

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 zone in Pine Mountains (Class A) No. 1664

Last Review Date: 1999-03-26

citation for this record: Adams, K., compiler, 1999, Fault number 1664, unnamed fault zone in Pine Mountains, 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 02:26 PM.

Synopsis	This distributed group of short northwest- to northeast-striking intermontane faults is in northeastern Pine Nut Mountains south of Churchill Butte. In places, faults displace Quaternary alluvium, providing evidence for young movement. 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 Bell (1984 #105) and Greene and others (1991 #3487) in northeastern Pine Nut Mountains.
County(s) and State(s)	LYON COUNTY, NEVADA
Physiographic	BASIN AND RANGE

province(s)	BASIN AND RANGE
Reliability of location	Good Compiled at 1:100,000 scale. <i>Comments:</i> Fault locations from 1:250,000-scale map of Bell (1984 #105). Mapping is based on photogeologic analysis of 1:40,000-scale low sun-angle aerial photography, supplemented with 1:12,000-scale aerial photography of selected areas, several low-altitude aerial reconnaissance flights, and field reconnaissance of major structural and stratigraphic relationships.
Geologic setting	This distributed group of short northwest to northeast-striking intermontane faults is located in northeastern Pine Nut Mountains south of Churchill Butte (Bell, 1984 #105).
Length (km)	18 km.
Average strike	N5°W
Sense of movement	Normal <i>Comments:</i> (Greene and others, 1991 #3487)
Dip Direction	E; W
Paleoseismology studies	
Geomorphic expression	The faults are primarily expressed as topographic lineaments on Tertiary volcanic and sedimentary rocks but in places offset Quaternary alluvium, providing evidence for young movement (Bell, 1984 #105; Greene and others, 1991 #3487). Faults bound a short narrow graben that trends north across summit of Table Mountain on north side of Carson River (Greene and others, 1991 #3487).
Age of faulted surficial deposits	Quaternary; Tertiary. Greene and others (1991 #3487) mapped faults that displace Quaternary alluvium and Tertiary volcanic and sedimentary rocks.
Historic earthquake	
Most recent prehistoric deformation	undifferentiated Quaternary (<1.6 Ma) <i>Comments:</i> Although timing of most recent event is not well

	constrained, a Quaternary time suggested based on mapping by Bell (1984 #105) and Greene and others (1991 #3487).
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr <i>Comments:</i> A low slip rate is inferred from a general knowledge of slip rates for other faults in the region.
Date and Compiler(s)	1999 Kenneth Adams, Piedmont Geosciences, Inc.
References	#105 Bell, J.W., 1984, Quaternary fault map of Nevada—Reno sheet: Nevada Bureau of Mines and Geology Map 79, 1 sheet, scale 1:250,000. #3487 Greene, R.C., Stewart, J.H., John, D.A., Hardyman, R.F., Silberling, N.J., and Sorensen, M.L., 1991, Geologic map of the Reno 1° by 2° quadrangle, Nevada and California: U.S. Geological Survey Miscellaneous Field Studies Map MF-2154-A, scale 1:250,000.

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