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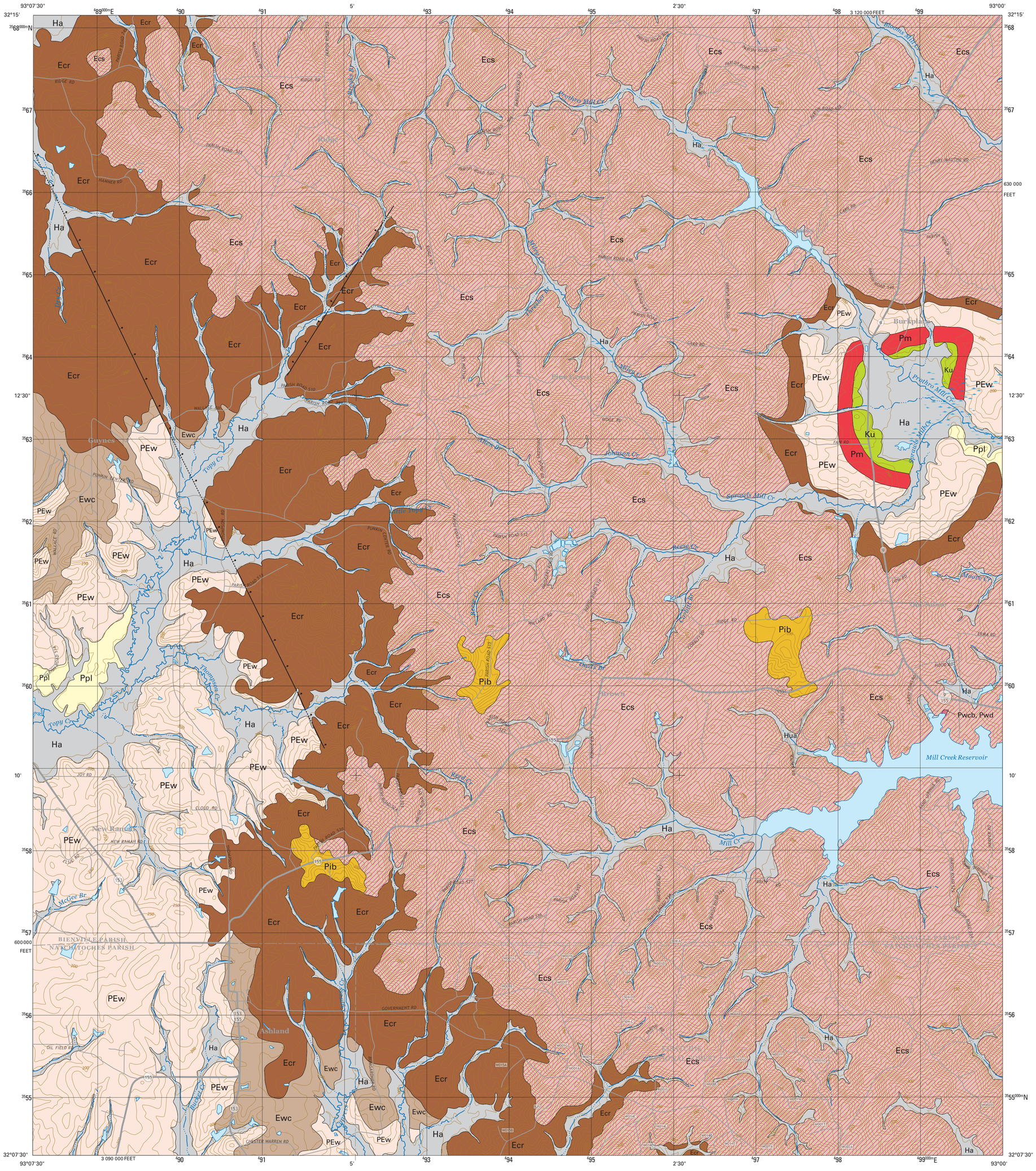
ASHLAND QUADRANGLE
LOUISIANA
7.5-MINUTE SERIES



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.

PLEISTOCENE

PRAIRIE ALLOGROUP

Ppl — **Irene alloformation**—alluvial deposits of the middle Pleistocene ancestral Mississippi River and local fluvial equivalents of Florida Parishes streams in southeastern Louisiana. Where mapped, this unit is blanketed by both Peoria and Sicily Island Loess or loess-derived colluvium.

