

# MAP OF RICE COUNTY, KANSAS

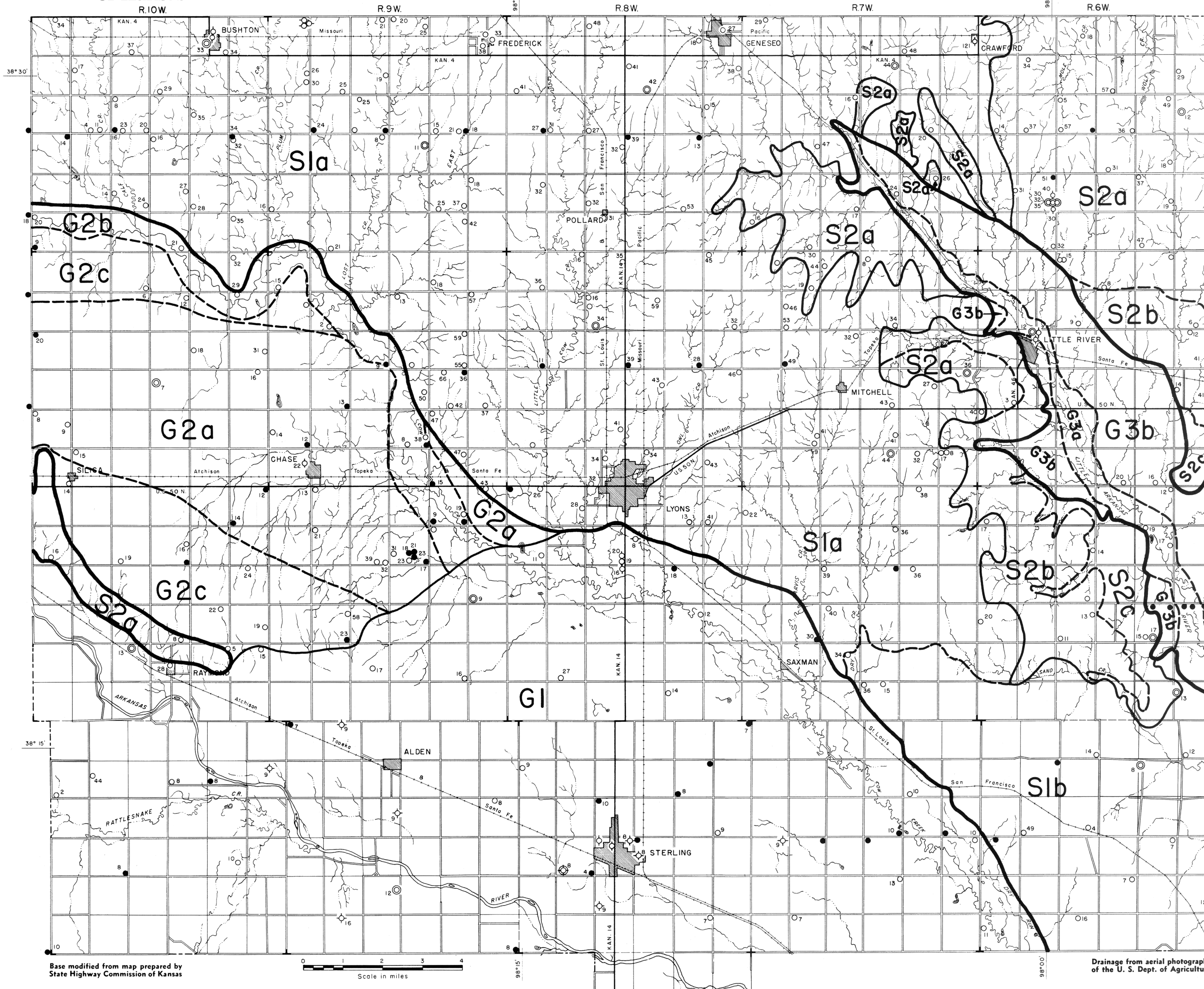
Showing the Location of Wells for which Records are given

