

# COLUMNAR SECTION SHEET

GENERALIZED SECTION FOR THE COALGATE QUADRANGLE.  
SCALE: 1 INCH = 1000 FEET.

| PERIOD.                             | FORMATION NAME.        | SYMBOL.   | COLUMNAR SECTION.   | THICKNESS IN FEET.  | CHARACTER OF ROCKS.   | CHARACTER OF TOPOGRAPHY AND SOIL.  |
|-------------------------------------|------------------------|---|---|---|---|--|
| CARBONIFEROUS                       | Seminole conglomerate. | Csl   |    | 50+   | Conglomerate of white chert in brown sand matrix succeeded by brown sandstone.  | Wooded highlands and low escarpments. Thin, sandy, gravelly soil.  |
|                                     | Holdenville shale.     | Chd   |    | 260   | Blue and yellow clay shale with thin siliceous limestone and sandstone beds.  | Slopes of escarpments and level lands. Fertile soil.   |
|                                     | Wewoka formation.      | Cwk   |    | 700   | Massive, brown, friable sandstone, with interstratified soft, blue clay shale and a thin limestone lentil in the lower portion. | Cliffs, escarpments, and undulating uplands. Thin, sandy soil.   |
|                                     | Wetumka shale.         | Cwt   |    | 120   | Clay shale above, sandy shale and thin sandstone below.   | Nearly level surface. Moderately fertile soil.   |
|                                     | Calvin sandstone.      | Ccv   |    | 145-240   | Thick-bedded, hard sandstone, becoming friable, ferruginous, and shaly toward the south.  | Hilly highland with southeastward-facing escarpments. Thin, stony soil.  |
|                                     | Senora formation.      | Csn   |    | 140-485   | Brown sandstone, generally thick bedded in the northern part, thin and shaly in the southwestern part.                          | Hilly highland with escarpments, becoming rolling and less hilly to the southwest. Sandy loam soil.  |
|                                     | Stuart shale.          | Cst   |    | 90-280  | Blue and black clay shale with sandstone lentil near the center.  | Undulating surface with low south-facing escarpment. Loamy, fertile soil.  |
|                                     | Thurman sandstone.     | Ct  |    | 80-260  | Brown sandstone, shale, and chert conglomerate in the east; shaly in the west.  | Rolling highland and escarpments. Soil fertile except where broken and stony.  |
|                                     | Boggy shale.           | Cb  |    | 2000-2600   | Shale, shaly sandstone, and brown sandstone. Local thin siliceous limestone and coal near the base.                             | Nearly level prairie plain interspersed with low, wooded ridges and hills. Soil thin and often stony, with meadow and pasture lands.   |
|                                     | Savanna sandstone.     | Cs  |   | 1000  | Thick-bedded sandstone and shale.   | Low, parallel, wooded ridges and narrow, glady valleys. Soil generally poor and stony.   |
|                                     | McAlester shale.       | Cm  |  | 1800-2000   | Blue and black shale and sandstone of variable thickness, with numerous beds of coal, two of which are workable.                | Rolling and level prairie lands with few low parallel ridges. Moderately fertile sandy loam on slopes, sandy clay meadow land in flats, and stony barrens on the crests of ridges. |
|                                     | Hartshorne sandstone.  | Ch  |  | 150   | Brown sandstone with shale locally interstratified.   | Low timbered ridge. Sandy loam or poor, stony soil.  |
|                                     | Atoka formation.       | Ca  |  | 3100  | Clay shale, sandy shale, and sandstone, generally thin bedded and friable in the western part.                                  | Level rolling prairie with few low ridges and hills, usually wooded. Moderately fertile sandy loam and close clay soil; thin and poor on steep slopes and often stony on hilltops. |
| (Chickahoe chert lentil.)           | (Cc)                   |  | (0-80)  | White, calcareous, cherty sandstone in the southeast. Position in the section not accurately determined on account of faulting. | Low, sharp, rocky ridges.   |  |
| Wapanucka limestone.                | Cw                     |  | 100   | White oolitic limestone, blue shale, and cherty calcareous beds.  | Low and nearly level ridges. Thin, stony, fertile soil.   |  |
| CARBONIFEROUS and probably DEVONIAN | Caney shale.           | Ccy   |  | 800+  | Blue and black shale with dark-blue limestone segregations.   | Nearly level plain. Fertile dark clay soil.  |

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