CORRELATION OF MAP UNITS

Qal	Quaternary	CENOZOIC
unconformity		
Ppv	Pennsylvanian	PALEOZOIC
Mp	Mississippian	
Mb		
Mh		
Mm		
Mtfpm		
unconformity		
Dc	Devonian	
unconformity		
Srm	Silurian	
unconformity		
Osli	Ordovician	
Onvsr		
unconformity		
OCk	Cambrian	

DESCRIPTION OF MAP UNITS

Qal **Alluvium (Quaternary)**—Unconsolidated sand, silt, clay, and chert gravel derived from local bedrock.

Ppv **Pottsville Formation (Pennsylvanian)**—Light-gray, medium- to coarse-grained, quartzose sandstone locally containing scattered to abundant, well-rounded, white quartz pebbles; quartz pebble and ferruginous claystone conglomerate is locally present at the base. Interbeds and intervals of dark-gray shale and mudstone and wavy-bedded sandstone are locally common. Thin interbeds of coal occur locally.

Mp **Pennington Formation (Mississippian)**—Lower part includes at the base distinctive medium- to dark-gray dolomudstone that commonly weathers yellowish-gray, contains laminae, nodules, and stringers of dark-gray and white chert, and is overlain by partly cherty, dark- and greenish-gray shale; middle part includes light-brownish-gray bioclastic limestone interbedded with maroon, green, and pale-reddish-brown shale; upper part includes very light gray, very fine grained, wavy-bedded sublithic sandstone and interbedded dark-gray shale and mudstone; thin beds of coal are locally present at the top of formation.

Mb **Bangor Limestone (Mississippian)**—Predominantly light- to dark-brownish-gray, bioclastic and oolitic (predominantly superficial ooids) limestone; also contains medium-gray peloidal limestone, medium-gray fenestral mudstone, light- to medium-gray dolomudstone, and medium-gray, olive-green, and grayish-red shale; limestone in the upper part contains irregular nodules and stringers of dark-gray chert.

Mh **Hartselle Sandstone (Mississippian)**—Locally present between the Bangor and Monteagle Limestones and includes gray to brownish-gray, very fine grained, partly calcareous sandstone; in southwest part of quadrangle, the Hartselle interval includes interbedded sandstone and limestone.

Mm **Monteagle Limestone (Mississippian)**—Light- to locally medium-gray, oolitic and bioclastic limestone; few beds of dolomudstone, in part containing vugs filled with white calcite or celestite; an interval of interbedded greenish-gray to medium-gray shale and limestone is present near the middle of the unit.

Mtfpm **Tuscumbia Limestone, Fort Payne Chert, and Maury Formation undifferentiated (Mississippian)—Tuscumbia Limestone:** Light-gray predominantly bioclastic and micritic limestone containing light-gray chert nodules. **Fort Payne Chert:** Dark- to light-gray, micritic limestone containing blue-gray to dark-gray chert in irregular beds and nodules in fresh exposures; most outcrops consist of irregularly bedded, grayish-orange, partly fossiliferous chert; characterized by molds of large crinoid stems. **Maury Formation:** Greenish-gray shale and mudstone containing phosphate nodules.

Dc **Chattanooga Shale (Devonian)**—Dark-gray to black, carbonaceous shale with a thin bed of light- to dark-gray sandstone at the base.

Srm **Red Mountain Formation (Silurian)**—Olive-gray shale (weathers yellowish-brown) containing interbeds of medium-gray and dark-reddish-gray, fossiliferous and locally ferruginous limestone in lower part; interbeds of siltstone, silty shale, and some very light gray to reddish-brown fine- to medium-grained sandstone in upper part.

