

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](#).

Black Rock area faults (Class A) No. 2461

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 2461, Black Rock area 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 middle and late Quaternary faults on the northwestern side of the Mineral Mountains.
Name comments	Fault ID: Refers to fault number 9-16 of Hecker (1993 #642).
County(s) and State(s)	MILLARD COUNTY, UTAH
Physiographic province(s)	BASIN AND RANGE
Reliability of	Good

location	<p>Compiled at 1:100,000 scale.</p> <p><i>Comments:</i> Mapped or discussed by Hintze and Davis (2003 #6741), and Hintze and others (2003 #6756). Mapping from Oviatt (1991 #4552), and Hintze and others (2003 #6756).</p>
Geologic setting	<p>Short northeast- to northwest-trending normal faults north and west of the Mineral Mountains on the eastern edge of the Black Rock Desert. The Mineral Mountains are a northeast-trending mountain block west of the Pavant Range in southwestern Utah. Bedrock in the mountains is mainly igneous rocks that intrude Paleozoic sedimentary rocks; outcrops of Quaternary basalt and rhyolite are commonly found in the northern part of the mountains. Unconsolidated deposits in the valley are mainly lake deposits and alluvium.</p>
Length (km)	8 km.
Average strike	N6°E
Sense of movement	Normal
Dip Direction	E; W
Paleoseismology studies	
Geomorphic expression	<p>The faults are on-trend with the middle to late Pleistocene Mineral Mountains fault [2489]. The northern faults displace the approximately 1-Ma Black Rock basalt flows, but are covered in places by pre-Bonneville (>30 ka) alluvial fans. The southern fault cuts Pleistocene alluvial-fan deposits.</p>
Age of faulted surficial deposits	Middle to late Pleistocene.
Historic earthquake	
Most recent prehistoric deformation	<p>middle and late Quaternary (<750 ka)</p> <p><i>Comments:</i></p>
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	#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. #6741 Hintze, L.F., and Davis, F.D., 2003, Geology of Millard County, Utah: Utah Geological Survey Bulletin 133, 305 p. #6756 Hintze, L.F., Davis, F.D., Rowley, P.D., Cunningham, C.G., Steven, T.A., and Willis, G.C., 2003, Geologic map of the Richfield 30' x 60' quadrangle, southeast Millard County and parts of Beaver, Piute, and Sevier Counties, Utah: Utah Geological Survey Map 195, scale 1:100,000. #4552 Oviatt, C.G., 1991, Quaternary geology of the Black Rock Desert, Millard County, Utah: Utah Geological and Mineral Survey Special Studies 73, 23 p., scale 1:100,000.

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