

AREAL GEOLOGY OF RICE COUNTY KANSAS

With Water-Table Contours

by O. S. Fent, 1946

State Geological Survey
of Kansas

Bulletin 85
Plate 1

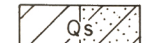
EXPLANATION



Qal
Recent alluvium and late Wisconsin terrace deposits
Alluvium consists of silt, sand, and gravel in the Arkansas Valley; yields brackish water to a few domestic and stock wells. Terrace deposits consist of gravel, sand, and some silt in Arkansas Valley; mostly silt in tributary valleys to the north. In Arkansas Valley yields large supplies of moderately hard water.



Qds
Dune sand
Medium sand; some fine sand and silt. Generally above the water table, but yields water to a few wells in the large dune tracts.



Qs
Sanborn formation
Massive silt; contains some sand and locally thick gravel and sand. Includes Bignell and Peoria silt members, Todd Valley sand member, and Loveland silt member. Stippled pattern indicates Todd Valley sand at the surface or beneath a thin soil. Does not yield water to wells in most of the area, but yields large supplies of water of good quality in the area of the Chase Channel and small supplies to domestic and stock wells locally.



To
Ogallala formation
Sand, gravel, silt, and limestone. Yields little or no water to wells in this area.



Kd
Dakota formation
Medium-grained sandstone and varicolored clay. Discontinuous mantle of Sanborn formation on divide areas. Yields moderate to large supplies of good water to wells in northern Rice County.



Kk
Kiowa shale
Medium to fine-grained sandstone in upper part; dark-gray to black fissile shale in lower part. Discontinuous mantle of Sanborn formation on divide areas. Upper part yields moderate supplies of good water to wells; lower part yields little water to wells.



Ph
Harper sandstone
Red siltstone and very fine silty sandstone. Yields small quantities of mineralized water to wells in outcrop area.



Psc
Stone Corral dolomite
White and light-gray anhydrite and dolomite. Yields little or no water to wells in Rice County.



Pn
Ninescaw shale
Shale, siltstone, and very fine silty sandstone. Yields small quantities of mineralized water to wells in outcrop area.

Contour interval 10 feet

Water-table contours based on instrumental levels

Well location. Number refers to altitude of water level

Stream altitude. Number refers to altitude of water in stream.

Federal or State Highway

Graded road

Railroad

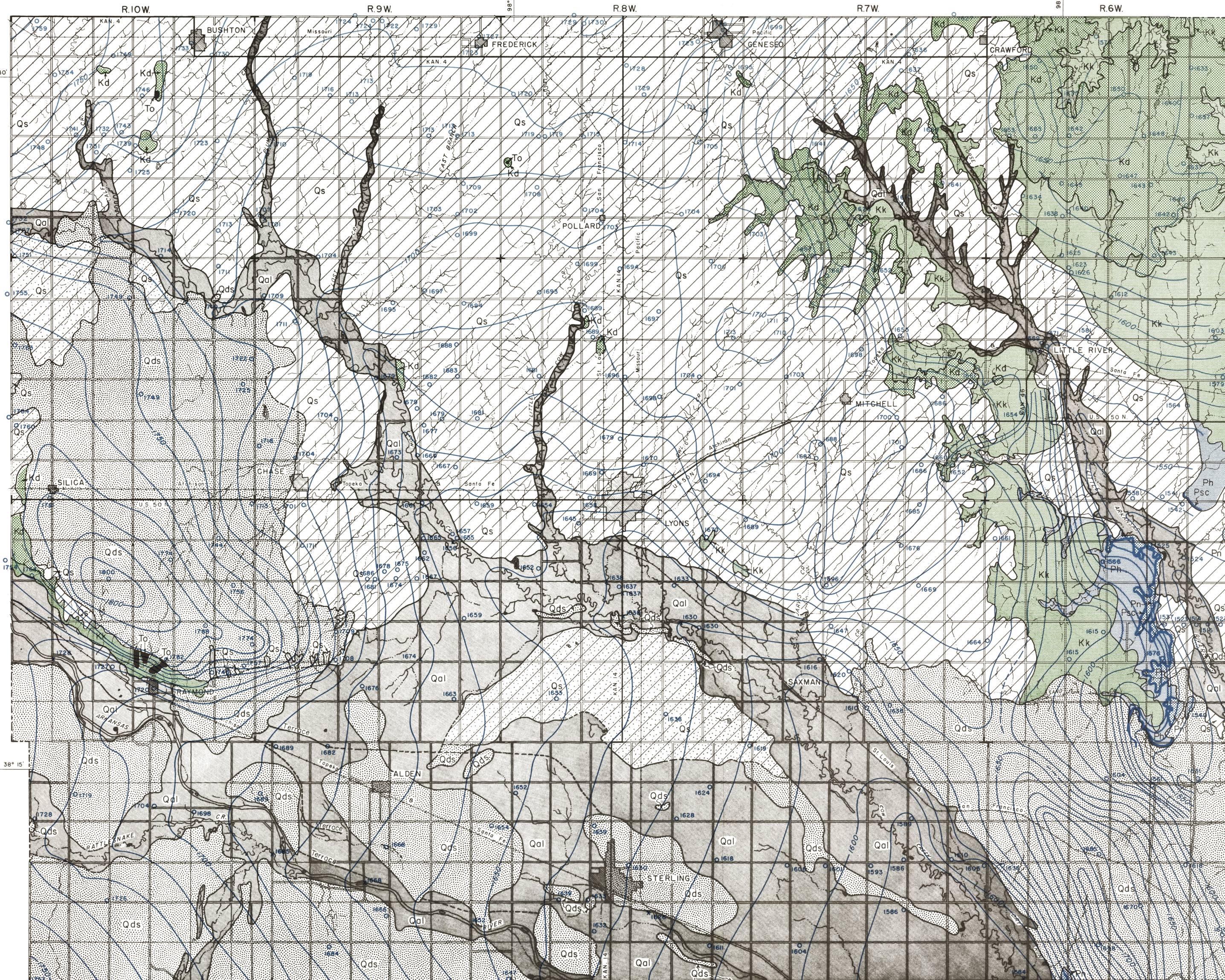
Section line (no road)

Township line (no road)

County line (no road)

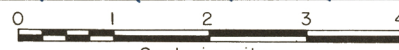
Perennial stream

Intermittent stream



PLEISTOCENE AND RECENT
QUATERNARY
PLEISTOCENE
TERTIARY
PLOCENE
GULFIAN
COMANCHEAN
PERMIAN
LEONARDIAN

Base modified from map prepared by State Highway Commission of Kansas



Drainage from aerial photographs of the U. S. Dept. of Agriculture