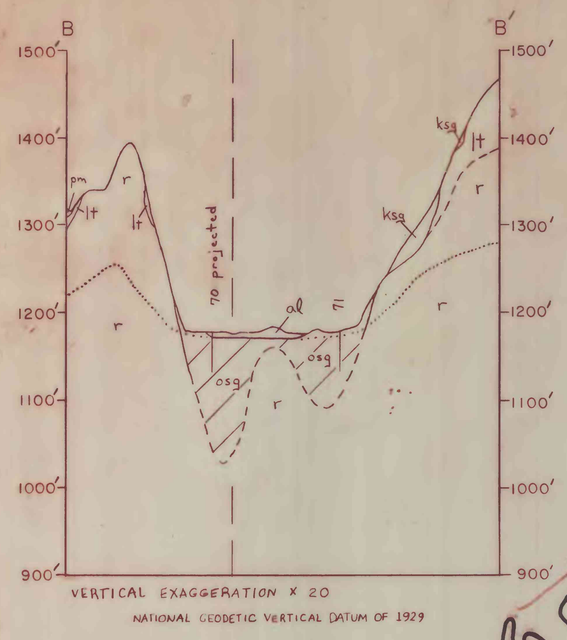
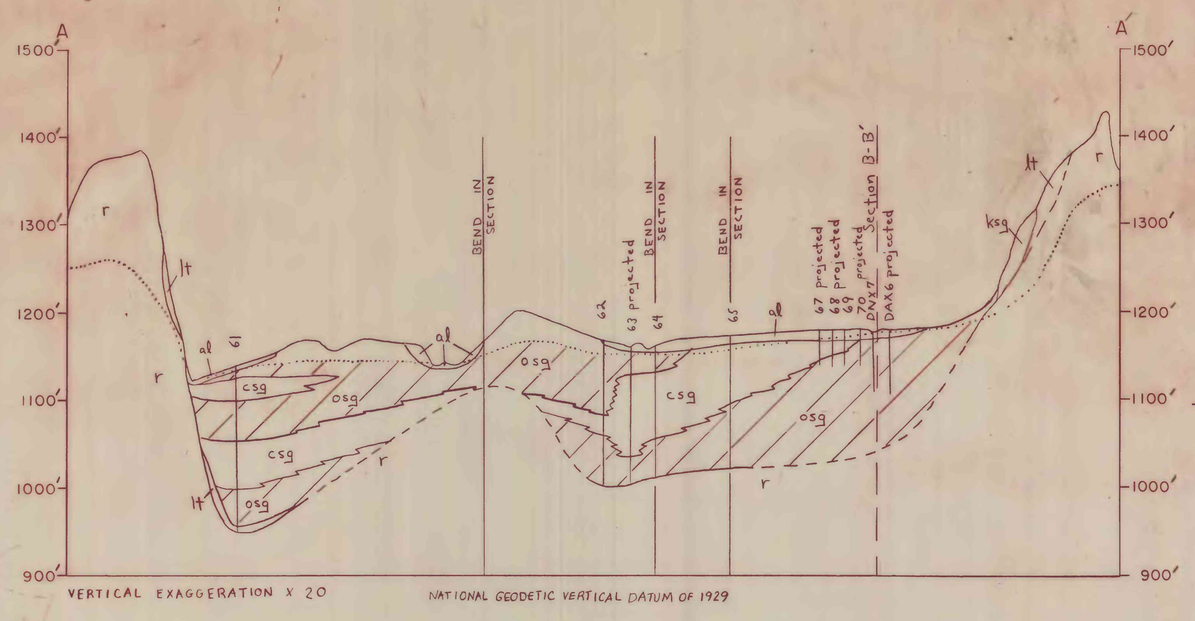
DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

PREPARED IN COOPERATION WITH THE
NEW YORK STATE DEPARTMENT OF HEALTH

OPEN-FILE REPORT 82-112
(SHEET 2 OF 6)