INTERMEDIATE ALLOGROUP

Pib — **Bentley alloformation**—dissected alluvial deposits of early Pleistocene streams of primarily the Red River in central Louisiana. The unit is blanketed by yellow loam and incises Tertiary formations; it is incised by younger subunits of the Intermediate allogroup, and by the Prairie Allogroup and younger strata. Equivalent to the Natchez Formation of Mississippi.

TERTIARY SYSTEM

EOCENE

Ecs — **Sparta Formation**—Lightish colored massive to bedded sand, cross bedded in places, with interbedded clays, glauconitic sands that weather to concretionary ledges, and some thin interbeds of lignite or lignitic sands and shales. Though no detailed depositional characterization is available, the unit overall shows aspects broadly suggestive of deposition in environments transitional between continental and marine.

Ecr — **Cane River Formation**—Brown silty clay with basal glauconitic, fossiliferous silts, which may weather to ironstone locally. Fine-grained overall texture and the presence of glauconite are suggestive of deposition on a shallow, muddy shelf.

Ewc — **Carrizo Formation**—Well rounded, very fine to medium, glauconitic quartzose sand, commonly cross bedded, in places feldspathic and/or containing petrified wood (Andersen, 1993, p. 73; Andersen, 1960, p. 84). Where exposed in the area northwest of Shreveport in northwesternmost Louisiana, it contains abundant quartz granules and consists of sandy granule conglomerate in places. Ranges in color from reddish orange to, in more-weathered outcrops, a deep-maroon limonitic sand containing abundant ironstone.

PALEOCENE–EOCENE

WILCOX GROUP

PEw — **Wilcox Group, undifferentiated**—Heterogeneous suite of strata comprising gray to brown lignitic sands and silty to sandy lignitic clays, many seams of lignite, and some glauconite and limestone. May include small outcrops of overlying Carrizo Sand of the basal Claiborne Group in some places.

Pwcb + Pwd — **Cow Bayou Formation**—dark brown lignitic silt and clay, with interbedded gray to brown clay, silt, and fine sand.

Dolet Hills Formation—fine to medium, gray to reddish brown massive sand, with silt and clay lenses and thin lignite interbeds.

PALEOCENE

Pm — **Midway Group, undifferentiated**—laminated, fissile silty clay and clayey silt, of dark gray to black coloration weathering to brown. Exposed at surface only in northwestern Caddo Parish and on Prothro and Rayburns salt domes in Bienville Parish. A whitish reworked leached kaolinitic clay is localized along its upper contact with the overlying Wilcox Group in places, such as in an area in Caddo Parish southeast of Mooringsport and directly east of Walnut Bayou where clay of the Midway is mined for brick production.

CRETACEOUS

Ku — **Upper Cretaceous, undifferentiated**—fossiliferous limestone and marl. Surface exposures comprise only small outcrops on Prothro and Rayburns salt domes in Bienville Parish. On the Prothro dome the lithology of exposures consists of lime mudstone; fragmentary vein calcite in float indicates the mudstone is transected by calcite-filled veins. Fossils on this dome include the oysters *Exogyra costata* and *Pycnodonte convexa*, and the shark *Squalicorax* sp.

Open Water, Inundated Area, Wetland

Contact—includes inferred contacts.

Normal fault–Identity and existance certain, location accurate. Ball and bar on downthrown block.

Concealed fault–Identity and existance certain, location concealed. Ball and bar on downthrown block.

Streams

Topographic Contours

References;

Andersen, H. V., 1960, Geology of Sabine Parish: Louisiana Department of Conservation, Louisiana Geological Survey, Geological bulletin no. 34, 164 p. plus plates (includes one 1:62,500-scale geologic map).

Andersen, H. V., 1993, Geology of Natchitoches Parish: Louisiana Geological Survey, Geological bulletin no. 44, 227 p. plus plates (includes one 1:62,500-scale geologic map).

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UTM GRID AND 2015 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

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

KILOMETERS · METERS · MILES · FEET

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 10 Feet
North American Vertical Datum 1988

ADJOINING QUADRANGLES: 1 Jamestown, 2 Sparta, 3 Bienville, 4 Roy, 5 Saline, 6 Martin, 7 Chestnut, 8 Goldonna

QUADRANGLE LOCATION

ROAD CLASSIFICATION

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

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

Geology of the Ashland 7.5 minute quadrangle
Bienville and Natchitoches Parishes, Louisiana

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