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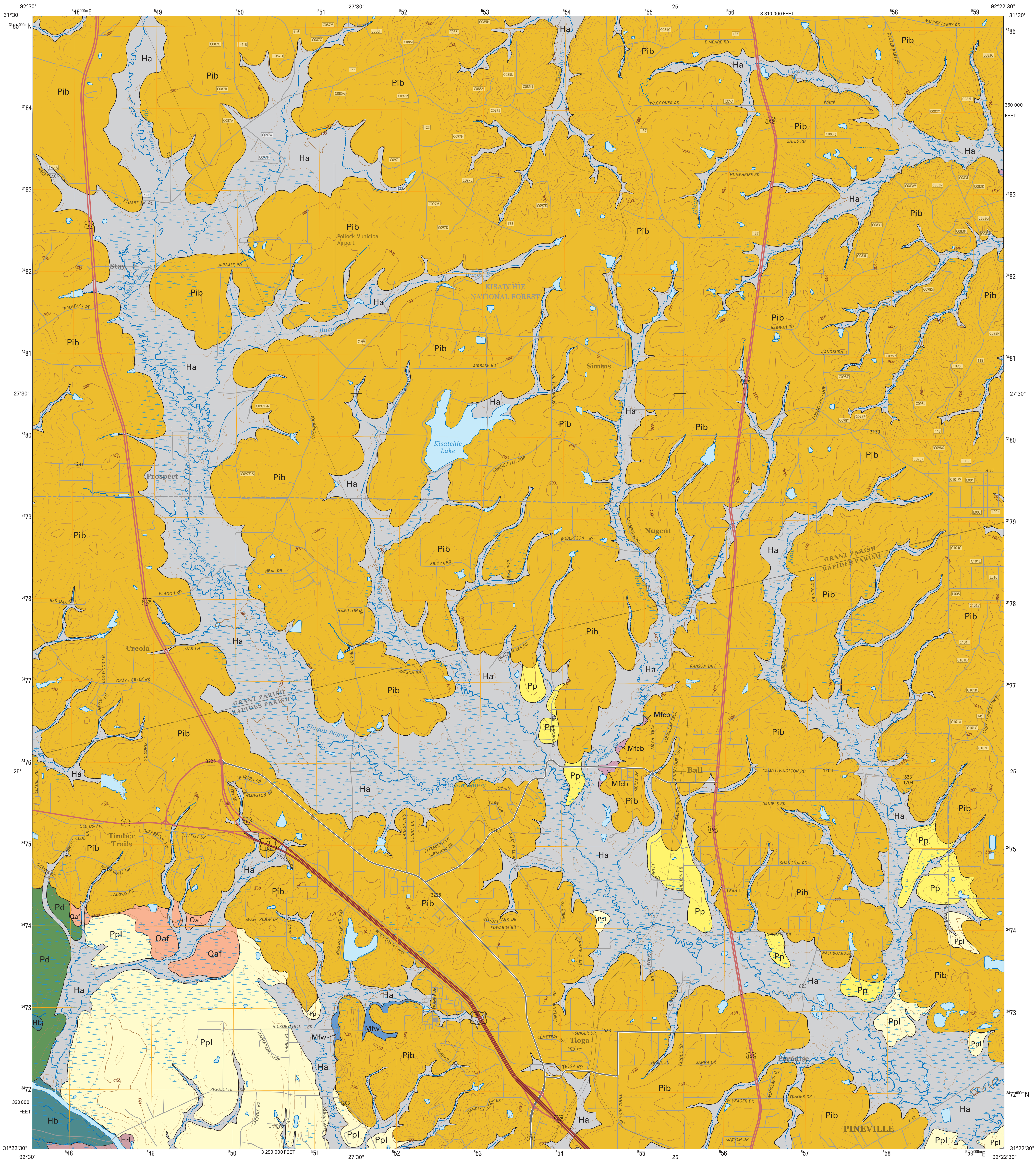
BALL QUADRANGLE
LOUISIANA - 7.5-MINUTE SERIES



Description of Map Units

QUATERNARY SYSTEM

HOLOCENE

Ha — **Alluvium**—Undifferentiated deposits of small upland streams: alluvial deposits of minor streams and creeks of varying textures, filling valleys incised into older deposits.

Hb — **Backswamp deposits**—Fine-grained Holocene deposits of rivers, underlying the flood basins between meander belts.

