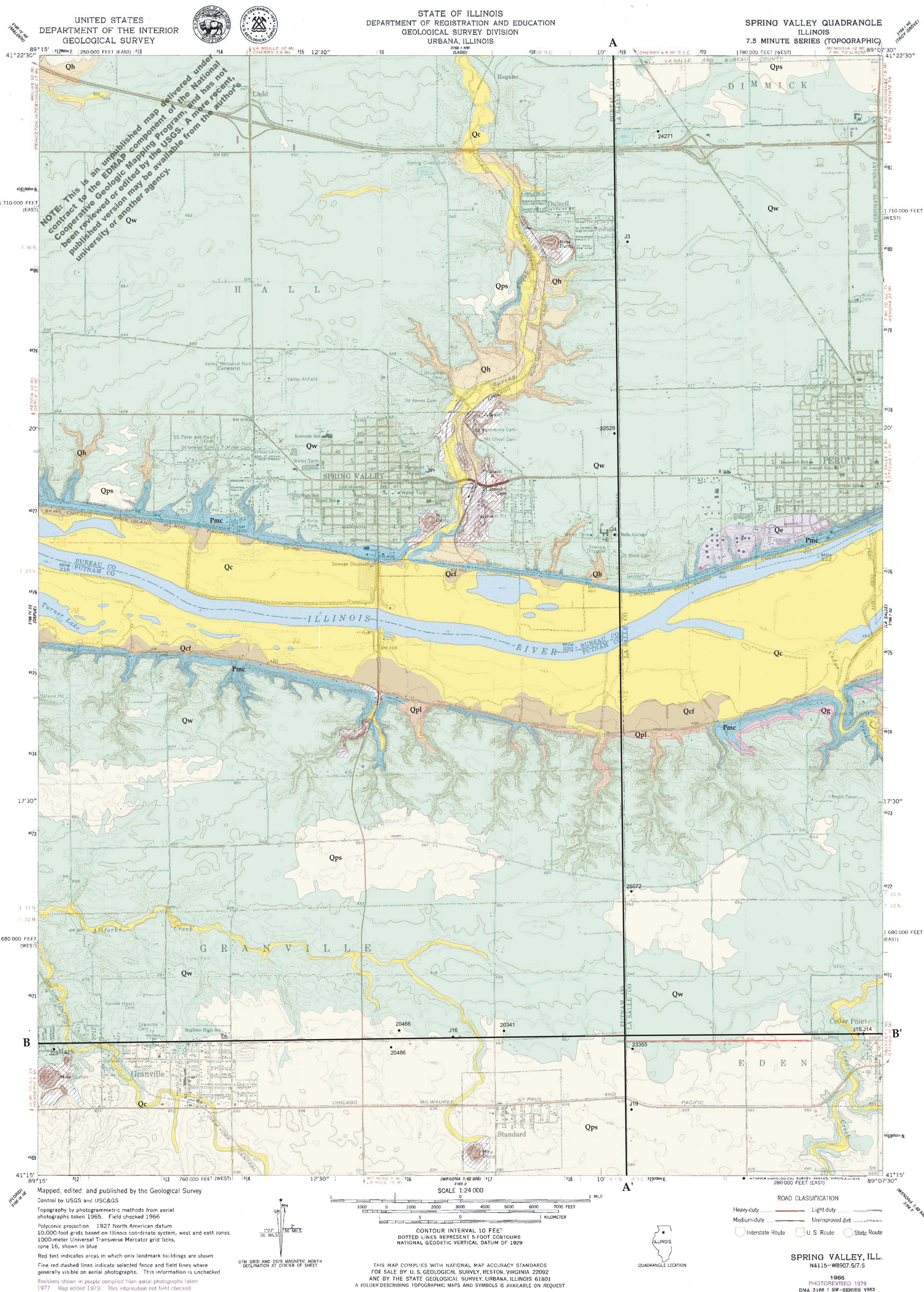


Surficial Geology of Spring Valley Quadrangle

LaSalle, Putnam, and Bureau Counties, Illinois

Jennifer L. Murphey, David H. Malone, Robert S. Nelson, and Barbara J. Stiff



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Material Description	Units	Lithostratigraphy and Interpretations
Dark gray, yellowish brown to dark brown, silt with some stratification and small amounts of clay and sand	Qc	Quaternary System Cahokia Formation (channel and floodplain deposits of modern streams and rivers) Thickness: 5-20 feet
Gray, yellowish/grayish brown to dark brown silt, sand, and gravel	Qcf	Cahokia Formation (alluvial fan facies along the Illinois River) Thickness: 5-20 feet
Gray, yellowish brown to grayish brown silt (> 5 feet thick)	Qps	Wisconsinan Stage Mason Group Peoria Silt (silt deposits found in uplands and depressional areas) Thickness: 5-20 feet
Stratified sandy silt and clay	Qe	Equality Formation (glacial lake deposits) Thickness: 5-30 feet
Yellowish to dark brown sand and gravel, some stratification	Qh	Henry Formation, undifferentiated (Mackinaw and Batavia Facies outwash on floodplains, uplands, and alluvial fans) Thickness: 5-20 feet
Gray, yellowish/grayish/reddish brown to brown fine-grained diamicton includes some sand and gravel lenses	Qw	Wedron Group Tiskilwa/Lemont Formations, undifferentiated (till, ice contact) Thickness: 5-100 feet
Tan to gray tan medium to coarse-grained sand	Qpl	Illinoian Stage Pearl Formation (glacial outwash) Thickness: 5-30 feet
Yellowish brown fine to medium grained diamicton includes some sand and gravel lenses	Qs	Glasford Formation, undifferentiated (till, ice contact) Thickness: 5-15 feet
Green and red shale, with medium gray fossiliferous limestone, medium to dark grayish green mudstone, and medium gray grainstone	Pmc	Pennsylvanian System McLeansboro Group Bond and Mattoon Formations, undifferentiated (shallow marine environment) Thickness: 5-30 feet
Excavated or fill material in areas of human activity such as sand and gravel pits, along roads, and coal mines		Disturbed Ground
		Water Bodies
		Geologic Contact
		Seismic Line

**Several units were undifferentiated within the mapped area due to the difficulty in distinguishing between them with certainty. The units consist of the Mackinaw and Batavia facies of the Henry Formation and the Lemont and Tiskilwa Formations. In addition, the area consists mostly of the Bond Formation with some Mattoon Formation outcrops (personal communication, C. Plus Weibel). The Equality Formation is located in LaSalle County north of the Illinois River and mapped only where the thickness was greater than 5 feet. Peoria Silt blankets majority of the area and mapped only when thicknesses were greater than 5 feet.

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Cross Sections

- Sand and Gravel (cross sections only)
- Well/Borehole
- Seismic Line
- Vertical Exaggeration 20x
- Horizontal Scale: 1" = 2000'