

U.S. GEOLOGICAL SURVEY
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 STATE OF PENNSYLVANIA
 GEORGE W.M.C. NEES, SIMON HARROLD,
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AREAL GEOLOGY

PENNSYLVANIA
 CONNELLSVILLE QUADRANGLE

LEGEND

SURFICIAL ROCKS
(Areas of Surficial rocks are shown by patterns of lines and circles)

- Pa1 Alluvium
(in flood plains of present streams)
- Pcm Carmichael clay
(clay sand and bowlders on terraces and in abandoned channels of the larger streams)

PLEISTOCENE

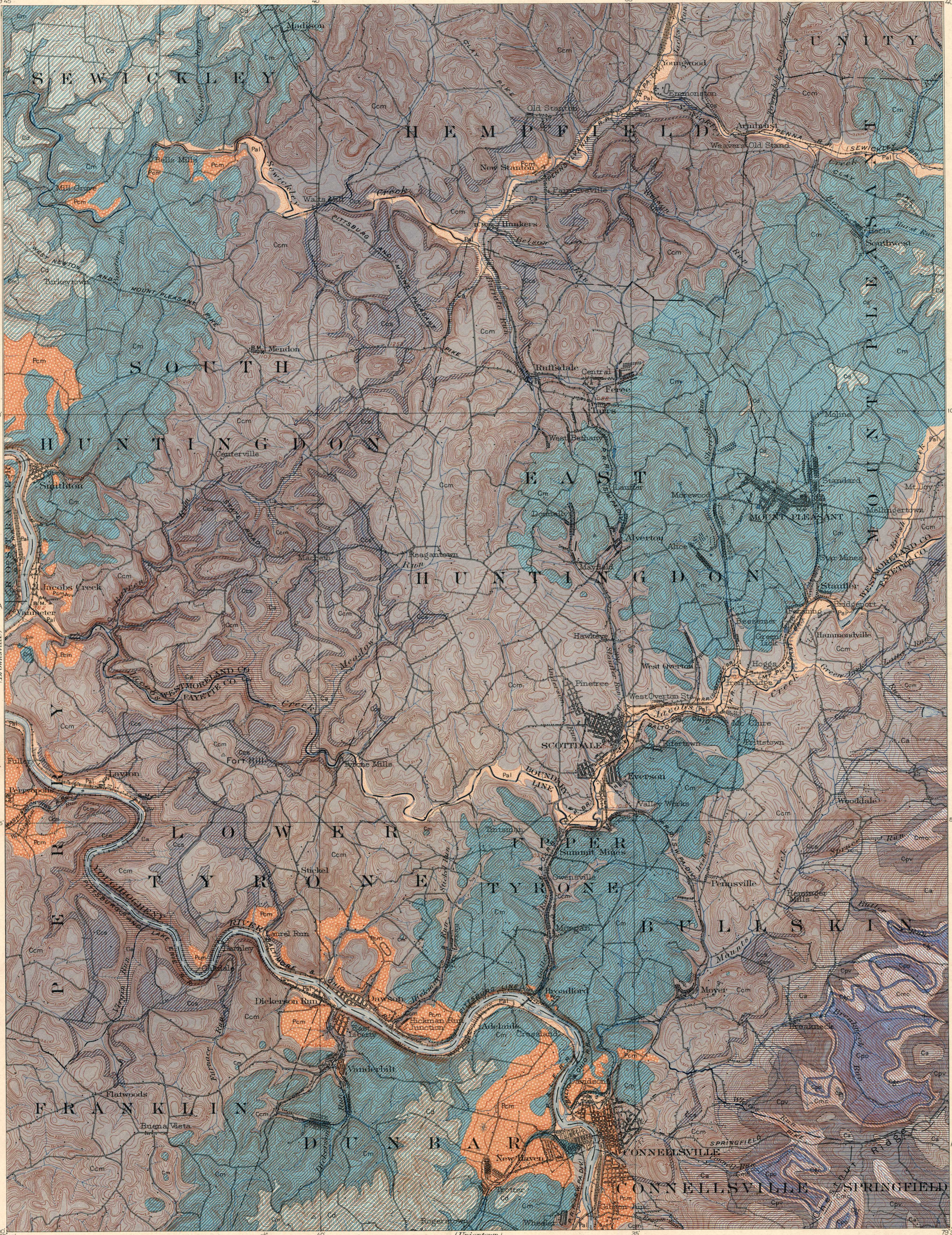
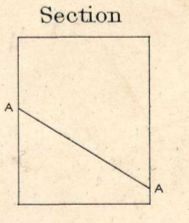
SEDIMENTARY ROCKS
(Areas of Sedimentary rocks are shown by patterns of parallel lines)

- Cd Dunkard formation
(heavy shale, coarse sandstone, some thin limestone and beds of many of workable size)
- Cm Monongahela formation
(shale, limestone, and occasionally coarse sandstone, bituminous coal at the bottom, Waverly coal at the top, and coal beds of local importance between)
- Ccm Conemaugh formation exclusive of the Saltsburg sandstone
(sandstone, shale, small amount of limestone and a few small coal beds)
- Ccs Saltsburg sandstone lenticular in the Conemaugh formation
(coarse thick bedded or massive sandstone in the Conemaugh formation)
- Ca Allegheny formation
(shale, sandstone, and clay with several workable coal beds, Upper Freeport coal at the top)
- Gpv Pottsville sandstone
(coarse massive sandstone or conglomerate with some shale and usually a coal bed at the middle)
- Gmc Manch Chunk formation exclusive of the Greenbrier limestone
(red and green shale and thin bedded green sandstone)
- Cgr Greenbrier limestone lenticular in the Manch Chunk formation
(thin blue fossiliferous limestone in the Manch Chunk shale)
- Cpo Pocono sandstone
(coarse sandstone grading into very sandy limestone at the top and usually containing sandy shale)

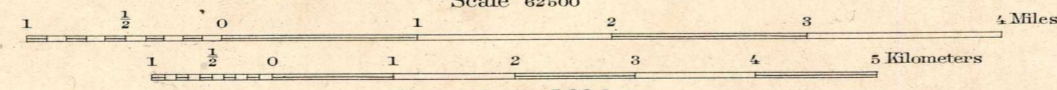
CARBONIFEROUS

Pennsylvanian series

Mississippian series



H.M. Wilson, Geographer in charge.
 Control by Walter R. Harper and A.C. Roberts.
 Topography by Frank Surton, J.H. Wheat, T.G. Basinger, and H.C. Frick Coke Co.
 Surveyed in 1900 in cooperation with the State of Pennsylvania.



Scale 62500
 Contour interval 20 feet.
 Datum is mean sea level.
 Edition of Feb. 1903.

Geology by Marius R. Campbell.
 Assisted by L.C. Glenn,
 Charles Butts, and L.H. Woolsey.
 Surveyed in 1901.