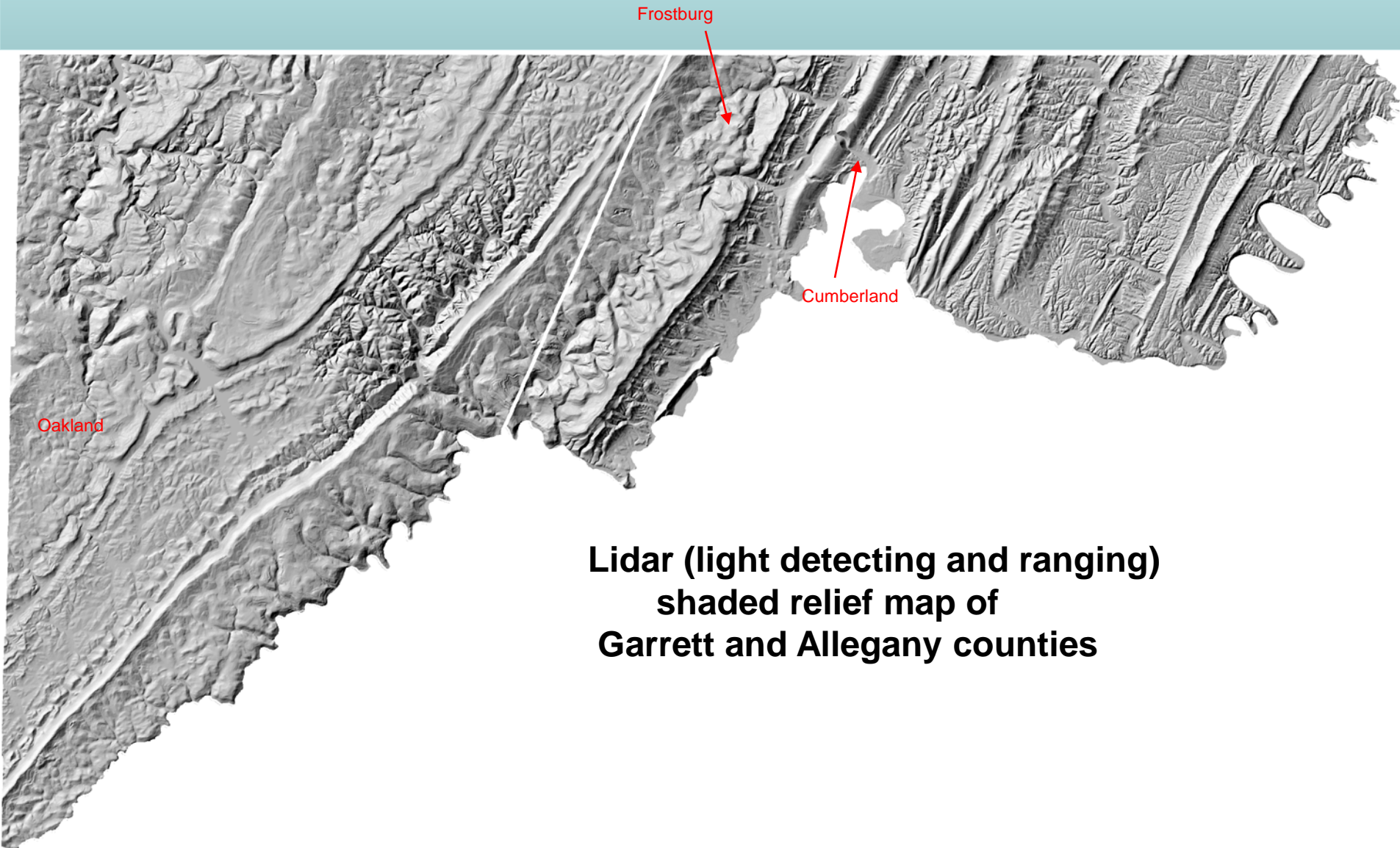


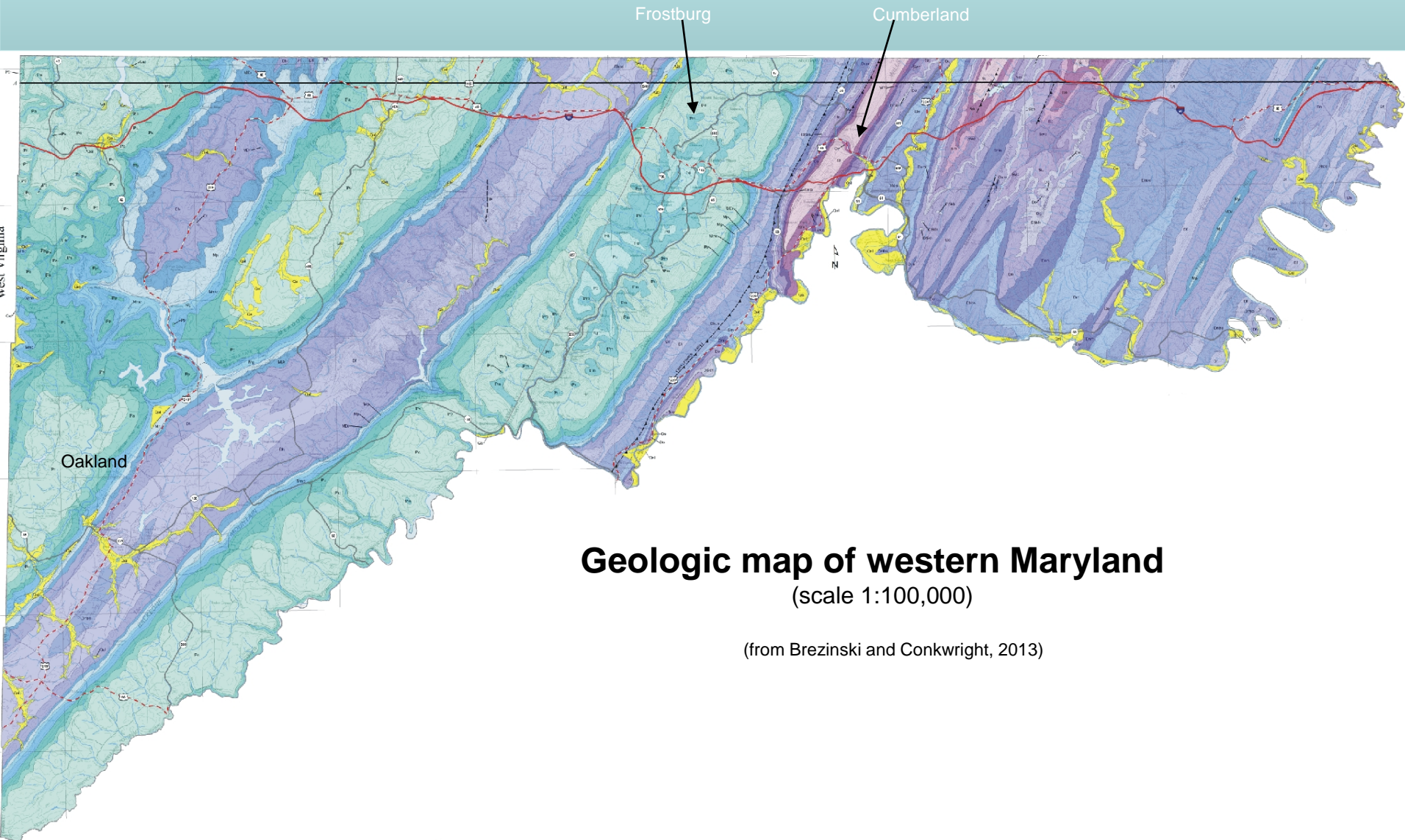
The Geology of Western Maryland

David K. Brezinski

Maryland Geological Survey



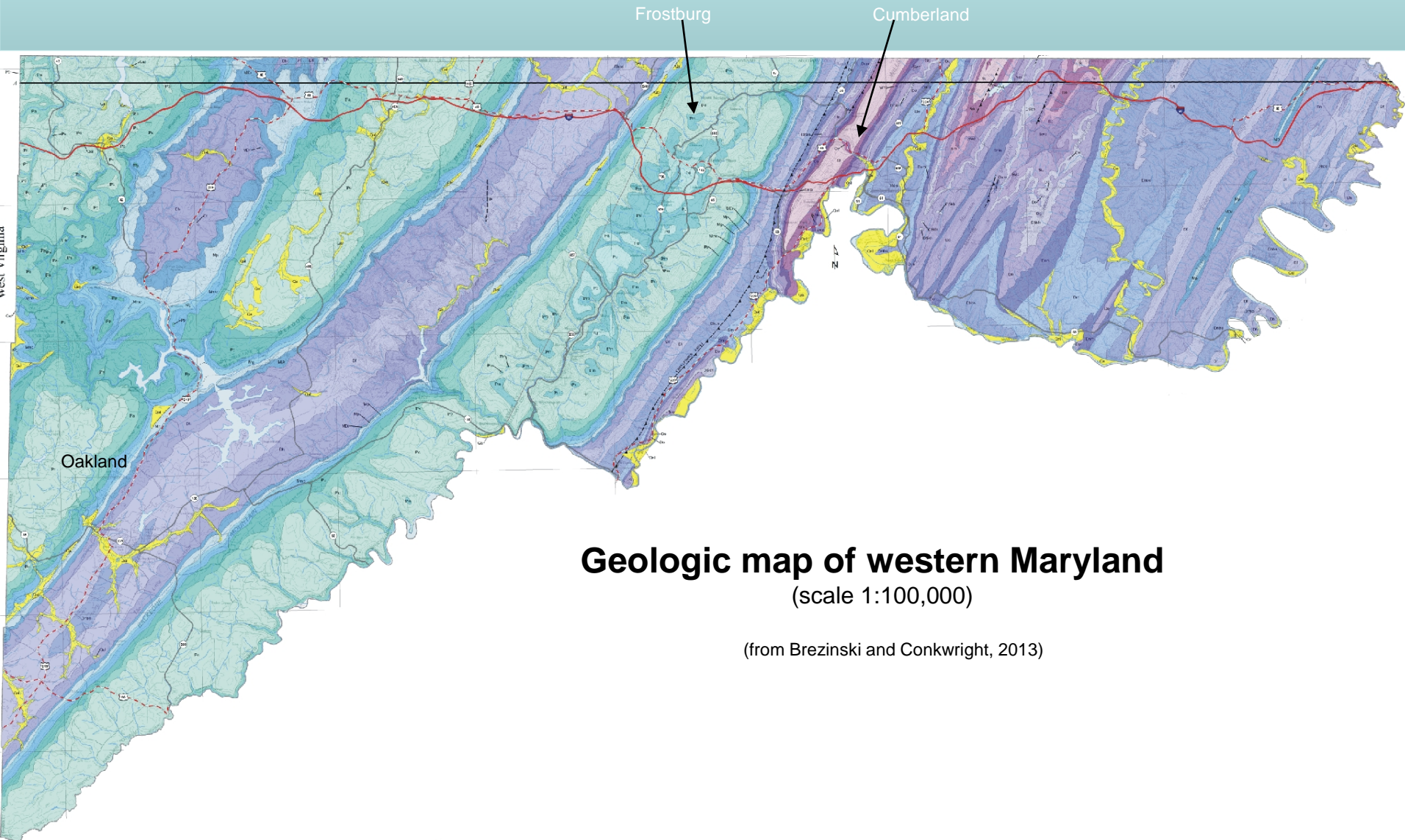
