



LEGEND

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

Csl  
St. Louis limestone  
(grey and blue heavy bedded, cherty limestone)

Ct  
Tullahoma formation  
(massively cherty shale and limestone with greenish clay shale at the base in places)

De  
Chattanooga shale  
(carbonaceous black shale)

Scf  
Clifton limestone  
(even bedded, compact, light grey or black limestone)

Sf  
Famvale formation  
(soft green or olive shale with bands of crystalline limestone)

Sl  
Leipers formation  
(finely earthy limestone and interbedded shale, or granular crystalline limestone without shale)

Sey  
Cathays formation  
(finely earthy limestone and shale with heavy bands of wavy blue limestone)

Sby  
Bigby limestone  
(mainly granular crystalline limestone)

Sht  
Hermitage formation  
(even bedded shale with siliceous limestone below and siliceous granular, phosphatic limestone above)

Scr  
Carters limestone  
(massive, compact, white or light blue, cherty limestone)

Sib  
Lebanon limestone  
(thin bedded, compact, blue or dark colored limestone)

Faults

⊗ Phosphate mines  
⊙ Iron Limestone mines  
⊗ Phosphate prospects

Known productive areas

Limonite  
(deposits in contact with St. Louis limestone)

Chattanooga phosphates  
(original deposits of concentrated phosphates)

Leipers phosphates  
(brown phosphates the remains of fossiliferous phosphatic limestone)

Bigby phosphates  
(brown phosphates)

Hermitage phosphate  
(brown phosphate)

CARBONIFEROUS

DEVONIAN

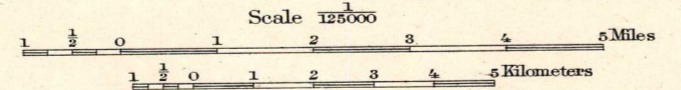
SILURIAN

Oriskany

H. M. Wilson, Geographer in charge.  
Control by Gilbert Thompson, W. J. Peters, and G. T. Hawkins.  
Topography by A. E. Murlin, Hersey Munroe, and Albert Pike.  
Surveyed in 1895 and 1899.



APPROXIMATE MEAN DECLINATION 1902



Contour interval 50 feet.  
Datum is mean sea level.

Edition of June 1903.

Geology by C. Willard Hayes and E. O. Ulrich.  
Surveyed in 1899-1900.