

# 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 (east side) faults (Class A) No. 2416

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 2416, Deep Creek Range (east side) 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.

<b>Synopsis</b>	Poorly understood middle and late Quaternary faults on the east side of the Deep Creek Range.
<b>Name comments</b>	<b>Fault ID:</b> Refers to fault number 8-14 of Hecker (1993 #642).
<b>County(s) and State(s)</b>	JUAB COUNTY, UTAH
<b>Physiographic province(s)</b>	BASIN AND RANGE

<b>Reliability of location</b>	<p>Good Compiled at 1:250,000 scale.</p> <p><i>Comments:</i> Mapped or discussed by Bucknam and Anderson (1979 #517) and Ertec Western, Inc. (1981 #2844). Fault traces from 1:250,000-scale mapping of Ertec Western, Inc. (Schell, 1981 #2844).</p>
<b>Geologic setting</b>	<p>Northeast-trending range-front normal fault zone along the east side of the Deep Creek Range in northern Snake Valley. The Deep Creek Range is a north- to northeast-trending mountain range in the Basin and Range near the Utah-Nevada border. The mountains have a complex structural history, and mainly expose Precambrian metamorphic through Paleozoic sedimentary rocks with igneous intrusives. Unconsolidated deposits in Snake Valley are mainly lake deposits and alluvium.</p>
<b>Length (km)</b>	21 km.
<b>Average strike</b>	N23°E
<b>Sense of movement</b>	Normal
<b>Dip Direction</b>	SE
<b>Paleoseismology studies</b>	
<b>Geomorphic expression</b>	<p>Fault scarps up to 13.4 meters high appear on aerial photos as highly dissected remnants surrounded by different ages of unfaulted alluvium. Some of the scarps appear to extend across young (Holocene?) alluvial-fan surfaces (Schell, 1981 #2844). Scarps along the fault are possibly among the oldest in western Utah.</p>
<b>Age of faulted surficial deposits</b>	Middle to late Pleistocene.
<b>Historic earthquake</b>	
<b>Most recent prehistoric deformation</b>	<p>middle and late Quaternary (&lt;750 ka)</p> <p><i>Comments:</i></p>

<b>Recurrence interval</b>	
<b>Slip-rate category</b>	Less than 0.2 mm/yr
<b>Date and Compiler(s)</b>	1999 Bill D. Black, Utah Geological Survey Suzanne Hecker, U.S. Geological Survey
<b>References</b>	<p>#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.</p> <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>#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.</p>

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