**Lidar (light detecting and ranging)
shaded relief map of
Garrett and Allegany counties**



Geologic map of western Maryland
(scale 1:100,000)

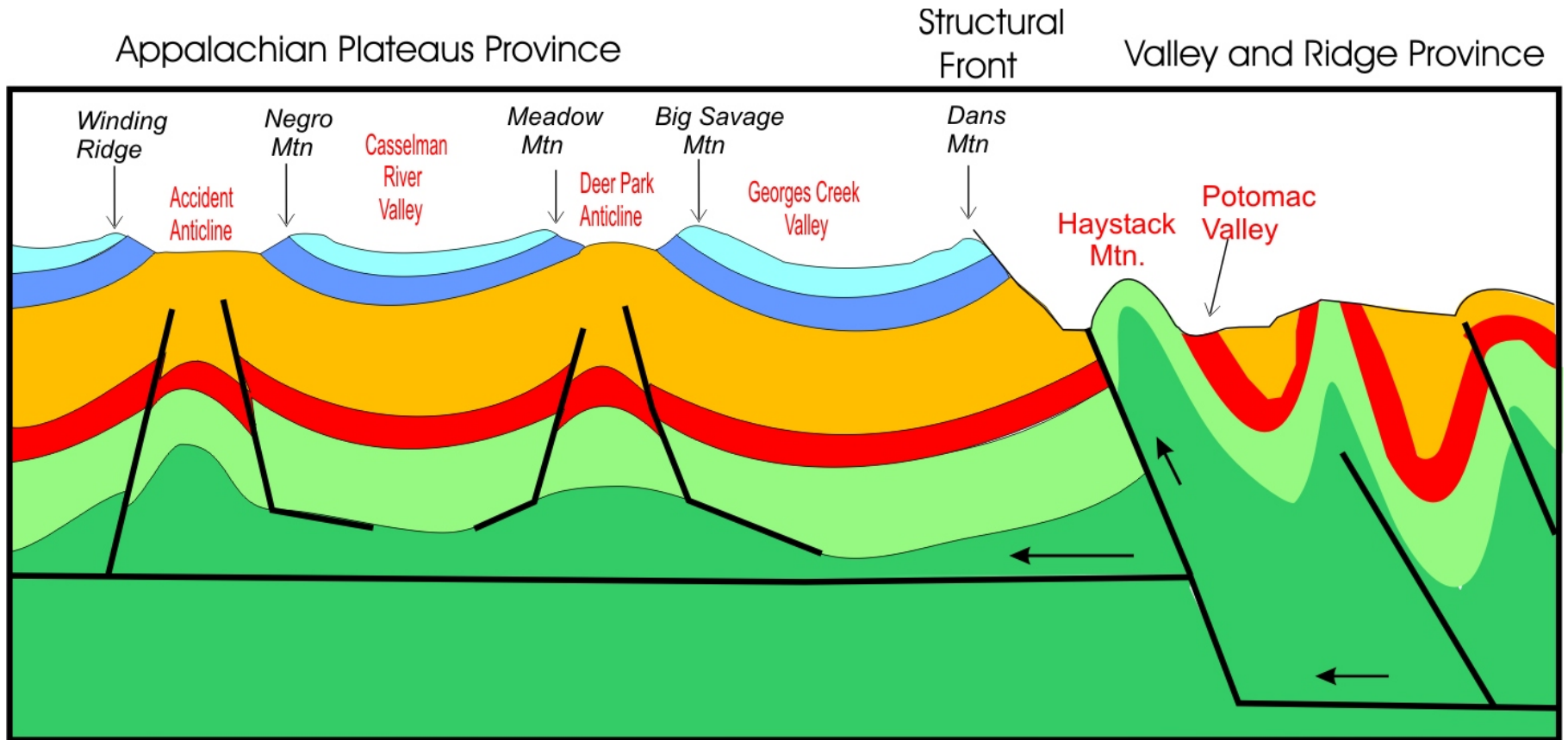
(from Brezinski and Conkwright, 2013)



