Jump to Navigation

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.

Snake Valley faults (Class A) No. 2428

Last Review Date: 2005-11-29

Compiled in cooperation with the Utah Geological Survey

citation for this record: **Black, B.D., Hylland, M.D., Redsteer, M.H., and Hecker, S., compilers, 2005, Fault number 2428, Snake Valley 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 02:55 PM.**

Synopsis	Poorly understood Holocene to late Pleistocene faults in Snake Valley, which lies between the Deep Creek Mountains and Confusion Range in western Utah.
Name comments	**Fault ID:** Refers to fault number 8-12 of Hecker (1993 #642).
County(s) and State(s)	WHITE PINE COUNTY, NEVADA MILLARD COUNTY, UTAH
Physiographic province(s)	BASIN AND RANGE

Reliability of location	Poor Compiled at 1:250,000 scale. *Comments:* The faults are mapped by Hood and Rush (1965 #4538), Ertec Western, Inc. (1981 #2844), and Hintze and Davis (in preparation #4539), but not by Bucknam and Anderson (1979 #517). Fault traces from mapping of Ertec Western, Inc. (Schell, 1981 #2844) and Hintze and Davis (in preparation #4539).
Geologic setting	Generally north-trending valley-floor faults in Snake Valley. Snake Valley lies between the Deep Creek Mountains and Confusion Range in western Utah. Unconsolidated deposits in the valley are mainly lake sediments and alluvium.
Length (km)	46 km.
Average strike	N2°E
Sense of movement	Normal
Dip Direction	E
Paleoseismology studies	
Geomorphic expression	Ertec Western, Inc. (Schell, 1981 #2844) measured a maximum scarp slope angle of 7?, possibly suggesting an old age (if the scarp was very small). However, the faults cut "young" alluvial-fan deposits (Schell, 1981 #2844) and post-Lake Bonneville alluvium (Hintze and Davis, in preparation #4539).
Age of faulted surficial deposits	The faults cut "young" (Holocene) alluvial-fan deposits (Schell, 1981 #2844) and latest Pleistocene to Holocene post-Lake Bonneville alluvium (Hintze and Davis, in preparation #4539).
Historic earthquake	
Most recent prehistoric deformation	latest Quaternary (<15 ka) *Comments:* Timing based on offset of latest Pleistocene to Holocene alluvium (Hintze and Davis, in preparation #4539).
Recurrence interval	
Slip rate	

Slip-rate category	Less than 0.2 mm/yr
Date and Compiler(s)	2005 Bill D. Black, Utah Geological Survey Michael D. Hylland, Utah Geological Survey Margaret Hisa Redsteer, U.S. Geological Survey Suzanne Hecker, U.S. Geological Survey
References	#517 Bucknam, R.C., and Anderson, R.E., 1979, Map of fault scarps on unconsolidated sediments, Delta 1° x 2° quadrangle, Utah: U.S. Geological Survey Open-File Report 79-366, 21 p. pamphlet, 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. #4538 Hood, J.W., and Rush, F.E., 1965, Water-resources appraisal of the Snake Valley area, Utah and Nevada: Utah State Engineer Technical Publication No. 14, 43 p. #2844 Schell, B.A., 1981, Faults and lineaments in the MX Siting Region, Nevada and Utah, Volume II: Technical report to U.S. Department of [Defense] the Air Force, Norton Air Force Base, California, under Contract FO4704-80-C-0006, November 6, 1981, 29 p., 11 pls., scale 1:250,000.