

# Quaternary Fault and Fold Database of the United States

As of January 12, 2017, the USGS maintains a limited number of metadata fields that characterize the Quaternary faults and folds of the United States. For the most up-to-date information, please refer to the [interactive fault map](#).

## unnamed fault north of Horsefly Creek (Class A) No. 2280

Last Review Date: 1997-09-04

## Compiled in cooperation with the Colorado Geological Survey

*citation for this record:* Widmann, B.L., compiler, 1997, Fault number 2280, unnamed fault north of Horsefly Creek, in Quaternary fault and fold database of the United States: U.S. Geological Survey website, <https://earthquakes.usgs.gov/hazards/qfaults>, accessed 12/14/2020 03:02 PM.

### Synopsis

This fault is on the southwest margin of the Uncompahgre Uplift. Based on the timing of abandonment of Unaweep Canyon, Cater (1966 #2671) indicated uplift of the Uncompahgre Plateau began in the mid-Pliocene and continued into the Pleistocene, resulting in as much as 640 m of differential uplift. Despite the lack of evidence of faulted Quaternary deposits along this unnamed fault, it has been classified as a Quaternary fault (Kirkham and Rogers, 1981 #792), and no references exist that refute this age assignment.

<b>Name comments</b>	<p>This unnamed fault lies on the southwest flank of the Uncompahgre Uplift north of and generally parallel to Horsefly Creek. The fault trends east-west on its western end and west-northwest on its eastern end. The fault extends from Sheep Creek on the west to Hanks Creek on the east.</p> <p><b>Fault ID:</b> Fault 86 in Kirkham and Rogers (1981 #792) and fault number Q30 of Widman and others (1998 #3441).</p>
<b>County(s) and State(s)</b>	MONTROSE COUNTY, COLORADO
<b>Physiographic province(s)</b>	COLORADO PLATEAUS
<b>Reliability of location</b>	<p>Good Compiled at 1:250,000 scale.</p> <p><i>Comments:</i> The fault was mapped at a scale of 1:250,000 by Williams (1964 #2789).</p>
<b>Geologic setting</b>	<p>This fault is on the southwest flank of the Uncompahgre Uplift. The Uncompahgre Uplift is a northwest-trending, east-tilted fault block. This fault is a high-angle normal fault that is down to the south and southwest.</p>
<b>Length (km)</b>	8 km.
<b>Average strike</b>	N°78W
<b>Sense of movement</b>	<p>Normal</p> <p><i>Comments:</i> Kirkham and Rogers (1981 #792) indicated normal movement on this fault.</p>
<b>Dip Direction</b>	S
<b>Paleoseismology studies</b>	
<b>Geomorphic expression</b>	<p>Geomorphic indicators of youthful faulting have not been reported.</p>
<b>Age of faulted surficial deposits</b>	<p>The Cretaceous Mancos Shale is the youngest deposit offset by the fault; there are no Quaternary deposits mapped along the trace of the fault (Williams, 1964 #2789). The fault lies entirely within the Jurassic Brushy Basin Shale Member of the Morrison</p>

	Formation and the Cretaceous Dakota Sandstone, Burro Canyon Formation and Mancos Shale.
<b>Historic earthquake</b>	
<b>Most recent prehistoric deformation</b>	undifferentiated Quaternary (<1.6 Ma) <i>Comments:</i> Despite a lack of evidence for offset in Quaternary deposits, faults associated with the Uncompahgre Uplift are often considered to be Quaternary. Based on the timing of abandonment of Unaweep Canyon, Cater (1966 #2671) indicated uplift of the Uncompahgre Plateau began in the mid-Pliocene and continued into the Pleistocene, resulting in as much as 640 m of differential uplift. There is no other published evidence that Quaternary deposits are offset by this structure. Despite the lack of evidence of faulted Quaternary deposits along this unnamed fault, it has been classified as a Quaternary fault (Kirkham and Rogers, 1981 #792), and no references exist that refute this age assignment.
<b>Recurrence interval</b>	
<b>Slip-rate category</b>	Less than 0.2 mm/yr <i>Comments:</i> Widmann and others (1998 #3441) placed this structure within the <0.2 mm/yr slip-rate category based on calculations of an overall uplift rate of 0.4 m/1000 yr since 1.8 Ma for the Uncompahgre Uplift (Perry, 1989 #2731).
<b>Date and Compiler(s)</b>	1997 Beth L. Widmann, Colorado Geological Survey
<b>References</b>	#2671 Cater, F.W., Jr., 1966, Age of the Uncompahgre Uplift and Unaweep Canyon, west-central Colorado: U.S. Geological Survey Professional Paper 550-C, 86-92 p.  #792 Kirkham, R.M., and Rogers, W.P., 1981, Earthquake potential in Colorado: Colorado Geological Survey Bulletin 43, 171 p., 3 pls.  #2731 Perry, T.W.V., 1989, Tectonic inference and computer simulation in stream longitudinal profile evolution, Unaweep Canyon and vicinity, Colorado and Utah: Geological Society of America Abstracts with Programs, v. 21, no. 6, p. 269.  #3441 Widmann, B.L., Kirkham, R.M., and Rogers, W.P., 1998,

Preliminary Quaternary fault and fold map and database of Colorado: Colorado Geological Survey Open-File Report 98-8, 331 p., 1 pl., scale 1:500,000.

#2789 Williams, P.L., 1964, Geology, structure, and uranium deposits of the Moab quadrangle, Colorado and Utah: U.S. Geological Survey Miscellaneous Geologic Investigations I-360.

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