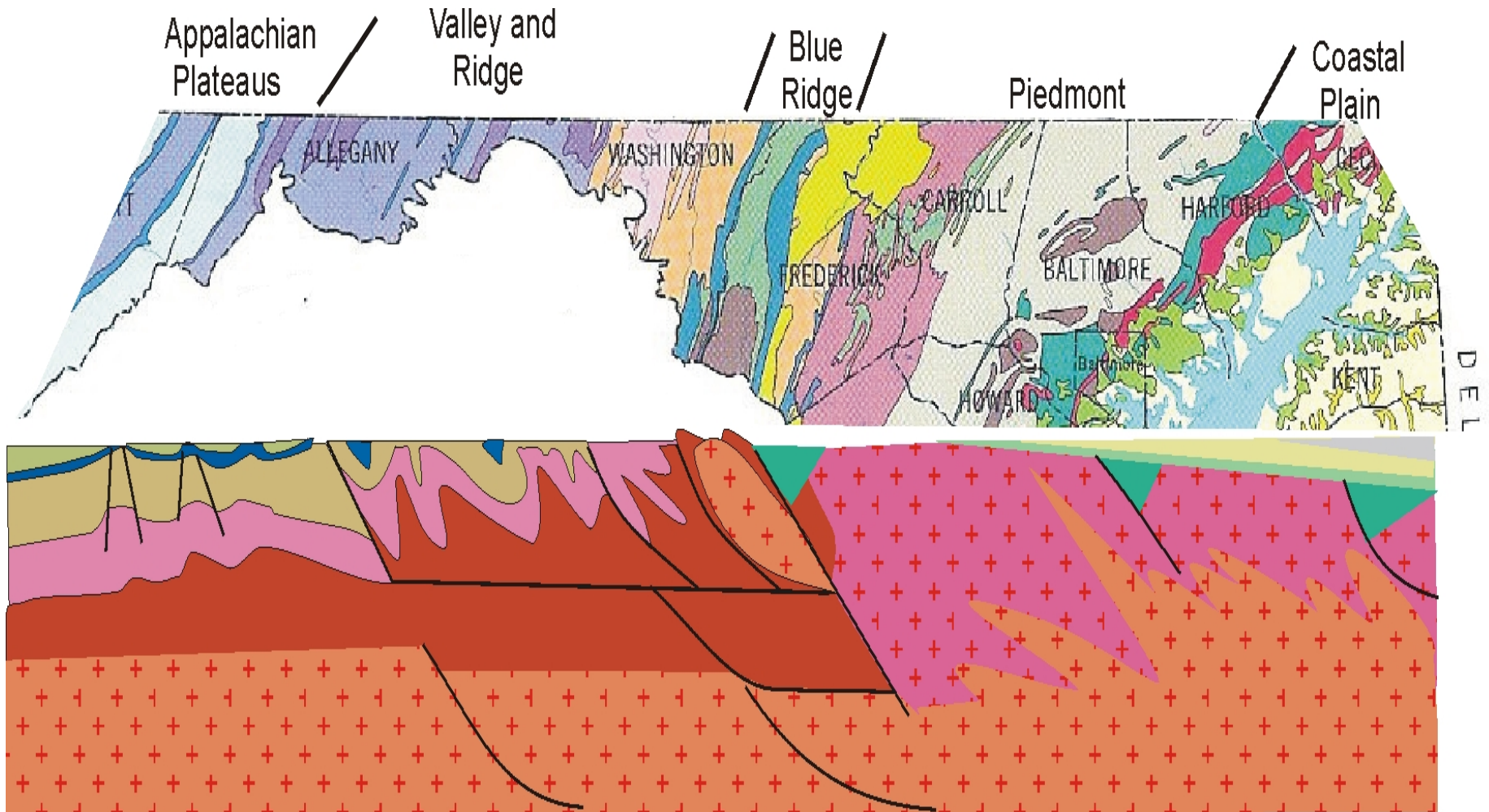


Geologic map of western Maryland
(scale 1:100,000)

(from Brezinski and Conkwright, 2013)

