

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 southeast of Chimney Reservoir (Class A) No. 1530

Last Review Date: 1999-01-22

citation for this record: Adams, K., and Sawyer, T.L., compilers, 1999, Fault number 1530, unnamed faults southeast of Chimney Reservoir, 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 02:50 PM.

Synopsis

Group of suspected Quaternary faults that occur within a distributed zone of predominately north-striking intermontane Tertiary faults in the northern Snowstorm Mountains, which extends from Tall Corral Creek north to near Twentyone Creek. Included in this group is subparallel range-bound faults along west front of the range and piedmont faults southeast of Chimney Reservoir and north of Garret Spring. The intermontane faults, expressed as prominent topographic lineaments consisting of aligned segments of stream channels, minor topographic escarpments, and aligned saddles and sidehill benches are presumed to be Tertiary and are not included herein. The range-front faults are marked by the abrupt and linear front of the Snowstorm Mountains. Piedmont faults are expressed as a series of east- and west-facing scarps possibly on late Pleistocene alluvium north of Garret Spring and as a lineament southeast of

	Chimney Reservoir. Reconnaissance photogeologic mapping of the faults is the source of data. Trench investigations and detailed studies of scarp morphology have not been completed.
Name comments	Refers to a group of faults mapped by Slemmons (1966, unpublished McDermitt 1? X 2? sheet) and Dohrenwend and Moring (1991 #284) in and adjacent to west front of the northern Snowstorm Mountains.
County(s) and State(s)	HUMBOLDT COUNTY, NEVADA
Physiographic province(s)	BASIN AND RANGE
Reliability of location	Good Compiled at 1:100,000 scale. <i>Comments:</i> Fault locations are 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. Additional faults located from 1:250,000 scale photogeologic mapping of Slemmons (1966, unpublished McDermitt 1? X 2? sheet); mapping from analysis of 1:60,000-scale AMS photography transferred to mylar overlaid onto a 1:250,000-scale topographic map using proportional dividers.
Geologic setting	This group of faults consists of several discontinuous piedmont faults southeast of Chimney Reservoir and north of Garret Spring (Slemmons, 1966, unpublished McDermitt 1? X 2? sheet; Dohrenwend and Moring, 1991 #284). Nearby faults that are probably Tertiary as indicated by Dohrenwend and Moring (1991 #284) are not included herein.
Length (km)	12 km.
Average strike	N6°E
Sense of movement	Normal <i>Comments:</i> (Slemmons, 1966, unpublished McDermitt 1? X 2? sheet; Dohrenwend and Moring, 1991 #284)
Dip Direction	W; E

Paleoseismology studies	
Geomorphic expression	Discontinuous piedmont scarps (Slemmons, 1966, unpublished McDermitt 1? X 2? sheet; Dohrenwend and Moring, 1991 #284).
Age of faulted surficial deposits	late Pleistocene; Pleistocene; Tertiary. Although the intermontane faults displace only Tertiary bedrock, other faults displace undifferentiated Pleistocene and late Pleistocene alluvium (Slemmons, 1966, unpublished McDermitt 1? X 2? sheet; Dohrenwend and Moring, 1991 #284).
Historic earthquake	
Most recent prehistoric deformation	late Quaternary (<130 ka) <i>Comments:</i> The timing of most recent event is not well constrained, and the two reconnaissance photogeologic mapping studies that document the timing of faulting of these structures do not concur. The source of the traces and the age for most of the younger faults is Slemmons (1966, unpublished McDermitt 1? X 2? sheet). Dohrenwend and Moring (1991 #284) only show one possible late Quaternary scarp that is antithetic to the range front. Dohrenwend and Moring (1991 #284) are the source of traces and age assignment for the older faults in this group. The age assignment herein reflects the youngest scarps.
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr <i>Comments:</i> A low slip rate is inferred from general knowledge of slip rates estimated for other faults in the region.
Date and Compiler(s)	1999 Kenneth Adams, Piedmont Geosciences, Inc. Thomas L. Sawyer, Piedmont Geosciences, Inc.
References	#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.

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