

# Ground-Water Resources of Lyon County, Kansas

STATE GEOLOGICAL SURVEY OF KANSAS

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VOLUME 12, PLATE 3

R.10 E.

R.11 E.

R.12 E.

R.13 E.

T.15 S.

## EXPLANATION

- Domestic and stock well
- ◊ Public supply well
- ◆ Flowing well
- ▲ Spring
- Test hole

Dr (a) 17.34(c) [Brackets indicate water]

6101 52.16 [Intervals in feet]

Suburb sh and/or Wakarusa ls (a)

(a) Type of well Dr, drilled; Du, dug; B, bored

(b) Diameter of well, in inches

(c) Depth to water level below land surface, in feet. Reported depth shown to nearest tenth of foot; measured depth shown to nearest hundredth of foot.

(d) Depth of well below land surface, in feet. Reported depth shown to nearest foot; measured depth shown to nearest tenth of foot.

(e) Principal aquifer or aquifers.



## Ground-Water Regions



**Region A**—Alluvial gravel, sand, silt, and clay ranging from a maximum thickness of about 50 feet in Cottonwood River Valley to less than 5 feet in small tributary valleys. Wells yielding 150 gallons of water per minute can be developed in Cottonwood River Valley and parts of Neosho River Valley; smaller supplies are available in other stream valleys. The water is hard, but otherwise of good quality.



**Region B**—Alluvial terrace deposits comprising gravel, sand, silt, clay, and volcanic ash ranging in thickness from a featheredge to about 50 feet. In most of this region excellent stock and domestic water supplies can be developed. Commonly yields of 5 to 20 gallons of water per minute can be obtained, occasionally as high as 100 gallons per minute can be obtained. Some of the terrace deposits are above the water table or have only thin saturated zones. In these parts little or no ground water can be obtained. The water is hard but otherwise of good quality.



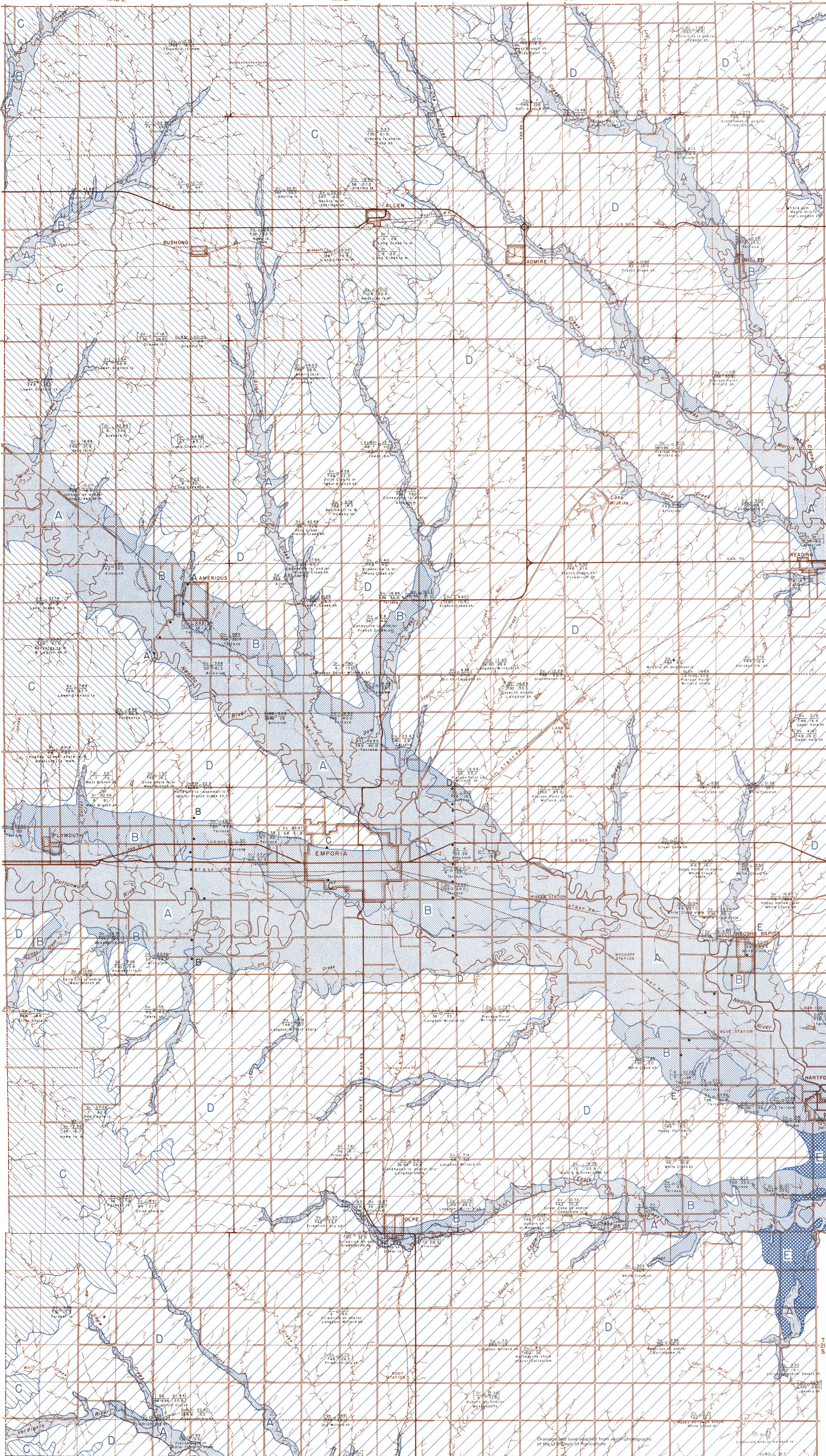
**Region C**—Jointed, fractured, and cavernous limestones are the principal aquifers in this region. They are jointed and fractured, and the calcareous shales furnish small amounts of water. Wells range in depth from less than 10 feet to about 90 feet. Yields of wells range from less than 1 gallon per minute to more than 40 gallons per minute. Supplies adequate for stock and domestic use are generally available. The water is generally of good quality.



**Region D**—The principal aquifers are the sandstones and sandy zones in shales. Locally, limestones such as the Aspinwall, Grandhaven, Wakarusa or the Burlington may yield water supplies adequate for stock or domestic use. An adequate and dependable water supply from wells is difficult to obtain in this region. Numerous farms have no water wells. Wells range in depth from less than 10 feet to about 75 feet. Quality of water differs but is generally hard and high in dissolved solids.



**Region E**—Aquifers are the Topeka limestone and the sandstone or sandy zones in the Calhoun shale. Water wells are generally less than 50 feet in depth and yield small supplies of hard but otherwise good quality water.



Drainages base adapted from aerial photographs of the U.S. Dept. of Agriculture