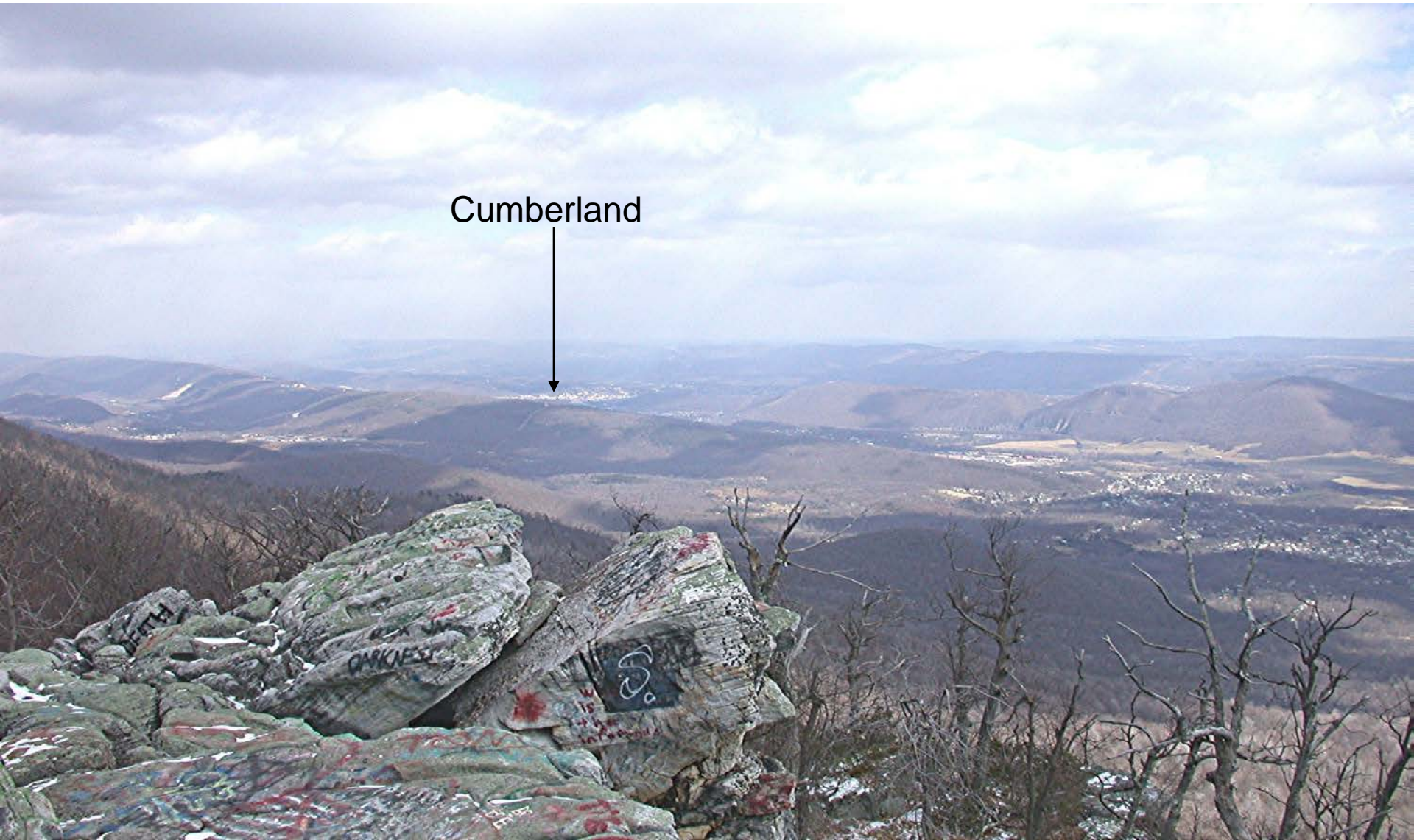


Generalized cross-section of western Maryland



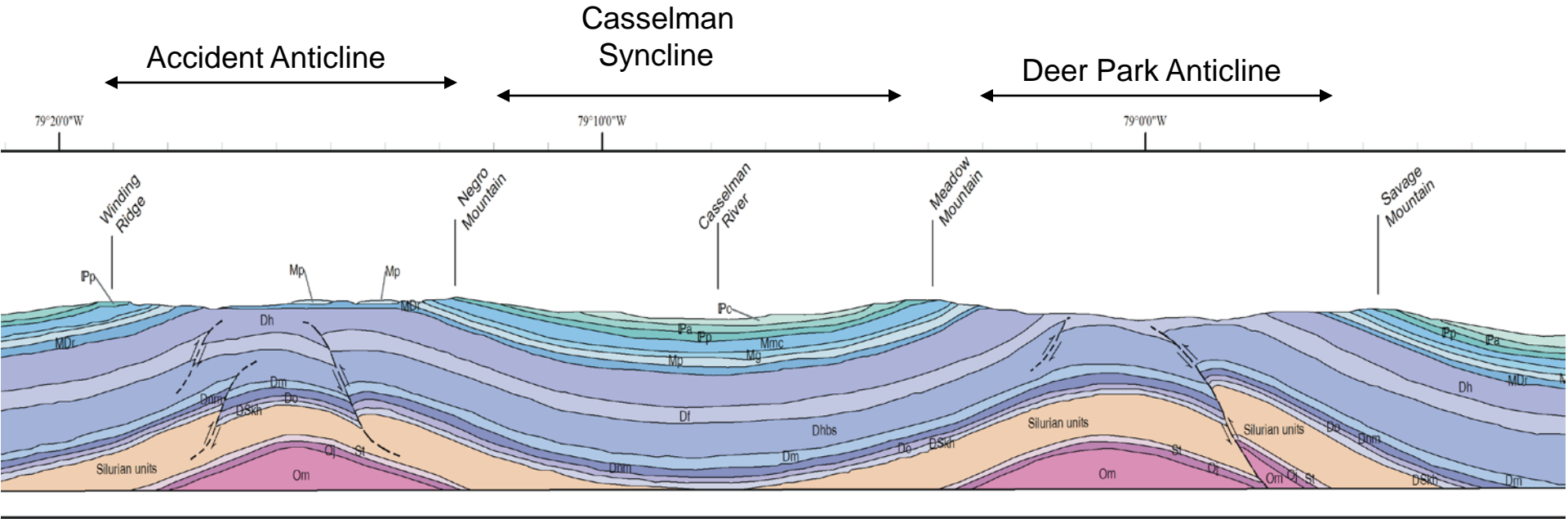
Generalized geologic map and cross-section of Maryland

