

GEOLOGIC MAP OF THE AMITY QUADRANGLE, PIKE, CLARK, MONTGOMERY AND HOT SPRING COUNTIES, ARKANSAS

Geology by Boyd R. Haley and Charles G. Stone
Edited by William D. Hanson
1994

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Digital compilation by Jerry W. Clark, Tiffany L. Celis, and Nathan H. Taylor, 2007

AMITY QUADRANGLE
ARKANSAS
7.5 MINUTE SERIES (TOPOGRAPHIC)

Correlation of Map Units

Pa	Pennsylvanian	PALEOZOIC
Ms	Mississippian	
MDa	Mississippian/Devonian	

Description of Map Units

- Pa** **Jackfork Formation (Pennsylvanian)** - The Jackfork is thin to massive-bedded, fine to coarse-grained, brown, tan, or bluish-gray quartzitic sandstone with subordinate brown silty sandstones and gray-black shale. Minor conglomerates composed of quartz, chert, and metaquartzite occur notably in the southern exposures of the formation. The Jackfork rests conformably on the Stanley and was deposited in a deep marine environment.
- Ms** **Stanley Formation (Mississippian)** - The Stanley is composed predominantly of grayish-black to brownish-gray shale, with lesser amounts of thin to massive-bedded, fine-grained, gray to brownish-gray feldspathic sandstone and black chert. Weathered shale is olive-gray, and the sandstone is generally more porous and brown. Most of the Stanley is Late Mississippian (Chesterian) as indicated by conodonts and plant fossils. The formation was deposited in a deep marine environment.
- MDa** **Arkansas Novaculite (Mississippian-Devonian)** - Three Divisions of the Arkansas Novaculite are recognized. The Lower Division is white massive-bedded novaculite with some interbedded gray shales near its base. The Middle Division is greenish to dark gray shales interbedded with many thin beds of dark novaculite. The Upper Division is white, thick-bedded, and often calcareous. The formation was deposited in deep marine environment.

Symbols

- ~ Contact
— Thrust Fault
— Strike and Dip
— Overturned Strike and Dip

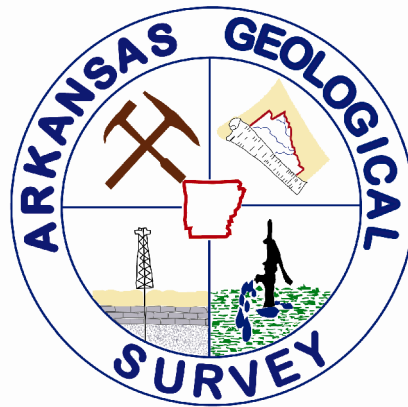
References

- Haley, B. R., and Stone, C. G., 1976, Geologic Worksheet of the Amity Quadrangle, Arkansas, Arkansas Geological Commission, Open-file report, scale 1:24,000.
- McFarland, J. D., 2004, Stratigraphic Summary of Arkansas, Arkansas Geological Commission Information Circular 36, 39p.
- Miser, H. D., and Purdue, A. H., 1929, Geology of the DeQueen and Caddo Gap Quadrangles, Arkansas: U.S. Geological Survey, Bulletin 808, 195p., scale 1:125,000.

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ROAD CLASSIFICATION
Medium-duty — Light-duty
Unimproved dirt —
U.S. Route — State Route

