

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](#).

Deep Creek Range (northwest side) fault zone (Class A) No. 2403

Last Review Date: 1999-10-01

Compiled in cooperation with the Utah Geological Survey

citation for this record: Black, B.D., and Hecker, S., compilers, 1999, Fault number 2403, Deep Creek Range (northwest side) fault zone, 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 02:55 PM.

Synopsis	Poorly understood zone of late Quaternary faulting on the northwest side of the Deep Creek Mountains. The faults are characterized by scarps on alluvium. All scarps show evidence for multiple times of movement, with cumulative displacements of 1.7-3.4 m. An alignment of vegetation and springs marks the fault zone south of the scarps.
Name comments	Fault ID: Refers to fault number 7-8 of Hecker (1993 #642).
Country(s) and	

County(s) and State(s)	TOOELE COUNTY, UTAH
Physiographic province(s)	BASIN AND RANGE
Reliability of location	Good Compiled at 1:250,000 scale. <i>Comments:</i> Fault traces from 1:250,000-scale mapping of Barnhard and Dodge (1988 #429).
Geologic setting	Generally north-trending normal fault zone on the northwest side of the Deep Creek Range. The Deep Creek Range is the highest range in the western part of Utah. Unconsolidated deposits in the valley to the west are mainly alluvium and lake deposits.
Length (km)	11 km.
Average strike	N9°E
Sense of movement	Normal
Dip Direction	W
Paleoseismology studies	
Geomorphic expression	Scarps on alluvium. All scarps show evidence for multiple times of movement, with measured cumulative displacements between 1.7 and 3.4 m. An alignment of vegetation and springs marks the fault zone south of the scarps.
Age of faulted surficial deposits	Late Pleistocene sediment.
Historic earthquake	
Most recent prehistoric deformation	late Quaternary (<130 ka) <i>Comments:</i> Scarps at the north end of the fault zone are short, highly dissected remnants, and appear to be older than scarps to the south.
Recurrence	

interval	
Slip-rate category	Less than 0.2 mm/yr
Date and Compiler(s)	1999 Bill D. Black, Utah Geological Survey Suzanne Hecker, U.S. Geological Survey
References	#429 Barnhard, T.P., and Dodge, R.L., 1988, Map of fault scarps formed on unconsolidated sediments, Tooele 1° x 2° quadrangle, northwestern Utah: U.S. Geological Survey Miscellaneous Field Studies Map MF-1990, 1 sheet, scale 1:250,000. #642 Hecker, S., 1993, Quaternary tectonics of Utah with emphasis on earthquake-hazard characterization: Utah Geological Survey Bulletin 127, 157 p., 6 pls., scale 1:500,000.

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