DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

PREPARED IN COOPERATION WITH THE
NEW YORK STATE DEPARTMENT OF HEALTH

OPEN-FILE REPORT 82-112
(SHEET 1 OF 6)

74°40′ 37′30″ 35′ 32′30″ 74°30′

41°50′ 47′30″ 45′ 41°42′30″

SURFICIAL GEOLOGY

By

Robert J. Dineen

(New York State Geological Survey)

INTRODUCTION

The mapping was undertaken to compile, from available information, the limits and characteristics of one of the highly-used valley-fill aquifers in upstate New York. The valley-fill aquifer in the South Fallsburgh-Woodbourne area, underlies a 10-square-mile area in Sullivan County in southeastern New York. It is a primary source of water for rural residents, industry, and community water systems in the eastern part of the county.

Findings relating to the aquifer are presented in this series of maps to provide water managers with current knowledge to aid in protecting and managing this aquifer. The hydrologic data used in preparing these maps are available in the cited references and in the New York District Office of the U.S. Geological Survey in Albany, New York.

Funding for the study was provided by the New York State Department of Health, Bureau of Public Water Supply, through a grant from the U.S. Environmental Protection Agency.

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EXPLANATION

QUATERNARY	af	Artificial fill
	w	Open-water area
	al	Alluvial silt, sand, and gravel; postglacial stream deposits; unconsolidated; generally moderate permeability
	pm	Peat, muck, and clay; postglacial bog deposits; low permeability
	dsg	Deltaic sand and gravel; stratified sand to cobble gravel; moderate to good sorting; high permeability
	osg	Outwash sand and gravel; well sorted coarse sand and cobbly gravel; high permeability
	ksg	Kame sand and gravel; a hill of stratified coarse sand and bouldery gravel; high permeability
	at	Ablation till; mixture of silt, gravel, and boulders; noncompact; variable permeability
	lt	Lodgement till; nonsorted, compact mixture of silt, gravel, and boulders; low permeability
	at/r	Ablation till over undifferentiated bedrock; till is less than 30 feet thick; variable permeability
	lt/r	Lodgement till overlying undifferentiated bedrock; till is less than 30 feet thick; low permeability
DEVONIAN	r	Bedrock; sandstone and shale; locally permeable in fractures or joints

GEOLOGIC CONTACT--dashed where approximately located

A——A′ LINE OF SECTION--see sheet 2, "Geologic Sections and Aquifer Thickness"

AQUIFER BOUNDARY--dashed where approximately located

BOUNDARY BETWEEN MAJOR AND MINOR AQUIFER--major aquifer of valleys is saturated year round, whereas adjacent generally high-permeability material (or minor aquifer) on hillsides may be only seasonally saturated

NOTE

Geologic mapping by R. J. Dineen, New York State Geological Survey, under contract, 1981.

INDEX MAP

DRAINAGE AREA

AQUIFER

SCALE 1:24000

BASE FROM NEW YORK STATE DEPARTMENT OF TRANSPORTATION GRAHAMSVILLE, N.Y., 1976; LIBERTY EAST, N.Y., 1976; MONTICELLO, N.Y., 1976; WOODRIDGE, N.Y., 1976. 1:24,000

GEOHYDROLOGY OF THE VALLEY-FILL AQUIFER IN THE SOUTH FALLSBURGH-WOODBOURNE AREA, SULLIVAN COUNTY, NEW YORK

1982

GEOLOGY MAPPED IN 1981