Cumberland

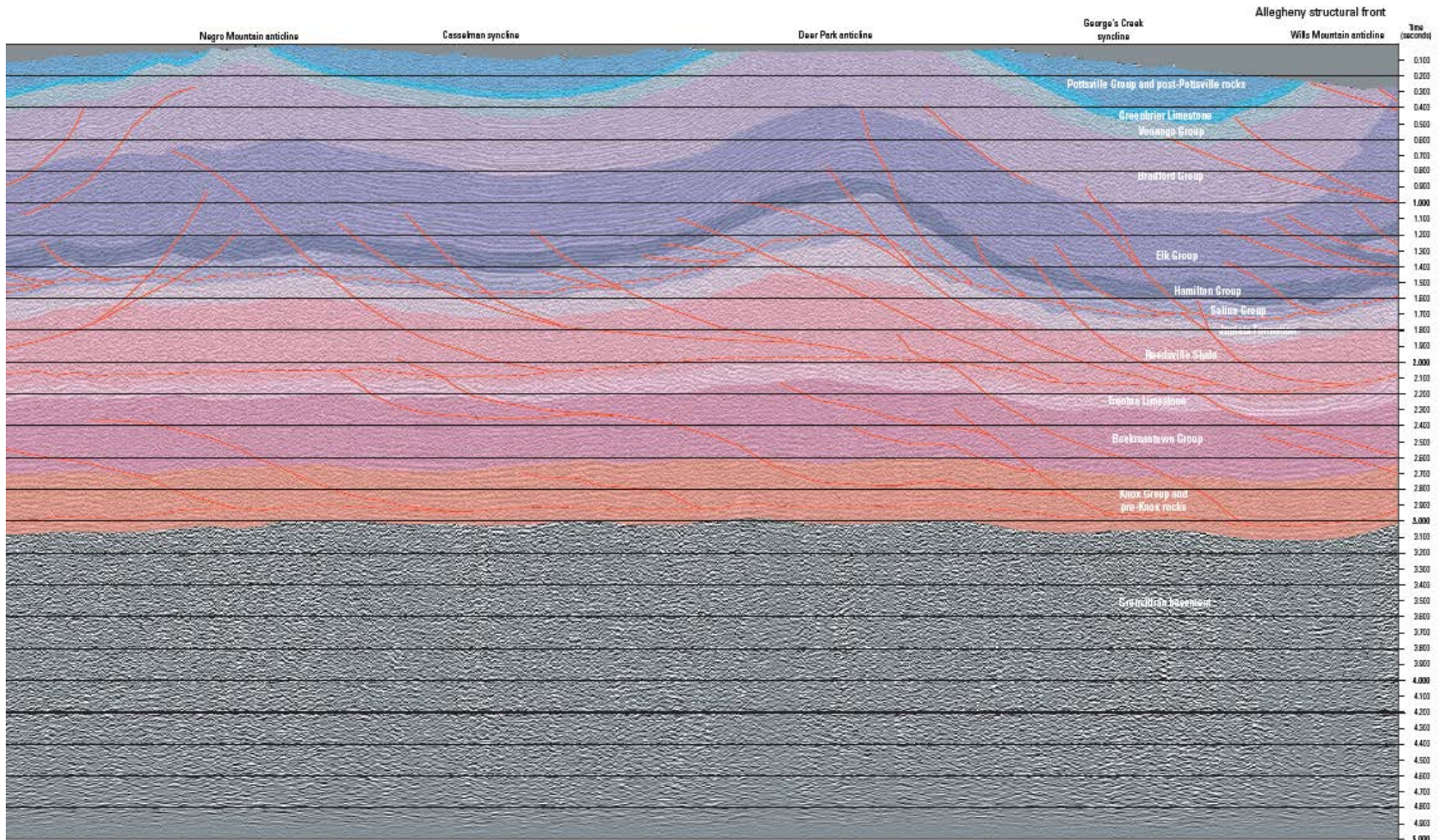




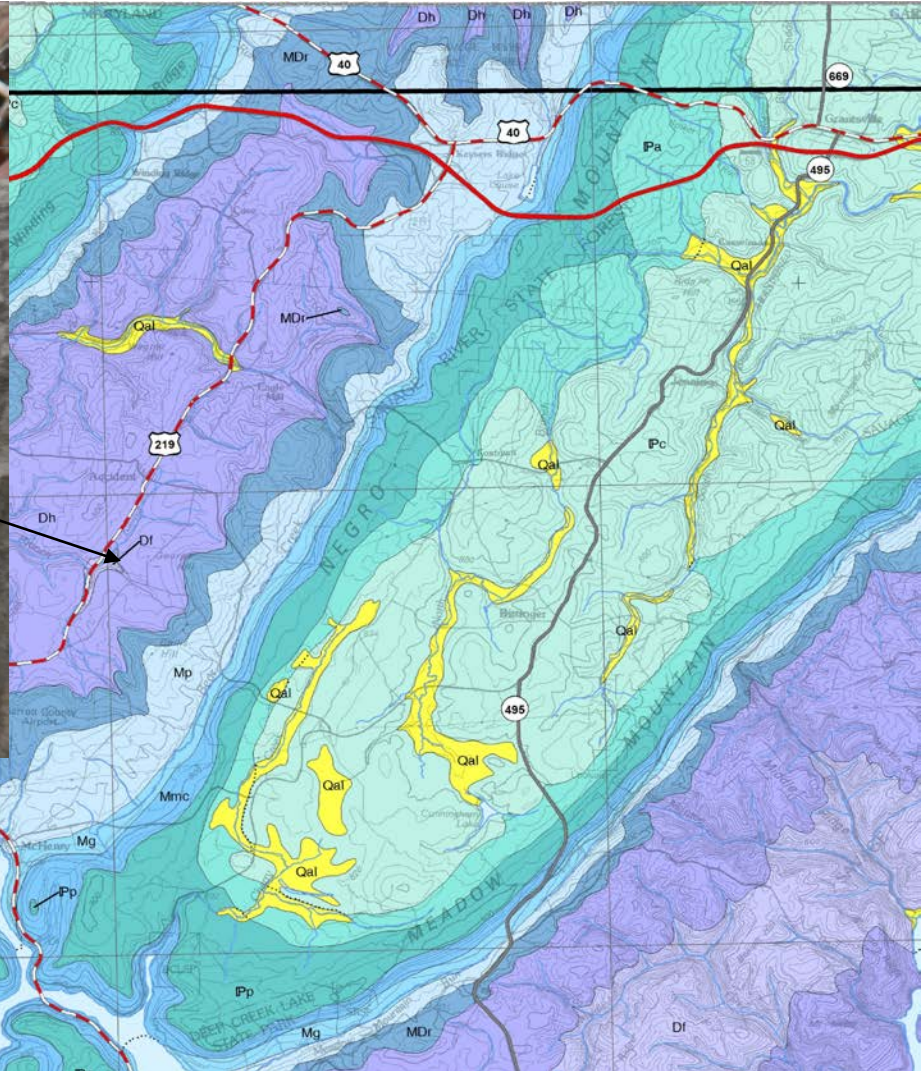
Generalized geologic cross-section of Garrett County



Seismic cross-section of Garrett County (from Kulander and Ryder, 1998)



