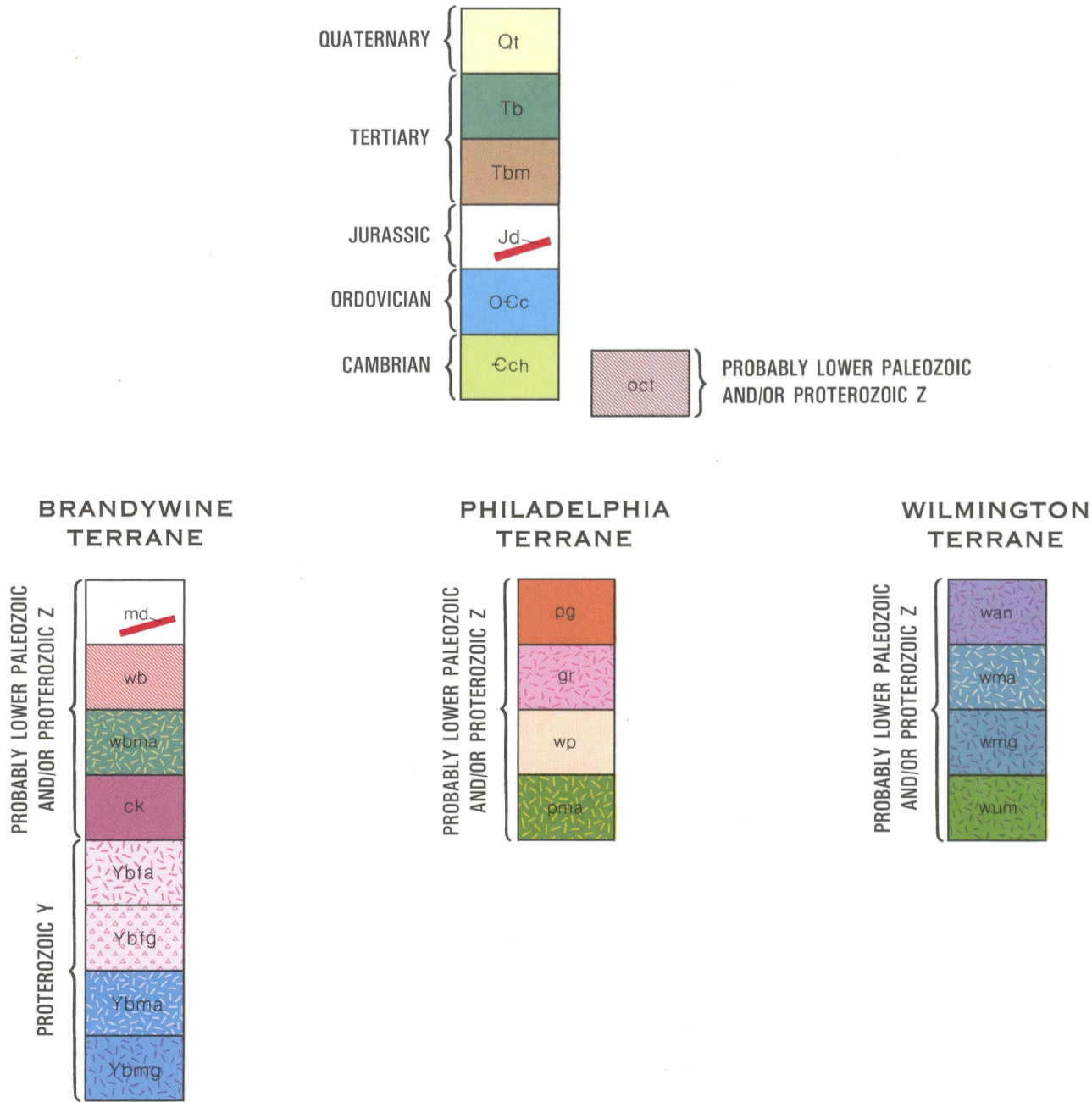


EXPLANATION		
UNIT ¹	GEOLOGIC DESCRIPTION	WATER-BEARING PROPERTIES
TRENTON GRAVEL Qt	Gray or pale-reddish-brown, very gravely sand interstratified with crossbedded sand and clay-silt beds; includes areas of Holocene alluvium and swamp deposits.	Not a major aquifer; deposits are generally less than 20 feet thick. Median yield for nine wells is 50 gal/min. Extensive areas of chemical contamination.
BRIDGETON FORMATION Tb	Dark-reddish-brown, cross-stratified, feldspathic quartz sand and some thin beds of fine gravel and rare layers of clay or silt.	Thin deposits generally above the water table. Not used as a source of supply.
BRYN MAWR FORMATION Tbm	Reddish-brown high-level terrace deposits; gravely sand and some silt. Age uncertain.	
DIABASE Jd	Dark-gray, medium- to coarse-grained diabase; composed of labradorite and various pyroxenes; occurs as dikes and sheets.	Not utilized as an aquifer.
CONESTOGA FORMATION OEc	Light-gray, thin-bedded, impure limestone having shale partings; conglomeratic at base; includes micaceous limestone in upper part, phyllite in middle, and alternating dolomite and limestone in lower part.	Very small areal extent; not important as an aquifer.
CHICKIES FORMATION Cch	Light-gray, hard, massive quartzite and quartz schist; thin interbeds of dark slate at top.	Very small areal extent; not important as an aquifer.
METADIABASE md	Dark-gray, fine-grained intrusive rock; locally, mineralogy is altered and unit has greenish color.	Not utilized as an aquifer.
PEGMATITE pg	White, coarse- to medium-grained granitic pegmatite; contacts range from sharp to narrowly gradational; some zoning in places.	Not utilized as an aquifer.
ANORTHOSITIC GNEISS wan	Light- to dark-bluish-gray, medium- to coarse-grained gneiss; predominantly plagioclase; local alteration minerals.	Yields of six domestic wells range from 1 to 35 gal/min. Water is acidic, moderately hard to hard, and low in dissolved solids.
GRANODIORITIC GNEISS gr	Pink to white, rarely dark, coarse- to very fine grained granodioritic gneiss and granite; moderate to strong foliation; commonly contains biotite and muscovite.	Domestic wells yield up to 100 gal/min; the median yield is 10 gal/min. Water is slightly acidic, generally soft to moderately hard, and low in dissolved solids.
OCTORARO FORMATION oct	Greenish-gray to silvery-gray, fine- to medium-grained phyllite; finely foliated and laminated; locally sheared.	Small areal extent; water-bearing properties are unknown.
