SURFICIAL GEOLOGY OF ILLIANA HEIGHTS QUADRANGLE
KANKAKEE COUNTY, ILLINOIS, AND NEWTON AND LAKE COUNTIES, INDIANA

Prairie Research Institute
ILLINOIS STATE GEOLOGICAL SURVEY

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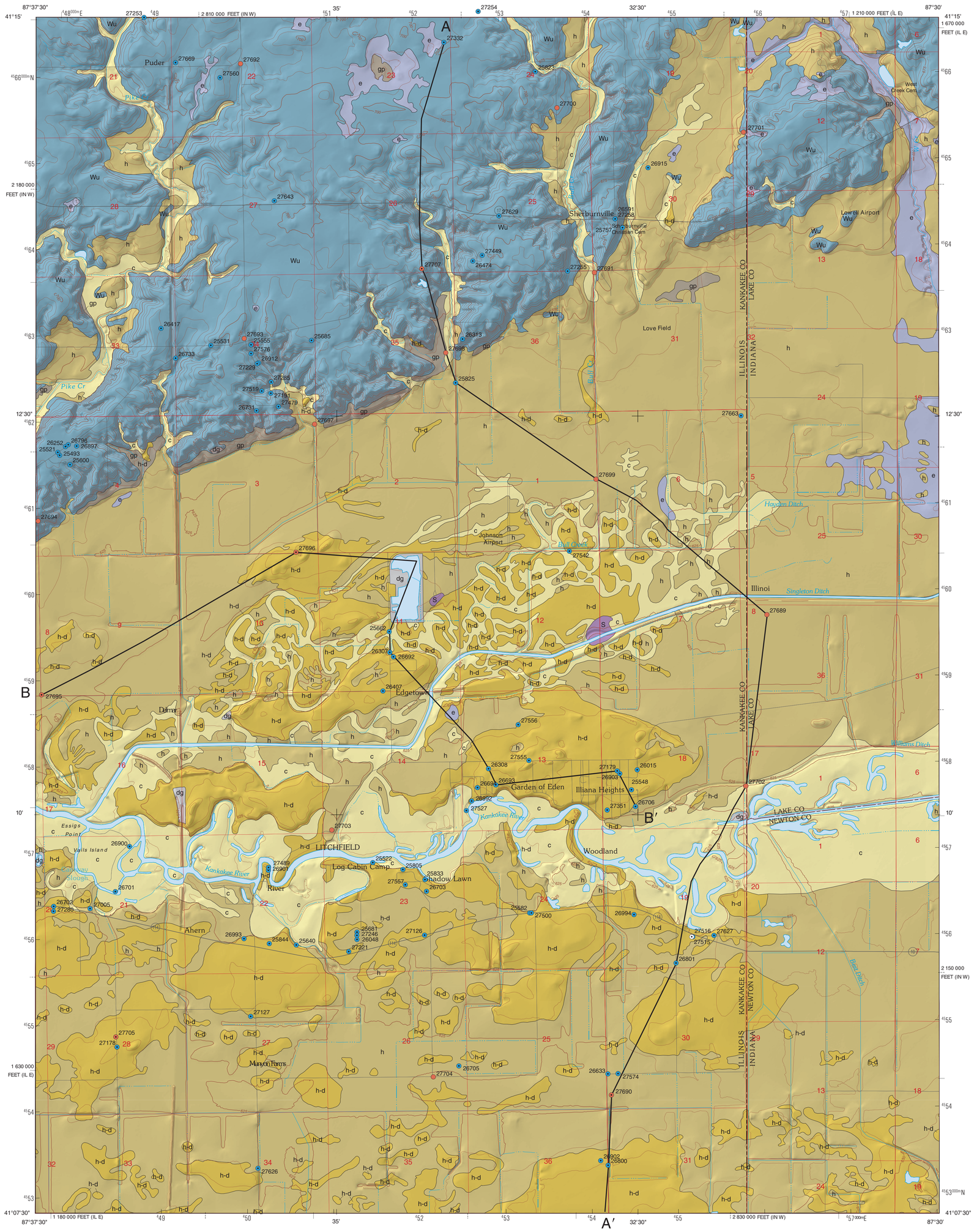
2014

