DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

PREPARED IN COOPERATION WITH THE
NEW YORK STATE DEPARTMENT OF HEALTH

OPEN-FILE REPORT 82-81
(SHEET 4 OF 6)

ESTIMATED AQUIFER THICKNESS

By
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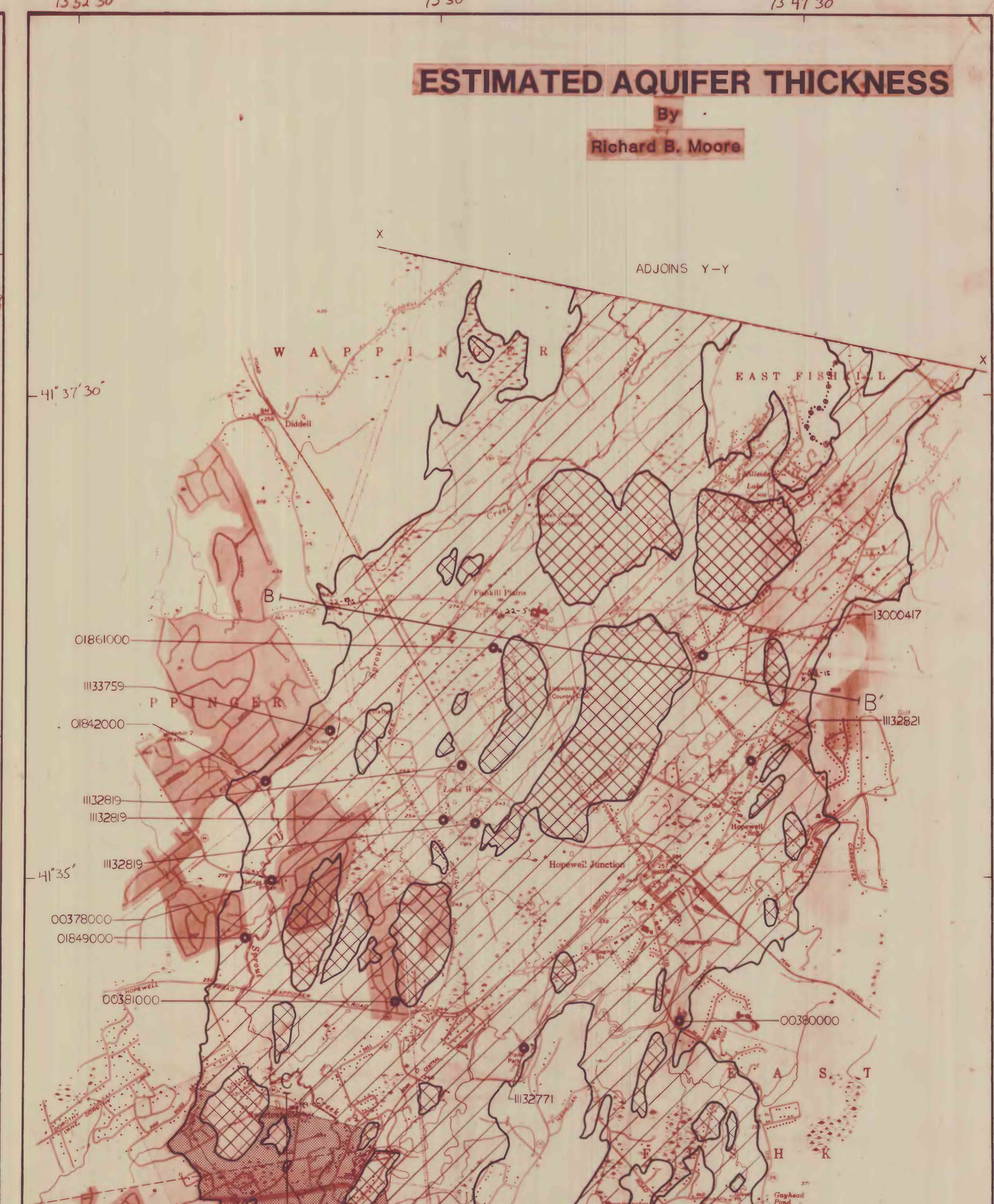

