

Generalized correlation chart for the Pennsylvanian of eastern Kentucky showing the principle coal beds, and named sandstones, marine marker, and clay beds

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U. S. GEOLOGICAL SURVEY  
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| SERIES                         | NORTH                                                                                                                                                                                                                                                                                                             | EAST                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | SOUTHWEST                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | SOUTHEAST                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| FORMATION                      | Ames Limestone Member                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Upper Pennsylvanian            | Brush Creek (Cambridge) Limestone Member<br>Princess No. 10 or Brush Creek coal                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Missouri and Virgil            | Princess No. 9 coal zone<br>Princess No. 9 coal<br>Princess No. 7 coal<br>Princess No. 6 coal<br>Hitching clay bed<br>Vannoy Limestone of Phalon (1912)<br>Princess No. 5 B coal                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Cameau and Monongahela         | Kilgore Flint<br>Princess No. 5 or Skyline coal zone<br>Tip Top coal<br>Princess No. 4 coal<br>Main Block ore                                                                                                                                                                                                     | Richardson coal zone<br>Broad coal zone<br>Hindman coal zone<br>Peach Orchard coal zone<br>Buffalo Creek coal<br>Hazard coal zone<br>Vinifredo coal                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Flint Ridge Flint of Morse (1931)<br>Knob coal zone<br>Broad coal<br>Lost Creek Limestone of Huested zone<br>Hindman or Hazard No. 9 coal<br>Hazard No. 8 or Francis coal zone<br>Hazard No. 7 coal zone<br>Big Wheel coal<br>Hazard coal zone<br>Lankford or Under Mine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Des Moines                     | Hazard or Index coal<br>Prater coal zone<br>Haddis coal zone<br>Trace Fork coal<br>Magoffin Member<br>Taylor coal<br>Hamlin coal zone                                                                                                                                                                             | Hazard coal zone<br>Haddis coal zone<br>Magoffin Member<br>Taylor coal<br>Hamlin coal zone                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Hazard coal zone<br>Red Ash coal<br>Magoffin Member<br>Copland or Sharp coal<br>Hamlin coal zone<br>Beach Grove coal<br>Hatfield coal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | High Split coal<br>Red Springs coal<br>Low Split or Harris coal<br>Magoffin Member<br>Limestone coal<br>Pardee coal<br>Jesse Sandstone Member<br>Niguite or Smith coal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Afton                          | Fire Clay - Whitesburg coal zone<br>Little Fire Clay coal<br>Whitesburg coal<br>Kendrick Shale of Fillion (1919)<br>Gan Creek or Cannell City coal                                                                                                                                                                | Fire Clay wider coal<br>Fire Clay or Hazard No. 4 coal<br>Little Fire Clay coal<br>Whitesburg coal zone<br>Kendrick Shale of Fillion (1919)<br>Williamson coal<br>Amburg coal zone<br>Elkins Fork Shale of Morse (1931)<br>Upper Elkhorn No. 3, Thacker, Hobbs coal<br>or Cedar Grove coal zone<br>Sidney coal<br>Upper Elkhorn No. 2 coal<br>Alma coal zone<br>Upper Elkhorn No. 1 coal<br>Campbell Creek Limestone of White (1885)<br>Lower Elkhorn or Pond Creek coal<br>Powellton coal zone                                                                                                                              | Big Mary coal<br>Hazard No. 4, Windrock, or Dean coal<br>Upper Pioneer coal<br>Whitesburg coal zone<br>Kendrick Shale of Fillion (1919)<br>Lower Pioneer coal<br>Jordan coal<br>Elkins Fork Shale of Morse (1931)<br>Upper Elkhorn No. 3<br>Elk Gap coal<br>coal zone<br>Link Fork coal<br>Jalliso coal zone<br>Vingo coal<br>Blue Gem coal zone<br>Little Blue Gem or Black Wax coal<br>Dicie coal<br>Lilly, Colony, Manchester, River Gun or Swamp Angel coal<br>Cedar coal<br>Glammorgan coal zone<br>Eagle Limestone of White (1911)<br>Little Cedar or Haggy coal<br>Splash Dam coal<br>Elswick coal<br>Lower Banner coal                                                                                                                                                      | Stray<br>Walrus Creek coal<br>Rickett Sandstone Member coal zone<br>Kendrick Shale of Fillion (1919)<br>Sterling coal<br>Creach coal zone<br>Poplar Lick coal<br>Elkins Fork Shale of Morse (1931)<br>Taggart coal zone<br>Buckeye Spring or Arby coal<br>Taggart Forker or Hollicka coal<br>Mingo or Harlan Collier coal coal zone<br>Pink Mountain, RA Fork, or Suboden coal<br>Phoebe coal<br>Kent or Bennetts Fork coal<br>Hance coal zone<br>Murray, Chenoa, or Mason coal<br>Splitstream coal<br>Rex or Clear Fork coal<br>Yellow Creek Sandstone Member<br>Haese and Big Rock Haese coal<br>Sandstone Members<br>Stannel or Raven coal<br>Middleboro Sandstone Member<br>Cumberland Gap coal<br>White Rocks Sandstone Member<br>Chadwell Member<br>Tennate Overlook Member |
| Bethlehem                      | Fine Clay - Whitesburg coal zone<br>Little Fire Clay coal<br>Whitesburg coal<br>Kendrick Shale of Fillion (1919)<br>Gan Creek or Cannell City coal                                                                                                                                                                | Fire Clay wider coal<br>Fire Clay or Hazard No. 4 coal<br>Little Fire Clay coal<br>Whitesburg coal zone<br>Kendrick Shale of Fillion (1919)<br>Williamson coal<br>Amburg coal zone<br>Elkins Fork Shale of Morse (1931)<br>Upper Elkhorn No. 3, Thacker, Hobbs coal<br>or Cedar Grove coal zone<br>Sidney coal<br>Upper Elkhorn No. 2 coal<br>Alma coal zone<br>Upper Elkhorn No. 1 coal<br>Campbell Creek Limestone of White (1885)<br>Lower Elkhorn or Pond Creek coal<br>Powellton coal zone                                                                                                                              | Big Mary coal<br>Hazard No. 4, Windrock, or Dean coal<br>Upper Pioneer coal<br>Whitesburg coal zone<br>Kendrick Shale of Fillion (1919)<br>Lower Pioneer coal<br>Jordan coal<br>Elkins Fork Shale of Morse (1931)<br>Upper Elkhorn No. 3<br>Elk Gap coal<br>coal zone<br>Link Fork coal<br>Jalliso coal zone<br>Vingo coal<br>Blue Gem coal zone<br>Little Blue Gem or Black Wax coal<br>Dicie coal<br>Lilly, Colony, Manchester, River Gun or Swamp Angel coal<br>Cedar coal<br>Glammorgan coal zone<br>Eagle Limestone of White (1911)<br>Little Cedar or Haggy coal<br>Splash Dam coal<br>Elswick coal<br>Lower Banner coal                                                                                                                                                      | Stray<br>Walrus Creek