U. S. DEPARTMENT OF THE INTERIOR
U. S. GEOLOGICAL SURVEY

PREPARED IN COOPERATION WITH
WARWICK TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA

OPEN-FILE REPORT 97-554

Base from U. S. Geological Survey
Buckingham 1:24,000 1980, Contour interval 20 feet;
Hatboro 1:24,000 1983, Contour interval 10 feet;
Doylestown 1:24,000 1983, Contour interval 20 feet;
Ambler 1:24,000 1983, Contour interval 10 feet.

SCALE
0 0.2 0.4 0.6 0.8 1 MILE
0 0.2 0.4 0.6 0.8 1 KILOMETER

MN
GN
11°
204 MILLS
0 07'
2 MILS

UTM GRID AND 1983 MAGNETIC NORTH DECLINATION AT CENTER OF AMBLER QUADRANGLE

EXPLANATION

TOWNSHIP AND STUDY AREA BOUNDARY

—310— — · POTENTIOMETRIC CONTOUR--Shows altitude of potentiometric surface as defined by measured water levels, altitudes of streams, and springs and topography. Dashed where approximately located. Intermittent streams are discharge areas during periods of high ground-water levels. Hachured contour lines estimate depression in the potentiometric surface due to nearby pumping. Contoured potentiometric surface represents the water table except at wells that are completed in semiconfined zones in the aquifer. Contour interval is 20 feet except near pumping public supply wells where contour interval is variable. Altitude in feet above National Geodetic Vertical Datum of 1929.

WATER-LEVEL MEASUREMENT SITE--Symbol gives location of site. Number is altitude of water level in feet above National Geodetic Vertical Datum of 1929. Wells outside the study area are shown where they were used to contour the potentiometric surface.

177 Altitude of static water level measured in drilled or dug well.

111 Reported altitude of pumping water level in municipal supply wells.

216 Altitude of static water level that represents a potentiometric surface other than the water table. Measuring points include wells that may penetrate a deeper semiconfined aquifer, and data may reflect a composite head. These data were not used to contour the potentiometric surface and are included for information only.

189 Median reported altitude of pumping water level in public supply well during September 1994.

The difference between the minimum and maximum depth to water for monthly measurements in four observation wells in Warwick and Warminster Townships ranged from 1.74 to 2.16 feet (median = 1.98 feet) during September 1994 through May 1995. The difference between the minimum and maximum depth to water for observation well BK-1020, which is approximately 1.5 miles southeast of Warwick Township and located in Warminster Township, was 6.99 feet during September 1994 through May 1995. Observation well BK-1020 is equipped with a satellite data-collection platform that records and transmits continuous water-level data. Figure 1 shows a hydrograph of mean daily water levels for observation well BK-1020 for the period September 1994 through May 1995.

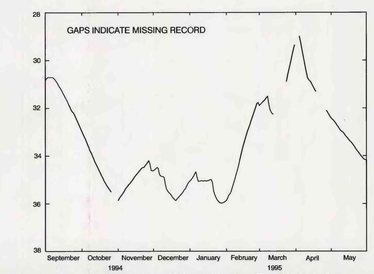
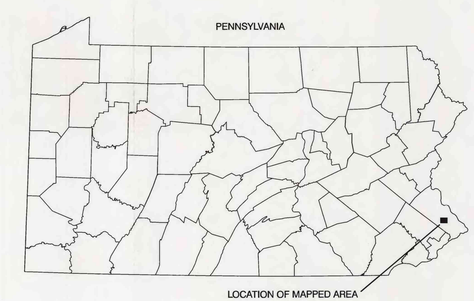


Figure 1.-- Hydrograph of observation well BK-1020, Warminster Township, Bucks County, Pennsylvania, showing mean daily water levels; September 1994 to May 1995



ALTITUDE AND CONFIGURATION OF THE POTENTIOMETRIC SURFACE IN WARWICK TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA, SEPTEMBER 1994 THROUGH MAY 1995

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