

**CORRELATION OF MAP UNITS**

af	Quaternary	CENOZOIC
Qal	Quaternary	
Ppv	Pennsylvanian	PALEOZOIC
Mm	Mississippian	
Mtppm	Mississippian	
unconformity		
Dc	Devonian	
unconformity		
Sm	Silurian	
unconformity		
Osll	Ordovician	
unconformity		
Ock	Cambrian	

**DESCRIPTION OF MAP UNITS**

- af** Artificial fill (Holocene)—Construction material.
- Qal** Alluvium (Quaternary)—Unconsolidated sand, silt, clay, and gravel derived from local bedrock.
- Cr** Terrace deposits (Quaternary)—Yellowish-brown sandy clay and gravel. Includes subrounded to rounded quartz and quartzite pebbles and cobbles. Uncommon iron-cemented conglomerate.
- Ppv** Pottsville Formation (Lower Pennsylvanian)—Very light gray, fine- to coarse-grained, thin- to medium-bedded, quartzose sandstone locally containing scattered to abundant, well-rounded quartz pebbles; quartz pebble conglomerate locally present (quartz pebbles up to 2 inches in diameter). Commonly crossbedded, locally rippled and laminated. Dark-gray shale and thin interbeds of coal are locally present. Common plant fragments.
- Mp** Pennington Formation (Upper Mississippian)—Contains a basal, light-gray to dark-gray, thin- to medium-bedded, conchoidally fractured dolomite and dolomudstone that occasionally contains a fenestral fabric. Above the basal dolomite is cherty bioclastic limestone containing nodules and beds of dark-gray to black, dense chert. Lower part contains fossiliferous limestone, thin dolomite beds, light- to medium-gray argillaceous limestone, and gray shale. Lower and middle part is dominantly light-gray to medium-light-gray, thin- to medium-bedded fossiliferous limestone with some oolitic, crossbedded, and laminated intervals. Contains thick intervals of red and green shales. Upper part is dominantly yellowish-gray, fine- to medium-grained sandstone, siltstone, and shale. Sandstone and siltstone are thin to medium bedded, lithic rich, occasionally micaceous, and quartzose. Grains are subangular to subrounded and beds are commonly rippled, laminated and crossbedded. Greenish-tan and gray shale are common and are fissile and blocky. Thin coal beds observed in upper part.
- Mbm** Bangor and Montagle Limestones undifferentiated (Upper Mississippian)—Bangor Limestone: Predominantly gray to dark-gray, medium- to thick-bedded, bioclastic and oolitic limestone. Irregular nodules and thin beds of black, dense chert are common throughout. Upper part contains thin beds of light- to dark-gray dolomite. Beds of black chert and medium-gray fissile shale are common. Montagle Limestone: Predominantly light- to medium-gray, thin- to massive-bedded, oolitic and fossiliferous limestone. Lower part is dominantly light- to medium-gray, thin- to massive-bedded lime mudstone, and bioclastic limestone. Nodules of black chert are common near base. Uppermost part contains light- to medium-gray, thin- to massive-bedded oolitic limestone. Oolitic and peloidal limestones are commonly crossbedded. Uncommon thin, light-gray, flaggy-bedded, crystalline dolomite beds are present.
- Mtppm** Tuscumbia Limestone, Fort Payne Chert, and Maury Formation undifferentiated (Lower and Upper Mississippian)—Tuscumbia Limestone: Medium- to bluish-gray, thin- to massive-bedded, locally crossbedded, micritic and bioclastic limestone containing light-gray to white nodules and stringers of chert. Dark-gray dolomite containing chert nodules uncommon. Fort Payne Chert: Medium-gray to white to grayish-orange irregularly bedded, locally fossiliferous chert. Maury Formation: Grayish-green, blocky mudstone and grayish-red siltstone.
- Dc** Chattanooga Shale (Upper Devonian)—Black to dark-gray, laminated, fissile, carbonaceous shale containing interbeds of pale-brown, fine-grained sandstone.
- Sm** Red Mountain Formation (Lower and Upper Silurian)—Bluish-gray, thin-bedded, bioclastic limestone and greenish-gray shale and mudstone with interbeds of light-olive-gray to grayish-orange siltstone and thin beds of grayish-orange, ferruginous fine-grained sandstone and siltstone.
- Osll** Sequatchie Formation, Leipers Limestone, and Inman Formation undifferentiated (Upper Ordovician)—Sequatchie Formation: Pale-red to purplish-brown, coarse-grained, massive, crystalline, iron-cemented, bioclastic limestone and limey sandstone containing scattered coarse sand grains and interbedded olive-green to reddish-brown siltstone and grayish-purple to very dark red, poorly sorted, friable sandstone. Leipers Limestone: Medium- to medium-dark-gray, medium- to massive-bedded, fossiliferous limestone that is locally argillaceous. Greenish-gray interbeds and partings are common. Inman Formation: Greenish-gray and maroon-gray interbedded thin-bedded silty limestone and laminated calcareous siltstone and shale.
- Onvtr** Nashville and Stones River Groups undifferentiated (Middle Ordovician)—Nashville Group: Light- to medium-dark-gray, thin- to flaggy-bedded, argillaceous limestone with interbedded lime mudstone and fossiliferous limestone. Stones River Group: Light- to dark-gray and grayish-brown, thin- to medium-bedded, fossiliferous limestone with interbeds of argillaceous limestone and greenish-gray calcareous shale. Upper part is light-olive-gray to medium-gray, thin- to thick-bedded, fossiliferous limestone with rare light-olive-gray, very fine grained calcareous sandstone. Light-greenish-gray, laminated bentonitic shale is near the upper contact.
- Ock** Knox Group undifferentiated (Upper Cambrian and Lower Ordovician)—Light- to bluish-gray and white, finely to coarsely crystalline, siliceous dolomite and minor medium- to dark-gray limestone and dolomite. At the surface, the Knox weathers to cherty residuum where chert generally preserves the sedimentary features of the original carbonate rocks.