Hrl — **Red River natural levee deposits**—deposits forming low natural levees flanking the meander belts of the Red River.

QUATERNARY UNDIFFERENTIATED

Qaf — **Quaternary alluvial-fan deposits**—unnamed alluvial-fan deposits.

PLEISTOCENE

DEWEYVILLE ALLOGROUP

Pd — **Deweyville Allogroup, undifferentiated**—alluvial deposits of ancestral late Pleistocene coastal plain streams and certain Mississippi River tributaries including the Red, Ouachita, Sabine, Calcasieu, Pearl, and Bogue Chitto valleys. Multiple levels are locally recognized.

PRAIRIE ALLOGROUP

Pp — **Prairie Allogroup, undifferentiated**—a diverse depositional sequence of late to middle Pleistocene 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 over a considerable interval (Wisconsin to Sangamon) of the late Pleistocene. Multiple levels are recognized along alluvial valleys and coast-parallel trends, and are grouped into two principal temporal phases. The allogroup is undifferentiated where local fluvial terrace remnants flank the more headward portions of stream bottoms.

Ppl — **Upper Prairie Allogroup**—Late Pleistocene alluvial deposits of the younger of the Prairie Allogroup temporal phases of the Red River valley. Where observed in the area northwest of Shreveport, the unit consists of grayish clayey very fine sand, with red mottles in places, weathering yellowish to yellowish brown.

INTERMEDIATE ALLOGROUP

Pib — **Montgomery alloformation**—meander belt deposits of the Red River in central Louisiana. The unit is blanketed by yellow loam, incises the Bentley alloformation and older units, and is incised by Prairie Allogroup and Holocene units.

TERTIARY SYSTEM

MIOCENE

FLEMING GROUP

Mfw — **Williamson Creek Formation, Fleming Group**—very fine to very coarse sand, averaging very fine to medium overall, with overall poor sorting. Overall grain size appears coarser than in other Fleming subunits, with sands containing much more of the coarser size fractions and a larger proportion of quartz granules in places. Granules are extremely abundant locally and consist almost exclusively of quartz, in places comprising sandy granule conglomerate. Internal features include medium-scale trough cross beds in coarser, granule-rich sand and sandy granule conglomerate, with bedding sets fining upward in places. Characteristics of the surface Williamson Creek accord generally with continental, fluvial-dominated deposition.

Mfcb — **Carnahan Bayou Formation, Fleming Group**—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 lightish clay/mud rip-up clasts, and in places, dark or black chert. Includes petrified wood and thin tuffaceous beds locally. Characteristics of the surface Carnahan Bayou 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. In eastern Texas the Carnahan Bayou is classified as the uppermost portion of the Catahoula Formation.

Open Water, Inundated Area, Swamp

Contact—includes inferred contacts.

Streams

Topographic Contours

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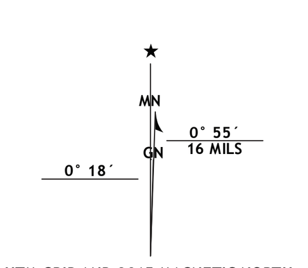

UTM GRID AND 2015 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000-m Square ID
WQ
Grid Zone Designation 15R

KILOMETERS 1 0.5 0 1 2
METERS 1000 500 0 1000 2000
MILES 1 0.5 0 1
FEET 1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000

SCALE 1:24,000
CONTOUR INTERVAL 10 FEET
NORTH AMERICAN DATUM OF 1983 (NAD 83)
WORLD GEODETIC SYSTEM 1984 (WGS 84)
UNIVERSAL TRANSVERSE MERCATOR PROJECTION, ZONE 15
NORTH AMERICAN VERTICAL DATUM OF 1988

1	2	3
4		5
6	7	8

1 Dry Prong
2 Pollock
3 Fishville
4 Rock Hill
5 Green Gables
6 Rapides
7 Alexandria
8 Libuse

ADJOINING QUADRANGLES

QUADRANGLE LOCATION

ROAD CLASSIFICATION

Expressway · Secondary Hwy · Ramp · Local Connector · Local Road · 4WD
Interstate Route · US Route · State Route

Geologic Map of the Ball 7.5 minute quadrangle
Rapides and Grant Parishes Louisiana

Roads.. U.S. Census Bureau, 2017
Roads within US Forest Service Lands........ FSTopo Data
Names.. 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 1974

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