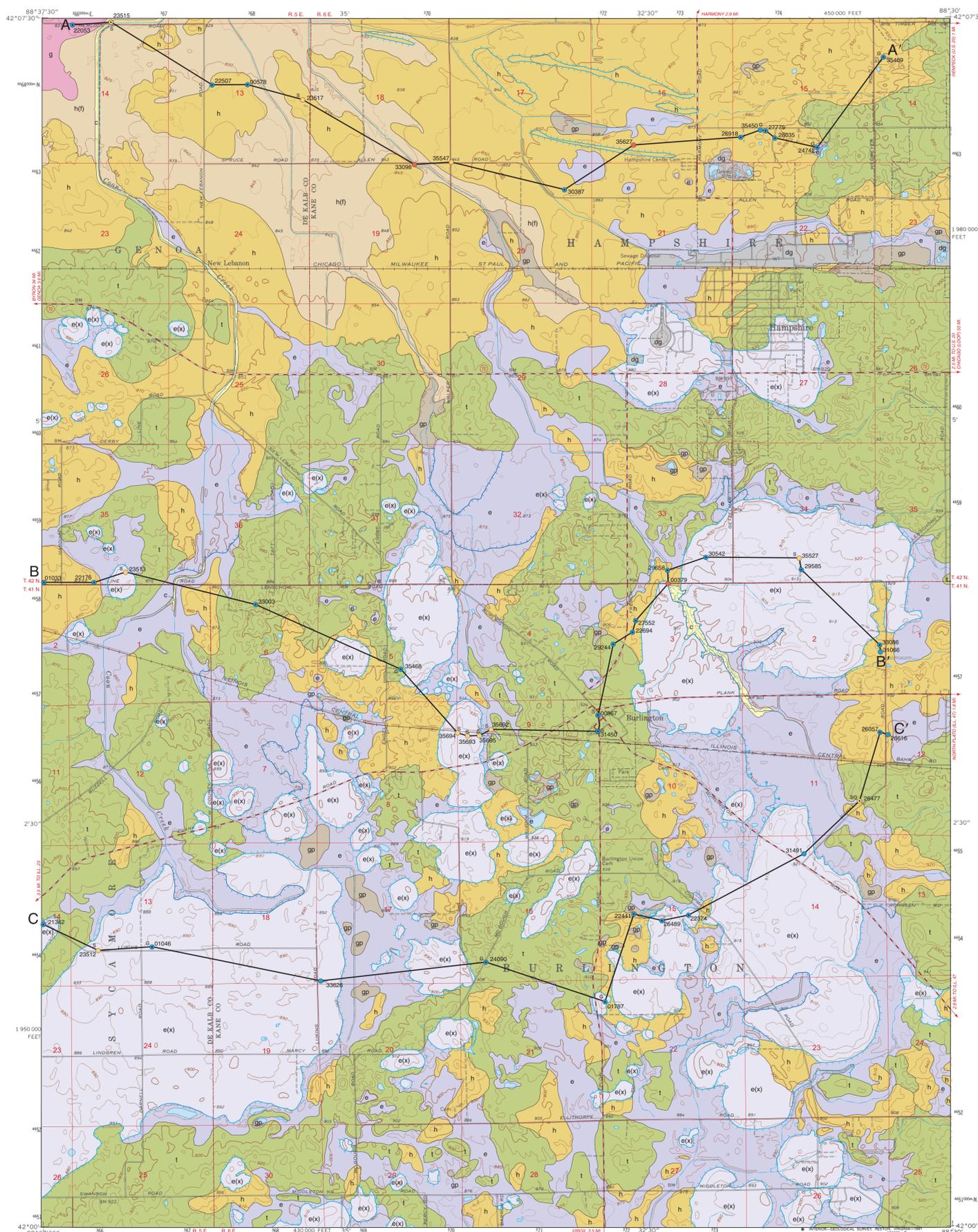


SURFICIAL GEOLOGY OF HAMPSHIRE QUADRANGLE DEKALB AND KANE COUNTIES, ILLINOIS

Illinois Department of Natural Resources
ILLINOIS STATE GEOLOGICAL SURVEY
William W. Shilts, Chief

