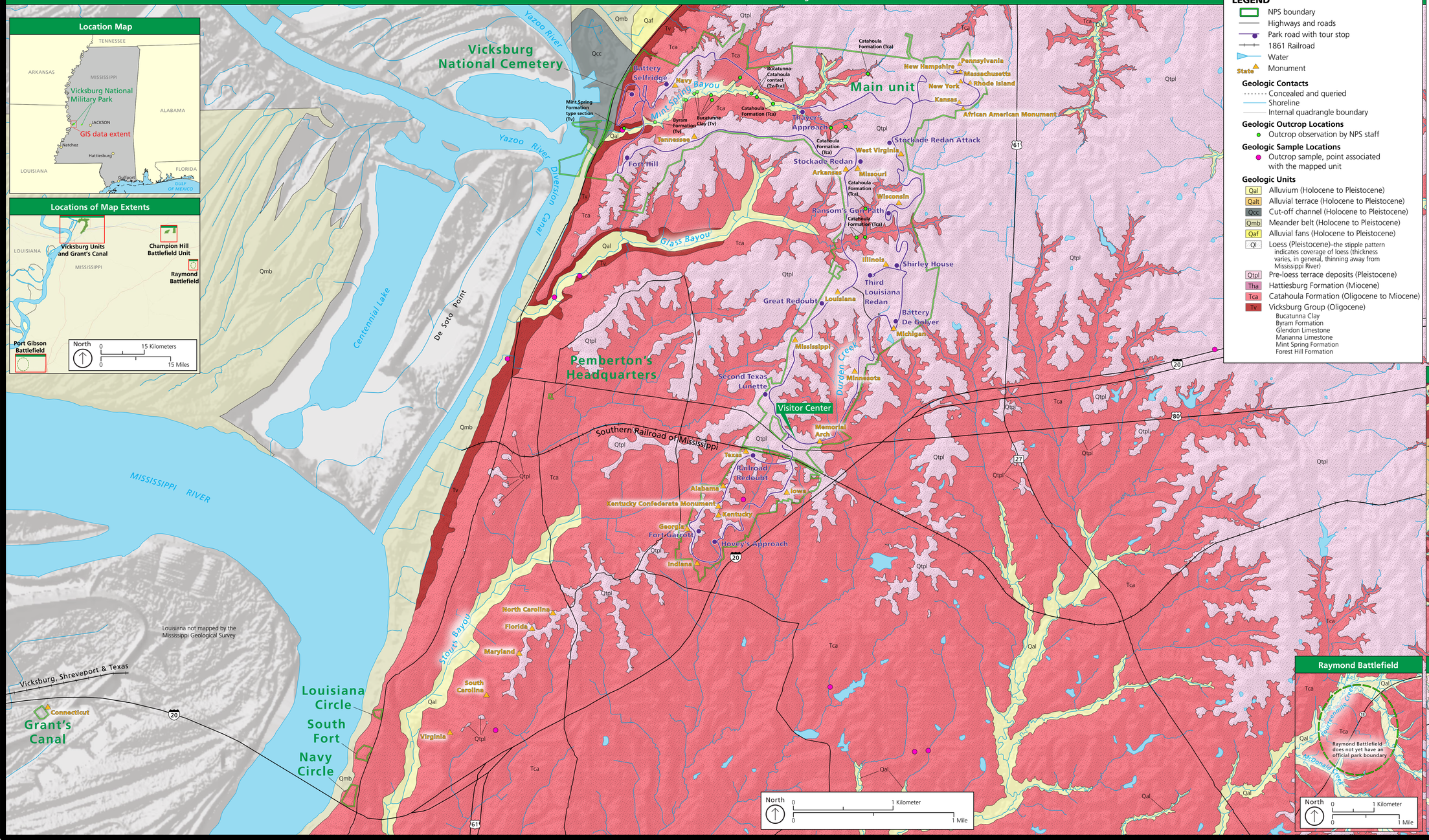
Geologic Map of Vicksburg National Military Park

Mississippi and Louisiana

National Park Service
U.S. Department of the Interior

Geologic and Soil Resources Inventory
Natural Resource Stewardship and Science

Vicksburg Units and Grant's Canal



Location Map

Locations of Map Extents

LEGEND

- NPS boundary
- Highways and roads
- Park road with tour stop
- 1861 Railroad
- Water
- State Monument

