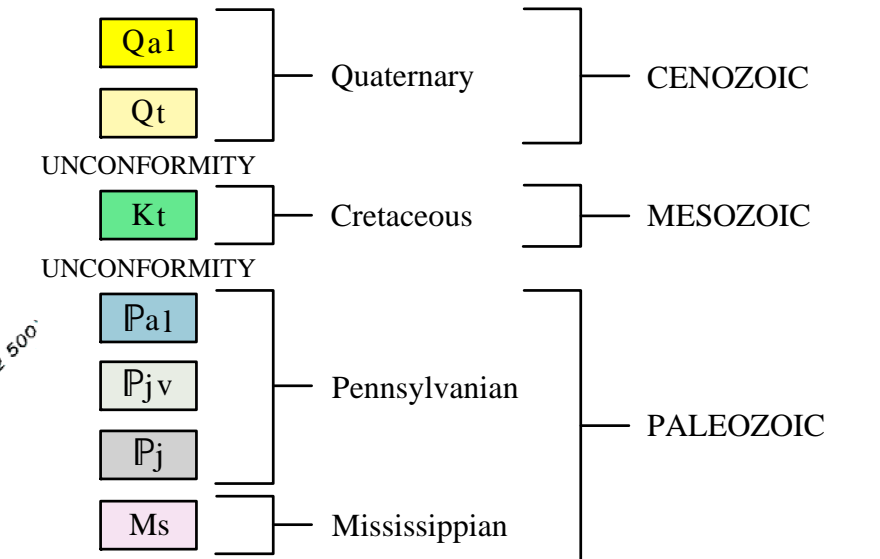




GEOLOGIC MAP OF THE NARROWS DAM QUADRANGLE, PIKE COUNTY, ARKANSAS

Geology by B.R. Haley, C.G. Stone, W.D. Hanson, and B.F. Clardy
1994
Digital compilation by Nathan H. Taylor
2008

Correlation of Map Units



Description of Map Units

- Qa1** **Alluvium (Quaternary)** - Variably sized gravel overlain by unconsolidated sand, silt, and clay comprises the unit. This unit occurs in the floodplains of streams and rivers. The sediments form a rich loam and are excellent for agriculture. Gravels, primarily novaculite, originated in the Ouachita Mountain region and from local Cretaceous formations. Areas of alluvium are presently receiving sediment deposition.
- Qt** **Terrace Deposit (Quaternary)** - Terrace deposits generally grade from basal gravel to silt and clay at the top. Gravels, primarily novaculite, originated in the Ouachita Mountain region and from local Cretaceous formations. Terraces are topographic features which are former floodplains of nearby streams and/or rivers. The sediments form a rich loamy soil. The basal gravel is sometimes utilized for water-well production and gravel-mining operations.
- Kt** **Trinity Group (Lower Cretaceous)** - The Trinity is comprised of sand, gravel, clay, limestone, asphalt, and evaporate deposits. The upper part of the Trinity Group is mostly fine-grained, cross-bedded sand, usually weathered to reddish color. Marginal marine fossils are noted from the Trinity Group. Members exposed include the Pike Gravel and the Dierks Limestone Lenticle. The Pike Gravel, the basal member of the Trinity Group, is a bedded gravel deposit approximately 60 feet thick. The base of the Trinity rests unconformably on a surface of upturned and eroded Paleozoic rocks.
- Pa1** **Atoka lower (Pennsylvanian)** - The lower Atoka is a sequence of marine, mostly tan to gray silty sandstones and grayish-black shales. Some rare calcareous beds and siliceous shales are known. This unit has the largest areal extent of any of the Paleozoic formations in the state.
- Pjv** **Johns Valley Formation (Pennsylvanian)** - The Johns Valley Formation consists of black shale with numerous intervals of brownish sandstone. Also, small amounts of gray-black siliceous shale and chert have been noted. Erratic masses are known to occur in the southern Ouachitas. The erratic masses consist of limestone, dolostone, cherts, and others. This unit was deposited in a deep marine environment.
- Pj** **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 metacarbonate 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, dark green to black tuff and black chert. Weathered shale is olive-gray, and the sandstone is generally more porous and brown. The Stanley is Late Mississippian (Chesterian) as indicated by conodonts and plant fossils. The formation was deposited in a deep marine environment.

Symbols

- Contact
- Thrust Fault
- Thrust Fault, inferred
- Tear Fault
- Strike and Dip
- Overtaken Strike and Dip
- Mine/Quarry, active
- Mine/Quarry, abandoned
- Pit