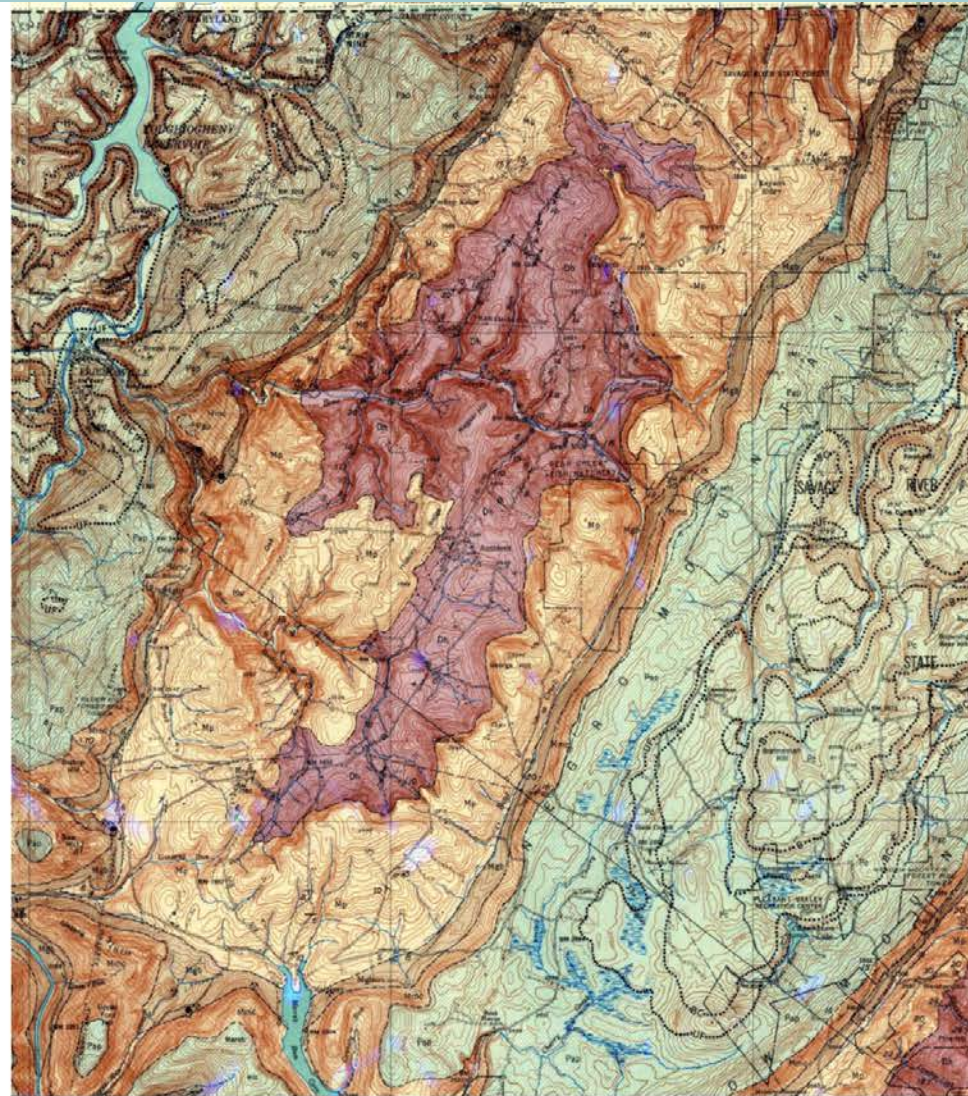




Accident anticline
scale 1:100,000

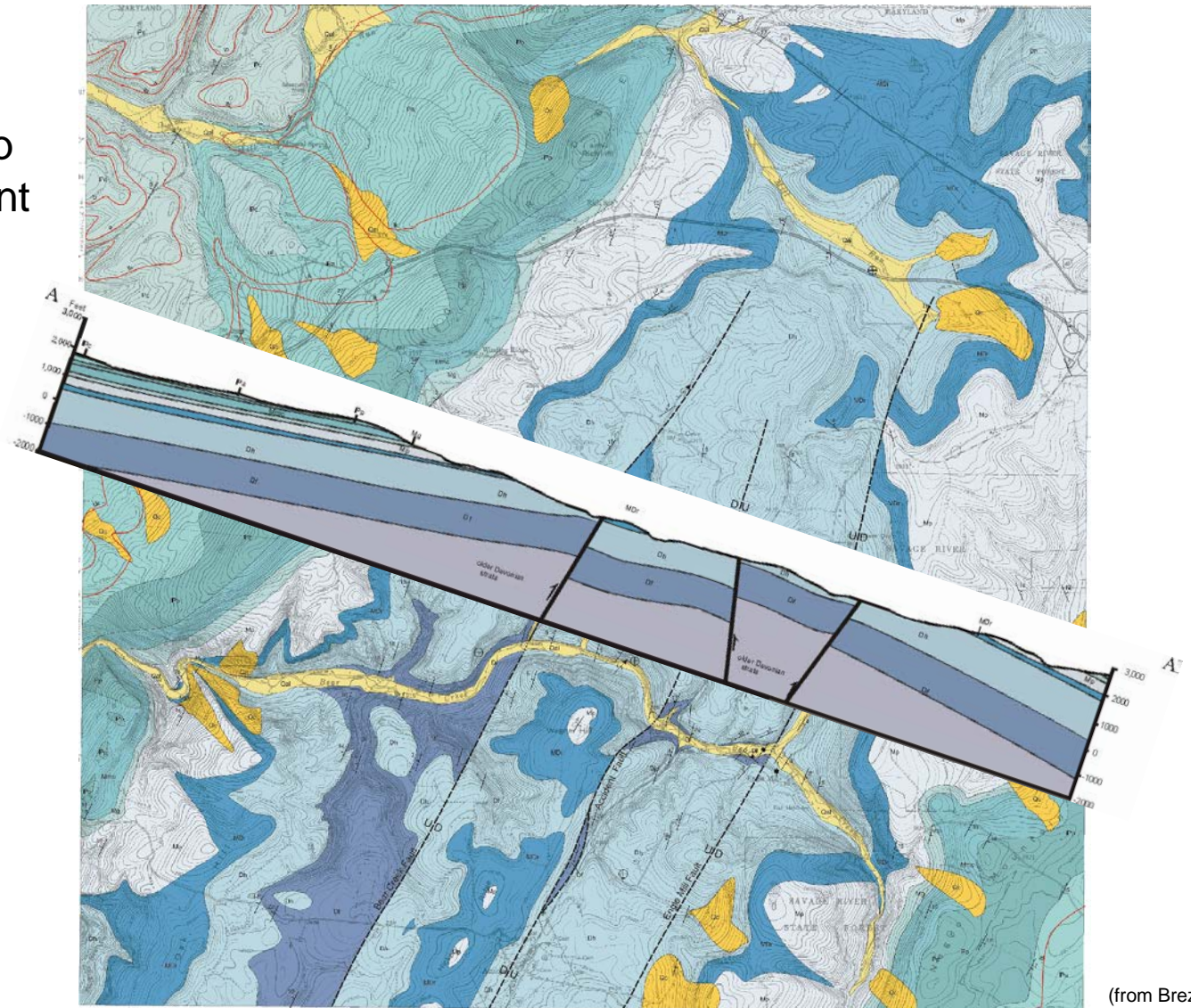


(from Clarke, 1902)