Osli **Sequatchie Formation, Leipers Limestone, and Inman Formation undifferentiated (Ordovician)—Sequatchie Formation:** Olive-gray and grayish-red shale and mudstone interbedded with fossiliferous and partly arenaceous limestone; the lower part includes a massive bed of reddish-gray to yellowish-gray, sandy limestone to calcareous, poorly sorted fine- to very coarse grained sandstone; dark-orange-brown, poorly sorted, ferruginous sandstone is locally present near the top of the formation. **Leipers Limestone:** Dark-gray to olive-green, partly argillaceous limestone containing argillaceous partings that result in nodular bedding, and dark-gray fossiliferous limestone. **Inman Formation:** Interbedded and interlaminated grayish-red and olive-green silty limestone, and laminated maroon and yellowish-brown calcareous siltstone and shale.

Onvsr **Nashville and Stones River Groups undifferentiated (Ordovician)—Nashville Group:** Light- to dark-gray, fossiliferous limestone that is silty, argillaceous, and dolomitic in part and locally contains interbeds and partings of greenish-gray mudstone and shale. **Stones River Group:** Medium- to dark-gray, partly argillaceous and silty limestone with a few abundantly fossiliferous intervals; greenish-gray, calcareous shale interbeds and partings locally common; light-green bentonitic shale and bentonite present in the upper part. At the base is light- to medium-gray and olive-gray dolomite, dolomitic limestone, and limestone locally containing chert pebble conglomerate (Pond Spring).

OCk **Knox Group undifferentiated (Cambrian and Ordovician)**—Light- to medium-dark-gray, fine- to coarse crystalline siliceous dolomite and minor limestone; weathers to cherty residuum in which the chert commonly preserves the primary texture of the original carbonate rocks. The lowermost chert is sandy (rounded medium to coarse quartz) and contains scattered quartz sandstone lenses. The chert is commonly opaque, white, well fractured, and partly dolomoldic.

SYMBOLS FOR GEOLOGIC MAP

- Contact, dashed where located very approximately, showing location of control point (contact exposed or closely located)
- Contact, concealed beneath mapped units
- Thrust fault, located very approximately, sawteeth on upper plate
- Thrust fault, concealed beneath mapped units
- Trace of anticline axis, located approximately
- Water boundary
- Strike and dip of bedding
- Strike of vertical bedding
- Strike and dip of horizontal bedding
- Mh Outcrop of Hartselle Sandstone, too thin to display

SYMBOLS FOR CROSS SECTION A-A'

- Stratigraphic contact
- Fault, showing relative movement

Base topographic map U.S. Geological Survey 1947
(Photorevised 1982)

Produced in cooperation with the U.S. Geological Survey, National Cooperative Geologic Mapping Program

Polyconic projection. 1927 North American datum
10,000-foot grid based on Alabama (East)
rectangular coordinate system

Map rotated 0.6 degrees clockwise for display

UTM Grid and 1982 Magnetic North Declination at Center of Sheet

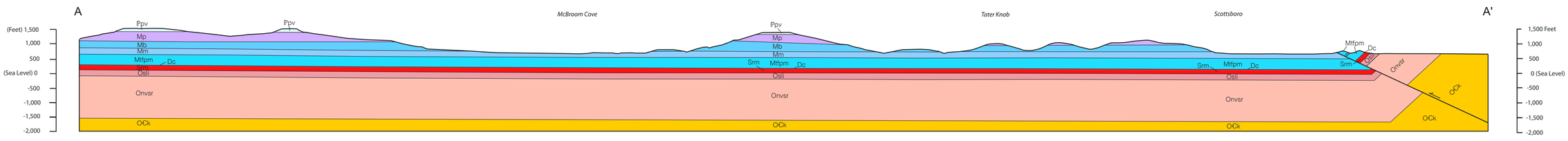
SCALE 1:24,000

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

QUADRANGLE LOCATION

Digital database by Philip Dinterman

CROSS SECTION A-A'



Scale 1:24,000
No vertical exaggeration

GEOLOGIC MAP OF THE SCOTTSBORO 7.5-MINUTE QUADRANGLE, JACKSON COUNTY, ALABAMA

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