

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](#).

Silver Island Mountains (southeast side) fault (Class A) No. 2382

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 2382, Silver Island Mountains (southeast side) fault, 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 02:59 PM.

Synopsis	Poorly understood young (Holocene) fault on the southeast side of the Silver Island Mountains that was identified on the basis of unpublished mapping. The fault is characterized by springs that are aligned along a northeast trend, and shows 0.6 m of displacement in Lake Bonneville deposits.
Name comments	Fault ID: Refers to fault number 7-2 of Hecker (1993 #642).
County(s) and	TOOPELE COUNTY, UTAH

State(s)	MOJAVE COUNTY, UTAH
Physiographic province(s)	BASIN AND RANGE
Reliability of location	Poor Compiled at 1:24,000 scale. <i>Comments:</i> Fault trace from unpublished 1987 mapping by D.B. Madsen (scale 1:24,000).
Geologic setting	Short, northeast-trending normal fault on the southeast side of the Silver Island Mountains. The Silver Island Mountains are along the western edge of the Great Salt Lake Desert in northwestern Utah.
Length (km)	2 km.
Average strike	N48°E
Sense of movement	Normal
Dip Direction	SE
Paleoseismology studies	
Geomorphic expression	Fault-line springs are aligned along a northeast-trending fault, and show 0.6 m of displacement in Lake Bonneville deposits (D.B. Madsen, written and oral commun. 1987, 1988).
Age of faulted surficial deposits	Late Pleistocene lacustrine deposits.
Historic earthquake	
Most recent prehistoric deformation	latest Quaternary (<15 ka) <i>Comments:</i> Diagnostic artifacts in faulted sediment near the fault-line springs, and correlations between basal spring-related peat layers and Holocene lake levels, provide an estimate of roughly 3-5 ka for the origin of the springs and, presumably, faulting.
Recurrence	

interval	
Slip-rate category	Less than 0.2 mm/yr <i>Comments:</i> There is about 0.6 m of displacement in Lake Bonneville deposits, which suggest a vertical geologic slip rate that is less than 0.2 mm/yr.
Date and Compiler(s)	1999 Bill D. Black, 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.

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