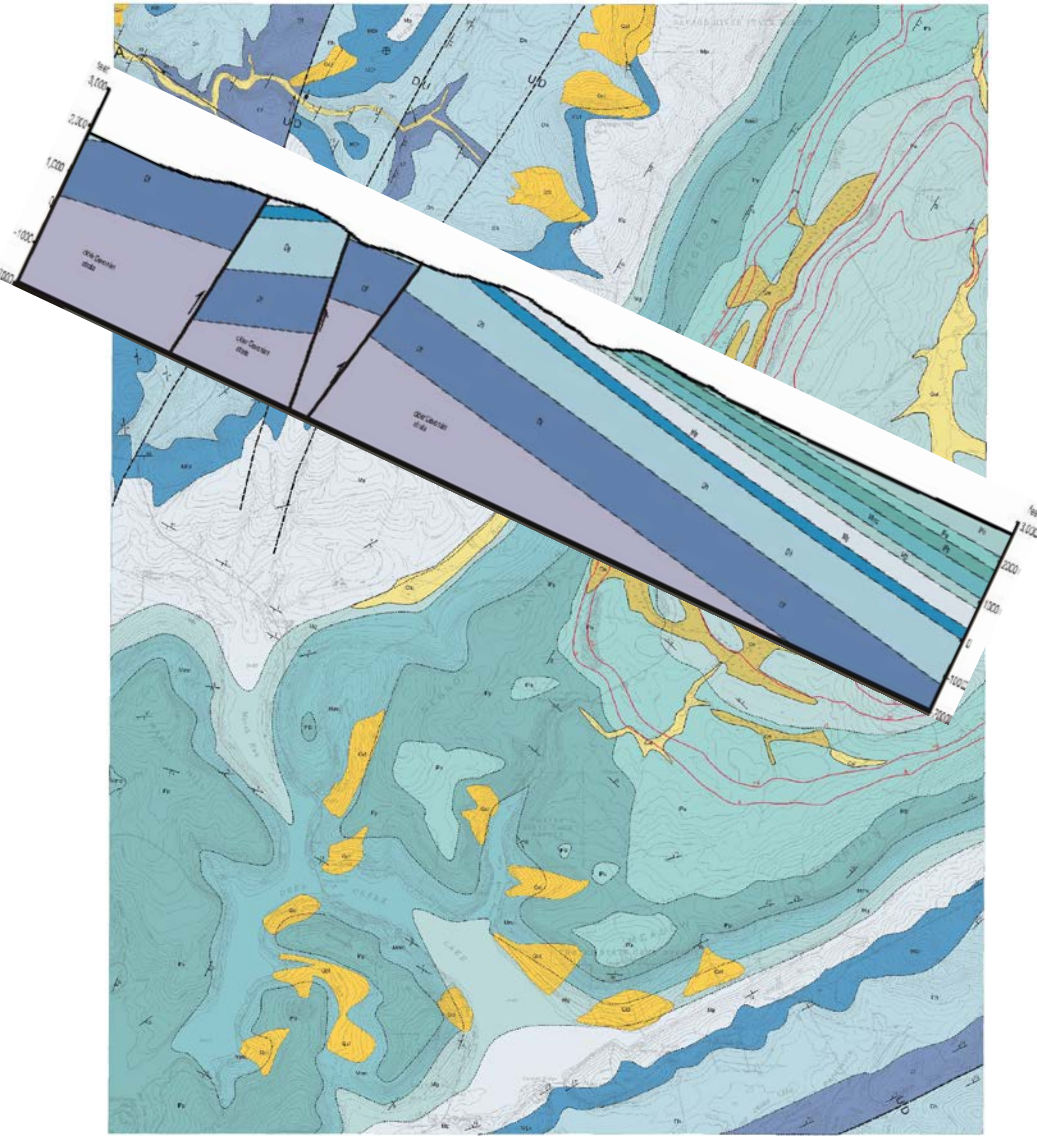


(from Amsden, 1953)

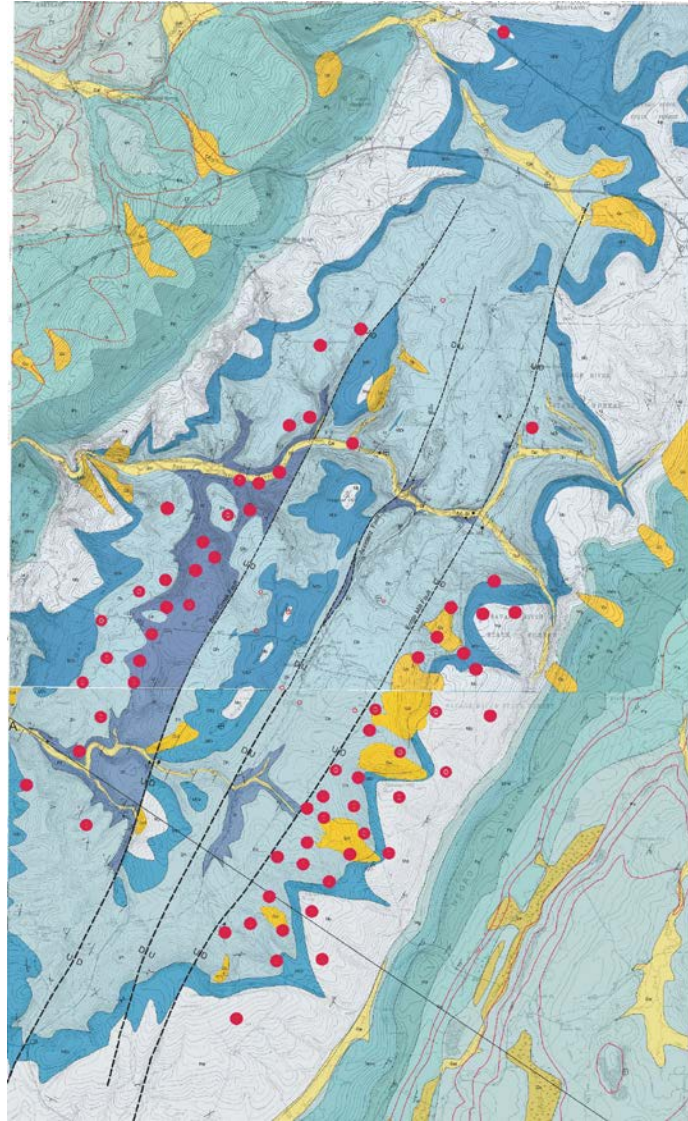
Geologic map
of the Accident
Quadrangle
scale 1:24,000

