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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.

Killarney faults (Class A) No. 2336

Last Review Date: 1999-02-24

Compiled in cooperation with the Colorado Geological Survey

citation for this record: **Widmann, B.L., compiler, 1999, Fault number 2336, Killarney faults, 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 03:00 PM.**

Synopsis	The Killarney faults are along the northwest margin of the White River Uplift. Scarps as much as 6 m high and linear features on Quaternary landslide deposits were recognized by Kucera (1962 #4456). These features suggest the most recent paleoevent on the faults occurred during the Quaternary.
Name comments	Two northwest-striking, graben-forming faults lie at the north end of Little Flat Tops near Sand Point. The longest of the two faults extends from Trout Creek to Chatfield Reservoir. The faults were named by Kucera (1962 #4456).
County(s) and	RIO BLANCO COUNTY, COLORADO

State(s)	RIO BLANCO COUNTY, COLORADO
Physiographic province(s)	WYOMING BASIN
Reliability of location	Good Compiled at 1:250,000 scale. *Comments:* The Killarney Faults were mapped at a scale of about 1:62,500 by Kucera (1962) and 1:250,000 and 1:500,000 by Widmann and others (1998). The trace used herein is from Kucera (1962 #4456), recompiled at 1:250,000 scale.
Geologic setting	The Killarney faults are at the base of Little Flat Tops which is on the east flank of the White River Uplift. Several faults and folds in this marginal area have had late Cenozoic activity (e.g., Kucera, 1962 #4456). The faults are down to the northeast and southwest forming the graben in which Killarney Reservoir is found.
Length (km)	6 km.
Average strike	N42°W
Sense of movement	Normal *Comments:* Sense of movement is not known. These faults are herein assumed to be normal faults by the compiler.
Dip Direction	NE; SW
Paleoseismology studies	
Geomorphic expression	The faults are marked by scarps 3 to 6 m high on unconsolidated high-level gravel and by linear features in Quaternary landslide deposits (Kucera, 1962 #4456).
Age of faulted surficial deposits	Kucera (1962 #4456)) reported scarps on high-level gravel and linear features in Quaternary landslide deposits.
Historic earthquake	
Most recent prehistoric	undifferentiated Quaternary (<1.6 Ma)

deformation	*Comments:* Scarps in high-level gravels and linear features in Quaternary landslide deposits (Kucera, 1962 #4456) suggest these faults have been active during the Quaternary.
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr *Comments:* The compiler placed this fault within the <0.2 mm/yr slip-rate category.
Date and Compiler(s)	1999 Beth L. Widmann, Colorado Geological Survey
References	#4456 Kucera, R.E., 1962, Geology of the Yampa district, northwest Colorado: Boulder, University of Colorado, unpublished Ph.D. dissertation, 844 p. #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.