

# OUTSTANDING GEOLOGIC FEATURE OF PENNSYLVANIA

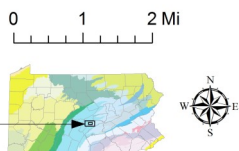
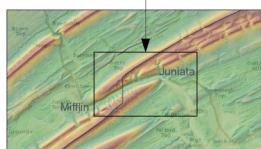
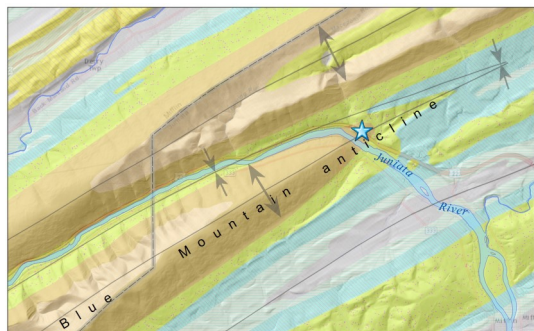
## BLUE MOUNTAIN ANTICLINE AT MACEDONIA, JUNIATA COUNTY



Stuart O. Reese, 2016

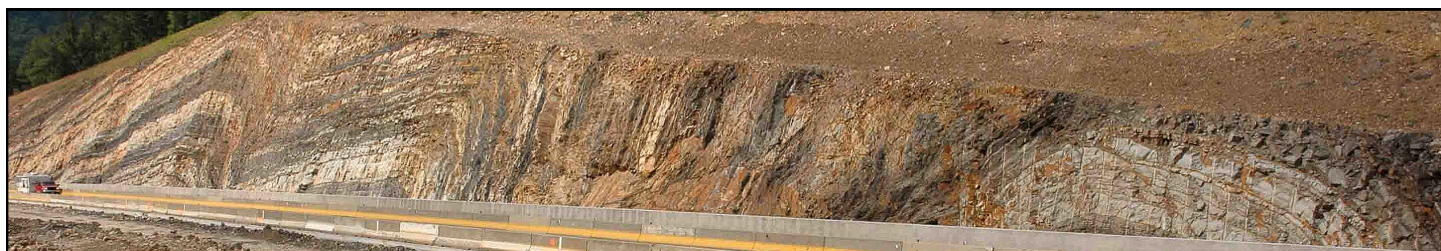
### Location

U.S. Route 22/322, Juniata County, Fermanagh Twp., lat: 40.60976, lon: -77.43957; Mifflintown 7.5-minute quadrangle



### Geology

A cross section through the tip of the Blue Mountain anticline is visible in an impressive roadcut at the eastern portion of the [Lewistown Narrows](#) along U.S. Route 22/322. The roadcut exposed the tip or nose of a complex asymmetrical fold, which plunges northeast. The fold contains smaller (lower order) folds, including some sharp-angled chevron folds, low-angle thrust faults (forward and backward), and overturned bedding. The rocks are Silurian-age Tuscarora Formation light-colored sandstones interbedded with dark shale beds, giving a banded appearance to the roadcut. The rock unit was formed from a wedge of sediments that spread out from the Taconic mountains to the southeast. The deformation of these rocks took place later during the Alleghanian mountain-building event of the Pennsylvanian and Permian Periods, approximately 300 million years ago when Africa and North America met head-on.



Upper photograph: Panorama showing structure from the southwest side of the highway (photograph by Charlie Miller, Pennsylvania Department of Environmental Protection). Lower left: Portion of a 2007 photograph mosaic by Pennsylvania Geological Survey intern Brent Custer showing contorted center section of the cut with steeply inclined to overturned bedding. Lower right: Sandstone and shale layers of the Tuscarora Formation. To view these rocks safely, use road views of online mapping programs or refer to the reference

### Recommended Reading

Harper, J. A., ed., 2007, Geologic mapping—"walkabouts" in central Pennsylvania—1st- to 5th-order Appalachian mountain folds; folded thrusts; Ordovician & Silurian carbonates; Silurian quartzites & sandstones: Annual Field Conference of Pennsylvania Geologists, 72nd, Burnham, Pa., [Guidebook](#), 220 p.