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.

Eastern Pilot Range fault (Class A) No. 2371

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 2371, Eastern Pilot Range 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 02:58 PM.**

Synopsis	Poorly understood Quaternary faults along the eastern side of the Pilot Range near the Utah-Nevada border.
Name comments	Refers to the range-bounding fault as mapped by Miller and Lush (1991 #4473) on the east side of the Pilot Range, east and northeast of Pilot Peak. **Fault ID:** Part of fault number 6-11 in Hecker (1993 #642).
County(s) and State(s)	BOX ELDER COUNTY, UTAH
Physiographic	

Physiographic province(s)	BASIN AND RANGE
Reliability of location	Good Compiled at 1:24,000 scale. *Comments:* Fault traces simplified from 1:24,000-scale mapping of Miller and Lush (1991 #4473)
Geologic setting	Generally north-trending normal fault along the eastern flank of the Pilot Range. The Pilot Range bounds the western edge of the Great Salt Lake Desert in northwestern Utah.
Length (km)	11 km.
Average strike	N11°E
Sense of movement	Normal
Dip Direction	E *Comments:* The fault is marked by spring lines and topographic lineaments on early Pleistocene alluvial-fan deposits.
Paleoseismology studies	
Geomorphic expression	The fault is marked by spring lines and topographic lineaments on early Pleistocene alluvial-fan deposits.
Age of faulted surficial deposits	Pliocene(?) to early Pleistocene alluvial-fan deposits
Historic earthquake	
Most recent prehistoric deformation	undifferentiated Quaternary (<1.6 Ma) *Comments:* Quaternary activity suggested by faulted Pliocene(?) to early Pleistocene alluvial-fan deposits. Asouthern fault strand may be younger (possibly Holocene).
Recurrence interval	
Slip-rate	Less than 0.2 mm/yr

category	*Comments:* Poor geomorphic expression indicates a low slip rate, although a southern fault strand (possibly Holocene) may have a higher slip rate.
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. #4473 Miller, D.M., and Lush, A.P., 1991, Geologic map of the Pilot Peak quadrangle, Box Elder County, Utah, and Elko County, Nevada: Utah Geological and Mineral Survey Open-File Report 208, 9 p., 1 pl., scale 1:24,000.