

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](#).

Little Rough Range faults (Class A) No. 2458

Last Review Date: 2004-07-01

Compiled in cooperation with the Utah Geological Survey

citation for this record: Black, B.D., Hylland, M.D., and Hecker, S., compilers, 2004, Fault number 2458, Little Rough Range 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 02:56 PM.

Synopsis	Poorly understood short, northwest-trending faults of middle to late Pleistocene (?) age at the north end of Pine Valley in southwestern Utah.
Name comments	Fault ID: Refers to fault number 9-23 of Hecker (1993 #642).
County(s) and State(s)	MILLARD COUNTY, UTAH
Physiographic province(s)	BASIN AND RANGE

Reliability of location	<p>Good Compiled at 1:125,000 scale.</p> <p><i>Comments:</i> Mapped or discussed by Ertec Western, Inc. (Schell, 1981 #4598) and Hintze and Davis (2002 #6754, 2003 #6741). Fault traces from 1:100,000-scale mapping of Ertec Western, Inc. (Schell, 1981 #4598).</p>
Geologic setting	<p>Short, northwest-trending normal faults at the north end of Pine Valley. Pine Valley is one of several valleys in the Confusion Basin of southwestern Utah, a geologic designation referring to a Paleozoic center of deposition. Mountain ranges in the basin are comprised almost exclusively of sedimentary rocks.</p>
Length (km)	3 km.
Average strike	N°35W
Sense of movement	Normal
Dip Direction	NE
Paleoseismology studies	
Geomorphic expression	<p>Ertec Western, Inc. (Schell, 1981 #4598) maps the Little Rough Range faults as late Pleistocene faults, and interprets nearby faults on the margins of the Tunnel Springs Mountains and Middle Mountain as "indeterminate" (late Tertiary or younger) in age. From geophysical data, Hintze and Davis (2002 #6754, 2003 #6741) map all of these faults as concealed range-front faults.</p>
Age of faulted surficial deposits	Pleistocene (?)
Historic earthquake	
Most recent prehistoric deformation	<p>middle and late Quaternary (<750 ka)</p> <p><i>Comments:</i> Ertec Western, Inc. (Schell, 1981 #4598) mapped the Little Rough Range faults as late Pleistocene faults, and interprets nearby faults (included herein) on the margins of the Tunnel Springs Mountains and Middle Mountain as "indeterminate" (late Tertiary or younger) in age. Thus, we categorize all of the faults</p>

	as younger than 750 ka.
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr
Date and Compiler(s)	2004 Bill D. Black, Utah Geological Survey Michael D. Hylland, Utah Geological Survey Suzanne Hecker, U.S. Geological Survey
References	<p>#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.</p> <p>#6754 Hintze, L.F., and Davis, F.D., 2002, Geologic map of the Tule Valley 30' x 60' quadrangle and parts of the Ely, Fish Springs, and Kern Mountains 30' x 60' quadrangles, northwest Millard County, Utah: Utah Geological Survey Map 186, scale 1:100,000.</p> <p>#6741 Hintze, L.F., and Davis, F.D., 2003, Geology of Millard County, Utah: Utah Geological Survey Bulletin 133, 305 p.</p> <p>#4598 Schell, B.A., 1981, MX siting investigation, faults and lineaments in the MX siting region, Nevada and Utah: Long Beach, California, report no. E-TR-54 for U.S. Air Force, volume I, 77p.; volume II, variously paginated, scale 1:250,000.</p>

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