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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.

Golconda Butte fault (Class A) No. 1520

Last Review Date: 1999-01-28

citation for this record: **Adams, K., and Sawyer, T.L., compilers, 1999, Fault number 1520, Golconda Butte 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 02:50 PM.**

Synopsis	These three short northeast-striking piedmont faults are near northwest front of the Osgood Mountains east of Golconda Butte. The faults are expressed as short north-facing scarps on Pleistocene alluvium. 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Name comments	Refers to three faults mapped by Slemmons (1966, unpublished McDermitt 1? X 2? sheet) and Dohrenwend and Moring (1991 #284) on northwest piedmont slope of the Osgood Mountains; dePolo (1998 #2845) referred to it as the Golconda Butte fault. **Fault ID:** Refers to fault MD8 (Golconda Butte fault) of dePolo (1998 #2845).
County(s) and	HUMBOLDT COUNTY, NEVADA

State(s)	HUMBOLDT COUNTY, NEVADA
Physiographic province(s)	BASIN AND RANGE
Reliability of location	Good Compiled at 1:100,000 scale. *Comments:* Fault locations are based on 1:250,000-scale maps of Dohrenwend and Moring (1991 #284). Their 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 three short northeast-striking piedmont faults are near northwest front of the Osgood Mountains east of Golconda Butte (Slemmons, 1966, unpublished McDermitt 1? X 2? sheet; Dohrenwend and Moring, 1991 #284).
Length (km)	4 km.
Average strike	N°71E
Sense of movement	Normal *Comments:* (Dohrenwend and Moring, 1991 #284)
Dip Direction	N
Paleoseismology studies	
Geomorphic expression	The faults are expressed as short north-facing scarps on Pleistocene (Dohrenwend and Moring, 1991 #284) or possibly late Quaternary alluvium (Slemmons, unpublished McDermitt 1? X 2? sheet). dePolo (1998 #2845) indicates that there are scarps on alluvium but no basal fault facets.
Age of faulted surficial deposits	Pleistocene. Dohrenwend and Moring (1991 #284) mapped Pleistocene alluvium displaced along these fault and Slemmons (1966, unpublished McDermitt 1? X 2? sheet) suggests deposits as young as late Quaternary offset by the faults.
Historic earthquake	
Most recent	undifferentiated Quaternary (<1.6 Ma)

prehistoric deformation	*Comments:* The timing of most recent event is not well constrained, and the two sources do not concur. Therefore, the assigned age is based on Dohrenwend and Moring (1991 #284) because it is the sole published source.
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr *Comments:* No detailed data exists to determine slip rates for this fault. dePolo (1998 #2845) assigned a reconnaissance vertical slip rate of 0.01 mm/yr for the fault based on the presence or absence of scarps on alluvium and basal facets. The late Quaternary characteristics of this fault (overall geomorphic expression, continuity of scarps, age of faulted deposits, etc.) support a low slip rate. Accordingly, the less than 0.2 mm/yr slip-rate category has been assigned to this fault.
Date and Compiler(s)	1999 Kenneth Adams, Piedmont Geosciences, Inc. Thomas L. Sawyer, Piedmont Geosciences, Inc.
References	#2845 dePolo, C.M., 1998, A reconnaissance technique for estimating the slip rate of normal-slip faults in the Great Basin, and application to faults in Nevada, U.S.A.: Reno, University of Nevada, unpublished Ph.D. dissertation, 199 p. #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.