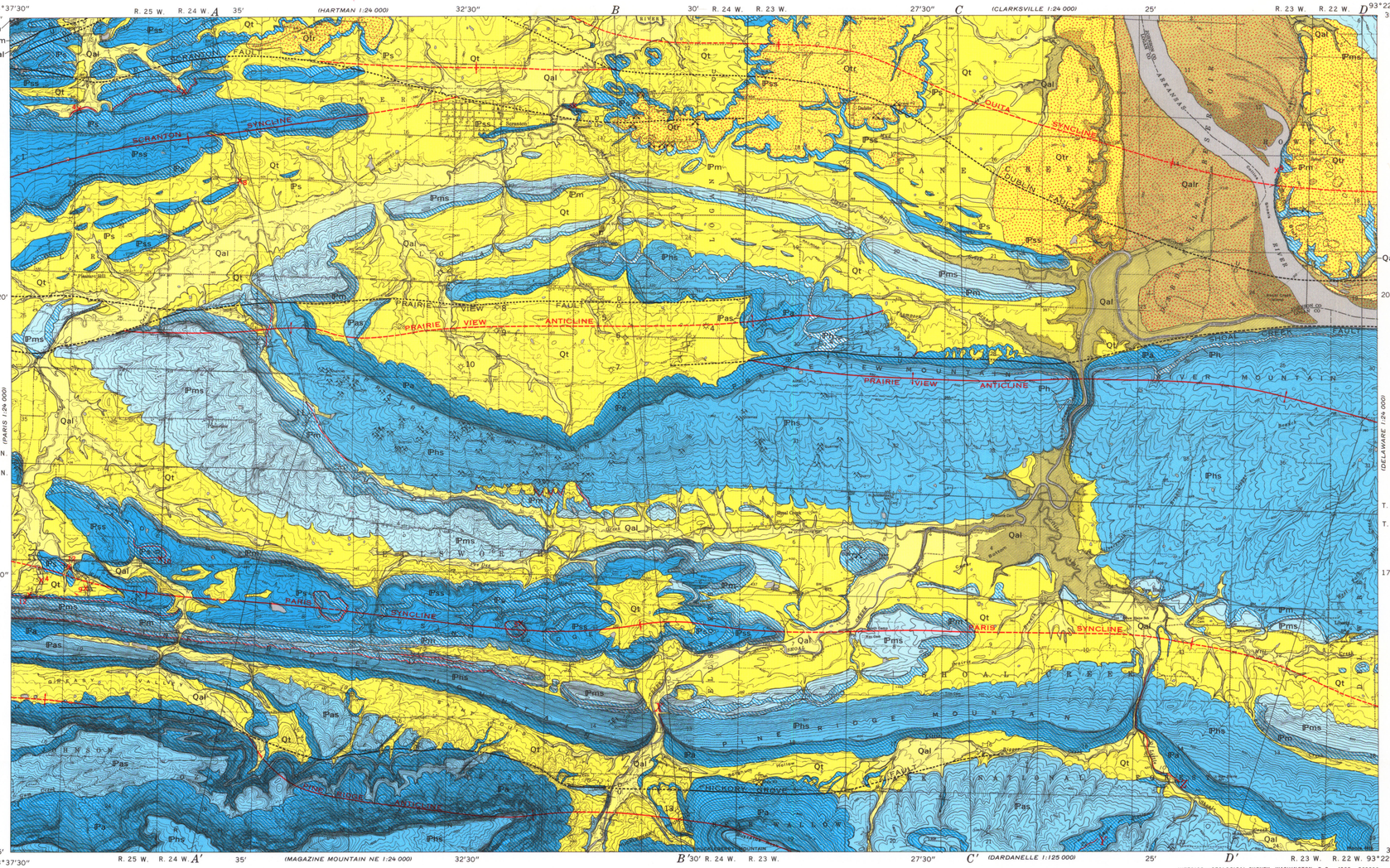
PREPARED IN COOPERATION WITH THE
ARKANSAS GEOLOGICAL COMMISSION



Base from U.S. Geological Survey, 1:24,000

Geology by Boyd R. Haley, 1957–58

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D.C.—1968—G68092

GEOLOGIC MAP OF SCRANTON AND NEW BLAINE QUADRANGLES
LOGAN AND JOHNSON COUNTIES, ARKANSAS

TRUE NORTH
MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION, 1968

SCALE 1:48 000

1 ½ 0 1 2 3 MILES

1 .5 0 1 2 3 KILOMETERS

CONTOUR INTERVAL 10 AND 20 FEET
DOTTED LINES ON EAST HALF REPRESENT 10-FOOT CONTOURS
DATUM IS MEAN SEA LEVEL

EXPLANATION

QUATERNARY

Recent

Qal / Qalr — **Alluvium**
Deposits along stream channels. In some places includes parts of lowermost terrace
Qal, *stream alluvium*
Qalr, *river alluvium*

Pleistocene

Qt / Qtr — **Terrace deposits**
Alluvial deposits on two terrace levels
Qt, *stream terrace deposits*
Qtr, *river terrace deposits*

UNCONFORMITY

PENNSYLVANIAN — CARBONIFEROUS

Des Moines — Krebs Group

Ps / Pss — **Savanna Formation**
Alternating units of predominant shale or predominant sandstone
Ps, *shale, siltstone, and thin beds of silty sandstone*
Pss, *sandstone, silty sandstone, or interbedded sandstone, and shale*

Pm / Pms — **McAlester Formation**
Alternating units of predominant shale or predominant sandstone
Pm, *shale, siltstone, and thin beds of silty sandstone*
Pms, *sandstone, silty sandstone, or interbedded sandstone, siltstone, and shale*

Ph / Phs — **Hartshorne Sandstone**
Alternating units of predominant shale or predominant sandstone
Ph, *shale, siltstone, and thin beds of silty sandstone*
Phs, *sandstone, silty sandstone, or interbedded sandstone, siltstone, and shale*

Atoka

Pa / Pas — **Atoka Formation**
Alternating units of predominant shale or predominant sandstone
Pa, *shale, siltstone, and thin beds of sandstone and silty sandstone*
Pas, *sandstone, silty sandstone, interbedded sandstone, siltstone, and shale*

Contact
Dashed where approximately located

Fault, showing dip
Dotted where concealed. U, upthrown side; D, downthrown side

Anticline — Syncline
Folds
Showing trace of axial plane. Dashed where inferred

Inclined — Vertical — Horizontal
Strike and dip of beds
Symbols in areas of alluvial deposits were measured on bedrock exposures too small to be shown on this map

Coal bed
Dashed where approximately located

Exposure of coal bed
Number is thickness of coal, in inches

Surface opening to coal bed
Number is thickness of coal, in inches

Mine shaft

Quarry

Gravel pit

A — A′
Structural section shown on plate 2

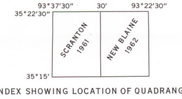
Z
Stratigraphic section shown on plate 3

Gas producing

Show of gas

No show of gas

Wells
Number designates well listed in table 3 in text



INDEX SHOWING LOCATION OF QUADRANGLES