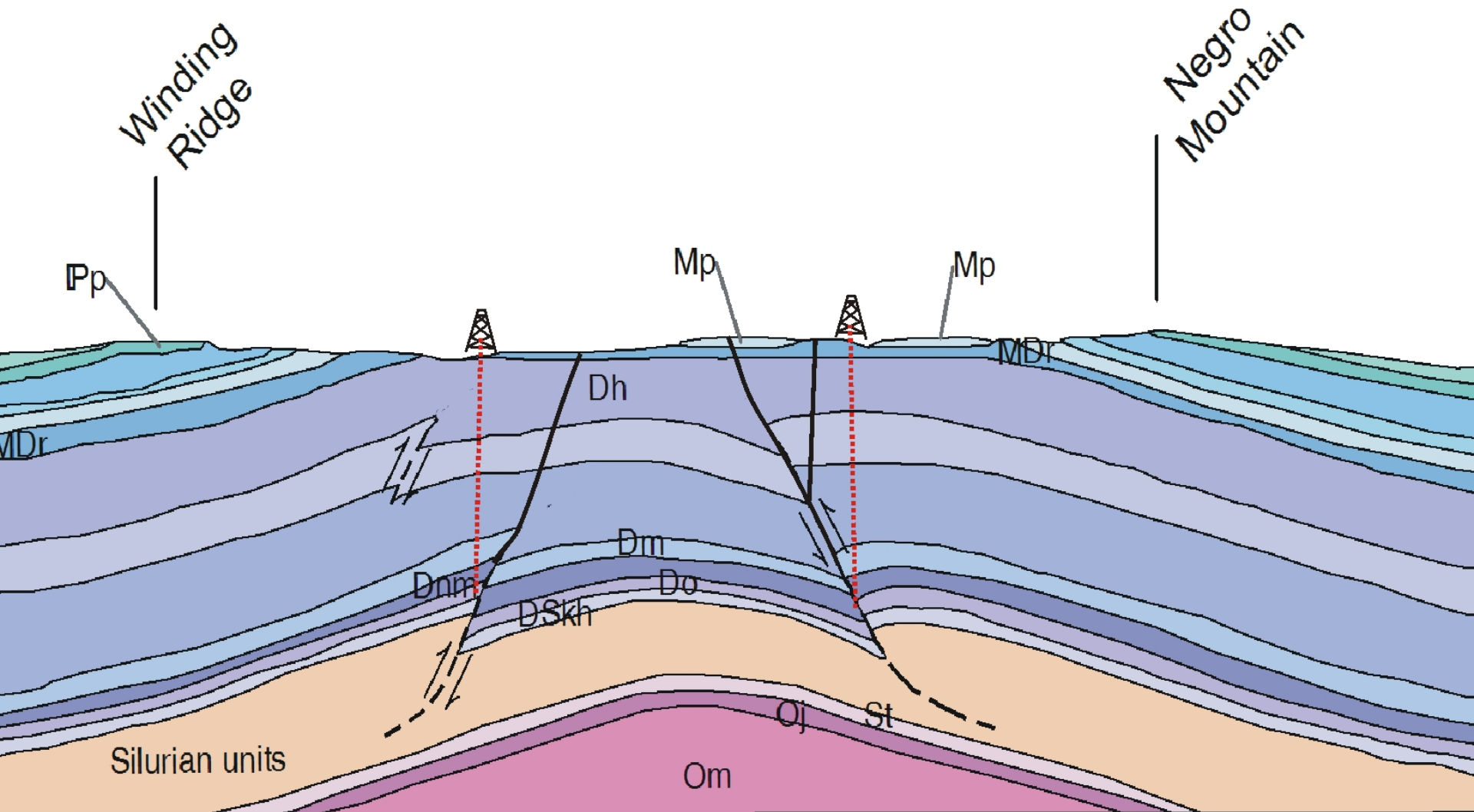


Geologic map of
the McHenry
Quadrangle
scale 1:24,000



Geologic map of the
Accident anticline
scale 1:24,000

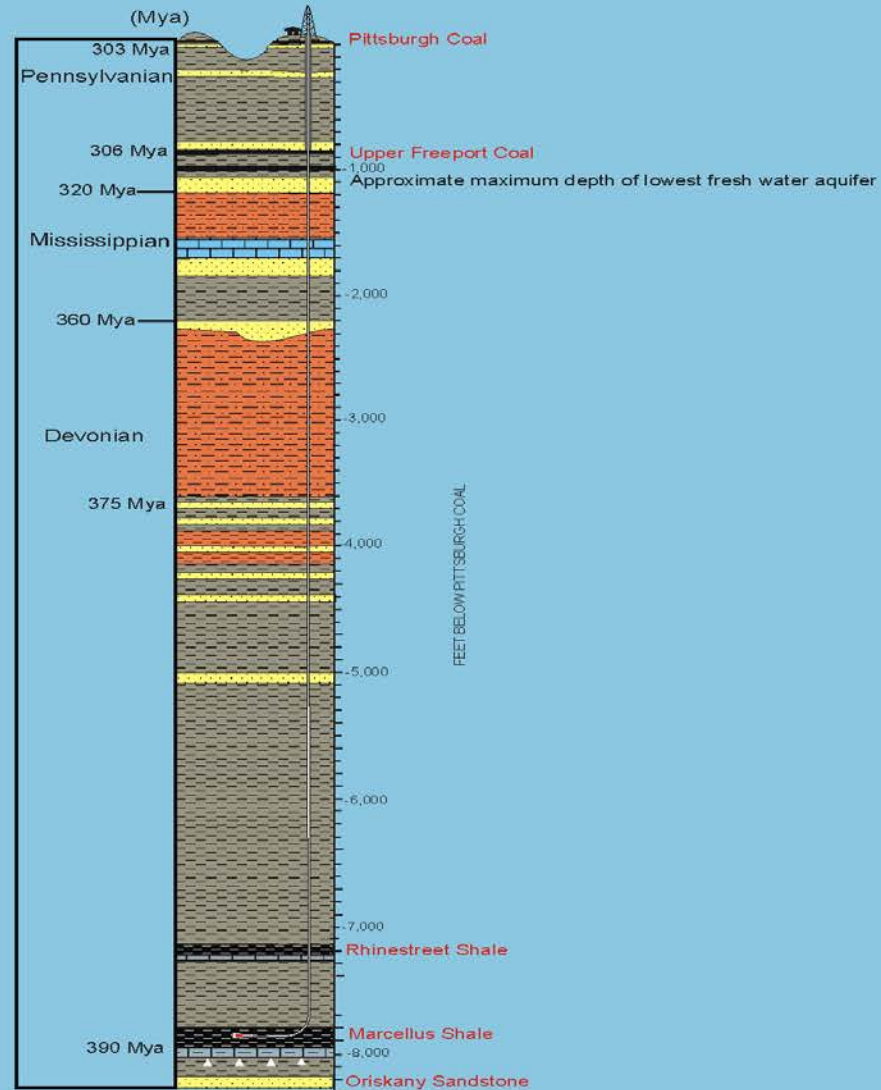




Marcellus Shale

Oriskany Sandstone





SUMMARY

1. Rocks of Garrett and Allegany Counties span the Valley and Ridge and Appalachian Plateaus Physiographic Provinces.
2. Rocks east of Dans Mtn have been highly folded and faulted. This level of deformations has largely heated the rocks beyond the potential for abundant hydrocarbon preservation.
3. The gently folded rocks of much of Garrett County, however, do contain potential hydrocarbon and coal preserved mainly because they have not been so intensely deformed.
4. The main gas reservoirs (Oriskany Sandstone and Marcellus Shale) occur at a depth of between 6,000 to 8,000 feet in Garrett and western Allegany counties.