Location of Test Holes and Cross Sections and Ground-Water Regions

State Geological Survey  
of Kansas

by O. S. Fent, 1946

Bulletin 85  
Plate 2



## EXPLANATION

- Domestic and stock well
- ⊕ Irrigation well
- ⊙ Public supply well
- ⊗ Industrial well
- ⊕ Observation well
- Test hole
- Federal or State Highway
- Graded road
- Railroad
- Section line (no road)
- Township line (no road)
- County line (no road)
- Perennial stream
- Intermittent stream

○ Depth to water level below land surface, in feet

## GROUND-WATER REGIONS

### Great Bend Prairie Province

- G1 Arkansas River Valley Region.—Sand, gravel, silt and clay 50 to 200 feet thick. Water table 7 to 10 feet below the surface in most places, but may be 30 feet below surface of high terraces and more than 40 feet below high sand dunes. Wells yielding more than 1,000 gallons per minute have been developed. Water is moderately hard over most of the area and is highly mineralized near Arkansas River.
- G2 Chase Channel Region.
  - G2a Channel Gravel Area.—Sand, gravel, silt and clay 50 to 220 feet thick. Sand and gravel occur in 3 zones separated by thick silt and clay bodies. The upper sand and gravel, the only important aquifer, is encountered at depths of a few feet to 50 feet below the surface, and is 20 to 80 feet thick. The water table is from a few feet to about 20 feet below the surface. Wells yielding 250 gallons per minute have been developed. Water is of good quality and only moderately hard. Locally contaminated by oil-field brines.
  - G2b Cow Creek Terrace Area.—Poorly sorted, silty sand and gravel, mostly between the depths of 20 and 60 feet. Water table is from a few feet to 20 feet below land surface. Wells yield moderately hard water in quantities sufficient for domestic and stock use.
  - G2c Channel Border Areas.—Silt, sand, clay and sandstone. Wide variety in type and thickness of aquifer, depth, and quality of water. Yields usually small but sufficient for domestic and stock use.
- G3 Little Arkansas River Valley Region.
  - G3a Alluvial Terrace Area.—Silt and clay with small amount of sand occurring at the base of the alluvium in most places. Alluvium is 30 to 50 feet thick. Moderate to small yields of hard water. Water table 10 to 20 feet below land surface.
  - G3b Silt Terrace Area.—Mostly silt and clay a few feet to 90 feet thick. Irregular lenses of sand and gravel yield small supplies locally. Water in many places insufficient for domestic and stock use except northwest of Little River where silt is underlain by sandstone.

### Smoky Hills Upland Province

- S1 Mantled Upland Region.
  - S1a Upland Loess Area.—Silt 30 to 90 feet thick over most of the area overlies thin zone of locally derived sand and gravel which yields small supplies of water to domestic and stock wells. Mostly underlain by sandstone from which larger supplies of good water can be obtained. Wells yield 50 to 70 gallons per minute in northwestern part of the area.
  - S1b Hutchinson Dune Sand Area.—Medium to fine sand and silt overlying shale and siltstone. In some places a thin rubble zone at base of sand. Wells generally of low yield but sufficient for domestic and stock use. Depth to water a few feet to over 50 feet. Water in dune sand high in iron content and locally contaminated by oil-field brines. Water mineralized in underlying shale.
- S2 Dissected Border Region.
  - S2a Cretaceous Sandstone Area.—Sandstone overlying blue-gray shale. Sandstone yields moderate supplies of good water. Domestic and stock wells can be developed at almost any point.
  - S2b Lower Kiowa Shale Area.—Blue-gray shale containing few thin lenses of fine sandstone. Water supplies often inadequate for domestic and stock use.
  - S2c Permian Shale and Siltstone Area.—Shale, siltstone and dolomite. Meager supplies of mineralized water.

Base modified from map prepared by State Highway Commission of Kansas

Scale in miles

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