coal<br>Rickett Sandstone Member coal zone<br>Kendrick Shale of Fillion (1919)<br>Sterling coal<br>Creach coal zone<br>Poplar Lick coal<br>Elkins Fork Shale of Morse (1931)<br>Taggart coal zone<br>Buckeye Spring or Arby coal<br>Taggart Forker or Hollicka coal<br>Mingo or Harlan Collier coal coal zone<br>Pink Mountain, RA Fork, or Suboden coal<br>Phoebe coal<br>Kent or Bennetts Fork coal<br>Hance coal zone<br>Murray, Chenoa, or Mason coal<br>Splitstream coal<br>Rex or Clear Fork coal<br>Yellow Creek Sandstone Member<br>Haese and Big Rock Haese coal<br>Sandstone Members<br>Stannel or Raven coal<br>Middleboro Sandstone Member<br>Cumberland Gap coal<br>White Rocks Sandstone Member<br>Chadwell Member<br>Tennate Overlook Member |
| Lower and Middle Pennsylvanian | Tom Cooper, Van Lear, or Little Caney coal<br>Grassy coal<br>Brain or Wolf Creek coal<br>Gifford sandstone bed<br>Frozen Sandstone Member<br>Zachariah or Wheelersburg coal<br>Corbin Vaneve coal<br>Sandstone Member<br>Mine Fork coal<br>Warm Fork coal<br>Anthony coal<br>Olive Hill Clay Bed of Crider (1912) | Elkins Fork Shale of Morse (1931)<br>Upper Elkhorn No. 3, Thacker, Hobbs coal<br>or Cedar Grove coal zone<br>Sidney coal<br>Upper Elkhorn No. 2 coal<br>Alma coal zone<br>Upper Elkhorn No. 1 coal<br>Campbell Creek Limestone of White (1885)<br>Lower Elkhorn or Pond Creek coal<br>Powellton coal zone<br>Cannellton Limestone of White (1885)<br>Clintonwood or Matewan coal<br>Bingham coal zone<br>Cedar coal<br>Glammorgan coal zone<br>Eagle Limestone of White (1911)<br>Little Cedar or Haggy coal<br>Splash Dam coal<br>Elswick coal<br>Lower Banner coal<br>Anthony coal<br>Olive Hill Clay Bed of Crider (1912) | Big Mary coal<br>Hazard No. 4, Windrock, or Dean coal<br>Upper Pioneer coal<br>Whitesburg coal zone<br>Kendrick Shale of Fillion (1919)<br>Lower Pioneer coal<br>Jordan coal<br>Elkins Fork Shale of Morse (1931)<br>Upper Elkhorn No. 3<br>Elk Gap coal<br>coal zone<br>Link Fork coal<br>Jalliso coal zone<br>Vingo coal<br>Blue Gem coal zone<br>Little Blue Gem or Black Wax coal<br>Dicie coal<br>Lilly, Colony, Manchester, River Gun or Swamp Angel coal<br>Cedar coal<br>Glammorgan coal zone<br>Eagle Limestone of White (1911)<br>Little Cedar or Haggy coal<br>Splash Dam coal<br>Elswick coal<br>Lower Banner coal<br>Rockcastle Sandstone Member<br>Bonner Creek coal<br>Sterns No. 12 coal<br>Hudson, Lee No. 1, or Sterns No. 10 coal<br>Livingston Limestone Member | Stray<br>Walrus Creek coal<br>Rickett Sandstone Member coal zone<br>Kendrick Shale of Fillion (1919)<br>Sterling coal<br>Creach coal zone<br>Poplar Lick coal<br>Elkins Fork Shale of Morse (1931)<br>Taggart coal zone<br>Buckeye Spring or Arby coal<br>Taggart Forker or Hollicka coal<br>Mingo or Harlan Collier coal coal zone<br>Pink Mountain, RA Fork, or Suboden coal<br>Phoebe coal<br>Kent or Bennetts Fork coal<br>Hance coal zone<br>Murray, Chenoa, or Mason coal<br>Splitstream coal<br>Rex or Clear Fork coal<br>Yellow Creek Sandstone Member<br>Haese and Big Rock Haese coal<br>Sandstone Members<br>Stannel or Raven coal<br>Middleboro Sandstone Member<br>Cumberland Gap coal<br>White Rocks Sandstone Member<br>Chadwell Member<br>Tennate Overlook Member |
