Arkansas Formation (Pennsylvanian) - The Formation consists of dark-gray shale, tan to gray siltstone, and gray to black shale. Only in the Arkansas Valley and frontal Ouachita Mountain provinces is this formation split into the upper, middle, and lower members. The Atoka Formation has a thickness of about 25,000 feet.

McAlister Formation (Pennsylvanian) - The Formation consists of brown to gray, massive, cross-bedded sandstone, with a few coal beds. Plant and invertebrate fossils may be found. This unit is 300 to 2,000 feet thick. The unit was deposited in a fluvial environment.

Hartshorne Formation (Pennsylvanian) - The Formation consists of brown to gray, massive, cross-bedded sandstone, and grayish black shale. Only in the Arkansas Valley and frontal Ouachita Mountain provinces is this formation split into the upper, middle, and lower members. The Atoka Formation has a thickness of about 2,000 feet.

Atoka Formation upper (Pennsylvanian) - The Formation consists of marine clays to very fine grained sandstone, gray to tan, and gray shale and silty shale, with minor amounts of light gray siltstone and gray very fine to fine grained sandstone. In the unit a few plant and invertebrate fossils may be found. This unit is about 1600 feet thick and was deposited in a fluvial environment.

Atoka Formation middle (Pennsylvanian) - The Formation consists of gray to dark gray, medium grained sandstone, with a few coal beds. Plant and invertebrate fossils may be found from several horizons in the unit, which is 500 to 2,000 feet thick. The unit was deposited in a fluvial environment.

Atoka Formation lower (Pennsylvanian) - The Formation consists of marine sandstone, with a few coal beds in the lower part of the unit. Plant fossils are found in the unit but are not abundant. This formation was deposited in a fluvial environment and ranges in thickness from about 10 to 300 feet.

Savanna Formation (Pennsylvanian) - The Formation consists of bedded, medium grained, sandstone, with a few coal beds. In this unit a few plant and invertebrate fossils may be found. This unit has a thickness of about 25,000 feet.


