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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.

Dry Mountain fault (Class A) No. 1618

Last Review Date: 1999-03-09

citation for this record: **Adams, K., and Sawyer, T.L., compilers, 1999, Fault number 1618, Dry Mountain 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 02:27 PM.**

Synopsis	This distributed group of normal faults bound the relatively small hills in northern Kumiva Valley, along the east and west fronts of Dry Mountain, and the southeast and east fronts of Pahsupp Mountain. They include piedmont and intra-basin faults in the Kumiva Valley. Dry Mountain and the small hill to the south represent horst blocks. Range-front faults juxtapose Quaternary alluvium against bedrock and are expressed as abrupt escarpments. Piedmont and intra-basin faults are marked by east-facing scarps on Quaternary piedmont-slope deposits and as lineaments on the floor of Kumiva Valley. Reconnaissance photogeologic mapping and regional geologic mapping are the sources of data. Trench investigations and detailed studies of scarp morphology have not been conducted.
Name comments	Refers to faults mapped by Slemmons (1974, unpublished Lovelock 1? X 2? sheet) and Dohrenwend and others (1991 #285)

	along the sides of Dry Mountain and Pahsupp Mountain and in northern Kumiva Valley. dePolo (1998 #2845) referred to some of these faults as the Dry Mountain fault, a name that we apply to the entire group of faults. **Fault ID:** Includes fault LL13 of dePolo (1998 #2845).
County(s) and State(s)	PERSHING COUNTY, NEVADA
Physiographic province(s)	BASIN AND RANGE
Reliability of location	Good Compiled at 1:100,000 scale. *Comments:* Fault locations are primarily based on 1:250,000-scale map of Dohrenwend and others (1991 #285), 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 Additional fault locations are from 1:250,000-scale photogeologic map of Slemmons (1974, unpublished Lovelock 1? X 2? sheet).
Geologic setting	This distributed zone has normal faults bounding relatively small hills in northern Kumiva Valley, along east and west fronts of Dry Mountain, and southeast and east fronts of Pahsupp Mountain, and has piedmont and intra-basin faults in the valley; Dry Mountain and the small hill to the south represent horst blocks (Dohrenwend and others, 1991 #285; Slemmons, 1974, unpublished Lovelock 1? X 2? sheet).
Length (km)	30 km.
Average strike	N20°E
Sense of movement	Normal *Comments:* Shown as normal faults by Dohrenwend and others (1991 #285).
Dip Direction	W; E
Paleoseismology studies	
Geomorphic	Range-front faults juxtapose Quaternary alluvium against bedrock

expression	and are expressed as abrupt escarpments. Piedmont and intra-basin faults are marked by east-facing scarps and as lineaments on the floor of Kumiva Valley (Dohrenwend and others, 1991 #285). dePolo (1998 #2845) indicates that there are scarps on alluvium but no basal fault facets.
Age of faulted surficial deposits	Early and middle Quaternary alluvium (possibly as young as late Pleistocene) and Tertiary sedimentary rocks are displaced by these faults (Johnson, 1977 #2569; Dohrenwend and others, 1991 #285).
Historic earthquake	
Most recent prehistoric deformation	late Quaternary (<130 ka) *Comments:* Although timing of most recent event is not well constrained, a scarp on possibly late Quaternary deposits is suggested based on reconnaissance photogeologic mapping of Dohrenwend and others (1991 #285).
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. #285 Dohrenwend, J.C., McKittrick, M.A., and Moring, B.C., 1991, Reconnaissance photogeologic map of young faults in the Lovelock 1° by 2° quadrangle, Nevada and California: U.S.

	Geological Survey Miscellaneous Field Studies Map MF-2178, 1 sheet, scale 1:250,000. #2569 Johnson, M.G., 1977, Geology and mineral deposits of Pershing County, Nevada: Nevada Bureau of Mines and Geology Bulletin 89, 115 p., scale 1:250,000.