

EXPLANATION FOR GEOLOGIC MAP AND CROSS SECTION

SYMBOLS FOR GEOLOGIC MAP

- Contact, located very approximately, showing location of control point
- Thrust fault, located very approximately, sawteeth on upper plate
- Contact or fault, concealed beneath mapped units
- Strike and dip of beds
- Horizontal beds
- Vertical beds
- Overturned beds
- Anticline, showing trace and direction of plunge
- Syncline, showing trace and direction of plunge

SYMBOLS FOR CROSS SECTION A-A'

- Stratigraphic contact
- Fault, showing relative movement

QUATERNARY

IPpvu

Alluvium. Unconsolidated silt, sand, and gravel containing clasts of local bedrock. Mapped only along larger streams.

PENNSYLVANIAN

IPpvt

Pottsville Formation upper part. Dark-gray silty shale containing intervals of light- to medium-gray primarily lithic sandstone and interbeds of coal and underclay.

PENNSYLVANIAN

IPpvt

Pine Sandstone Member. Very light-gray quartzose sandstone commonly containing scattered quartz pebbles and quartz pebble conglomerate; wavy-bedded sandstone and mudstone common in upper part.

PENNSYLVANIAN

IPpvt

Hardwick Tunnel member. Predominantly dark-gray to black shale with occasional interbeds of thin sandstone and rare bioclastic limestone.

PENNSYLVANIAN

IPpv

Pottsville Formation undifferentiated. Dark-gray primarily silty shale between the Shades and Pine Sandstone Members.

PENNSYLVANIAN

IPpvt

Pottsville Formation lower part. Quartzose to quartzitic, pebbly sandstone, strongly fractured and deformed.

PENNSYLVANIAN

IPpvs

Shades Sandstone Member. Very light-gray quartzose sandstone commonly containing scattered quartz pebbles and quartz pebble conglomerate; includes thin intervals of dark-gray shale.

MISSISSIPPIAN AND PENNSYLVANIAN

IPMpwf

Parkwood Formation and Floyd Shale undifferentiated. Dark-gray shale containing interbedded greenish-gray lithic and quartzose sandstone (Parkwood Formation). Dark-gray to black shale locally containing minor laminae and thin beds of light-gray sandstone (Floyd Shale); lower part includes grayish-orange fossiliferous chert (tongue of Bangor Limestone).

MISSISSIPPIAN

Mh

Hartselle Sandstone. Very light-gray crossbedded and rippled quartzose sandstone locally containing thin interbeds and partings of dark-gray shale.

MISSISSIPPIAN

Mpm

Pride Mountain Formation. Dark-gray shale commonly containing nodules, stringers, and beds of siderite.

MISSISSIPPIAN

Mtspm

Tuscumbia Limestone, Fort Payne Chert, and Maury Formation undifferentiated. Light- to medium-gray coarse bioclastic limestone containing abundant echinoderm columnals (Tuscumbia); chert, light-gray to brown weathering orange-brown, thin- to medium-bedded, nodular, contains brachiopods and echinoderm columnals (Fort Payne); mudstone, maroon, medium- to thick-laminated (Maury).

MISSISSIPPIAN

Mtspm

Fort Payne Chert and Maury Formation undifferentiated. Thin-bedded, medium-dark-gray limestone and dark-bluish-gray chert weathering to grayish-orange chert (Fort Payne). Pale-olive and grayish-red-purple mudstone locally containing discoid phosphatic concretions (Maury).

DEVONIAN

Dfm

Frog Mountain Sandstone. Light-gray, poorly sorted, predominantly quartzose sandstone.

ORDOVICIAN

Ool

Little Oak Limestone and Lenoir Limestone undifferentiated. Dark-gray partly fossiliferous stylonodular limestone locally containing chert nodules (Little Oak and Lenoir); medium- to dark-gray fenestral limestone at base (Mosheim Member of Lenoir).

ORDOVICIAN

Oo

Odenville Limestone. Dark-gray mottled dolomitic limestone overlain by dark-gray fossiliferous stylonodular limestone.

ORDOVICIAN

On

Newala Limestone. Medium-bluish-gray chert-free micritic limestone containing interbeds of light- to light-bluish-gray dolomite and medium- to dark-gray mottled dolomitic limestone.

ORDOVICIAN

Olv

Longview Limestone. Interbedded light- to medium-gray micritic and partly sandy limestone and light-gray dolomite; commonly contains thin interbeds and nodules of chert.

ORDOVICIAN

OCchr

Chepultepec Dolomite and Copper Ridge Dolomite undifferentiated. Light- to dark-gray dolomite containing intervals of interbedded light- to medium-bluish-gray limestone; produces abundant dense and cavernous chert (Chepultepec); light- to medium-gray dolomite producing abundant predominantly dense chert containing common algal laminations (Copper Ridge).

LOWER TO UPPER CAMBRIAN

Ck

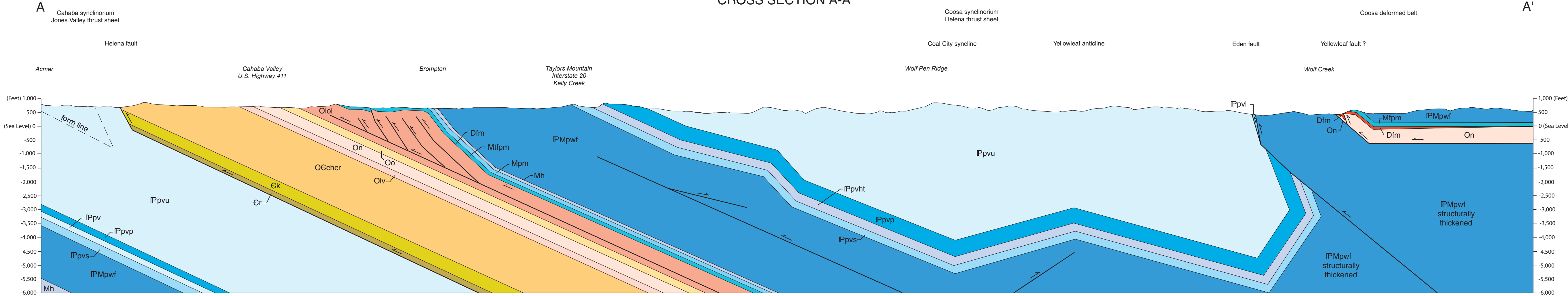
Ketona Dolomite. Light- to dark-gray chert-free dolomite.

LOWER TO UPPER CAMBRIAN

Cr

Rome Formation. Grayish-red-purple and grayish-olive mudstone, shale, and siltstone containing interbedded sandstone, dolomite, and limestone. Not exposed on map.

CROSS SECTION A-A'



Scale 1:24,000
No vertical exaggeration

CROSS SECTION A-A' AND EXPLANATION FOR THE GEOLOGIC MAP OF THE COOKS SPRINGS 7.5-MINUTE QUADRANGLE AND CROSS SECTION, ST. CLAIR AND SHELBY COUNTIES, ALABAMA

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