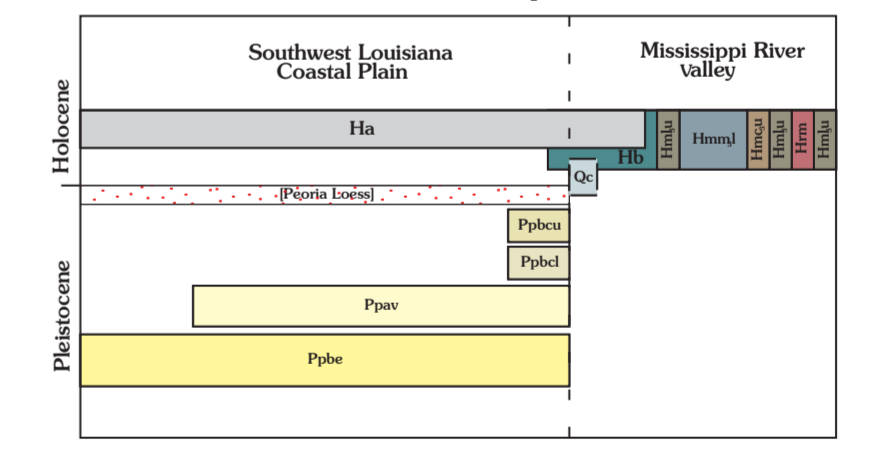
- Open Water, Inundated Area, Swamp**
- Contact**—includes inferred contacts.
- Roads and Railroads**
- Streams**
- Topographic Contours**

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 Baton Rouge, 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.

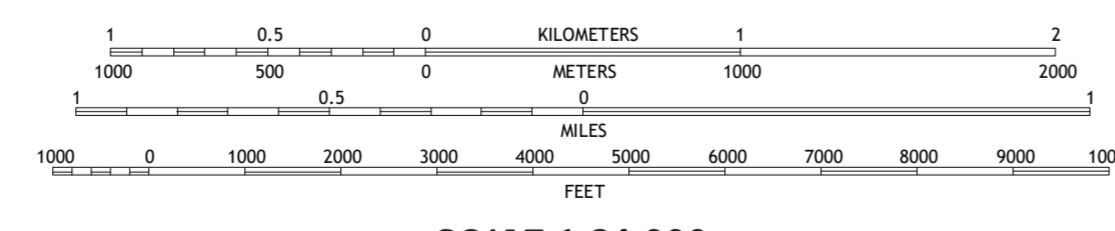
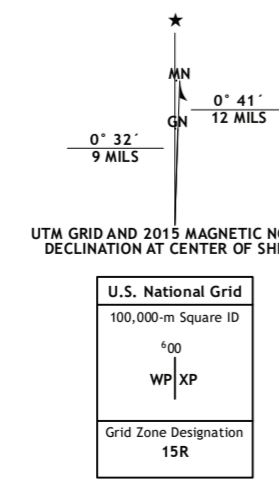
Correlation of Map Units



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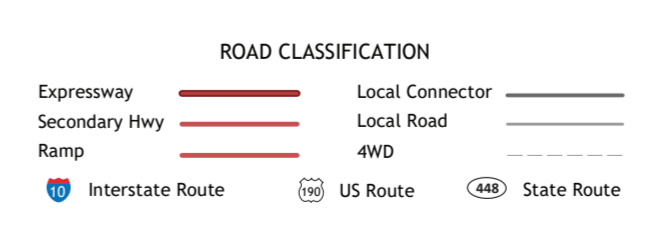
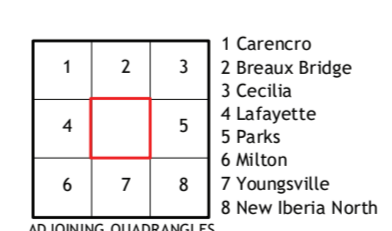
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SCALE 1:24,000

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

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Geologic Map of the Broussard 7.5 minute quadrangle
 Lafayette and St. Martin Parishes Louisiana