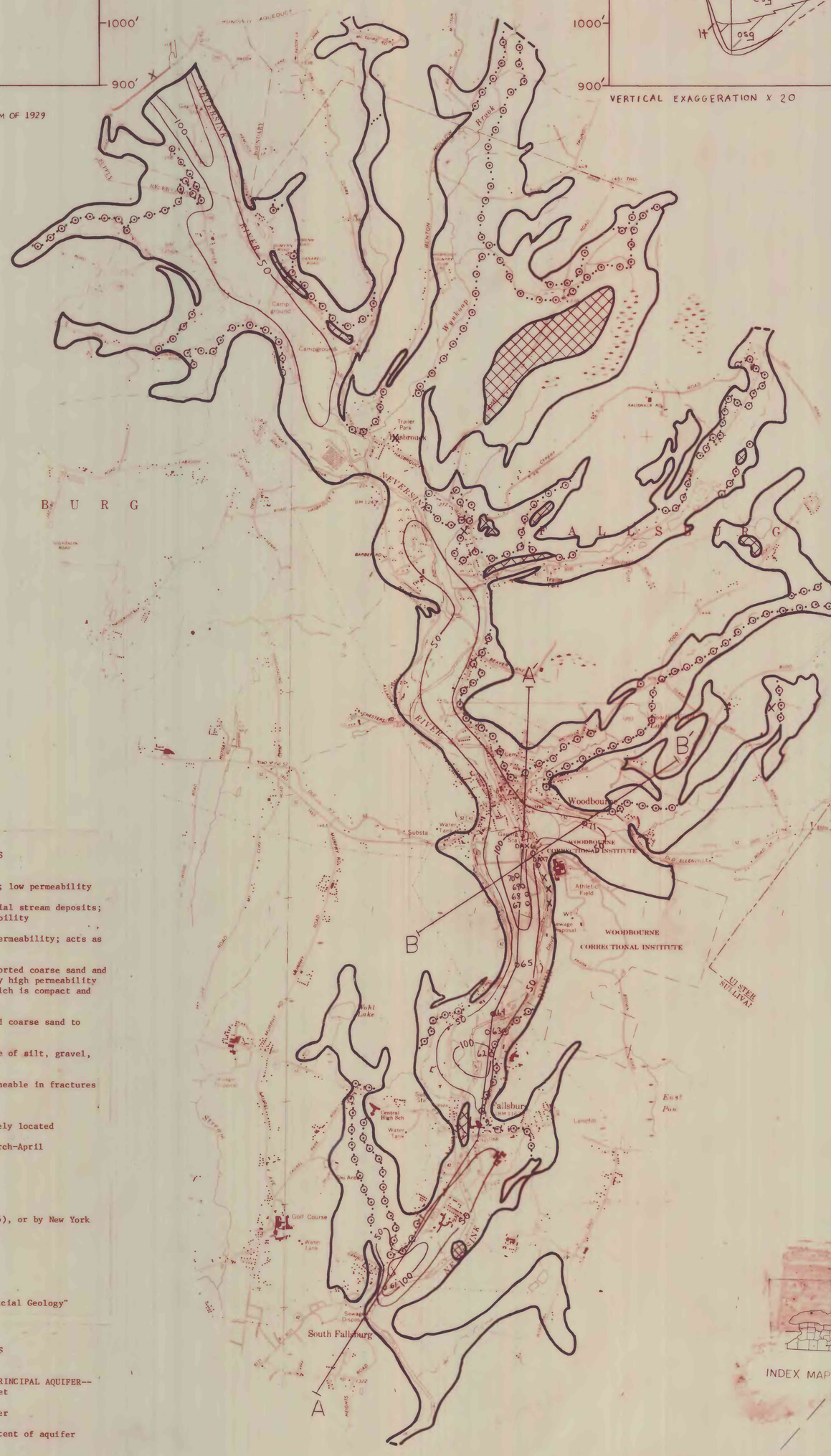




GEOLOGIC SECTIONS AND AQUIFER THICKNESS

By

Henry R. Anderson



EXPLANATION FOR GEOLOGIC SECTIONS

QUATERNARY

- **pm** — Peat, muck and clay; postglacial deposits; low permeability
- **al** — Alluvial silt, sand, and gravel; postglacial stream deposits; unconsolidated; generally moderate permeability
- **sg** — Clayey sand and gravel; low to moderate permeability; acts as semi-confining unit to lower aquifer
- **osg** — Outwash sand and gravel; generally well sorted coarse sand and cobbly gravel, some clay layers; generally high permeability (except for lower half at section B-B' which is compact and has unknown permeability
- **ksg** — Kame sand and gravel; a hill of stratified coarse sand to bouldery gravel; high permeability

DEVONIAN

- **lt** — Lodgement till; nonsorted, compact mixture of silt, gravel, and boulders; low permeability.
- **r** — Bedrock; sandstone and shale; locally permeable in fractures or joints

GEOLOGIC CONTACT--dashed where approximately located

WATER TABLE--for the seasonal high, in March-April

PRINCIPAL AQUIFER

22 — WELL OR TEST HOLE--numbered by Soren (1966), or by New York State Department of Transportation

National Geodetic Vertical Datum of 1929

Vertical exaggeration X 20

Locations of sections also shown on sheet 1, "Surficial Geology"

EXPLANATION FOR AQUIFER THICKNESS

50 — LINE OF EQUAL SATURATED THICKNESS OF PRINCIPAL AQUIFER--approximately located. Interval 50 feet

TILL BEDROCK HILL--surrounded by aquifer

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

A——A' LINE OF SECTION

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

89 — WELL OR TEST HOLE--numbered by Soren (1966), or by New York State Department of Transportation, on which geologic section is based

X — DATA POINT

NOTE

Aquifer thickness represents the estimated saturated thickness of principal aquifer from the water table to the top of the till or bedrock. The sediments range from very fine sand to coarse gravel. Discontinuous deposits of lake silt and clay occur in the aquifer material and for convenience are considered part of the aquifer. The clayey sand and gravel unit shown in geologic sections is not considered part of the principal aquifer. Relatively thick units of good gravel occur along the river and are tapped by various wells. Hydraulic continuity between the river and gravels occurs.

REFERENCES CITED

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

Soren, Julian, 1961, The ground-water resources of Sullivan County, New York: New York State Water Resources Commission Bulletin GW-46, 66 p.

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

HYDROLOGY MAPPED IN 1981