

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 in northern Granite Springs Valley (Class A) No. 1628

Last Review Date: 1999-03-10

citation for this record: Adams, K., and Sawyer, T.L., compilers, 1999, Fault number 1628, unnamed fault in northern Granite Springs Valley, 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 02:29 PM.

Synopsis	This short discontinuous fault at the northern end of Granite Springs Valley consists of a range-front fault that bounds the western front of the Seven Troughs Range and a piedmont- to hill-bounding fault near Porter Spring. The fault juxtaposes piedmont-slope deposits against bedrock and is expressed by the abrupt western front of the Seven Troughs Range. 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 along the western side of the southern Seven Troughs Range and near Porter Spring. Informal name given for location in northern part of the Granite Springs Valley.
County(s) and	

County(s) and State(s)	PERSHING COUNTY, NEVADA
Physiographic province(s)	BASIN AND RANGE
Reliability of location	<p>Good Compiled at 1:100,000 scale.</p> <p><i>Comments:</i> 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 Additional faults were located from 1:250,000-scale photogeologic map of Slemmons (1974, unpublished Lovelock 1? X 2? sheet). Fault locations checked against 1:250,000-scale map of Johnson (1977 #2569).</p>
Geologic setting	This short discontinuous fault at the northern end of Granite Springs Valley consists of a range-front fault that bounds the western front of the Seven Troughs Range and a piedmont- to hill-bounding fault near Porter Spring (Slemmons, 1974, unpublished Lovelock 1? X 2? sheet; Johnson, 1977 #2569; Dohrenwend and others, 1991 #285).
Length (km)	13 km.
Average strike	N1°E
Sense of movement	<p>Normal</p> <p><i>Comments:</i> Not studied in detail; normal sense of motion inferred from topography.</p>
Dip Direction	W
Paleoseismology studies	
Geomorphic expression	The fault is expressed by the abrupt western range front of the Seven Troughs Range and a piedmont- to hill-bounding fault near Porter Spring (Slemmons, 1974, unpublished Lovelock 1? X 2? sheet; Johnson, 1977 #2569; Dohrenwend and others, 1991 #285).
Age of faulted surficial deposits	Quaternary alluvium and Tertiary sedimentary rock are offset by the fault (Johnson, 1977 #2569; Dohrenwend and others, 1991 #285).

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 is suggested based on reconnaissance photogeologic mapping of Dohrenwend and others (1991 #285) and unpublished mapping of Slemmons (1974, unpublished Lovelock 1? X 2? sheet).
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 from other faults in the region.
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.

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