

**KANSAS GEOLOGICAL SURVEY
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PRELIMINARY GEOLOGIC MAPS OF MORTON COUNTY, KANSAS

By

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Stratigraphic Column Morton County, Kansas

Quaternary System
Alluvial deposits

- Qal** **undifferentiated flood plain alluvium**
coarse gravel to clay; Holocene age; 0-48 ft
- Qt** **alluvial terrace deposits of the Arkansas River**
coarse gravel to clay; late Pleistocene to Holocene ages; 0-36 ft
- Qp** **upland intermittent lake (playa) deposits**
silt to clay; late Pleistocene to Holocene ages; 0-12 ft

Eolian deposits

- Qds** **dune sand**
sand occurring in various dune forms; Holocene age; 0-75 ft
- Qss** **sheet sand**
Sand occurring in sheet form with an undulating surface; 0-18 ft
- As** **active sand**
Areas of active blow sand (based on 1986 aerial photography)
- Ql** **loess**
fine-grained sediments, dominantly silt- and fine sand-sized; late Pleistocene age; 0-21 ft

Tertiary System
Miocene Series
To

- Ogallala Formation**
calcareous gravel, sand, silt, and clay; mostly unconsolidated, but with varying degrees of cementation; members undifferentiated; 0-60 ft; north of the Arkansas River this unit includes alluvial deposits consisting of coarse gravel to clay that date early and middle Pleistocene

Cretaceous System
Dakota Group
Kcm

- Cockrum sandstone**
Buff to brown, friable to quartzitic sandstone; outcrops only at scattered locations along a tributary to the North Fork Cimarron River in the northwestern part of the county; 0-8 ft

Triassic System
Tr

- Undifferentiated redbeds**
clastic maroon red siltstone and buff to white sandstone; massive and fine grained, mostly soft, with scattered concentrations of gypsum; outcrops in the vicinity of Point of Rocks on the north and south side of the Cimarron River; 0-39 ft

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