

SURFICIAL GEOLOGY OF GARDEN PRAIRIE 7.5 MINUTE QUADRANGLE  
BOONE AND MCHENRY COUNTIES, IL

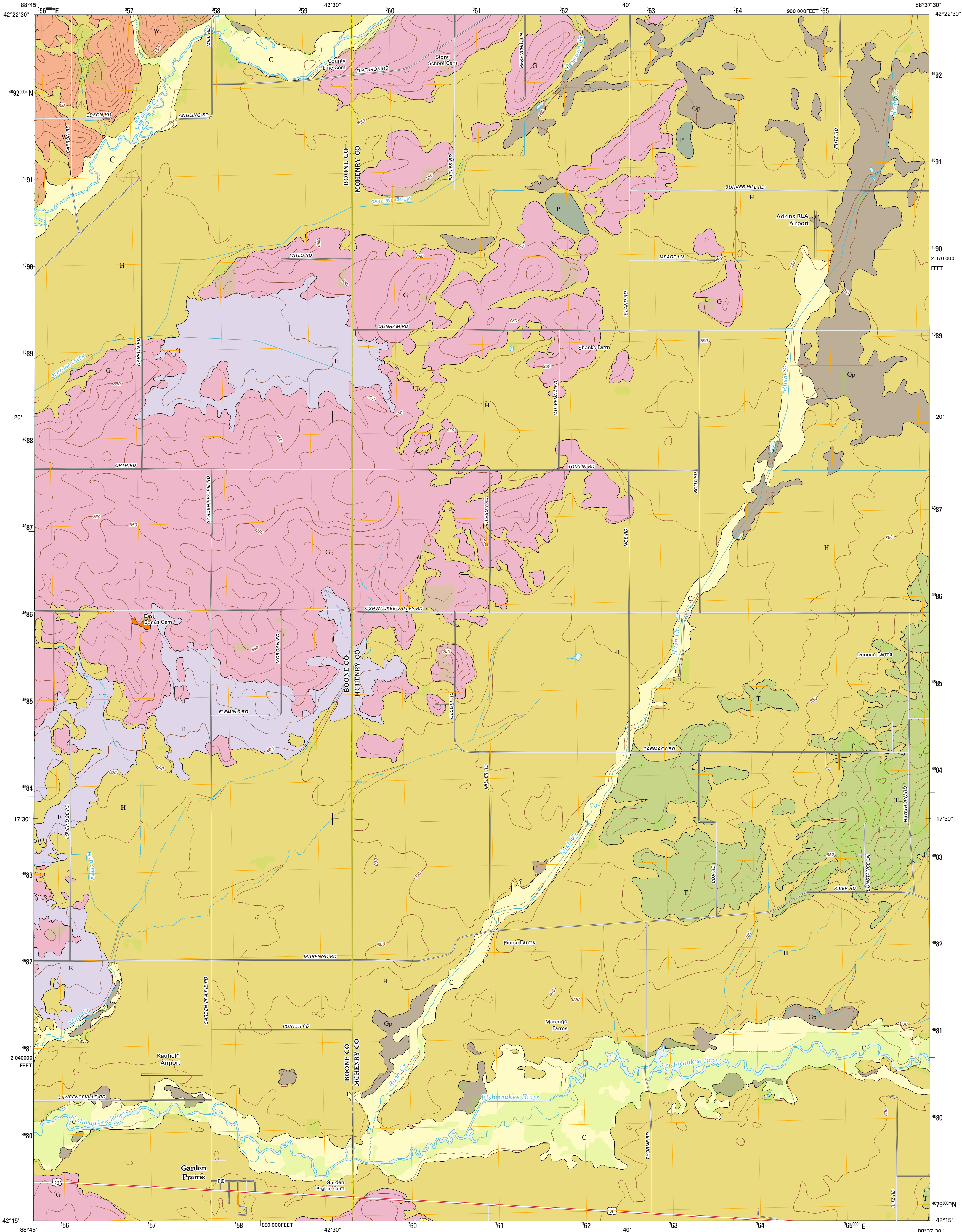
Logan C. Seipel, Jason F. Thomason, David H. Malone, Eric W. Peterson  
2015