Geologic Contacts

- Concealed and queried
- Shoreline
- Internal quadrangle boundary

Geologic Outcrop Locations

- Outcrop observation by NPS staff

Geologic Sample Locations

- Outcrop sample, point associated with the mapped unit

Geologic Units

- Qal — Alluvium (Holocene to Pleistocene)
- Qalt — Alluvial terrace (Holocene to Pleistocene)
- Qcc — Cut-off channel (Holocene to Pleistocene)
- Qmb — Meander belt (Holocene to Pleistocene)
- Qaf — Alluvial fans (Holocene to Pleistocene)
- Ql — Loess (Pleistocene)–the stipple pattern indicates coverage of loess (thickness varies, in general, thinning away from Mississippi River)
- Qtpl — Pre-loess terrace deposits (Pleistocene)
- Tha — Hattiesburg Formation (Miocene)
- Tca — Catahoula Formation (Oligocene to Miocene)
- Tv — Vicksburg Group (Oligocene)
  - Bucatunna Clay
  - Byram Formation
  - Glendon Limestone
  - Marianna Limestone
  - Mint Spring Formation
  - Forest Hill Formation

This map displays geologic data by the Mississippi Department of Environmental Quality (MDEQ), Mississippi Geological Survey. These data have not yet been compiled into the NPS Geologic Resources Inventory (GRI) GIS data model. This map is not a substitute for site-specific investigations. All GRI products are available at https://go.nps.gov/gripubs.

Source Maps for Vicksburg:

Palmer, T. J., J. R. Leard, J. E. Starnes, T. Smith, and N. Usachenko. 2025. Geologic map of the Vicksburg East 7.5-minute quadrangle, Warren County, Mississippi (scale 1:24,000). Open-File Report 351. MDEQ, Mississippi Geological Survey, Jackson, Mississippi.

Palmer, T. J., J. R. Leard, J. E. Starnes, T. Smith, and N. Usachenko. 2025. Geologic map of the Redwood 7.5-minute quadrangle, Warren and Issaquena Counties, Mississippi (scale 1:24,000). Open-File Report 352. MDEQ, Mississippi Geological Survey, Jackson, Mississippi.

Palmer, T. J., J. R. Leard, J. E. Starnes, T. Smith, and N. Usachenko. 2025. Geologic map of the Vicksburg West 7.5-minute quadrangle, Warren County, Mississippi (scale 1:24,000). Open-File Report 350. MDEQ, Mississippi Geological Survey, Jackson, Mississippi.

Source Map for Champion Hill Unit:

Leard, J. R., J. E. Starnes, and T. J. Palmer. 2023. Geologic map of the Edwards 7.5-minute quadrangle, Hinds County, Mississippi (scale 1:24,000). Open-File Report 332. MDEQ, Mississippi Geological Survey, Jackson, Mississippi.

Source Map for Port Gibson Battlefield:

Starnes, J. E., and J. R. Leard. 2021. Geologic map of the Widows Creek quadrangle, Clairborne County, Mississippi (scale 1:24,000). Open-File Report 314. MDEQ, Mississippi Geological Survey, Jackson, Mississippi.

Source Map for Raymond Battlefield*:

Leard, J. R., and J. E. Starnes. 2021. Geologic map of the Raymond quadrangle, Hinds County, Mississippi (scale 1:24,000). Open-File Report 313. MDEQ, Mississippi Geological Survey, Jackson, Mississippi.

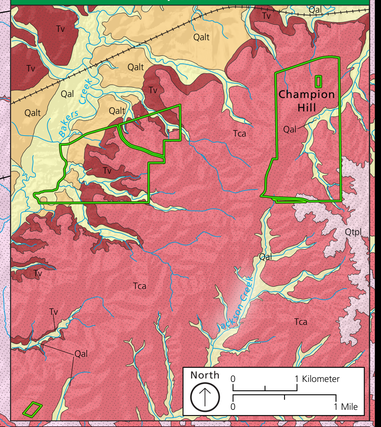
***Geology for the area (Terry NW quadrangle) was inferred by Trista L. Thornberry-Ehrlich (Colorado State University) from the Raymond quadrangle map.**

Source Scale: 1:24,000. According to US National Map Accuracy Standards, features are within 12 m (40 ft) of their true location.

Poster Layout: Trista L. Thornberry-Ehrlich (Colorado State University)

Poster Date: July 2025

Champion Hill Unit



Raymond Battlefield

Port Gibson Battlefield