

LIST OF MAP UNITS

The complete description of map units and references are in the accompanying Author's Notes

SURFICIAL DEPOSITS

HUMAN-MADE DEPOSITS

- mw Mine waste (Historic)
- af Artificial fill (Historic)

ALLUVIAL DEPOSITS

- Qa1 Alluvial unit one (Holocene)
- Qa2 Alluvial unit two (upper Pleistocene)
- Qa Alluvial units one and two, undivided (Holocene and upper Pleistocene)
- Qa3 Alluvial unit three (upper middle Pleistocene)
- Qa4 Alluvial unit four (middle Pleistocene)

MASS-WASTING DEPOSITS

- Qc Colluvium (Holocene and upper Pleistocene)
- Qls Landslide deposits (Quaternary)

ALLUVIAL AND MASS-WASTING DEPOSITS

- Qf Fan deposits (Holocene and upper Pleistocene)
- Qac Alluvium and colluvium (Holocene and upper Pleistocene)
- Qp Piedmont deposits (Pleistocene)

GLACIAL DEPOSITS

- Qtl Till (middle Pleistocene)

UNDIFFERENTIATED SURFICIAL DEPOSITS

- Q Quaternary sedimentary deposits (shown only on cross sections)

BEDROCK

- Ts Sedimentary rocks (Oligocene)
- Tt Tuff (Oligocene)

SOUTH PARK FORMATION

- Tsf Fine-grained member (Paleocene)
- Tsc Coarse-grained conglomeratic member (Paleocene)
- TKsr Reinecker Ridge Volcanic Member (Paleocene and Upper Cretaceous)
- Ksvs Lower volcaniclastic sedimentary member (Upper Cretaceous)

- Kp Pierre Shale (Upper Cretaceous)
- Kn Niobrara Formation (Upper Cretaceous)
- Kb Benton Group (Upper Cretaceous)
- Ku Pierre Shale, Niobrara Formation, and Benton Group, undivided (Upper Cretaceous)
- Kd Dakota Sandstone (Lower Cretaceous)
- Jm Morrison Formation (Upper Jurassic)
- Pg Garo Formation (Permian)
- PPm Maroon Formation (Lower Permian and Upper and Middle Pennsylvanian)
- FL Fairplay limestone member
- SL Silverheels limestone member
- Unamed limestone bed in Maroon Formation
- PPgm Garo Sandstone and Minturn Formation, undivided (Permian to Middle Pennsylvanian)
- Pm Minturn Formation (Middle Pennsylvanian)
- Limestone bed in Minturn Formation
- PPmm Maroon and Minturn Formations, undivided (Lower Permian to Middle Pennsylvanian)
- Unamed limestone bed in Maroon Formation
- Unamed limestone bed in Minturn Formation

Note: Limestone beds are dashed where approximately located

MAP SYMBOLS

- Contact — Approximately located
- U Fault — Dashed where approximately located, dotted where concealed, queried where uncertain, U = upthrown side, D = downthrown side. Some faults shown with dip-slip motion may have a component of strike-slip motion.
- Subtle topographic bench in surficial deposits along a fault — May be a result of differential erosion of bedrock units juxtaposed by the fault or to fault movement subsequent to deposition of the surficial deposit
- Strike and dip of sedimentary rocks — Angle of dip shown in degrees
- Paleocurrent direction — Direction estimated from orientation of imbricated gravel clasts
- Strike and dip of volcanic flow layering — Angle of dip shown in degrees
- Strike and dip of fractures and joints — Angle of dip shown in degrees
- Breccia zone (SE 1/4 of section 15, T. 10 S., R. 77 W.)
- Large block of relatively intact bedrock within and part of a landslide complex
- Topographic Depression
- Topographic riser in outwash terrace or fan
- Multiple unit symbol — Indicates a thin veneer of one deposit (upper symbol) overlies another unit (lower symbol)
- Water
- Area where thin layer of light-brown to light-gray, very bentonitic, calcareous silty clay overlies alluvial unit two
- Area with subtle ridge and swale topography
- Oil or gas well—plugged and abandoned
- Location and identification number of sample with major-element chemical analysis (see Appendix A in booklet for analysis)
- Location and identification number of sample with ⁴⁰Ar/³⁹Ar age date (see Table 1 for age date)
- Location and identification number of sample with major-element chemical analysis and ⁴⁰Ar/³⁹Ar age date (see Appendix A in booklet for analysis and Table 1 for age date)
- Alignment of cross section

GEOLOGIC MAP OF THE FAIRPLAY EAST QUADRANGLE, PARK COUNTY, COLORADO

By Robert M. Kirkham, John W. Keller, Karen J. Houck, and Neil R. Lindsay
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Bill Ritter Jr., Governor
State of Colorado
Harris D. Sherman, Executive Director
Department of Natural Resources
Vincent Matthews
State Geologist and Division Director
Colorado Geological Survey