| Morrow                         | Tom Cooper, Van Lear, or Little Caney coal<br>Grassy coal<br>Brain or Wolf Creek coal<br>Gifford sandstone bed<br>Frozen Sandstone Member<br>Zachariah or Wheelersburg coal<br>Corbin Vaneve coal<br>Sandstone Member<br>Mine Fork coal<br>Warm Fork coal<br>Anthony coal<br>Olive Hill Clay Bed of Crider (1912) | Elkins Fork Shale of Morse (1931)<br>Upper Elkhorn No. 3, Thacker, Hobbs coal<br>or Cedar Grove coal zone<br>Sidney coal<br>Upper Elkhorn No. 2 coal<br>Alma coal zone<br>Upper Elkhorn No. 1 coal<br>Campbell Creek Limestone of White (1885)<br>Lower Elkhorn or Pond Creek coal<br>Powellton coal zone<br>Cannellton Limestone of White (1885)<br>Clintonwood or Matewan coal<br>Bingham coal zone<br>Cedar coal<br>Glammorgan coal zone<br>Eagle Limestone of White (1911)<br>Little Cedar or Haggy coal<br>Splash Dam coal<br>Elswick coal<br>Lower Banner coal<br>Anthony coal<br>Olive Hill Clay Bed of Crider (1912) | Big Mary coal<br>Hazard No. 4, Windrock, or Dean coal<br>Upper Pioneer coal<br>Whitesburg coal zone<br>Kendrick Shale of Fillion (1919)<br>Lower Pioneer coal<br>Jordan coal<br>Elkins Fork Shale of Morse (1931)<br>Upper Elkhorn No. 3<br>Elk Gap coal<br>coal zone<br>Link Fork coal<br>Jalliso coal zone<br>Vingo coal<br>Blue Gem coal zone<br>Little Blue Gem or Black Wax coal<br>Dicie coal<br>Lilly, Colony, Manchester, River Gun or Swamp Angel coal<br>Cedar coal<br>Glammorgan coal zone<br>Eagle Limestone of White (1911)<br>Little Cedar or Haggy coal<br>Splash Dam coal<br>Elswick coal<br>Lower Banner coal<br>Rockcastle Sandstone Member<br>Bonner Creek coal<br>Sterns No. 12 coal<br>Hudson, Lee No. 1, or Sterns No. 10 coal<br>Livingston Limestone Member | Stray<br>Walrus Creek coal<br>Rickett Sandstone Member coal zone<br>Kendrick Shale of Fillion (1919)<br>Sterling coal<br>Creach coal zone<br>Poplar Lick coal<br>Elkins Fork Shale of Morse (1931)<br>Taggart coal zone<br>Buckeye Spring or Arby coal<br>Taggart Forker or Hollicka coal<br>Mingo or Harlan Collier coal coal zone<br>Pink Mountain, RA Fork, or Suboden coal<br>Phoebe coal<br>Kent or Bennetts Fork coal<br>Hance coal zone<br>Murray, Chenoa, or Mason coal<br>Splitstream coal<br>Rex or Clear Fork coal<br>Yellow Creek Sandstone Member<br>Haese and Big Rock Haese coal<br>Sandstone Members<br>Stannel or Raven coal<br>Middleboro Sandstone Member<br>Cumberland Gap coal<br>White Rocks Sandstone Member<br>Chadwell Member<br>Tennate Overlook Member |
| Lee and Grantville             | Tom Cooper, Van Lear, or Little Caney coal<br>Grassy coal<br>Brain or Wolf Creek coal<br>Gifford sandstone bed<br>Frozen Sandstone Member<br>Zachariah or Wheelersburg coal<br>Corbin Vaneve coal<br>Sandstone Member<br>Mine Fork coal<br>Warm Fork coal<br>Anthony coal<br>Olive Hill Clay Bed of Crider (1912) | Elkins Fork Shale of Morse (1931)<br>Upper Elkhorn No. 3, Thacker, Hobbs coal<br>or Cedar Grove coal zone<br>Sidney coal<br>Upper Elkhorn No. 2 coal<br>Alma coal zone<br>Upper Elkhorn No. 1 coal<br>Campbell Creek Limestone of White (1885)<br>Lower Elkhorn or Pond Creek coal<br>Powellton coal zone<br>Cannellton Limestone of White (1885)<br>Clintonwood or Matewan coal<br>Bingham coal zone<br>Cedar coal<br>Glammorgan coal zone<br>Eagle Limestone of White (1911)<br>Little Cedar or Haggy coal<br>Splash Dam coal<br>Elswick coal<br>Lower Banner coal<br>Anthony coal<br>Olive Hill Clay Bed of Crider (1912) | Big Mary coal<br>Hazard No. 4, Windrock, or Dean coal<br>Upper Pioneer coal<br>Whitesburg coal zone<br>Kendrick Shale of Fillion (1919)<br>Lower Pioneer coal<br>Jordan coal<br>Elkins Fork Shale of Morse (1931)<br>Upper Elkhorn No. 3<br>Elk Gap coal<br>coal zone<br>Link Fork coal<br>Jalliso coal zone<br>Vingo coal<br>Blue Gem coal zone<br>Little Blue Gem or Black Wax coal<br>Dicie coal<br>Lilly, Colony, Manchester, River Gun or Swamp Angel coal<br>Cedar coal<br>Glammorgan coal zone<br>Eagle Limestone of White (1911)<br>Little Cedar or Haggy coal<br>Splash Dam coal<br>Elswick coal<br>Lower Banner coal<br>Rockcastle Sandstone Member<br>Bonner Creek coal<br>Sterns No. 12 coal<br>Hudson, Lee No. 1, or Sterns No. 10 coal<br>Livingston Limestone Member | Stray<br>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |