



EXPLANATION

Qal

Alluvium
Gravel, sand, silt, and clay, and swamp deposits, chiefly stratified; gravel commonly overlain by fine-grained sediment; underlies floodplains, low terraces, and fans; probably overlies Pleistocene deposits in many places; thickness ranges from a few to several tens of feet

Qtc

Till and colluvium south of Valley Heads moraine of Fairchild
Includes bedrock outcrops and small deposits of water-laid drift and alluvium; mantles slopes, ridgetops, and many valley bottoms; exposed thickness of till ranges from a few to about 50 feet, maximum inferred thickness more than 100 feet; exposed thickness of colluvium ranges from a few to 15 feet

Qvd

Valley Heads moraine of Fairchild
Qvd, prominent segments of thick deposits of drift in valleys; includes till and stratified gravel, sand, silt, and clay; thickness ranges from 10 to more than 100 feet
Hachured line, approximate southern limit of moraine

Qgk Qgv

Glaciofluvial deposits
Gravel and sand, locally silt and clay; stratified; chiefly fluvial deposits, locally lake deposits; exposed thickness ranges from 5 to 50 feet, maximum inferred thickness more than 100 feet. Qgk, kame deposit; chiefly pebbly to bouldery gravel and sand, irregularly stratified; forms irregular terraces, ridges, and knolls in valleys and on uplands. Qgv, valley-train deposit; chiefly pebble gravel and sand, well-bedded; forms relatively broad flat-topped terraces in the larger valleys

Qca

Alluvium, colluvium, and swamp deposits in abandoned stream channel
Mantles floor of channel presumably used by glacial meltwater

X

Area not glaciated in Wisconsin time
Symbol marks known outcrop of strongly scattered surficial material

Contact
Dashed where approximately located

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Glacial striation
Point of arrow at or near locality where observation was made

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Abandoned stream channel
Arrow shows assumed direction of flow

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Point where border of Wisconsin drift was precisely located

X

Sand and gravel pit

X 9

Locality referred to in text

Base from Elmira and Williamsport topographic maps, Eastern United States 1:250,000, Corps of Engineers, U.S. Army Map Service, Series V501, NK 18-4 and 18-7

Geology by C. S. Denny and W. H. Lyford, 1953-54

RECONNAISSANCE MAP OF SURFICIAL GEOLOGY OF THE ELMIRA-WILLIAMSPORT REGION
NEW YORK AND PENNSYLVANIA

