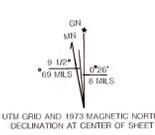
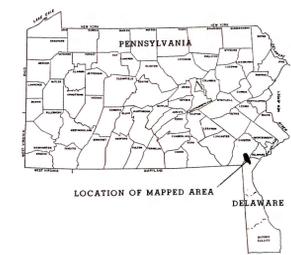




Base from U.S. Geological Survey
Contourville, 1:25,000, 1975
Kennerly Square, 1:25,000, 1975
Newark East, 1:25,000, 1965
Unionville, 1:25,000, 1975
West Grove, 1:25,000, 1975
Wilmington North, 1:25,000, 1967

- EXPLANATION**
- BOUNDARY OF STUDY AREA --- The Red Clay Creek surface-water drainage basin boundary is the boundary of the mapped area.
 - 320 --- WATER-LEVEL CONTOUR --- Shows altitude of the water-level surface of the ground-water system. Dashed where approximately located. Shape and altitude inferred from topography, elevations of streams and springs, and water levels in wells. Contour interval, 20 feet. National Geodetic Vertical Datum of 1929.
 - WATER-LEVEL MEASUREMENT SITES --- Symbol gives location of site. Number is altitude of water level, in feet above National Geodetic Vertical Datum of 1929. Wells and springs outside the study area are shown where they were used to contour the water-level surface.
 - 378 Altitude of static water level measured in drilled or dug well completed in lower Paleozoic or Precambrian crystalline rocks. Year of water-level observation in parentheses () if measured or reported for a period other than June through October 1989 and March 1990. Pre-1989 measurements were incorporated to provide control in areas where more recent data were not available.
 - 340 Elevation of land surface at site of well completed in lower Paleozoic or Precambrian crystalline rocks that was flowing between June 1989 and October 1989.
 - 409 Altitude of static water level measured on June 6, 1989, in drilled or dug observation well completed in lower Paleozoic or Precambrian crystalline rocks.
 - 314 Altitude of static water level in drilled or dug observation well equipped with a recorder and completed in lower Paleozoic or Precambrian crystalline rocks. Water levels were measured on June 23, 1989, for observation wells located in Pennsylvania and on June 30, 1989, for observation wells located in Delaware.
 - 325 Altitude of spring used for domestic water supply that was flowing between June 1989 and October 1989.
 - 335 Altitude of unused spring that was flowing between June 1989 and October 1989.
- The difference between the minimum and maximum depth to water for monthly measurements at 15 observation wells in the Red Clay Creek basin was 0.29 to 3.93 feet (median = 2.04 feet) during June to October 1989. March 1990 water-levels measured in nine observation wells were greater than the maximum depth to water measured during the earlier period by 0.05 to 1.39 feet (median = 0.57 feet). Water levels measured in six observation wells in March 1990 were within the range of water-level fluctuations for the well during June to October 1989.

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ALTITUDE AND CONFIGURATION OF THE WATER-LEVEL SURFACE IN THE LOWER PALEOZOIC AND PRECAMBRIAN CRYSTALLINE ROCKS OF THE RED CLAY CREEK BASIN, CHESTER COUNTY, PENNSYLVANIA, AND NEW CASTLE COUNTY, DELAWARE, JUNE THROUGH OCTOBER 1989 AND MARCH 1990
By Karen L. Vogel, Wendy L. Miller, and B. Craig McManus
1991