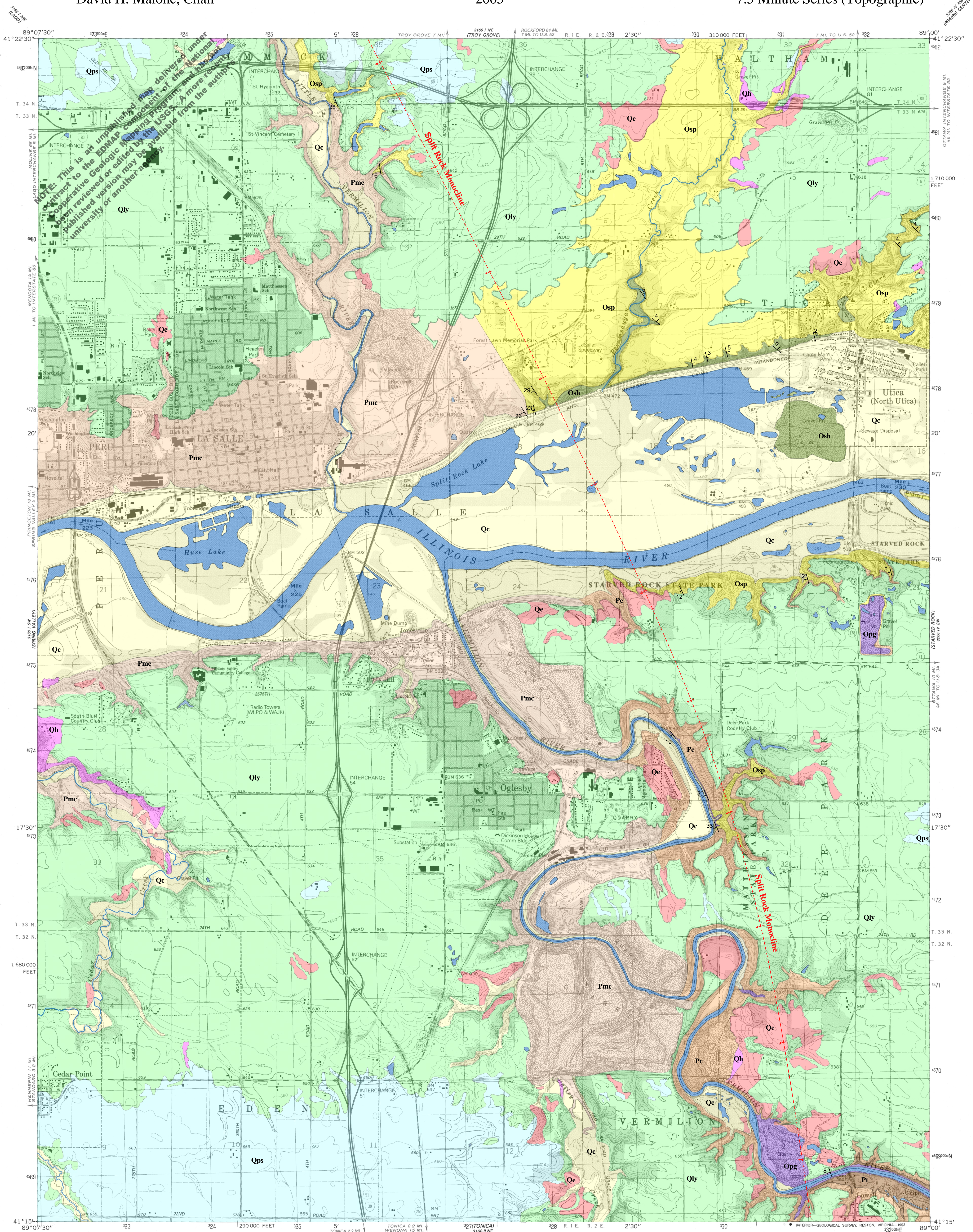


SURFICIAL GEOLOGY OF LASALLE QUADRANGLE
LASALLE COUNTY, ILLINOIS

Illinois State University
Department of Geography-Geology
David H. Malone, Chair

William E. Shields, David H. Malone, Beau Harp
2005

LaSalle Quadrangle
Illinois – LaSalle Co
7.5 Minute Series (Topographic)

