

CORRELATION OF MAP UNITS

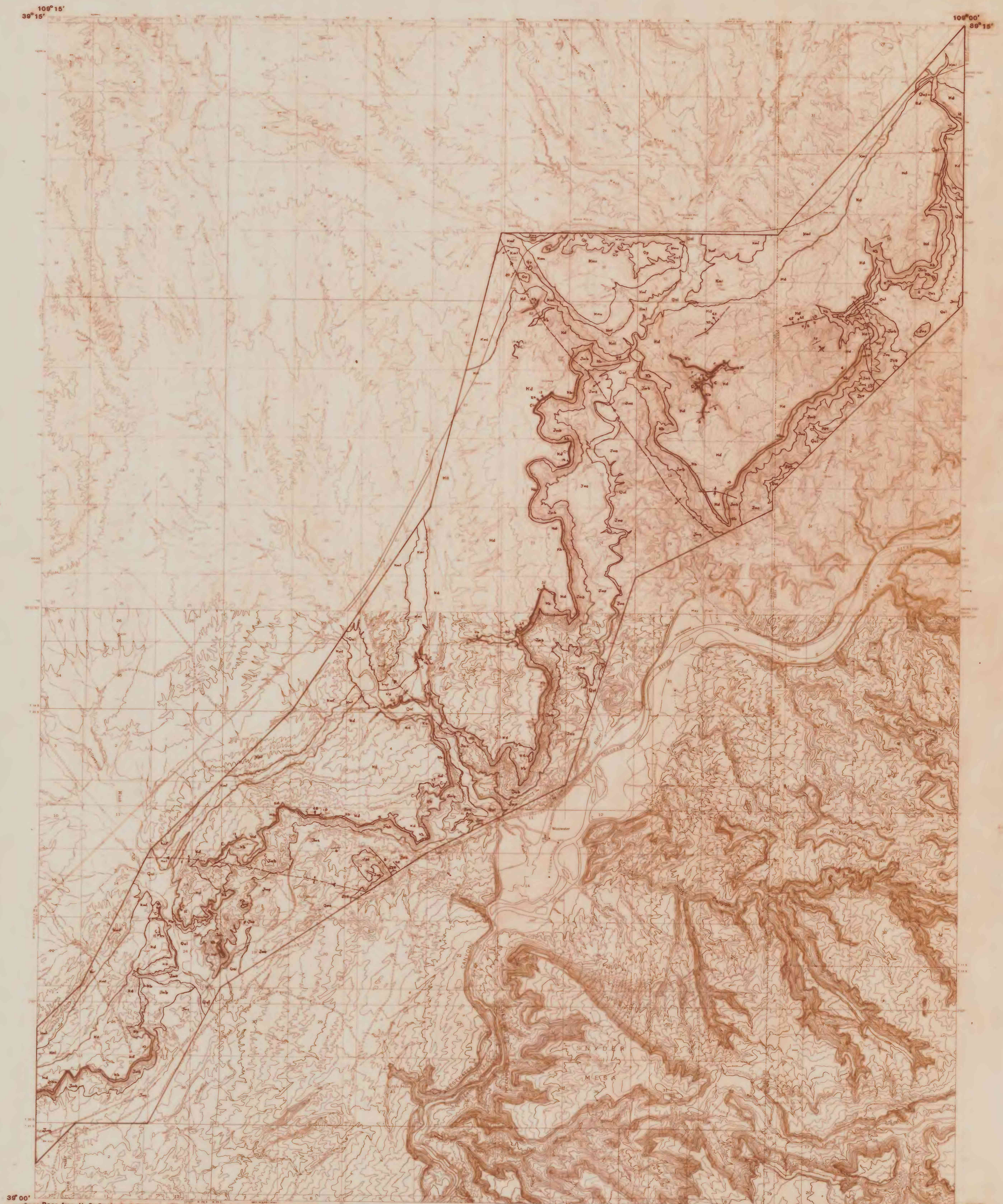
Qal	Holocene	QUATERNARY
Qp	Pleistocene	
Kmu	Upper Cretaceous	CRETACEOUS
Kmf		
Kd		
Kb	Lower Cretaceous	JURASSIC
Jmb	Upper Jurassic	
Jae	Middle Jurassic	