Illinois Geologic Quadrangle Map
IGQ Hampshire-SG

B. Brandon Curry
2008



Description	Unit	Interpretation
HUDSON EPISODE (-14,700 years before present (B.P.) to today)		
Diamicton, sand, gravel, silt, and peat; up to 10 feet thick	Disturbed ground dg	Disturbed land; includes former gravel pits and major areas of construction
Peat, muck, organic silt and clay; interbedded with sand, silt, and clay in some places; up to 20 feet thick	Grayslake Peat gp	Organic debris deposited in depressions and at the toe of slopes that receive year-round moisture from groundwater; intertongues with the Equality and Cahokia Formations
Sand, silt, and clay; stratified; locally containing beds of sandy gravel; generally less than 10 feet thick	Cahokia Formation c	Alluvium in floodplains and channels of modern rivers and streams
Clay and silt with beds of fine to medium sand; laminated; generally less than 10 feet thick	Equality Formation e	Lake sediment; postglacial, forming two low terraces; intertongues with alluvium of the Cahokia Formation
WISCONSIN EPISODE: Michigan Subepisode (-29,000-14,700 years B.P.)		
Succession of lower sand and gravel (0 to 15 feet thick), middle laminated, fossiliferous silt (3 to 40 feet thick), and upper weathered sand and gravel or sandy diamicton (0 to 15 feet thick); as much as 50 feet thick	Equality Formation (complex) e(x)	Ice-walled lake deposits forming high level terraces; formed of sorted sediment of the Mason Group, including sand and gravel of the Henry Formation and very fine sand, silt, and clay of the Equality Formation
Sand and gravel with a capping layer less than 5 feet thick of finer, siltier sand and gravel	Henry Formation (fine facies) h(f)	Outwash; late stage outwash
Sand and gravel containing beds of silt, clay, and diamicton; stratified; cross-bedded to planar-bedded; typically less than 35 feet thick	Henry Formation h	Outwash deposited in glacial meltwater channels, outwash plains, deltas, and bars
Diamicton, pebbly loam to clay loam; gray to reddish brown; with lenses of sand and gravel; locally in the upper 20 feet, the diamicton is interbedded with thin beds of silt or sand and gravel; as much as 150 feet thick	Tiskilwa Formation t	Till and ice-marginal sediment; largely subglacial till; stratified materials likely were repositioned in a supraglacial environment; the only Wedron Group unit identified in the Hampshire Quadrangle
Sand and gravel and local silt lenses beneath the Tiskilwa Formation; as much as 50 feet thick	Ashmore Tongue, Henry Formation (cross sections only) h-a	Outwash and locally ponded sediment deposited in alluvial fans and deltas; covered by diamicton of the Tiskilwa Formation
WISCONSIN EPISODE: Alton Subepisode (-55,000-29,000 years B.P.)		
Silt, clay, organic silt, and peat; brown, black, gray, and blue-gray; stratified, leached; generally less than 10 feet thick	Robein Member, Roxana Silt (cross sections only) r	Accretionary paleosol; A-horizon of Farmdale Gessol; deposits accreted in low-lying areas; patchy distribution
ILLINOIS EPISODE (-200,000-130,000 years B.P.)		
Sand and gravel; known to be as much as 10 feet thick; the unit may be undermapped where occurring with thick Henry Formation	Pearl Formation (cross sections only) pl	Outwash deposited in glacial meltwater channels and alluvial fans
Diamicton; sand and gravel; diamicton is pebbly loam to clay loam, pinkish brown to brown with beds of sand and gravel; as much as 100 feet total thickness	Glasford Formation g	Till and ice-marginal sediment; in several places, till occurs above beds of sand and gravel that were deposited in outwash channels. As indicated above, Illinois Episode sand and gravel that occur at the top of the succession are classified with the Pearl Formation

Data Type

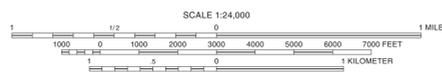
- Stratigraphic boring
 - Water boring
 - Engineering boring
- Labels indicate samples (s) or geophysical log (g).
Numeric labels indicate the county number.
Dot indicates boring is to bedrock.
- Contact
 - Ice-contact scarp
 - Scarp formed by headward erosion
 - Scarp of unknown origin
 - A—A' Line of cross section

Note: The county number is a portion of the 12-digit API number on file at the ISGS Geological Records Unit. Most well and boring records are available online from the ISGS Web site.

Base map compiled by Illinois State Geological Survey from digital data provided by the United States Geological Survey. Topography by photogrammetric methods from aerial photographs taken 1965, field checked 1968. PLSS current as of 1968. Transportation, hydrology, and boundary features current as of 1998.

North American Datum of 1927 (NAD 27)
Projection: Transverse Mercator
10,000-foot ticks: Illinois State Plane Coordinate system, east zone (Transverse Mercator)
1,000-meter ticks: Universal Transverse Mercator grid system, zone 16

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BASE MAP CONTOUR INTERVAL 10 FEET
SUPPLEMENTARY CONTOUR INTERVAL 5 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

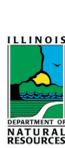
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Geology based on field work by B. Curry, 1998 and 2005.

Digital cartography by J. Carrell and J. Domier, Illinois State Geological Survey.

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1	2	3
4	5	6
7	8	

ADJOINING QUADRANGLES
1 Riley
2 Marengo South
3 Huntley
4 Genoa
5 Pingree Grove
6 Sycamore
7 Maple Park
8 Eburn

21°
APPROXIMATE MEAN DECLINATION, 2008

ROAD CLASSIFICATION

Secondary highway, hard surface ———
Light-duty road, hard or improved surface ———
Unimproved road - - - - -
State Route ○