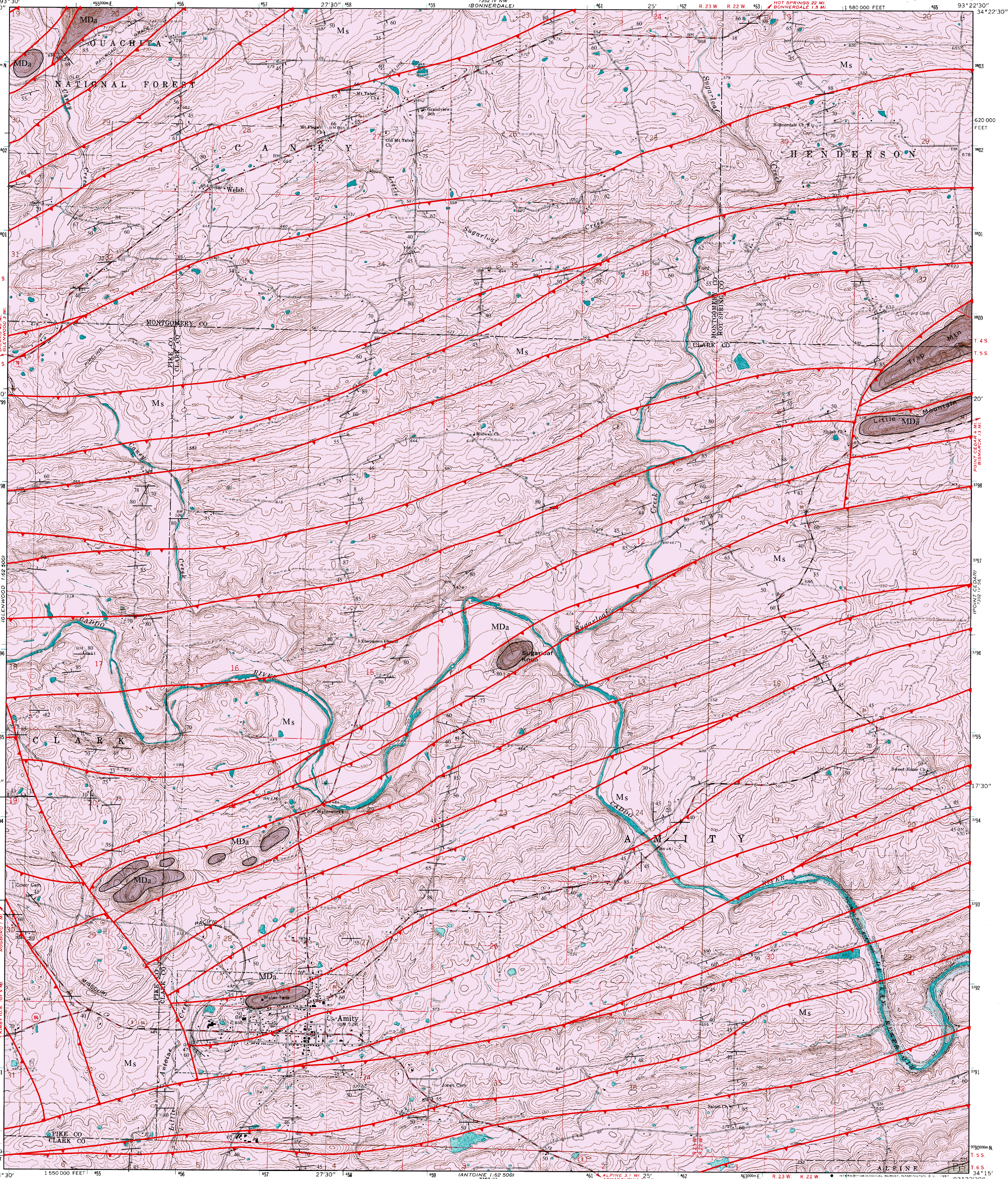
AMITY, ARK.
N3415—W9322.5/7.5
1996
AMS T552 IV SW—SERIES Y884

SCALE 1:24,000
CONTOUR INTERVAL 10 FEET
DATUM IS MEAN SEA LEVEL

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
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A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



Mapped, edited, and published by the Geological Survey
Control by USGS and USC&GS
Topography by photogrammetric methods from aerial photographs taken 1963. Field checked 1966
Polyconic projection. 1927 North American datum
10,000-foot grid based on Arkansas coordinate system, south zone
1000-meter Universal Transverse Mercator grid ticks, zone 15, shown in blue
Area covered by dashed light-blue pattern is subject to controlled inundation
Fine red dashed lines indicate selected fence and field lines where generally visible on aerial photographs. This information is unchecked

UTM GRID AND 1983 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET