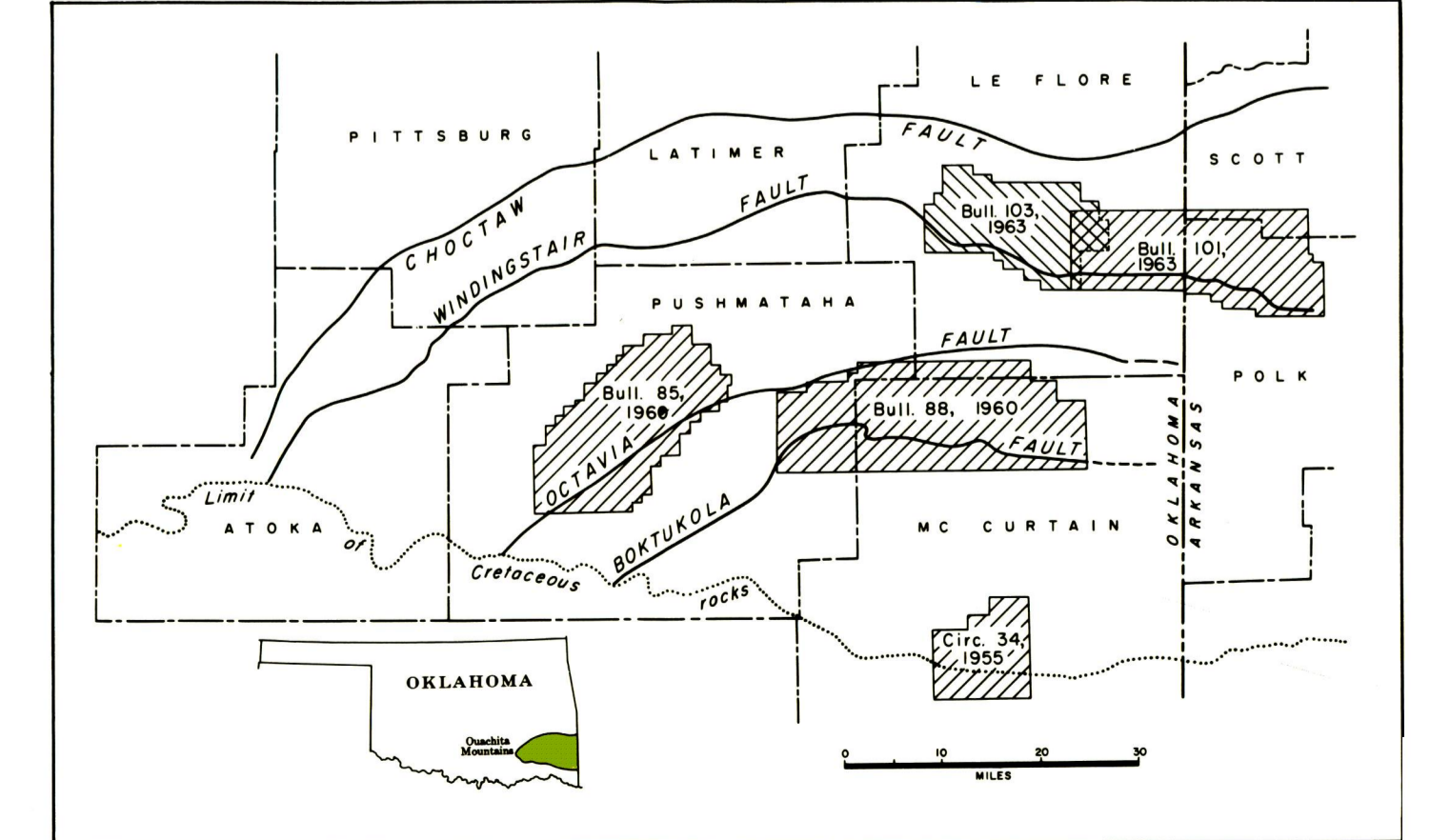
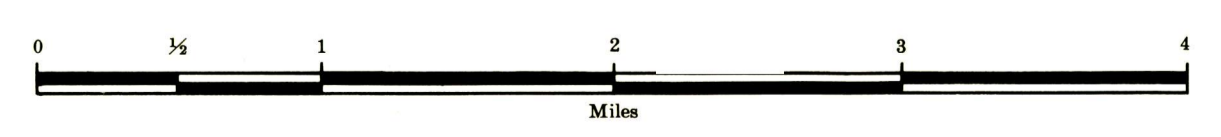


