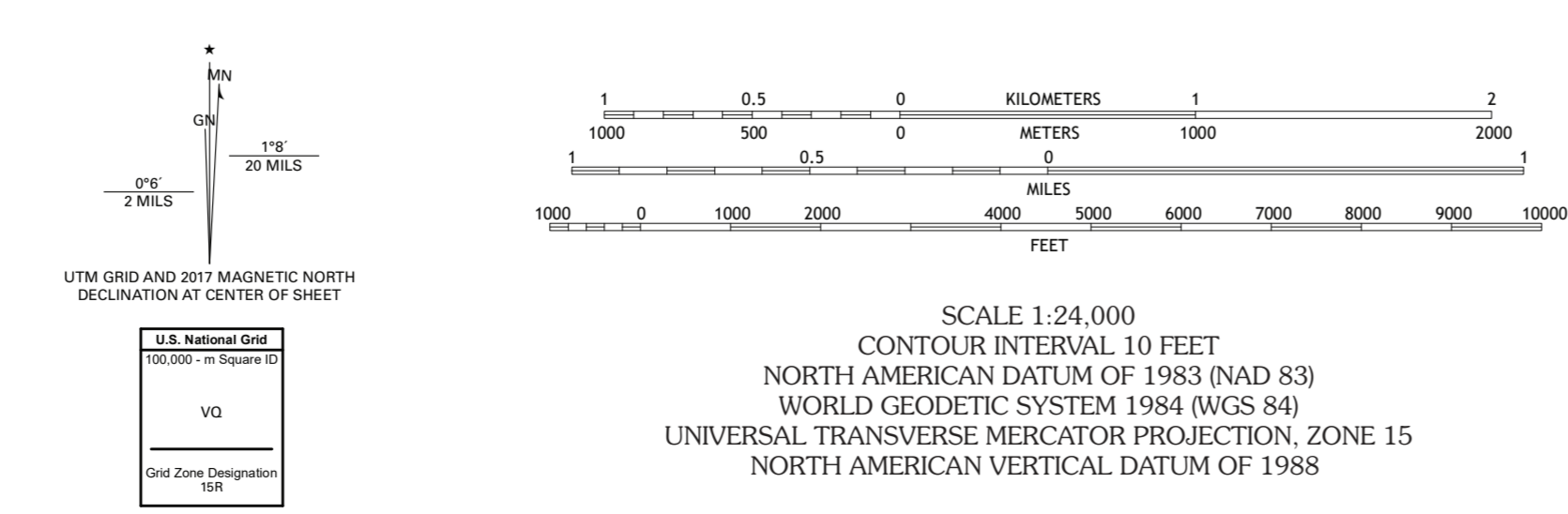


- QUATERNARY SYSTEM**
- Holocene**
- Ha** **Holocene undifferentiated alluvium**—undifferentiated deposits of small upland streams; unconsolidated alluvial deposits of minor streams and creeks filling valleys incised into older deposits, with textures varying from gravelly sand to sandy mud.
- Pleistocene**
- Prairie Allogroup**
- Pp** **Prairie Allogroup, undifferentiated**—diverse depositional sequence of deposits of the Mississippi River, its tributaries, and coastal plain streams; includes terraced fluvial (meander belt, backswamp, and braided stream), colluvial, estuarine, deltaic, and marine units deposited during the Wisconsin to Sangamon interval of the late Pleistocene. Multiple levels along alluvial valleys and coast-parallel trends are grouped into two principal temporal phases. The Prairie Allogroup is undifferentiated where fluvial terrace remnants flank headward portions of stream courses.
- Ppl** **Upper Prairie Allogroup**—Younger of Prairie Allogroup temporal phases, consisting of alluvial deposits of ancestral late Pleistocene streams. Grayish-white to reddish-white and light red very fine to medium sand to silt, with clay, to sandy mud, in places including beds of gravelly sand and sandy gravel of chert and vein quartz. Weathers to yellow, orange, and/or brownish-tan hues.
- TERTIARY SYSTEM**
- Pliocene**
- Upland Allogroup**
- Puw** **Willis Formation, undifferentiated**—deeply dissected alluvial sediments deposited by Pliocene streams in west-central Louisiana. The unit is unconformably underlain by Tertiary formations of Miocene to Eocene age, and is bounded down-dip by the Lissie surface.
- Miocene**
- Fleming Group**
- Mfcb** **Carnahan Bayou Formation**—texturally heterogeneous suite of generally poorly sorted sediments comprising varying admixtures of sand/sandstone, with granules in places; silt/siltstone; and clay/mud. Primarily clayey very fine to fine sand containing some coarse and very coarse sand with some granules. Granules and pebbles include both quartz and rock fragments, with granules comprising predominantly quartz, and pebbles and cobbles consisting mostly of rock fragments; the rock fragments comprise both light-colored clay/mud rip-up clasts, and in places, dark or black chert. Includes petrified wood and thin tuffaceous beds locally.
- Mfi** **Lena Formation**—texturally heterogeneous suite of generally poorly sorted sediments comprising clay, with and without admixed sand and silt; silt/siltstone, mostly without substantial admixed clay; and sand/sandstone, with and without admixed clay. Includes calcareous clay, containing characteristic calcareous nodules, and tuffaceous clays in places. Weathers locally to produce a brownish gray to lightish surface sand, and may weather to black soil.
- Miocene-Oligocene**