Mineral Commodities

- cs Crushed Stone
- Hg Mercury
- sg Sand & Gravel
- sh Shale

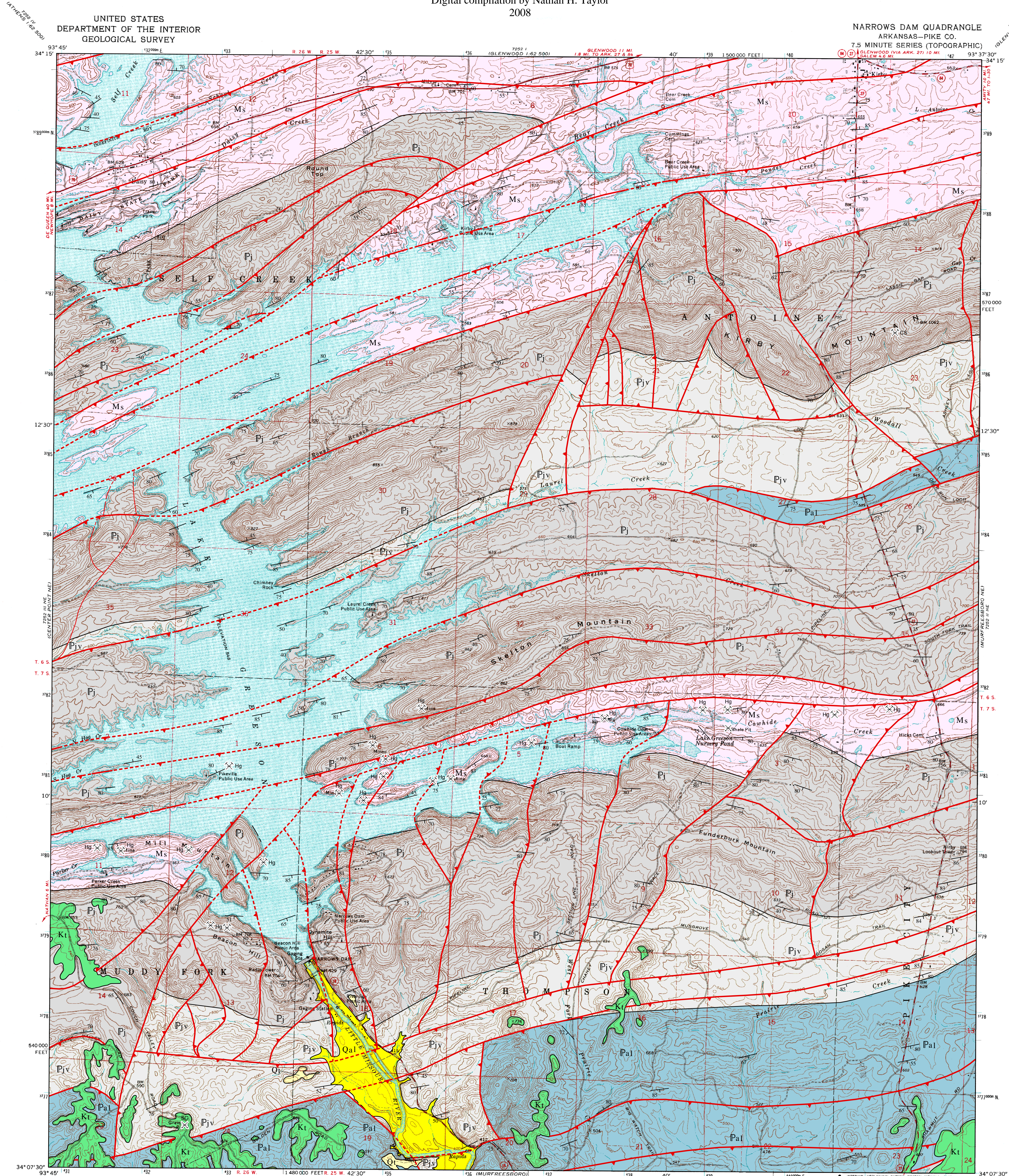
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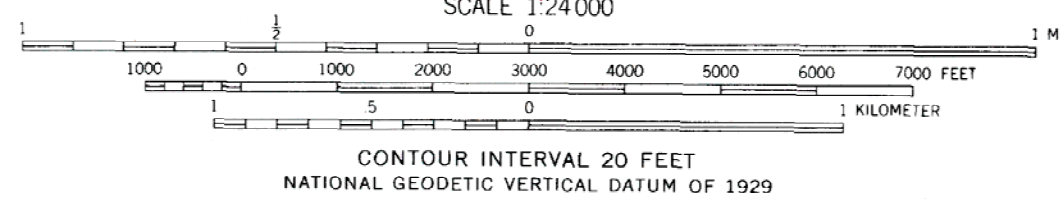
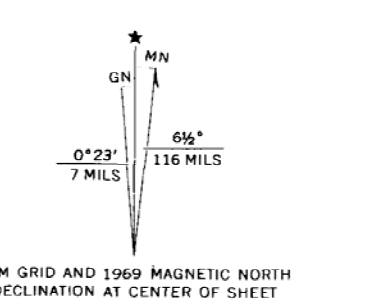
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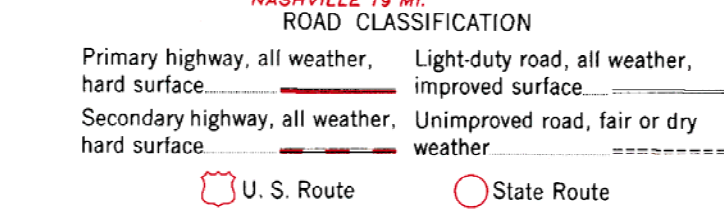


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Topography by photogrammetric methods from aerial photographs taken 1968. Field checked 1969
Polyconic projection. 1927 North American datum. 10,000-foot grid based on Arkansas coordinate system, south zone. 1000-meter Universal Transverse Mercator grid ticks, zone 15, shown in blue
Areas covered by dashed light blue pattern are subject to controlled inundation
Fine red dashed lines indicate selected fence and field lines where generally visible on aerial photographs. This information is unchecked



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