



LIST OF MAP UNITS

The complete description of map units and references are in
Colorado Geological Survey Open File Report 97-1

HUMAN-MADE DEPOSITS

af Artificial fill (latest Holocene)

ALLUVIAL DEPOSITS

Qa Stream-channel, flood-plain, and low-terrace deposits
(Holocene and late Pleistocene)

Qsw Sheetwash deposits (Holocene and late Pleistocene)

Qt Younger terrace outwash (late Pleistocene)

Qto Older terrace outwash (late or middle? Pleistocene)

COLLUVIAL DEPOSITS

Qlsr Recent landslide deposits (latest Holocene)

Qc Colluvium (Holocene and late Pleistocene)

Qls Landslide deposits (Holocene and Pleistocene)

Qco Older colluvium (Pleistocene)

ALLUVIAL AND COLLUVIAL DEPOSITS

Qfy Younger fan deposits (Holocene)

Qac Alluvium and colluvium, undivided (Holocene and late Pleistocene)

Qcs Colluvium and sheetwash deposits, undivided (Holocene and late Pleistocene?)

Qfo Older fan deposits (late Pleistocene)

Qaco Older alluvium and colluvium, undivided (Pleistocene)

BEDROCK

Animas Formation (Paleocene and Upper Cretaceous)

TKa Main body

Kam McDermott Member (Upper Cretaceous)

Kirtland Shale (Upper Cretaceous)

Kku Upper member

Kkf Farmington Sandstone Member

Kkl Lower member

Kf Fruitland Formation (Upper Cretaceous)

Kpc Pictured Cliffs Sandstone (Upper Cretaceous)

Kl Lewis Shale (Upper Cretaceous)

Mesaverde Group (Upper Cretaceous)

Kch Cliff House Sandstone

Kmf Menefee Formation

Kpl Point Lookout Sandstone

Km Mancos Shale (Upper Cretaceous)

Kdb Dakota Sandstone (Upper Cretaceous) and Burro Canyon Formation
(Lower Cretaceous), undivided

Jm Morrison Formation (Upper Jurassic)

Jjc Junction Creek Sandstone (Middle Jurassic)

Jw Wanakah Formation (Middle Jurassic)

Jmw Morrison Formation, Junction Creek Sandstone, and Wanakah
Formation, undivided

Je Entrada Sandstone (Middle Jurassic)

Td Dolores Formation (Upper Triassic)

pC Cutler Formation (Lower Permian)

MAP SYMBOLS

Contact—Dashed where approximately located

Monocline—Synclinal bend/lower axis; showing shorter arrow on steeper beds;
dashed where approximately located; dotted where concealed or questionable;
arrows point in direction of dip.

Monocline—Anticlinal bend/upper axis; showing shorter arrow on steeper beds;
dashed where approximately located; dotted where concealed;
arrows point in direction of dip.

Strike and dip of bedding—Angle of dip shown in degrees

Sand and gravel pit
Coalbed methane wells
(status as of 2012)

Drilled and abandoned well—with oil or gas shows

Plugged and abandoned well

Producing gas well—name of operator, well, and total depth shown
only for wells used on cross section

Shut in well

Alignment of cross section

RULES HILL QUADRANGLE GEOLOGIC MAP LA PLATA COUNTY, COLORADO

(A slightly modified color digital update of Colorado Geological Survey Open-File Report 97-1)

By Christopher J. Carroll, Robert M. Kirkham, and Andrew Wracher
2014