

EXPLANATION FOR PRELIMINARY GEOLOGIC MAP OF SOUTHWEST THIRD OF KINGS CANYON QUADRANGLE

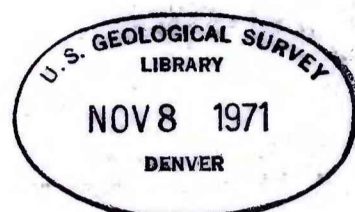
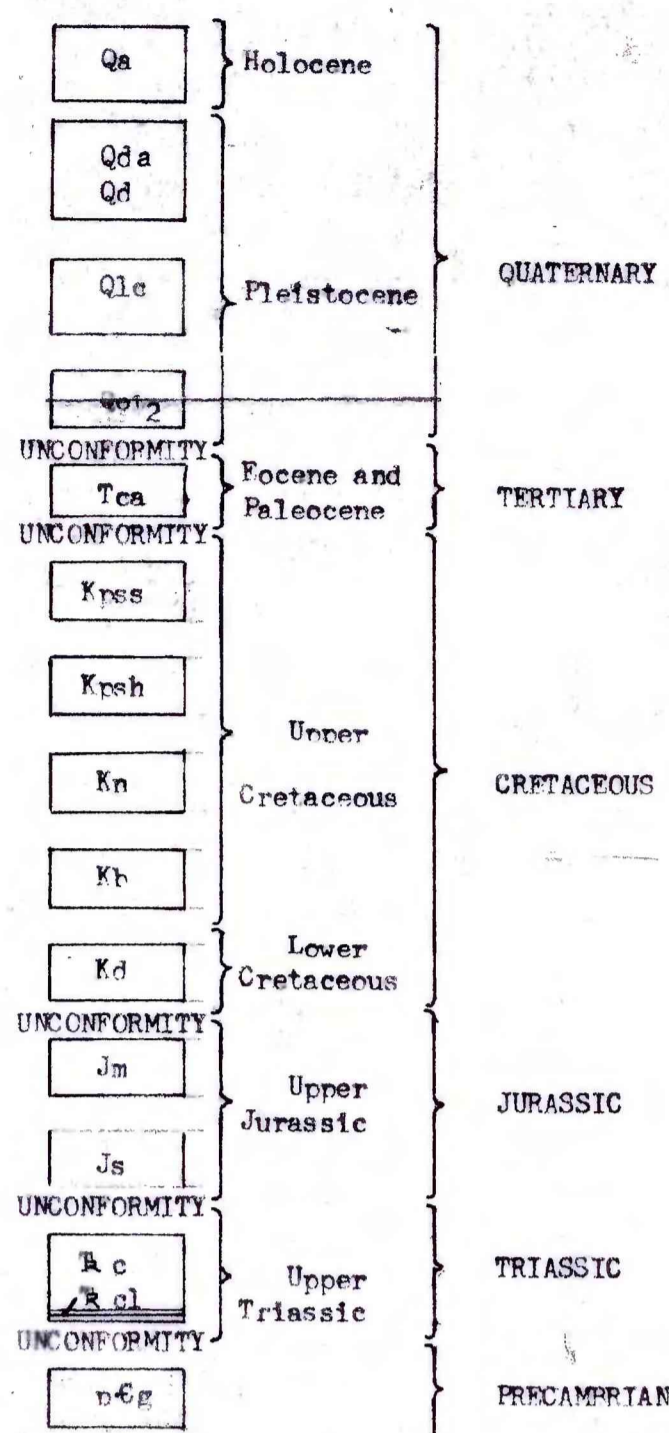
NORTH PARK, JACKSON COUNTY, COLORADO

By Douglas M. Kinney

Scale 1:48,000

This illustration is preliminary and has not been edited or reviewed for conformity with Geological Survey standards or nomenclature.