- OMc** **Catahoula Formation**—texturally heterogeneous suite of generally poorly sorted sediments comprising primarily silt/siltstone to very fine quartzose sand/sandstone, with and without admixtures of clay. Overall or predominant grain size of sand/sandstone tends to average very fine to fine sand. Coarser grains may comprise quartz, chert, and/or mud clasts. Contains petrified wood and tuffaceous sandstone locally. Weathers locally to produce a thick (up to 2 meters) gray/tan loamy surface unit. Characteristics of the surface Catahoula accord generally with continental, fluvial-dominated deposition, with the large proportion of silt observed in places suggestive of the onset of transition to deltaic facies. Recent work indicates a palynological age of early late Miocene for the Catahoula in its type area in eastern north Louisiana, in contrast to the Oligocene age suggested by subsurface-to-surface correlation in the Texas Gulf Coast.
- Oligocene**
- Vicksburg Group**
- Ov** **Vicksburg Group, undifferentiated**—thin-bedded to laminated grayish-white, clayey very fine to medium sand to fine sandy clay, medium-scale cross-bedded in places; weathering reddish-orange, with zones of clasts of light grayish clayey sand; and thick-bedded maroonish-gray silty clay. The Vicksburg is divisible into two members of formation rank in Sabine Parish (Andersen, 1960)—the Sandel and Nash Creek formations—plus a third in Natchitoches Parish, the overlying Rosefield Formation (Andersen, 1993). The lowermost formation, the Sandel, comprises sand with interbedded conglomerate containing cobbles and slabs of carbonaceous bentonitic clay like that of the overlying Nash Creek. Based on the investigation of Rukas and Gooch (1939), Andersen (1993) portrayed the Rosefield as comprising lenses of marly clay that form a marine tongue extending into Natchitoches Parish from the east and pinching out westward.
- Eocene**
- Jackson Group**
- Ej** **Jackson Group, undifferentiated**—light brownish gray and gray, silty and sandy clay, and clayey very fine sand, with red mottles. According to Andersen (1960) it comprises primarily clay, fossiliferous in its lower portions (Moody Branch and Yazoo formations and Danville Landing beds), with varying admixtures of sand, glauconite, and volcaniclastic material. Locally contains petrified wood, and cobble- and boulder-sized, light greenish gray carbonate nodules (Moody Branch Formation). Fine-grained overall texture and the presence of glauconite are suggestive of deposition on a shallow, muddy shelf.
- Open Water, Inundated Area, Wetland**
- Normal Fault**—ball and bar on downthrown side
- Concealed Fault**—ball and bar on downthrown side
- Inferred Fault**—ball and bar on downthrown side
- Streams**
- Contact**—includes inferred contacts.
- Topographic Contours**
- Department of Defense Boundary**

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1	2	3	1 Vowells Hill
4	5	6	2 Bellwood
7	8		3 Flora
			4 Person
			5 Bayou Lavigne
			6 Dowden Creek
			7 Kurthwood
			8 Simpson North

ADJOINING QUADRANGLES

**ROAD CLASSIFICATION**

Expressway  
 Secondary Hwy  
 Ramp

Local Connector  
 Local Road  
 4WD  
 State Route

Interstate Route  
 US Route  
 FS Passenger Route

Base Map: United States Geological Survey, 2020  
 Roads: U.S. Census Bureau, 2017  
 Names: FSTopo Data  
 Hydrography: GNIS, 1980 - 2017  
 Hydrography: National Hydrography Dataset, 2002 - 2017  
 Contours: National Elevation Dataset, 2008 - 2011  
 Boundaries: Multiple sources, see metadata file 2017  
 Wetlands: FWS National Wetlands Inventory 2021

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**Geologic Map of the Kisatchie 7.5 minute quadrangle  
 Natchitoches and Sabine Parishes, Louisiana**