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.

unnamed faults in eastern YP Desert (Class A) No. 1547

Last Review Date: 1999-01-15

citation for this record: **Sawyer, T.L., and Adams, K., compilers, 1999, Fault number 1547, unnamed faults in eastern YP Desert, 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 02:36 PM.**

Synopsis	These faults are part of a distributed zone of possibly related intra-plateau Tertiary faults that crosses the eastern YP Desert. Although most of the faults in the zone displace only Tertiary basalt and associated sediments, the faults shown here have the most notable topographic expression. Reconnaissance photogeologic mapping of the faults is the source of data.
Name comments	Refers to faults mapped by Coats (1987 #2861) and Dohrenwend and Moring (1991 #284) in the eastern YP Desert that extend from Sheep Creek Reservoir and southeast Peterson Table northward across Circle Creek and west of Duck Valley to 42° N lat. **Fault ID:** Corresponds to fault MD13 (Western Duck Valley fault

	zone) of dePolo (1998 #2845).
County(s) and State(s)	ELKO COUNTY, NEVADA OWYHEE COUNTY, IDAHO
Physiographic province(s)	COLUMBIA PLATEAU
Reliability of location	Good Compiled at 1:100,000 scale. *Comments:* Fault locations primarily based on 1:250,000-scale map of Dohrenwend and Moring (1991 #284) which was produced by analysis of 1:58,000-nominal-scale color-infrared photography transferred directly to 1:100,000-scale topographic quadrangle maps enlarged to scale of the photographs.
Geologic setting	These faults are part of a distributed zone of possibly related intra-plateau Tertiary faults that crosses the eastern YP Desert. The Tertiary faults form a distinctive orthogonal pattern in a Tertiary rhyolitic or dacitic flow or dome (Coats, 1987 #2861; Dohrenwend and Moring, 1991 #284). Published mapping does not indicate the Quaternary faults extend into Idaho.
Length (km)	14 km.
Average strike	N13°W
Sense of movement	Normal *Comments:* Not studied in detail; normal sense of movement inferred from topography.
Dip Direction	Unknown
Paleoseismology studies	
Geomorphic expression	Abrupt and well-defined fault scarps juxtapose Quaternary alluvium against bedrock (Dohrenwend and Moring, 1991 #284).
Age of faulted surficial deposits	Quaternary; Tertiary (Coats, 1987 #2861; Dohrenwend and Moring, 1991 #284).
Historic earthquake	

Most recent prehistoric deformation	undifferentiated Quaternary (<1.6 Ma) *Comments:* Although timing of most recent event is not well constrained, a Quaternary time is suggested based on reconnaissance photogeologic mapping of Dohrenwend and Moring (1991 #284).
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr *Comments:* A low slip rate is inferred from general knowledge of slip rates estimated for other faults in the region.
Date and Compiler(s)	1999 Thomas L. Sawyer, Piedmont Geosciences, Inc. Kenneth Adams, Piedmont Geosciences, Inc.
References	#2861 Coats, R.R., 1987, Geology of Elko County, Nevada: Nevada Bureau of Mines and Geology Bulletin 101, 112 p., scale 1:250,000. #284 Dohrenwend, J.C., and Moring, B.C., 1991, Reconnaissance photogeologic map of young faults in the McDermitt 1° by 2° quadrangle, Nevada, Oregon, and Idaho: U.S. Geological Survey Miscellaneous Field Studies Map MF-2177, 1 sheet, scale 1:250,000.