WISSAHICKON FORMATION wb	Dark- to light-gray, well foliated schist and gneiss, having some quartz- and/or feldspar-rich layers; quartz, feldspar, biotite, and muscovite are primary minerals; sillimanite, kyanite, andalusite, or garnets occur, depending upon degree of metamorphism.	Most productive consolidated rock aquifer. Yields range to 300 gal/min; the median yield is 20 gal/min. Water is acidic, generally soft to moderately hard, and low in dissolved solids. Thirty-eight percent of the wells exceed the maximum contaminant level of the U.S. Environmental Protection Agency for iron, and 62 percent exceed the maximum contaminant level for manganese.
WISSAHICKON FORMATION wp		
MAFIC GNEISS HORNBLende-BEARING wbma	Dark, medium-grained, hornblende-bearing gneiss; foliated.	Domestic wells yield up to 150 gal/min; the median yield is 10 gal/min. Water is acidic, generally soft to moderately hard, and low in dissolved solids.
MAFIC GNEISS PYROXENE-BEARING wmg	Dark, medium-grained, pyroxene-bearing gneiss; foliated.	
ULTRAMAFITE wum	Pale- to dark-green, and gray serpentine; locally contains anthophyllite, talc, and/or chlorite; commonly has sheared appearance.	The median yield for nine domestic wells is 18 gal/min. Water is slightly alkaline, moderately hard to very hard, and low in dissolved solids.
COCKEYSVILLE MARBLE ck	White to light-bluish-gray, finely to coarsely crystalline marble; locally contains scattered tan phlogopite flakes.	Very small areal extent; not important as an aquifer.
FELSIC GNEISS HORNBLende-BEARING ybfa	Light- to medium-gray, medium-grained gneiss; finely to coarsely layered; contains potassium feldspar, hornblende, and garnet.	Domestic wells yield up to 100 gal/min; the median yield is 10 gal/min. Water is slightly acidic, generally soft to moderately hard, and low in dissolved solids.
FELSIC GNEISS PYROXENE-BEARING ybig	Light- to dark-gray, fine- to coarse-grained gneiss; contains orthoclase, mesoperthite, hypersthene, kyanite, and garnet.	
MAFIC GNEISS HORNBLende-BEARING ybma	Dark, medium-grained, hornblende-bearing gneiss; foliated.	Domestic wells yield up to 150 gal/min; the median yield is 10 gal/min. Water is acidic, generally soft to moderately hard, and low in dissolved solids.
MAFIC GNEISS PYROXENE-BEARING ymg	Dark, medium-grained, pyroxene-bearing gneiss.	