STATEMAP Illiana Heights-SG



QUATERNARY DEPOSITS

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 about 10 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 sand; 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 sand; laminated; surficial deposits are generally less than 10 feet thick; buried deposits in the Kankakee River valley are as much as about 40 feet thick	Equality Formation (e)	**Lake sediment;** many deposits are slackwater; intertongues with alluvium of Cahokia Formation or Henry Formation
WISCONSIN EPISODE: Michigan Subepisode (~29,000–14,700 years B.P.)		
Sand, fine, stratified to uniform, oxidized; mantles many bedrock highs in the Kankakee River valley; typically less than 10 feet thick	Henry Formation, Dolton Member (h-d)	**Dunes and drapes of fluvial origin**
Sand, typically with little gravel, interbedded with uncommon beds of silt or diamicton; typically less than 35 feet thick	Henry Formation, undifferentiated (h)	**Outwash** deposited in glacial meltwater channels and in alluvial fans; also occurs as an unnamed tongue below the Wedron Group (undifferentiated) and the Yorkville Member
Diamicton, loam to silty clay loam; uniform to vaguely stratified in places, gray (unaltered) to brown, yellowish brown, and light gray (weathered); with lenses of sand and gravel; as much as about 50 feet thick	Wedon Group, undifferentiated (Wu)	**Ice-marginal sediment (flowed till) and till.** The unit has lithology consistent with either the Wadsworth Formation or Yorkville Member (Lemont Formation)
Diamicton, silty clay to silty clay loam, gray (cross sections only); with abundant large clasts of dolomite above bedrock surface; as much as about 20 feet thick	Lemont Formation, Yorkville Member (cross sections only) (l-y)	**Till and ice-marginal sediment**

PRE-QUATERNARY DEPOSITS

SILURIAN SYSTEM (440-410 million years B.P.		
Dolostone, fine-grained, uniform, cherty and shaly in places; gray to white; quarried to about 100 feet below water surface (see B - B')	Racine Dolomite (S)	**Dolomitized carbonate bank deposits**

Data Type

- Water-well boring
- Engineering boring
- Geothermal boring

26211 **Boring** labels indicate the county number. **Dot** indicates boring is to bedrock.

Contact

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. Wells and borings in Indiana are labeled with the Indiana Geological Survey's record numer.

Base map compiled by Illinois State Geological Survey from digital data (2012 US Topo) provided by the United States Geological Survey. Shaded relief and contours derived from National Elevation Dataset, accessed 2012.

North American Datum of 1983 (NAD 83)
Projection: Transverse Mercator
10,000-foot ticks: Illinois Coordinate System of 1983, east zone
1,000-meter ticks: Universal Transverse Mercator grid system, zone 16

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SCALE 1:24,000

1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 .5 0 1 KILOMETER

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

Geology based on field work by B. Brandon Curry, 2014.

Digital cartography by Deette M. Lund, Jennifer E. Carrell, and Alison R. Bruegger, Illinois State Geological Survey.

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This map has not undergone the formal Illinois Geologic Quadrangle map review process. Whether or when this map will be formally reviewed and published depends on the resources and priorities of the ISGS.

The Illinois State Geological Survey and the University of Illinois make no guarantee, expressed or implied, regarding the correctness of the interpretations presented in this document and accept no liability for the consequences of decisions made by others on the basis of the information presented here. The geologic interpretations are based on data that may vary with respect to the accuracy of geographic location, the type and quantity of data available at each location, and the scientific and technical qualifications of the data sources. Maps or cross sections in this document are not meant to be enlarged.