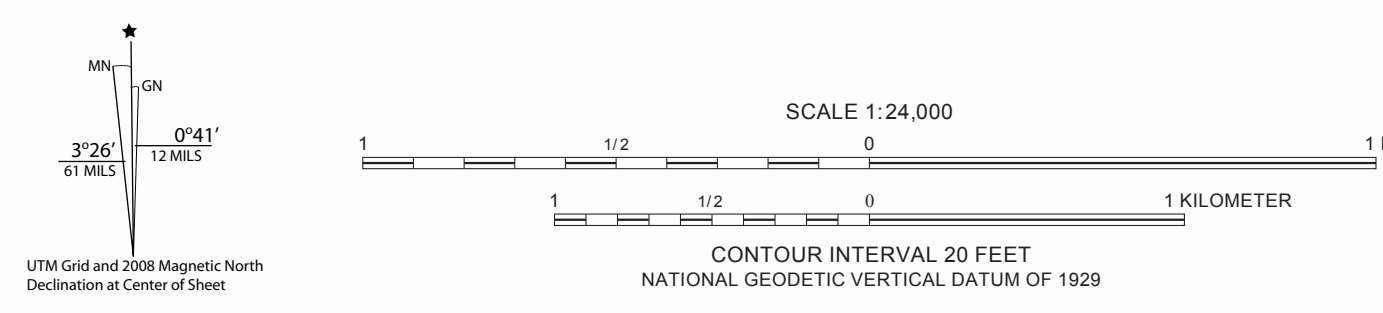
**SYMBOLS FOR GEOLOGIC MAP**

- - - - 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, sawtooth on upper plate
- Trace of anticline axis, located approximately
- Water boundary
- Strike and dip of bedding
- Strike and dip of horizontal bedding

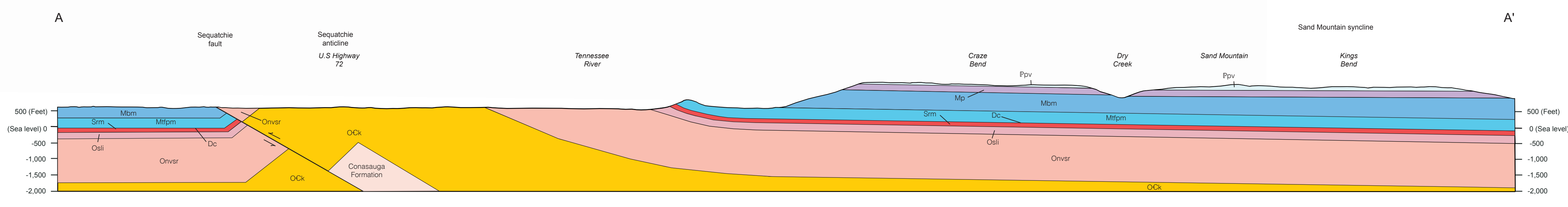
**SYMBOLS FOR CROSS SECTION A-A'**

- Stratigraphic contact
- Fault, showing relative movement

Base topographic map U.S. Geological Survey 1947 (Photorevised 1983)  
 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 0.7 degrees clockwise for display



Digital database by Philip Dinterman



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

by Philip A. Dinterman and G. Daniel Irvin 2009



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