GEOLOGIC MAP OF THE WINTHROP QUADRANGLE, LITTLE RIVER AND SEVIER COUNTIES, ARKANSAS

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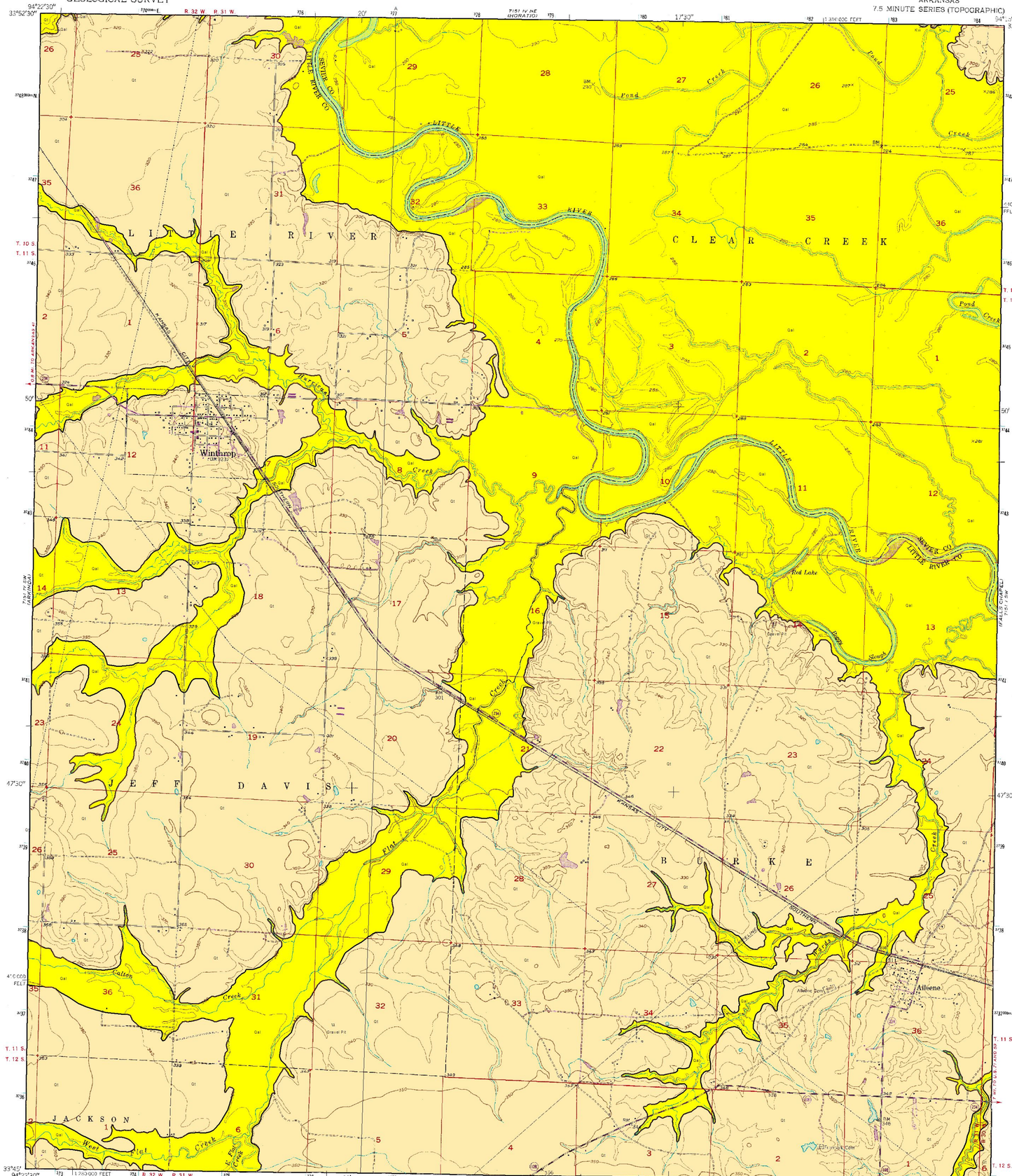
Digital compilation by Jennifer R. Perkins and William D. Hanson

1999

Arkansas Geological Commission, William V. Bush, State Geologist

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

WINTHROP QUADRANGLE
ARKANSAS
7.5 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Culture and drainage in part compiled from aerial photographs taken 1949
Topography by plane-table methods 1950

Polyconic projection. 1927 North American datum
10,000-foot grid based on Arkansas coordinate system, south zone
1000-metre Universal Transverse Mercator grid ticks, zone 15, shown in blue

Revisions shown in purple compiled from aerial photographs taken 1975. This information not field checked

UTM GRID AND 1975 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

CONTOUR INTERVAL 10 FEET
DOTTED LINES REPRESENT 5-FOOT CONTOURS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
AND ARKANSAS GEOLOGICAL COMMISSION, LITTLE ROCK, ARKANSAS 72204
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

QUADRANGLE LOCATION

Funded by the Arkansas Geological Commission in cooperation with the United States Geological Survey, STATEMAP no. 1434-94-A-1223

ROAD CLASSIFICATION
Heavy-duty — 4 LANE & 2 LANE
Medium-duty — 4 LANE & 2 LANE
Light duty
Unimproved dirt
U. S. Route
State Route

WINTHROP, ARK.
N3345—W9415/7.5
1950
PHOTOREVISED 1975
AMS 7151 IV SE—SERIES V884

CORRELATION OF MAP UNITS

Qal	Quaternary	CENOZOIC
Qt		

DESCRIPTION OF MAP UNITS

Qal — **Alluvium (Quaternary)** - Variably sized gravel overlain by unconsolidated sand, silt, and clay comprises this 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. Thickness varies from 0 to 25 feet. Areas of alluvium are presently receiving sediment deposition.

Qt — **Terrace Deposits(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. Thicknesses vary, but are generally less than 50 feet. Terraces are topographic features which are former floodplains of the river. The sediments form a rich loamy soil. The basal gravel is sometimes utilized for water well production and gravel mining operations.

SYMBOLS

Gravel and/or sand pit

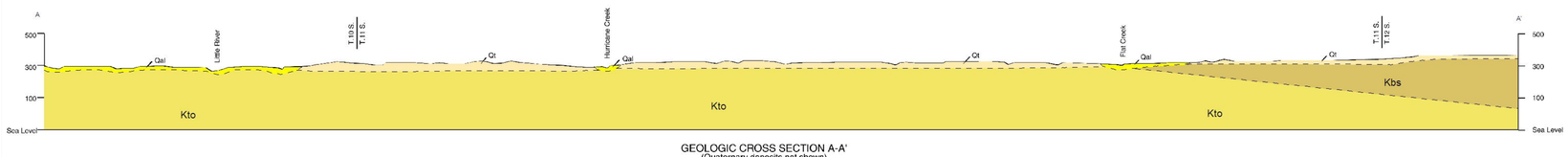
Contact

REFERENCES

Bush, W. V., and Clardy, B. F., 1971, Geologic Map of the Winthrop Quadrangle, Little River and Sevier Counties Arkansas: Arkansas Geological Commission Open-File Report, scale 1:24,000.

Dane, C. H., 1929, Upper Cretaceous Formations of Southwestern Arkansas: Arkansas Geological Survey Bulletin 1, 215 p.

Miser, H. D., and Purdue, A. H., 1929, Geology of the DeQueen and Caddo Gap Quadrangles, Arkansas: United States Geological Survey Bulletin 808, 195 p.



GEOLOGIC CROSS SECTION A-A'
(Quaternary deposits not shown)
Horizontal scale 1:24,000
Vertical exaggeration X5