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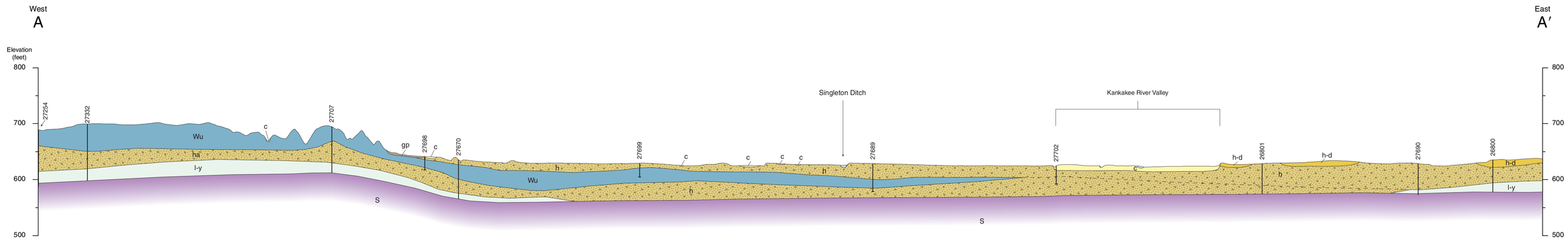
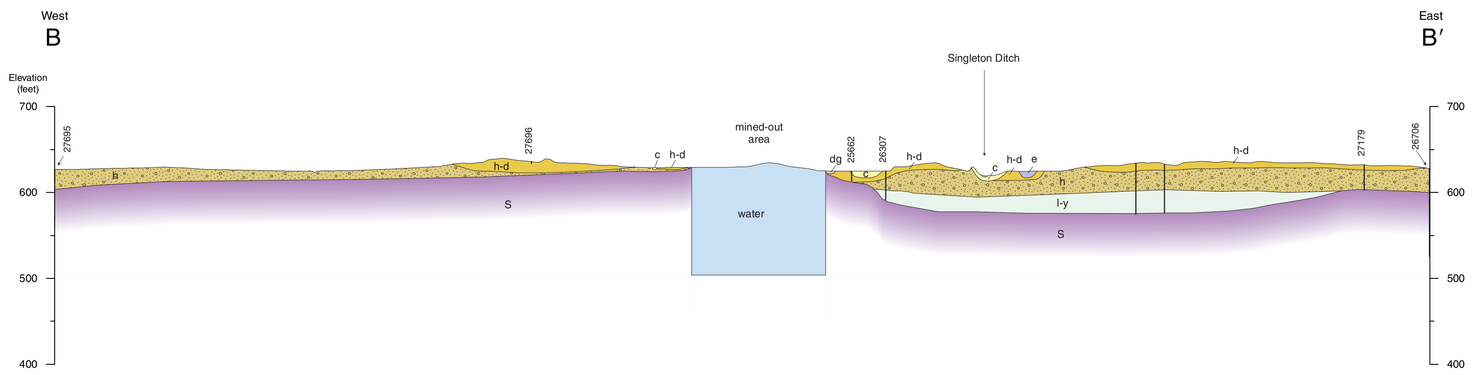
1	2	3
4		5
6	7	8

ADJOINING QUADRANGLES
1 Beecher West
2 Beecher East
3 Lowell
4 Momence
5 Schneider
6 St. Anne
7 Leesville
8 Enos

APPROXIMATE MEAN DECLINATION, 2014

ROAD CLASSIFICATION





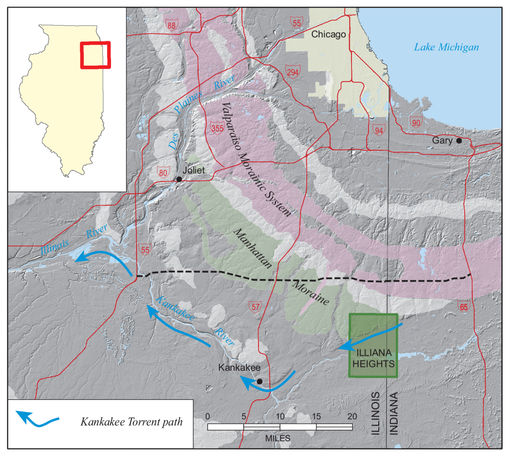


Figure Location map for the Illiana Heights Quadrangle in northeastern Illinois. The proposed map area is shown in relationship to the Kankakee Valley and the region of the Wisconsin Episode deglacial Kankakee Torrent. Moraines modified from Willman and Frye (1970). Dashed lines show approved alignment of the Illiana Expressway.

dg disturbed ground
c Cahokia Formation)
h-d Henry Formation, Dolton Member
Wu Wedon Group, undifferentiated
S Silurian (Racine Dolomite)
gp Grayslake Peat
e Equality Formation
h Henry Formation, undifferentiated
l-y Lemont Formation, Yorkville Member

Cross Sections

Sand and gravel

Diamicton, massive silt, or other fine-grained sediment

Contact

Inferred contact

Horizontal scale: 1 inch = 2,000 feet
Vertical scale: 1 inch = 100 feet
Vertical exaggeration: 20x