



EXPLANATION

Pleistocene Series

- Qal Alluvium
- Qtn Newman terrace deposits
- Qdu Undifferentiated fluvial deposits in tributary valleys
- Qd Loveland Formation and unnamed sand and gravel deposits
- Qad Undifferentiated fluvial and lacustrine deposits, Kansan till, and Atchison Formation

Upper Pennsylvanian Series

Douglas Group

- Pdl Lawrence Formation
- Pds Stranger Formation

Lansing Group

- Pli Stanton Limestone
- Plp Vilas Shale and Plattburg Limestone

Kansas City Group

- Pkw Bonner Springs Shale and Wyandotte Limestone
- Pki Lane Shale and Iola Limestone
- Pks Chanute Shale and Drum Limestone
- Pkd Cheryvale Shale and Dennis Limestone

QUATERNARY SYSTEM

PENNSYLVANIAN SYSTEM

CONTACT
Dashed where approximately located or inferred

FAULT
Dashed where approximately located
U, upthrown side; D, downthrown side

Domestic or stock well

Public supply or commercial well

Industrial well

Irrigation well

Test hole

Observation well

Spring

Dash below well symbol indicates log given in report

APPROXIMATE MEAN DECLINATION, 1971

Scale 1:48 000

1 1/4 0 1 2 MILES

CONTOUR INTERVAL 50 FEET
DATUM IS MEAN SEA LEVEL

Base from topographic quadrangles of U.S. Geological Survey and maps of State Highway Commission of Kansas

Prepared by the State Geological Survey of Kansas and the United States Geological Survey, with the cooperation of the Division of Water Resources of the Kansas State Board of Agriculture and the Division of Environmental Health of the Kansas State Department of Health.

Aerial geology mapped in 1954-55 by Howard G. O'Connor