DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

PREPARED IN COOPERATION WITH THE
TEMPORARY STATE COMMISSION ON TUG HILL
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

WATER-RESOURCES INVESTIGATIONS REPORT 88-4014
PLATE 1B. SURFICIAL GEOLOGY
CAMDEN WEST AND CAMDEN EAST QUADRANGLES

EXPLANATION

- w — Open-water areas
- a — Alluvial silt, sand, and gravel; stream deposits of postglacial time; unconsolidated and generally permeable
- pm — Peat, marl, muck, and clay; bog deposits of postglacial to recent time
- as — Eolian sand; wind-deposited sand that form ridges or mounds; fine to medium grained; oxidized and moderately permeable
- lsc — Lake silt and clay; offshore deposits in proglacial or postglacial lakes; thin bedded to massive; low to moderate permeability
- lss — Lake silt and fine sand; offshore deposits in proglacial or postglacial lakes; thin bedded to massive; low to moderate permeability
- ds — Deltaic sand; sand deposited at mouths of streams flowing into a lake; well sorted; unconsolidated and highly permeable
- bsg — Beach sand and gravel; coarse sand and gravel deposited near or at shore of proglacial or postglacial lakes; well sorted; unconsolidated and highly permeable
- ksg — Kame, kame-delta, and kame-terrace sand and gravel; coarse sand to cobble gravel distributed on a glacier and later deposited on ground as ice melted; some sorting; unconsolidated except for some secondary calcite cementation; highly permeable
- osg — Outwash sand and gravel; coarse sand to cobble gravel deposited by streams flowing from former ice sheets; stratified; well sorted; highly permeable
- at — Ablation till; mixture of clay, silt, sand, and boulders deposited from drift laid down after ice melted beneath it; unconsolidated, noncompact, and generally slightly coarser than lodgment till; variable permeability; typically, ablation till overlies lodgment till
- lt — Lodgment till; mixture of clay, silt, sand, and boulders deposited at base of glacier; poorly sorted; compact and impermeable
- AQUIFER BOUNDARY--Dashed where valley aquifer is adjacent to permeable material on uplands and valley walls. These areas would contribute recharge to the valley aquifer where sufficiently saturated
- Aquifer may extend beyond dotted line
- GROUND-WATER DIVIDE
- AREA OF TILL WITHIN AQUIFER
- A — A' LINE OF GEOLOGIC SECTION
- GEOLOGIC CONTACT--Dashed where approximate
- 39-27 Well used to draw geologic section
- 43-59 Test hole used to draw geologic section

Base from U.S. Geological Survey, 1960; revised by New York State Department of Transportation, Camden West and Camden East, 1978, 1:24,000

Geology modified from Chambers, 1978

HYDROGEOLOGY AND WATER QUALITY OF THE TUG HILL GLACIAL AQUIFER IN NORTHERN NEW YORK

By
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