DESCRIPTION OF MAP UNITS

- Qal** ALLUVIUM (HOLOCENE) - Sand and silt in some washes
- Qp** UNCONSOLIDATED AND SEMICONSOLIDATED DEPOSITS (PLEISTOCENE) - Pediment deposits of gravel, sand, and silt veneering low, flat-topped hills
- Kmu**
Kmf
Kml MANCOS SHALE (UPPER CRETACEOUS) - Kmu, upper shale member: dark-gray nonresistant shale and few thin sandy beds; top not mapped. Kmf, Ferron Sandstone Member: gray, very fine grained sandstone and interbedded silty and sandy shale. Mapped thickness about 50 ft (15 m). Kml, lower shale member: dark-gray nonresistant shale and few thin sandy beds. Mapped thickness less than 100 ft (30 m)
- Kd** DAKOTA SANDSTONE (UPPER CRETACEOUS) - Yellowish-brown, buff, and very light gray medium to coarse-grained sandstone and conglomeratic sandstone, and carbonaceous shale, coal, and minor greenish-gray shale. Unit commonly tripart; sandstone and conglomeratic sandstone in basal part; shale, coal, and some sandstone in middle part; and sandstone in the upper part. Coal beds nonpersistent, commonly extending no more than a fraction of a mile, and range in thickness from less than a foot to as much as 2 2/3 ft. Most coal beds vitally impure; rank assumed to be as high or higher than high volatile bituminous coal occurring in stratigraphically higher beds in adjoining Book Cliff area. Contact with overlying unit obscure in most places. Mapped thickness of Dakota ranges from about 100 ft (30 m) to about 200 ft (61 m)
- Kb** BURRO CANYON FORMATION (LOWER CRETACEOUS) - White, buff, and pinkish-gray fine to coarse-grained sandstone; conglomeratic sandstone locally at base, and interbedded green and red siltstone and shale. Contact with overlying unit unconformable, marked by scour surface. Mapped thickness ranges from about 80 ft (24 m) to about 160 ft (49 m)
- Jmb**
Jms MORRISON FORMATION (UPPER JURASSIC) - Jmb, Brushy Basin Shale Member: green, red, and purple siltstone and mudstone, and few thin nonpersistent beds of gray siltstone and lenses of gray, green, red, purple fine to medium-grained sandstone. Contact with overlying unit distinct in most places. Mapped thickness ranges from about 140 ft (43 m) to about 320 ft (98 m). Jms, Salt Wash Sandstone Member: white, buff, gray, and pink fine to medium-grained sandstone and interbedded green, red, and purple mudstone. Contact with overlying unit distinct to obscure. Mapped thickness ranges from about 100 ft (30 m) to about 500 ft (151 m)
- Jae** SUMMERVILLE FORMATION AND ENTRADA SANDSTONE (MIDDLE JURASSIC) - Summerville Formation: gray, green, and red siltstone and shale interbedded with gray, green, and reddish-brown fine-grained sandstone. Contact with overlying unit distinct to obscure. Entrada Sandstone: buff, pink, and brownish-red medium-grained sandstone. Base not mapped

CONTACT

- FAULT** - Showing dip, and bearing and plunge of slickensides; long dashed where approximately located; short dashed where inferred; U, upthrown side; D, downthrown side
- ANTICLINE** - Showing crestline and direction of plunge; approximately located
- SYNCLINE** - Showing troughline and direction of plunge; approximately located
- MONOCLINE** - Showing trace and plunge of axis approximately located
- STRIKE AND DIP OF BEDS**
- LOCATION OF MEASURED COAL SECTION** - Showing thickness of coal in inches



Scale 1:50,000
 0 1 2 3 MILES
 0 1 2 3 KILOMETERS
 CONTOUR INTERVAL 20 AND 40 FEET
 DATUM IS MEAN SEA LEVEL

GEOLOGIC MAP OF PARTS OF BITTER CREEK WELL, HARLEY DOME, WESTWATER 4 SE, AND WESTWATER 4 SW QUADRANGLES, COLORADO AND UTAH, SHOWING COAL BEDS IN DAKOTA SANDSTONE, AND ADJACENT ROCKS

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