U.S. DEPARTMENT OF THE INTERIOR  
U. S. GEOLOGICAL SURVEY

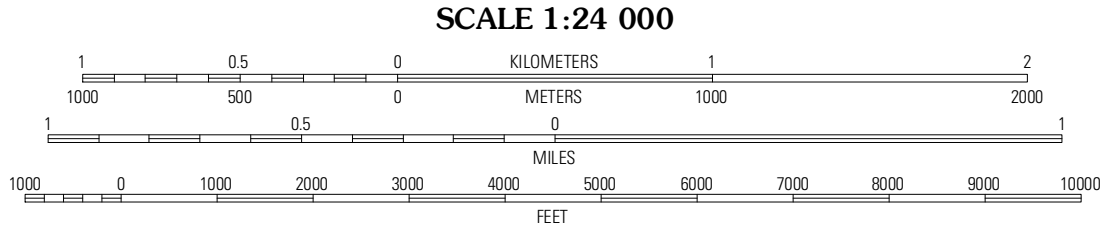
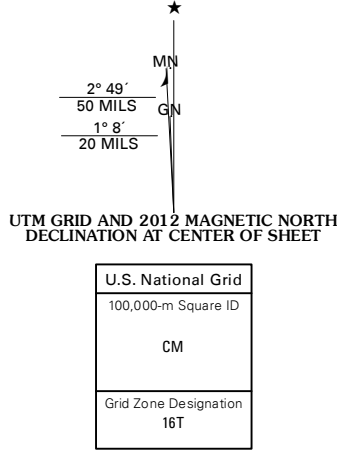


GARDEN PRAIRIE QUADRANGLE  
ILLINOIS  
7.5-MINUTE SERIES

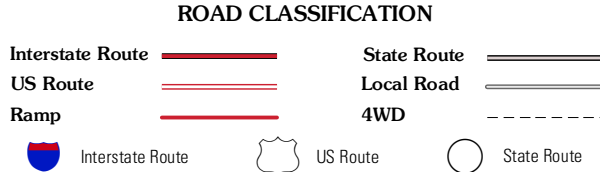
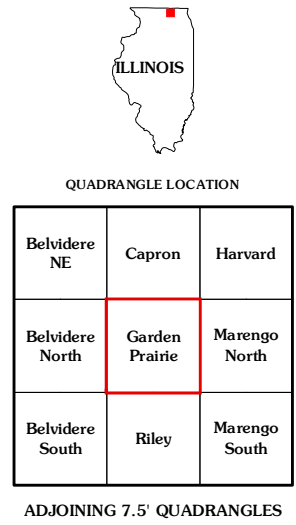


Produced by the United States Geological Survey  
North American Datum of 1983 (NAD83)  
World Geodetic System of 1984 (WGS84). Projection and  
1 000-meter grid: Universal Transverse Mercator, Zone 16T  
10 000-foot ticks: Illinois Coordinate System of 1983 (east zone)

Imagery.....NAP, August 2011  
Roads.....©2006-2011 TomTom  
Names.....GNIS, 2011  
Hydrography.....National Hydrography Dataset, 2011  
Contours.....National Elevation Dataset, 2001  
Boundaries.....Census, BWC, BIC, USGS, 1972 - 2010



CONTOUR INTERVAL 10 FEET  
NORTH AMERICAN VERTICAL DATUM OF 1988  
This map was produced to conform with the  
National Geospatial Program US Topo Product Standard, 2011.  
A metadata file associated with this product is draft version 0.6.3



GARDEN PRAIRIE, IL  
2012



# Map Explanation

## HUDSON EPISODE (~14,700 years before present (B.P.) to present)

**D** **Disturbed Ground:** Surface materials removed or modified by mining and construction.

**C** **Cahokia Formation:** Alluvium consisting of bedded silts, clays, sand and gravel deposited in floodplains and channels of modern streams and rivers.

**Gp** **Grayslake Peat Formation:** Peat and muck that may contain interbedded silt and clay deposited in swampy depressions or lake fillings.

**P** **Peyton Formation:** Colluvium of creep and slopewash deposits

## WISCONSIN EPISODE: Michigan Sub-episode (~29,000-14,700 years B.P.)

**E** **Equality Formation:** Consists predominantly of brown/gray to bedded red silt and clay that is similar in lithology to the silt and clay sized fractions of diamicton units of the Wedron Group. Isolated stones and lenses of gravel, sand, diamicton, organic debris, and wood are locally present in the silt and clay. Bedding ranges from laminae to massive beds that locally contain isolated stones but exhibit little bedding.

**H** **Henry Formation (Undivided):** Predominantly of stratified sand and gravel that is similar in lithology to the sand and gravel fractions of diamicton units of the Wedron Group. Lenses of silt, clay, organic debris, wood, and shells occur locally in the sand and gravel. The dominant gravel lithology is Paleozoic carbonate, Paleozoic sandstone and shale, as well as igneous and metamorphic rock, are also common. Considerable lateral and vertical variation is present in grain size, sorting, bedding, and structure of deposits within the formation.

**T** **Tiskilwa Formation (Marengo Phase, Harvard Sublobe):** Consists of calcareous, red gray to gray, medium textured (clay loam to loam) diamicton that contains lenses of gravel, sand, silt, and clay. Typically, it oxidizes to red brown, brown, or yellow brown.

## ILLINOIS EPISODE (~300,000-125,000 years B.P.)

**W** **Winnebago Formation:** Loam to sandy loam diamicton with inclusions of clay, silt, sand, and gavel.

**G** **Glasford Formation:** Diamicton, loam to silt loam massive with lenses of stratified sand and gravel, yellow brown to gray weathered in upper few feet.