CORRELATION OF MAP UNITS



DESCRIPTION OF MAP UNITS

- Qa** ALLUVIUM -- flood-plain deposits along present streams
- Qda** ACTIVE DUNE SAND -- previously stabilized dune sand now in active dunes in North Sand Hills and East Sand Hills
- Qd** DUNE SAND -- stabilized by sage brush and grass; original form not preserved
- Qlc** LANDSLIDE, FANGLOMERATE, AND COLLUVIUM -- deposits along front of Medicine Bow Mountains, generally coarse grained. May include equivalents of YOUNGER TERRACE DEPOSITS, Qt₂, of adjacent Cowdrey and Gould quadrangles.
- Qot₂** OLDER TERRACE DEPOSITS -- sand and gravel deposits on surfaces 120 ft above present stream levels. Form surfaces along crest of divide between Canadian and Michigan Rivers and in isolated areas north of Canadian River that slope toward Canadian River as much as 160 ft per mile.
- Tca** COALMONT FORMATION, ARKOIC MEMBER -- interbedded gray shale, dark carbonaceous shale, and brown-weathering coarse arkosic sandstone containing pebbles of quartz, feldspar, granite, and gneiss. Sudduth coal zone of Beekly (1915) at base of Coalmont marked by abandoned prospects or mines in SW $\frac{1}{4}$ sec. 32, T. 10 N., R. 78 W., SE $\frac{1}{4}$ sec. 7, T. 9 N., R. 78 W., NW $\frac{1}{4}$ sec. 11, T. 9 N., R. 79 W., and NW $\frac{1}{4}$ sec. 15, T. 9 N., R. 78 W.
- Kpss** PIERRE SHALE, SANDY MEMBER -- fossiliferous light-gray calcareous sandstone, gray marine shale, and in upper part concretionary littoral sandstones interbedded with lignitic shale and shaly coal. Thickness about 2,200 ft at southern boundary of quadrangle but thinned northward by pre-Coalmont erosion to 1,000 ft
- Kpsh** PIERRE SHALE, SHALY MEMBER -- dark-gray fossiliferous marine shale with sparse tan-weathering calcareous concretions. Thickness about 2,200 ft
- Kn** NIOBRARA SHALE -- dark-gray calcareous shale; basal 20 ft is gray silty limestone. Thickness about 600 ft
- Kb** BENTON SHALE -- dark-gray noncalcareous shale and siltstone with thin bentonite beds near base, overlain by light-gray shale. Codell Sandstone Member (Frontier Sandstone of oil-well logs) consisting of fossiliferous tan-weathering calcareous sandstone at top. Thickness about 600 ft
- Kd** DAKOTA SANDSTONE -- coarse conglomeratic sandstone at base overlain by soft gray carbonaceous shale and nonmarine clay beds, gray fossiliferous sandstone that forms dip slope, dark-gray shale with thin bentonite beds, and thin fine-grained sandstone (Muddy Sandstone of oil-well logs) at top. Thickness about 200 ft
- Jm** MORRISON FORMATION -- varicolored shale, green claystone, and brown-weathering light-gray sandstone; thin gray limestone and green shale at base. Thickness 250-350 ft
- Js** SUNDANCE FORMATION -- light-gray fine-grained crossbedded friable sandstone 50-100 ft thick overlain by 20-35 ft of interbedded fossiliferous tan calcareous sandstone and greenish-gray claystone
- Rc**
Rcl CHUCWATER FORMATION -- well-bedded red fine-grained sandstone, siltstone, and shale and 20 ft white, crinkly bedded, granular limestone (Rcl) 15-20 ft above base; red fine-grained sandstone without granite debris resting on coarse-grained granite at base. Thickness averages 700 ft in outcrop along west flank of Medicine Bow Mountains and thins to 300-400 ft in drilled wells to southwest. Absence of limestone, Rcl, in subsurface of North McCallum anticline suggests thinning by non-deposition of lower beds
- p6g** PRECAMBRIAN ROCKS -- predominantly coarse-grained pink granite with some gray granite gneiss

SYMBOLS

- Contact, dotted where concealed
 - Fault, dotted where concealed, bar and ball on downthrown side
 - Anticline, showing plunge
 - Syncline, showing plunge
 - Strike and dip of beds
 - Prospect adit for coal, abandoned
 - Mine or prospect for coal, abandoned
 - Drill hole for oil, abandoned
 - Oil well
 - Gas well
 - Oil well, abandoned
- Showing name of company, lease name and number of well, total depth and symbol of deepest stratigraphic unit penetrated

REFERENCE

Beekly, A. L., 1915, Geology and coal resources of North Park, Colo., U. S. Geol. Survey Bull. 596, p. 1-118