

**LEGEND**

**Recent**

- Qm Made land (Artificial fills, spoil banks, dumps, etc.)
- Qex Excavations in unconsolidated material
- Qp Pent and muck deposits
- Qal Alluvium (Silt, sand, and gravel deposited by present streams)
- Qds Dune sand (Mainly beach sand reworked by wind)
- Qb Beach ridges and related deposits of sand and gravel (Made during and since the various stages of Lake Chicago)
- Ql Glacial lake bottom (Commonly without lacustrine deposits)
- Qls Glacial lake bottom (Covered by lacustrine silt and sand)
- Qr Glacial river bottom (Chiefly crustal, with some residual gravel)
- Qq Lake border moraines:
  - h—Highland Park moraine
  - l—Lester moraine
  - o—Overfield moraine
  - p—Park Ridge moraine
- Qm Tinley ground-moraine

**Wisconsin**

- Sn Niagara series of undifferentiated dolomitic formations, exposed

**Shorelines of Lake Chicago**

- Shoreline of Tolleston stage of Lake Chicago (Where defined by beach deposits or wave-cut cliffs)
- Shoreline of Calumet stage of Lake Chicago (Where defined by beach deposits or wave-cut cliffs)
- Shoreline of Glenwood (oldest) stage of Lake Chicago (Where defined by beach deposits or wave-cut cliffs)
- Approximate position of shorelines of Lake Chicago (Where not defined by shore features but generalized with reference to contour lines)

**Boundaries**

- Definitely determined boundary between deposits
- Indefinite boundary between deposits
- Boundaries between deposits determined in 1880-88, but now largely or completely destroyed or obscured. (W. C. Allen, U. S. Geol. Survey Geol. Atlas, Chicago folio [No. 81], 1902)

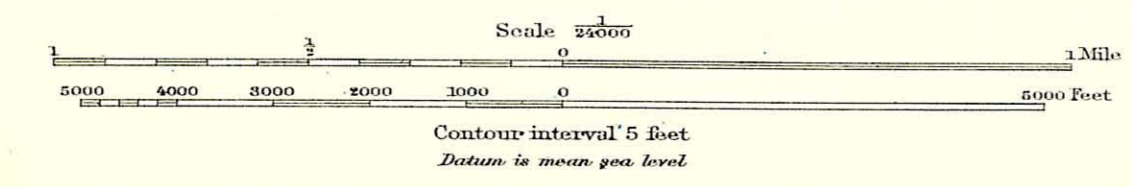
**Other Symbols**

- Glacial striae, oriented in direction
- Sand or gravel pit
- Clay pit

Topographic base surveyed in cooperation with the U. S. Geological Survey, 1927

**SURFICIAL GEOLOGY OF THE BLUE ISLAND QUADRANGLE**  
 BY  
**J HARLEN BRETZ**

Geologically surveyed in 1930-1932  
 In connection with other quadrangles of the Chicago area.



APPROXIMATE MEAN ELEVATION, 1927