

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 Desert Mountains (Class A) No. 1665

Last Review Date: 1999-03-18

citation for this record: Sawyer, J.E., and Sawyer, T.L., compilers, 1999, Fault number 1665, unnamed faults west of Desert 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 short distributed zone has plateau-bounding, intra-plateau, and piedmont faults that border dissected western margin of Desert Mountains from northwest of Wabuska Hot Springs along Highway 95 to northwest margin of Desert Mountains. Reconnaissance photogeologic mapping of the fault zone 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Name comments	Refers to faults mapped by Bell (1984 #105) and southernmost fault was mapped by Slemmons (1968, unpublished Reno 1? X 2? sheet) on western margin of Desert Mountains and extend from northwest of Wabuska Hot Springs along Highway 95 to northwest margin of Desert Mountains.

County(s) and State(s)	LYON 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 Fault locations are based on 1:250,000-scale maps of Bell (1984 #105) and Slemmons (1968, unpublished Reno 1? X 2? sheet). Mapping by Bell (1984 #105) is from photogeologic analysis of 1:40,000-scale low sun-angle aerial photography, supplemented with 1:12,000-scale of selected areas, and several low-altitude aerial reconnaissance flights and field reconnaissance of major structural and stratigraphic relationships. Mapping by Slemmons (1968, unpublished Reno 1? X 2? sheet) is from analysis of 1:60,000-scale AMS photography transferred to mylar overlaid onto a 1:250,000-scale topographic map using proportional dividers.</p>
Geologic setting	This distributed zone has short plateau-bounding, intra-plateau, and piedmont faults discontinuously border dissected western margin of Desert Mountains from northwest of Wabuska Hot Springs along Highway 95 to northwest margin of Desert Mountains (Slemmons, 1968, unpublished Reno 1? X 2? sheet, Bell, 1984 #105).
Length (km)	10 km.
Average strike	N14°E
Sense of movement	<p>Normal</p> <p><i>Comments:</i> Not studied in detail. Sense of movement on southernmost fault from Slemmons (1968, unpublished Reno 1? X 2?); sense of movement is inferred from topography.</p>
Dip Direction	SE; W
Paleoseismology studies	
Geomorphic expression	Southernmost piedmont faults are expressed by scarps and lineaments on upper piedmont-slope deposits. Plateau-bounding faults to the north are marked by irregular lineaments and minor scarps. Northernmost intra-plateau faults are expressed by

	lineaments defined by low escarpments and linear drainage valleys (Slemmons, 1968, unpublished Reno 1? X 2? sheet, Bell, 1984 #105).
Age of faulted surficial deposits	Pleistocene. Bell (1984 #105) mapped faults that displace undifferentiated Pleistocene upper piedmont-slope deposits.
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 mapping by Bell (1984 #105) and Slemmons (1968, unpublished Reno 1? X 2?).
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr <i>Comments:</i> Not studied in detail. A low slip rate is inferred from general knowledge of slip rates estimated for other faults in the region and from low height of topographic lineaments on Tertiary volcanic rocks.
Date and Compiler(s)	1999 Janet E. Sawyer, Piedmont Geosciences, Inc. Thomas L. Sawyer, 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.

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