**GEOLOGIC MAP AND SECTIONS
OF THE
RICH MOUNTAIN AREA**
LE FLORE COUNTY, OKLAHOMA
SCOTT AND POLK COUNTIES, ARKANSAS

by
D. R. Seely
1963



Index structural map of Ouachita Mountains in Oklahoma showing published maps of the Oklahoma Geological Survey, 1955-1963.

EXPLANATION

- Qal**
ALLUVIUM
(Gravel, sand, and clay of present stream flood plains.)
- Qc**
COLLUVIUM
(Sandstone blocks, quartz sand, and clay in downslope transport.)
- Qt**
TERRACE DEPOSITS
(Locally derived sand and gravel deposited by streams that flowed at higher elevations than the present river flood plains. As many as four separate levels are present in southeastern part of map area.)
- Pa**
ATOKA FORMATION
(Light-gray laminated to massive sandstones and fossiliferous sandstones interbedded with gray shale. Locally divided into a basal sandy member (Pa1) and an overlying shaly member (Pa2). In good exposures of Spring Mountain syncline the estimated thicknesses are Pa1, 5,000 feet and Pa2, 3,000 feet. Top of formation not exposed in map area.)
- Pa2**
JOHNS VALLEY FORMATION
(Gray shale containing cobbles and boulders of limestone, chert, and limestone-chert conglomerate, and shale interbedded with locally fossiliferous sandstones. Thickness: at least 800 feet.)
- Mjw**
WESLEY, MARKHAM MILL, and PRAIRIE MOUNTAIN FORMATIONS
(undifferentiated)
(Gray shale and minor thin light-gray carbonaceous sandstones. Thickness: 1,700 feet.)
- Mjw**
WILDHORSE MOUNTAIN FORMATION
(Gray shales alternating with gray carbonaceous sandstones at the base; white well-sorted massive sandstones near the middle; and light-gray friable carbonaceous sandstones near the top. Thickness: 3,550 feet.)
- Mjw**
CHICKASAW CREEK FORMATION and MOYERS FORMATION
(undifferentiated)
(Gray and olive-gray sandstones and shale overlying a 8-foot bed of gray siliceous shale, and including sparsely speckled gray siliceous shale and local tuff at the top. Thickness: About 1,100 feet.)
- Mj**
JACKFORK GROUP
(undifferentiated)
- Mj**
STANLEY GROUP
(undifferentiated)
- Mj**
TENMILE CREEK FORMATION
(Gray shale and subordinate sandstones. Only topmost few hundred feet identified in map area.)

- FAULT**
Dashed where inferred, dotted where concealed
U, upthrown side; D, downthrown side.
Interpreted to be a dip-slip fault, but direct field evidence generally absent. Most faults of the area are believed to be reverse faults with high to moderate angles of dip.
- FAULT**
Fault along which a local strike-slip component can be inferred.
- AXIS OF SYNCLINE**
Showing trace of axial surface, plunge direction of axis, and dip of axial surface
- Overturned**
- AXIS OF ANTICLINE**
Upright Overturned
Plunge angle and direction of small anticline
- STRIKE AND DIP OF BEDS**
Direction of beds taken from aerial photographs and topographic map information
Vertical: 90 placed on top side of bed Dip varies within this approximate range
Overturned Field observation
- Stratigraphic contact**
dashed where inferred, dotted where concealed
- U. S. Highway** **State Highway**
- Improved road** **Unimproved road or trail**