¹The stratigraphic nomenclature follows the usage of the Pennsylvania Geological Survey and does not in all cases conform to the usage of the U.S. Geological Survey.

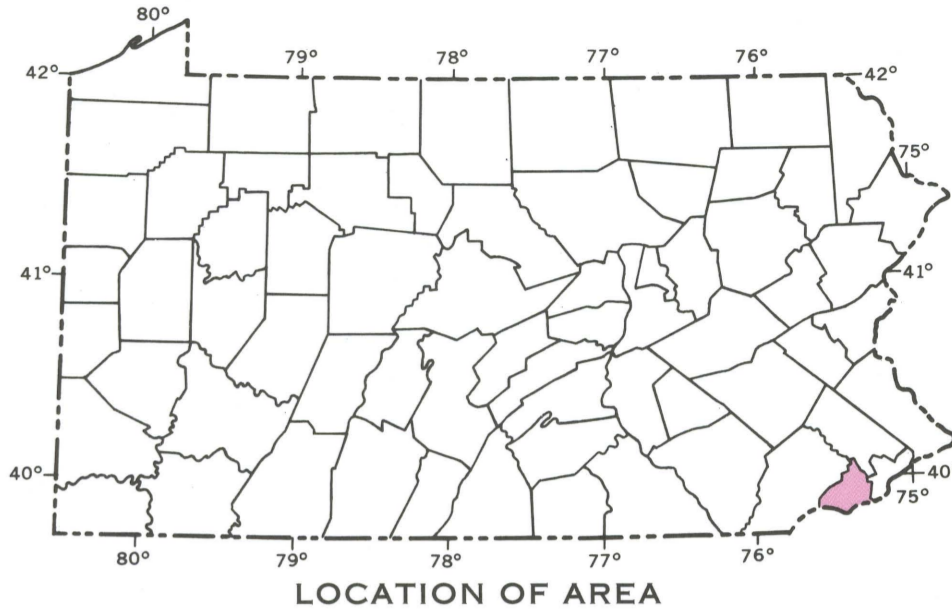
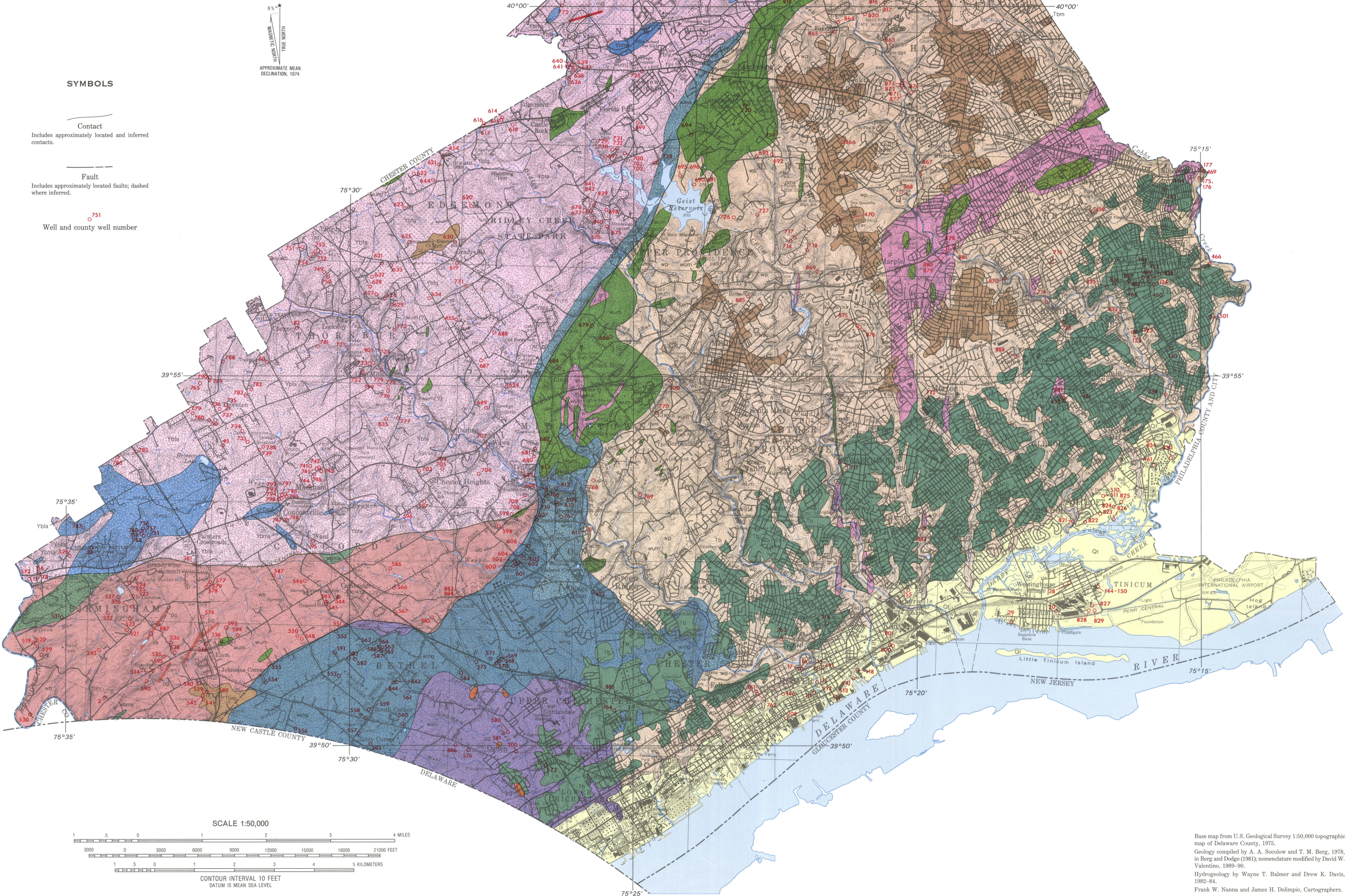
CORRELATION OF GEOLOGIC UNITS



GEOLOGIC MAP OF
DELAWARE COUNTY, PENNSYLVANIA,
SHOWING THE LOCATIONS
OF SELECTED WELLS

HYDROGEOLOGY BY
WAYNE T. BALMER AND DREW K. DAVIS

1993



Base map from U.S. Geological Survey 1:50,000 topographic map of Delaware County, 1975.
Geology compiled by A. A. Sociolew and T. M. Berg, 1978, in Berg and Dodge (1981); nomenclature modified by David W. Valentino, 1989-90.
Hydrogeology by Wayne T. Balmer and Drew K. Davis, 1982-84.
Frank W. Nanna and James H. Dolipino, Cartographers.