KANSAS GEOLOGICAL SURVEY
THE UNIVERSITY OF KANSAS
MAP M – 61

GEOLOGIC MAP OF HAMILTON COUNTY, KANSAS 2003

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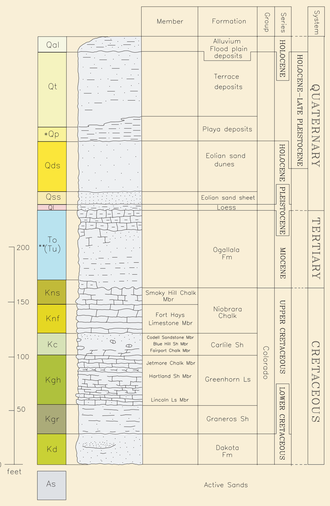


*(Qp) Parenthesis indicates the presence of a geologic formation below water.

**(Tu) Undifferentiated Ogallala and Pleistocene-age terrace deposits.

Stratigraphy based on Seller, D. E., ed. 1968, The stratigraphic succession in Kansas: Kansas Geological Survey, Bulletin 189, 81 p.

"Bear Creek Fault" – – This is an approximate location of the fault. The source is Lohmeyer, D. H. and Sauer, C. G. (1974), Water resources of Hamilton County, southwestern Kansas: U.S. Geological Survey, HA-516.

EXPLANATION

Sandstone or sand
Sand and gravel, sandstone or "mortar beds"
Unconsolidated silt and clay
Chalk
Shale with sandstone concretions
Chalky limestone
Calcareous shale
Limestone
Bentonite
Shaly limestone

Geologic unit boundaries

1 – Observed geologic contact
2 – Inferred geologic contact
3 – Concealed geologic contact*
* *Does not appear on this map*

Hydrology and topography

1 – Intermittent stream
2 – Perennial stream
3 – Areal hydrology
4 – Land subject to inundation*
5 – Elevation contours (10-meter interval)
6 – Elevation contours (50-meter interval)
* *Does not appear on this map*

Geologic structure

1 – Fault
2 – Anticline*
3 – Syncline*
(solid where observed)
(dashed where inferred)
* *Does not appear on this map*

Index reference features

1 – 1:24,000 map edge
2 – Line of cross section*
* *Does not appear on this map*

Transportation

1 – Interstate highway*
2 – Federal highway
3 – State highway
4 – Medium-duty primary and secondary roads
5 – Light-duty secondary road
6 – Unimproved secondary road
7 – Railroad
8 – Airport or landing strip
* *Does not appear on this map*

Boundaries and locations

1 – State line*
2 – County line
3 – Township/Range line
4 – Section line
5 – County seat
6 – City
7 – Locality
8 – City boundary
* *Does not appear on this map*

Resource development

1 – Quarry
2 – Gravel pit
3 – Shale pit
4 – Oil wells*
5 – Gas wells*
6 – Water wells*
* *Does not appear on this map*

6	5	4	3	2	1	
7	8	9	10	11	12	
18	17	16	15	14	13	
19	20	21	22	23	24	
30	29	28	27	26	25	
31	32	33	34	35	36	

Diagram of a township showing numbering of sections

INDEX TO PUBLIC LAND SURVEY
Range
43W 42W 41W 40W 39W
Township
21S 22S 23S 24S 25S

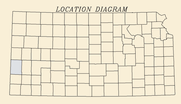
INDEX TO 1:24,000–SCALE MAPS

1	2	3	4	5	
6	7	8	9	10	
11	12	13	14	15	
16	17	18	19	20	
21	22	23	24	25	
26	27	28	29	30	

PR Photorevised

1 Towner SE–1968
2 Tribune SW–1970
3 Tribune SE–1970
4 Selkirk NW–1970
5 Selkirk SE–1970
6 Holly NE–1955
7 Holly West Creek North–1966
8 Plum Creek North–1966
9 North of Sand Creek–1966
10 North of Shirley Creek–1966
11 Holly East–1953 (PRPR)
12 Plum Creek South–1966
13 Plum Creek South–1966
14 Sand Creek–1966
15 Shirley Creek–1966
16 Syracuse NE–1966
17 Syracuse West NW–1966
18 Syracuse West–1966
19 Syracuse East–1966
20 Kendall–1965
21 Durkee Creek SE–1966
22 Durkee Creek NE–1966
23 Syracuse West SE–1966
24 Syracuse East SW–1966
25 Syracuse East SE–1966
26 Lycan NE–1971
27 Johnson NW–1973
28 Johnson NE–1973
29 Big Bow NW–1959 (PR)
30 Big Bow NE–1959

LOCATION DIAGRAM



Convergence (GN) and 1997 magnetic declination (MN) at center of map
Diagram is approximate

Lambert Conformal Conic Projection with standard parallels at 33° and 45°

Scale 1:50,000

0 1 2 3 Kilometers

0 1 2 Miles

CONTOUR INTERVAL 5 METERS

CONVERSION TABLE

feet	meters	kilometers	miles
1	0.3048	0.0003	0.00019
3.2808	1	0.001	0.00062
3280.8	1000	1	0.6214
5280	1609.4	1.6094	1

To convert feet to meters multiply by 0.3048
To convert meters to feet multiply by 3.2808
To convert kilometers to miles multiply by 0.6214
To convert miles to kilometers multiply by 1.6094

Elevation contours are presented for general reference. They are taken from USGS Digital Line Graph (DLG) files compiled from base maps at a scale of 1:100,000. In some places the contours from the DLG's may be more generalized than the base maps used for compilation of geologic outcrop patterns. Outcrop patterns on the map will typically reflect topographic variation more accurately than the associated contour lines. Repeated fluctuation of an outcrop line across a contour line should be interpreted as an indication that the mapped rock unit is maintaining a relatively constant elevation along a generalized contour.

The geology was mapped using the USGS 1:24,000 – scale (7.5-min.) topographic maps, 1966 reapprasisal aerial photography, and field survey. Published materials consulted were KGS Bulletin 49, "Geology and ground-water resources of Hamilton and Kearny counties, Kansas" (McLaughlin, 1943); KGS Bulletin 11, "Geologic investigations in western Kansas, part II, Geology of Hamilton County" (Bass, 1926); USGS map HA-516, scale 1:125,000. "Water resources of Hamilton County, southwestern Kansas" (Lohmeyer and Sauer, 1974); Soil survey of Hamilton County, Kansas, USDA (McBee et al, 1961).

This map was produced by computer-aided cartography using the GIMMAP (Geodata Interactive Management Map Analysis and Production) system developed at the Kansas Geological Survey.

The Kansas Geological Survey does not guarantee this map to be free from errors or inaccuracies and disclaims any responsibility or liability for interpretations made from the map or decisions based thereon.

Suggested reference to this map:
Johnson, W. C., 2003, Geologic map of Hamilton County, Kansas: Kansas Geological Survey, Map M-61, scale 1:50,000.

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