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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.

unnamed faults west of Rye Patch Dam (Class A) No. 1631

Last Review Date: 1999-03-09

citation for this record: **Adams, K., and Sawyer, T.L., compilers, 1999, Fault number 1631, unnamed faults west of Rye Patch Dam, 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 02:35 PM.**

Synopsis	These two short isolated faults strike east-west on the south side of the Trinity Range, west of Rye Patch Dam. The faults are expressed as topographic lineaments on Tertiary volcanic and sedimentary rock, suggesting evidence for young movement. Unpublished mapping suggests that the faults also displace undifferentiated Quaternary deposits. 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 on the south side of the Trinity Range, west of the Rye Patch Reservoir dam.
County(s) and	PERSHING COUNTY, NEVADA

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 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. Fault locations checked against 1:250,000-scale photogeologic map of Johnson (1977 #2569).
Geologic setting	These two short isolated faults strike east-west on the south side of the Trinity Range, west of Rye Patch Dam (Johnson, 1977 #2569; Dohrenwend and others, 1991 #285).
Length (km)	4 km.
Average strike	N67°W
Sense of movement	Normal *Comments:* Not studied in detail; sense of movement inferred from topography.
Dip Direction	S
Paleoseismology studies	
Geomorphic expression	The faults are expressed as topographic lineaments, suggesting evidence for young movement (Dohrenwend and others, 1991 #285).
Age of faulted surficial deposits	Tertiary volcanic and sedimentary rocks are displaced by the fault (Johnson, 1977 #2569; Dohrenwend and others, 1991 #285), but reconnaissance photogeologic mapping of Slemmons (1974, unpublished Lovelock 1? X 2? sheet) suggests that the faults also displace undifferentiated Quaternary deposits.
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 suspected based on reconnaissance photogeologic mapping of (Dohrenwend and others, 1991 #285).
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 and the presence of topographic lineaments rather than scarps on Tertiary rock.
Date and Compiler(s)	1999 Kenneth Adams, Piedmont Geosciences, Inc. Thomas L. Sawyer, Piedmont Geosciences, Inc.
References	#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.