



LOCATION OF WELLS AND TEST HOLES

INTRODUCTION

Update New York State (excluding Long Island) derives 36 percent of its water supply from ground-water sources (New York State Department of Health, 1981). Most of the aquifers that supply this water are unconsolidated glacial and alluvial deposits that partly fill major bedrock valleys and their tributaries. Ground water in these aquifers is under either water-table or confined conditions.

The land overlying such aquifers is relatively flat and thus forms an ideal location for cities, towns, industries, and agriculture. Such development over highly permeable aquifer material, coupled with the generally shallow position of the water table, makes these aquifers susceptible to contamination from point sources such as landfills, road-salt stockpiles, hydrocarbon-fuel storage, septic-tank leachate, and industrial facilities. In addition, contamination from urban and agricultural runoff and other nonpoint sources can adversely affect ground-water quality over large areas.

In 1980, the U.S. Geological Survey, in cooperation with the New York State Department of Health, began a study to define the hydrogeology of selected extensively used unconsolidated aquifers in upstate New York. Of these aquifers, 15 have been studied to date. The results are published as individual reports at 1:24,000 scale, and 11 are summarized at a reduced scale by Waller and Finch (1982) and 4 at a reduced scale by Cosner (1984). As a continuation of this effort, the U.S. Geological Survey, in cooperation with the New York State Department of Environmental Conservation, began a study in 1983 to investigate the hydrogeology of several other extensively used unconsolidated aquifers and to publish the results of each as a set of 1:24,000-scale maps that show well locations, bedrock topography, surficial geology, land use, soil permeability, water-table surface, and saturated thickness of the unconsolidated deposits. A separate sheet showing geologic sections is included in each report.

Purpose and Scope

This report summarizes the hydrogeology of the aquifer system in the Rome, N.Y., area as interpreted from published reports and unpublished data in U.S. Geological Survey files. It consists of eight sheets that depict locations of wells and test holes (sheet 1), surficial geology (sheet 2), geologic sections (sheet 3), water-table altitude (sheet 4), generalized bedrock topography (sheet 5), total saturated thickness of unconsolidated sediments (sheet 6), generalized soil permeability (sheet 7), and land use (sheet 8).

ROME AREA

The unconsolidated-aquifer system described in this report occupies parts of a 130-square-mile area in Oneida County, in east-central New York. The valley-fill aquifer system occupies the Mohawk River valley and underlies the valleys of Wood Creek, Nine Mile Creek, and Three Mile Creek.

This map shows the locations of wells and test holes from which hydrogeologic data were obtained. The data are on file at the U.S. Geological Survey office in Albany, N.Y., either as published reports (mainly Halberg and others, 1962) or as unpublished data stored in the U.S. Geological Survey's computerized Ground-Water Site Inventory data base.

Wells and test holes are identified by a sequential county number that is keyed to wells inventoried as part of an earlier study of the area (Halberg and others, 1962).

REFERENCES CITED

- Cosner, G. J., 1984, Atlas of selected aquifers in New York: U.S. Environmental Protection Agency, Water Management Division Report, Contract 68-01-6389, 101 p.
- Halberg, H. N., Hunt, O. P., and Pauszek, F. H., 1962, Water Resources of Utica Rome Area, New York: U.S. Geological Survey Water Supply Paper 1499-c, 46 p.
- New York State Department of Health, 1981, Report on ground-water dependence in New York State: New York State Department of Health, 49 p.
- Waller, R. M. and Finch, A. J., 1982, Atlas of eleven selected aquifers in New York: U. S. Geological Survey Water Resources Investigations 82-553, 255 p.

EXPLANATION

- 326 DOMESTIC WELL COMPLETED IN UNCONSOLIDATED DEPOSITS--Number is local county number
- 710 DOMESTIC WELL COMPLETED IN BEDROCK--Number is local county number
- ⊕ 87 DOMESTIC WELL THAT TAPS UNSPECIFIED SOURCE--No data to confirm whether well taps stratified drift or bedrock. Number is local county number
- ⊙ 1335 TEST HOLE OR BORING--Test hole or boring used to determine subsurface characteristics during construction of the New York State Barge Canal. Number is local county number
- ⊗ 1347 OBSERVATION WELL COMPLETED IN UNCONSOLIDATED DEPOSITS--Small-diameter well installed to monitor ground-water quality and/or water levels. Number is local county number
- ★ 1339 OIL OR GAS WELL--Exploratory oil or gas well from which subsurface data were available for construction of bedrock topography (sheet 4)
- AQUIFER BOUNDARY--Contact between unconsolidated aquifer and bedrock/fill uplands
- A—A' TRACE OF GEOLOGIC SECTION--geologic sections are shown on sheet 3

Base from New York State Department of Transportation
Law Center, 1978; North Western, 1978; Chazy, 1978; Rome, 1978;
Verona, 1978 and Westerville, 1978, NY, 1:24,000 scale

HYDROGEOLOGY OF THE STRATIFIED-DRIFT AQUIFERS IN THE ROME AREA, ONEIDA COUNTY, NEW YORK

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Sheet 1. Location of Wells and Test Holes

