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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 fault northeast of White Pine Peak (Class A) No. 1385

Last Review Date: 1998-07-11

citation for this record: **Sawyer, T.L., and Redsteer, M.H., compilers, 1998, Fault number 1385, unnamed fault northeast of White Pine Peak, 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 02:14 PM.**

Synopsis	This series of down-to-the-east normal faults bounds east flank of the north-trending southern White Pine Range, separating the range from an intermountain valley and northernmost Horse Range to the east. The fault trace intersects several local springs, including Freeland Spring. Many faults within this group are suspected to have Quaternary movement, although they only displace bedrock. Reconnaissance photogeologic mapping of the faults is the source of data. Detailed studies confirming Quaternary activity have not been completed.
Name comments	The fault was mapped by Dohrenwend and others (1991 #287; 1992 #2480) and extends from 1.5 km north of Freeland Spring south to about 12 km northwest of Currant Summit.
County(s) and	

County(s) and State(s)	WHITE PINE COUNTY, NEVADA
Physiographic province(s)	BASIN AND RANGE
Reliability of location	Good Compiled at 1:100,000 scale. *Comments:* Location based on 1:250,000-scale map of Dohrenwend and others (1991 #287; 1992 #2480); mapped by photogeologic 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, then reduced and compiled at 1:250,000.
Geologic setting	This group of down-to-the-east normal faults bounds east flank of the north-trending southern White Pine Range, separating the range from an intermountain valley and northernmost Horse Range to the east. Uplift and faulting on this and nearby faults have exposed Paleozoic carbonates and Oligocene volcanic rocks in the White Pine Range. Tertiary deformation of bedrock in this mountain range includes several low-angle detachment faults that place younger rock over older rocks (Tracy, 1980 #4340). North of this fault Tracy (1980 #4340) mapped the Indian Gardens fault, a well-defined high-angle normal fault that lies along the same trend, dividing Indian Gardens Mountain from the White Pine Range but is not recognized to have Quaternary movement.
Length (km)	13 km.
Average strike	N1°W
Sense of movement	Normal *Comments:* Not studied in detail; sense of movement inferred from topography.
Dip Direction	W
Paleoseismology studies	
Geomorphic expression	The fault is expressed by abrupt well-defined hillslope-piedmont transitions and by lineaments on Quaternary deposits and (or) erosional surfaces (Dohrenwend and others, 1991 #287; 1992 #2480).

Age of faulted surficial deposits	Quaternary (Dohrenwend and others, 1991 #287; 1992 #2480).
Historic earthquake	
Most recent prehistoric deformation	undifferentiated Quaternary (<1.6 Ma) *Comments:* Although timing of most recent prehistorical event is not well constrained, Dohrenwend and others (1991 #287; 1992 #2480) suggested a Quaternary time based on a reconnaissance photogeologic study.
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)	1998 Thomas L. Sawyer, Piedmont Geosciences, Inc. Margaret Hisa Redsteer, U.S. Geological Survey
References	#287 Dohrenwend, J.C., Schell, B.A., and Moring, B.C., 1991, Reconnaissance photogeologic map of young faults in the Lund 1° by 2° quadrangle, Nevada and Utah: U.S. Geological Survey Miscellaneous Field Studies Map MF-2180, 1 sheet, scale 1:250,000. #2480 Dohrenwend, J.C., Schell, B.A., and Moring, B.C., 1992, Reconnaissance photogeologic map of young faults in the Ely 1° by 2° quadrangle, Nevada and Utah: U.S. Geological Survey Miscellaneous Field Studies Map MF-2181, 1 sheet, scale 1:250,000. #4340 Tracy, W.C., 1980, Structure and stratigraphy of the central White Pine Range, east-central Nevada: Long Beach, California State University, unpublished M.S. thesis, 66 p.