

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](#).

Escalante Desert faults near Zane (Class A) No. 2518

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 2518, Escalante Desert faults near Zane, 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 02:54 PM.

Synopsis	Poorly understood late Pleistocene faults in the Escalante Desert southeast of Zane.
Name comments	Fault ID: Refers to fault number 10-12 in Hecker (1993 #642).
County(s) and State(s)	IRON COUNTY, UTAH
Physiographic province(s)	BASIN AND RANGE

Reliability of location	<p>Good Compiled at 1:250,000 scale.</p> <p><i>Comments:</i> Mapped by Ertec Western, Inc. (Schell, 1981 #4598) and Anderson and Christenson (1989 #828). Fault traces from 1:250,000-scale mapping of Anderson and Christenson (1989 #828).</p>
Geologic setting	<p>Short northeast-trending normal faults in the central Escalante Desert near Zane, Utah. The Escalante Desert is in an area of southwestern Utah underlain by extensive extrusive Tertiary volcanic rocks. In the mountains, volcanic rocks have been eroded to expose pre-existing Paleozoic and Mesozoic topography. In areas such as Escalante Desert, igneous rocks have been lowered by faulting and covered by alluvium and lake deposits.</p>
Length (km)	4 km.
Average strike	N51°E
Sense of movement	Normal
Dip Direction	NW
Paleoseismology studies	
Geomorphic expression	<p>Fault scarps are low, parallel to drainage, and locally modified by eolian deposits and modern drainage. Ertec Western, Inc. (Schell, 1981 #4598) indicates displacement of Holocene (or modern) deposits, but Anderson and Christenson (1989 #828) determined, based on photogeologic work, that the faulted alluvium is more likely late Pleistocene in age.</p>
Age of faulted surficial deposits	Late Pleistocene alluvium (Anderson and Christenson, 1989 #828).
Historic earthquake	
Most recent prehistoric deformation	<p>late Quaternary (<130 ka)</p> <p><i>Comments:</i></p>

Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr
Date and Compiler(s)	1999 Bill D. Black, Utah Geological Survey Suzanne Hecker, U.S. Geological Survey
References	<p>#828 Anderson, R.E., and Christenson, G.E., 1989, Quaternary faults, folds, and selected volcanic features in the Cedar City 1° x 2° quadrangle, Utah: Utah Geological and Mineral Survey Miscellaneous Publication 89-6, 29 p., 1 pl., 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>#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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