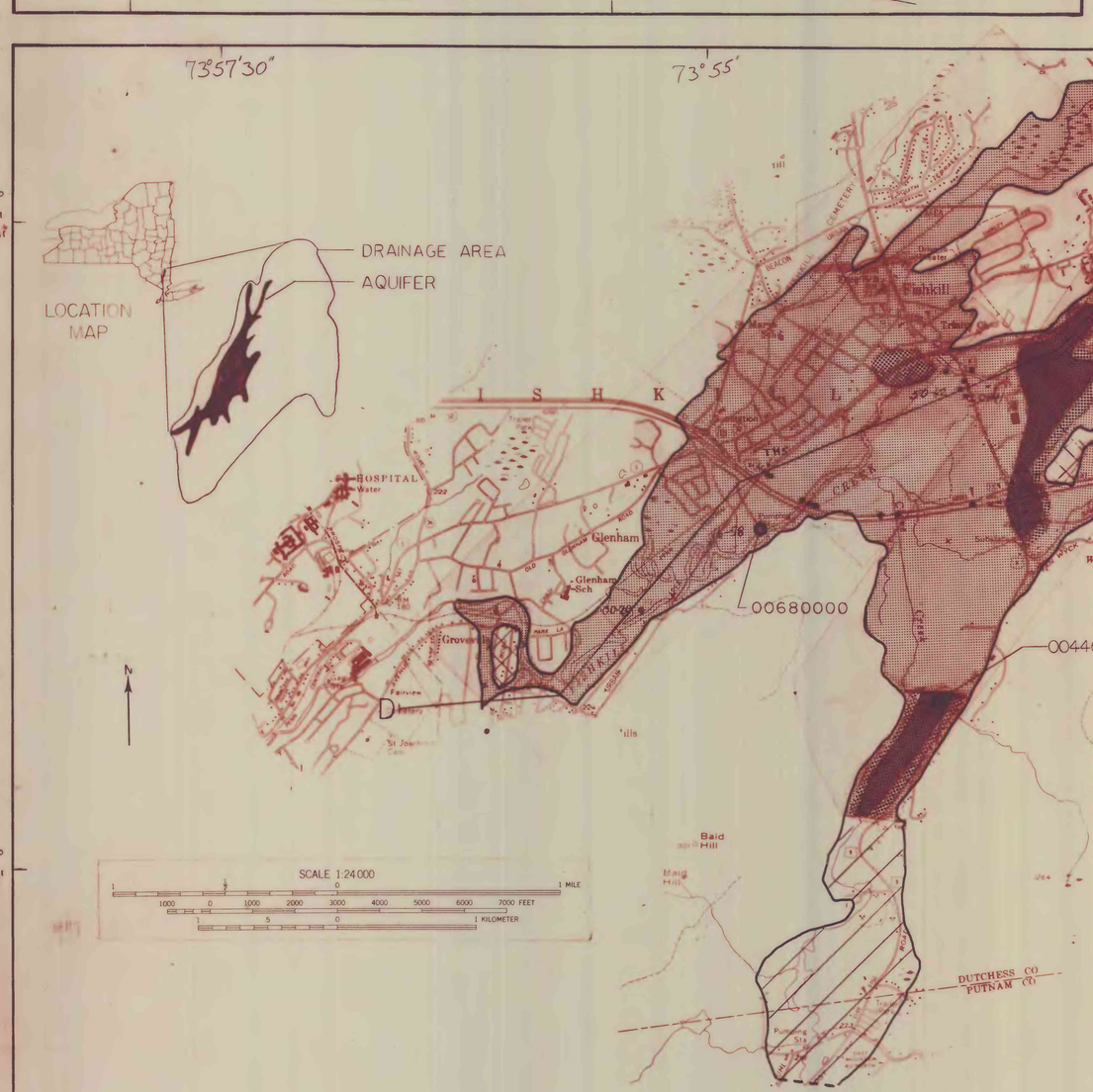

EXPLANATION

TILL/BEDROCK HILL--surrounded by aquifer

0 TO 40 FEET--range of saturated thickness of unconfined aquifer material

40 TO 100 FEET--range of saturated thickness of unconfined aquifer material

100 TO 180 FEET--range of saturated thickness of unconfined aquifer material

AREAS WHERE DATA ARE INSUFFICIENT

NOTE

The above categories of saturated thickness represent estimates of thickness of relatively highly permeable sediments extending from the water table down to the top of the first unit of low permeability (down to till, bedrock, or layer of silt and clay). The relatively highly permeable sediments range from fine sand to coarse gravel. Low-permeability layers of silt and clay form confining layers throughout the mapped area. Data concerning saturated thickness of permeable sand and gravel underlying confining silt and clay layers are insufficient to permit mapping of these thicknesses. In many places, however, deeper confined sand and gravel may have greater thicknesses (and provide higher well yields) than does the surface unconfined aquifer material. The northern part of the valley fill consists of coarse material; however additional data are required to map its saturated thickness.

AQUIFER BOUNDARY--dashed where full extent of aquifer is not shown

BOUNDARY OF HIGH PERMEABILITY MATERIAL ADJACENT TO THE AQUIFER--aquifer may extend into these areas

A—A' LINE OF SECTION--see sheet 2, "Geologic Sections"

LOCATION OF SEISMIC REFRACTION EXPLORATION

00446000 COMMUNITY WATER SYSTEM WELL OR WELL FIELD--numbered by New York State Department of Health

x16-58 WELL OR TEST HOLE--seconds of latitude-longitude (example, 16-58), or local test hole number (example, TH5), given for those wells or test holes on which geologic sections are based, sheet 2

00-20 WELL OR TEST HOLE KNOWN TO PENETRATE LOWER CONFINED AQUIFER MATERIAL--seconds of latitude-longitude (example, 00-20) given for those wells or test holes on which geologic sections are based, sheet 2

REFERENCES CITED

Dineen, R. J., unpublished, seismic refraction data, on file with New York State Geological Survey, Albany, New York.

New York State Department of Transportation, unpublished, bore-hole data, on file with New York State Geological Survey, Albany, New York.

Simmons, E. T., Grossman, I. G., and Heath, R. C., 1961, Ground-water resources of Dutchess County, New York: New York State Resources Commission Bulletin GW-43, 82 p.

Snavely, D. S., 1980, Ground-water appraisal of the Fishkill-Beacon area, Dutchess County, New York: U.S. Geological Survey Water Resources Investigation Open File Report 80-437, 14 p.

BASE FROM NEW YORK STATE DEPARTMENT OF TRANSPORTATION HOPEWELL JUNCTION, N.Y., 1973; PLEASANT VALLEY, N.Y., 1973; WAPPINGERS FALLS, N.Y., 1973; AND WEST POINT, N.Y., 1973. 1:24,000

GEOHYDROLOGY OF THE VALLEY-FILL AQUIFER IN THE SPROUT AND FISHKILL CREEKS AREA, DUTCHESS COUNTY, NEW YORK

1982

HYDROLOGY MAPPED IN 1981