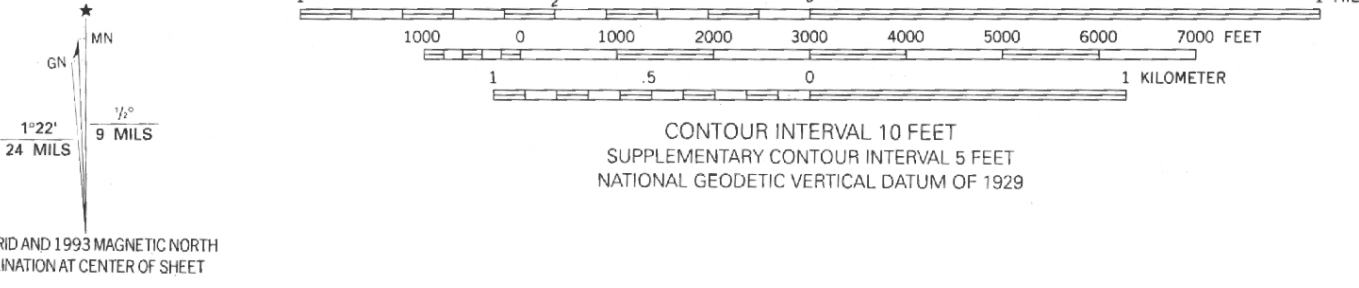


Topographic map produced by the United States Geological Survey
Control by USGS and NOS/NOAA

Topography by photogrammetric methods from aerial photographs
Taken in 1965. Field checked 1966. Revised from aerial photographs
Taken 1988. Field checked in 1992. Map edited 1993.

Projection and 10,000-foot tick marks: Illinois coordinate
System, east zone (Transverse Mercator)
1,000-meter Universal Transverse Mercator grid, zone 16
1972 North American Datum (NAD 27)

North American Datum 1983 (NAD 83) is shown by dashed corner ticks
The values of the shift between NAD 27 and NAD 83 for 7.5-minute
Intersections are given in USGS Bulletin 1875



ROAD CLASSIFICATION

Primary highway, hard surface ——— Light-duty road, hard or improved surface

Secondary highway, hard surface ——— Unimproved road

○ Interstate Route ○ U. S. Route ○ State Route

Material

Dark gray to black stratified silt, sand, and some gravel

Brown to gray to red bedded silt and clay

Fine to coarse grained, well to poorly stratified sediments of sand and gravel

Light yellow tan to gray silt.

Calcareous, gray fine to coarse textured (silty clay to sandy loam) diamicton.

Sandstone, limestone, shale, and coal

Sandstone, limestone, shale, and coal

Sandstone, limestone, shale, and coal

Gray-buff fossiliferous, argillaceous limestone and dolomite. Locally contains bentonite and shale beds.

Well-sorted, well-rounded, coarse to medium grained ferruginous, calcareous, quartz sandstone

Gray-white, thinly to massively bedded dolomite.

Lithostratigraphic Units
And Interpretations

Quaternary System

Qc **Cahokia Formation:** Forms terraces inside of meanders and at the mouths of tributaries. (modern stream deposits) thickness: 0-6 m.

Qe **Equality Formation:** Lacustrine sediment deposited in glacial and postglacial lakes. Lonestones (isolated stones) and lenses of gravel, sand, diamicton, organic debris, and wood are present locally in the silt and clay. Thickness: 2-20 m.

Qh **Henry Formation:** Outwash deposits adjacent to or leading away from the glacier, nearshore sand and gravel deposited in beaches, spits, bars, and deltas in glacial and postglacial lakes, and eolian sand derived from placiofluvial, fluvial, and nearshore lake sediments deposited in dunes and sheets on and adjacent to those sediments. Thickness: 1-65 m.

Qps **Peoria Silt:** Predominantly proglacial loess derived primarily from meltwater channels. In some areas it may contain small amounts of eolian sand, and locally it contains colluviated and sheetwash silt. Thickness: 0-10 m.

Qly **Lemont Formation:** Subglacial and ice-marginal facies of several overlapping glacial sequences. Predominant clast lithologies consist of Paleozoic shale and carbonate. Locally is overlain by Illinoian till. Thickness: 0-60 m.

Pennsylvanian System

Pmc **McLeansboro Group:** Alternating layer of sandstone, limestone, shale, and coal. Contains the Bond, Patoka, and Shelburn Formations. Thickness:

Pc **Carbondale Formation:** Alternating layers of sandstone, limestone, shale, and coal. Thickness:

Pt **Tradewater Formation:** Alternating layers of sandstone, limestone, shale, and coal. Thickness:

Ordovician System

Opg **Platteville-Galena Group:** Marine limestone deposits Thickness:

Qsp **St. Peter Sandstone:** Marine deposit Thickness: 0 -150 m.

Osh **Shakopee Dolomite:** Marine deposit. Locally oolitic, bioturbated, cherty, and fossiliferous. Thickness: 0 -150 m.

Water

Contact

Monocline – approximately located dipping in the direction of arrow

Strike and dip of bedding:
number indicates degree of dip