PREPARED BY ENGINEERING ENTERPRISES, INC., NORMAN, OKLAHOMA FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY UNDER CONTRACT NO. 68-01-6389

POTENTIOMETRIC SURFACE

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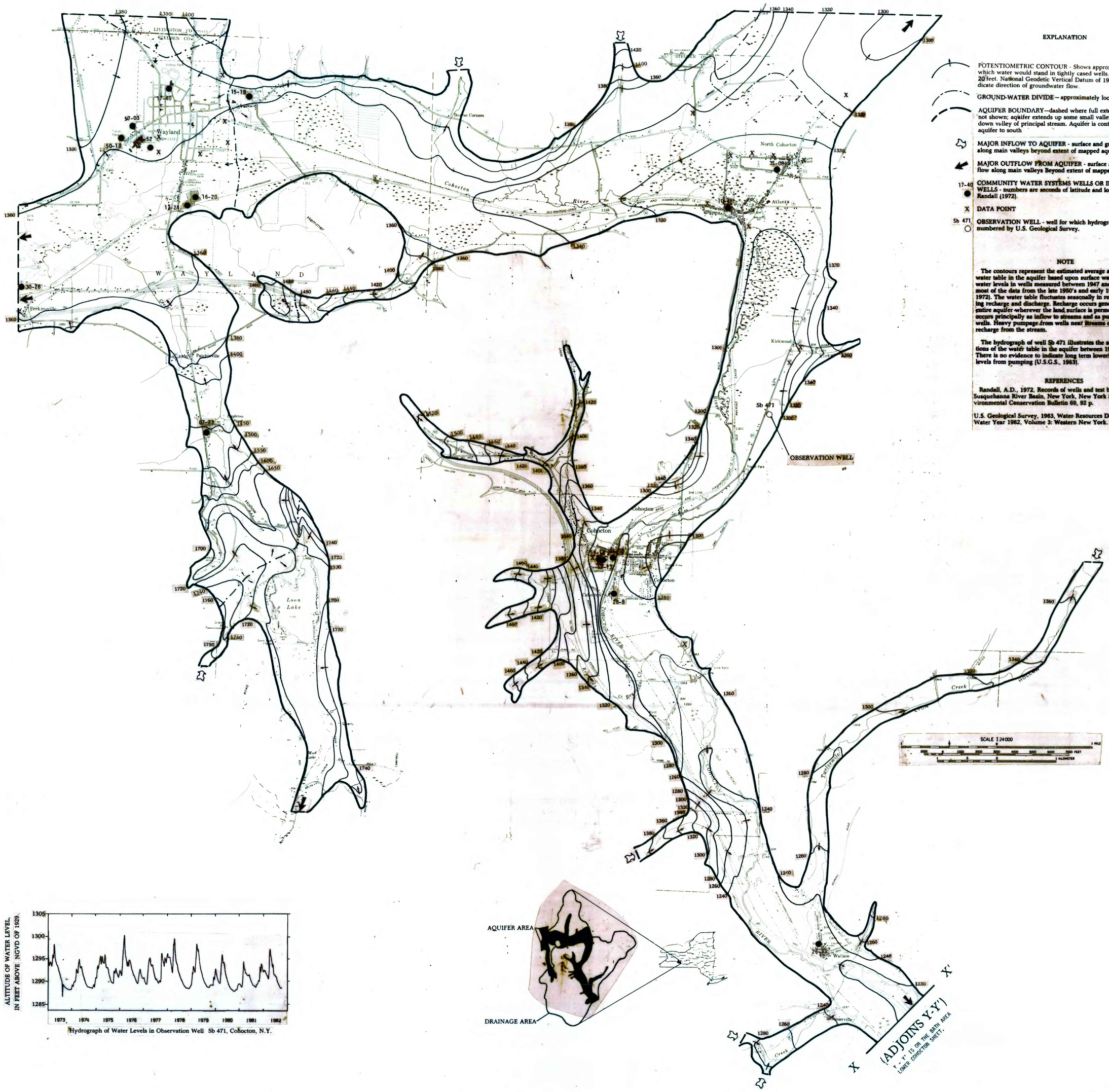

EXPLANATION

POTENTIOMETRIC CONTOUR - Shows approximate altitude at which water would stand in tightly cased wells. Contour interval 20 feet. National Geodetic Vertical Datum of 1929. Arrows indicate direction of groundwater flow.

GROUND-WATER DIVIDE — approximately located

AQUIFER BOUNDARY—dashed where full extent of aquifer is not shown; aquifer extends up some small valleys and up and down valley of principal stream. Aquifer is continuous with Bath aquifer to south

MAJOR INFLOW TO AQUIFER - surface and ground water flow along main valleys beyond extent of mapped aquifer.

MAJOR OUTFLOW FROM AQUIFER - surface and ground water flow along main valleys Beyond extent of mapped aquifer.

17-40 COMMUNITY WATER SYSTEMS WELLS OR INDUSTRIAL WELLS - numbers are seconds of latitude and longitude, after Randall (1972).

X DATA POINT

Sb 471 OBSERVATION WELL - well for which hydrograph is shown, numbered by U.S. Geological Survey.

NOTE

The contours represent the estimated average altitude of the water table in the aquifer based upon surface water levels and water levels in wells measured between 1947 and 1982, with most of the data from the late 1950's and early 1960's (Randall, 1972). The water table fluctuates seasonally in response to changing recharge and discharge. Recharge occurs generally over the entire aquifer wherever the land surface is permeable. Discharge occurs principally as inflow to streams and as pumpage from wells. Heavy pumpage from wells near streams can induce recharge from the stream.

The hydrograph of well Sb 471 illustrates the seasonal fluctuations of the water table in the aquifer between 1973 and 1982. There is no evidence to indicate long term lowering of the water levels from pumping (U.S.G.S., 1983).

REFERENCES

Randall, A.D., 1972, Records of wells and test borings in the Susquehanna River Basin, New York, New York State Dept. Environmental Conservation Bulletin 69, 92 p.

U.S. Geological Survey, 1983, Water Resources Data, New York, Water Year 1982, Volume 3: Western New York.

Hydrograph of Water Levels in Observation Well Sb 471, Cohocton, N.Y.

GEOHYDROLOGY OF THE VALLEY-FILL AQUIFER IN THE COHOCTON AREA, UPPER COHOCTON RIVER, STEUBEN COUNTY, NEW YORK

1984

BASE FROM NEW YORK STATE DEPARTMENT OF TRANSPORTATION PLANIMETRIC MAPS, WAYLAND, N.Y. 1977, NAPLES, N.Y. 1977, AVOCA, N.Y. 1977, HASKINVILLE, N.Y. 1977. 1:24,000