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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 zone west of Carson Lake (Class A) No. 1676

Last Review Date: 1999-06-09

citation for this record: **Adams, K., and Sawyer, T.L., compilers, 1999, Fault number 1676, unnamed fault zone west of Carson Lake, 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 group of short, discontinuous intra basin faults in southwestern Lahontan Valley extends from northern piedmont slope of Desert Mountains near White Throne Mountains northwest to northeastern end of Dead Camel Mountains. 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Name comments	Refers to faults mapped by Morrison (1964 #3486), Slemmons (1968, unpublished Reno 1? X 2? sheet), Bell (1984 #105), and Greene and others (1991 #3487) west of Carson Lake and east of Dead Camel Mountains in southwestern Lahontan Valley.
County(s) and	CHURCHILL COUNTY, NEVADA

State(s)	CHURCHILL COUNTY, NEVADA
Physiographic province(s)	BASIN AND RANGE
Reliability of location	Good Compiled at 1:100,000 scale. *Comments:* Fault locations are primarily based on 1:250,000-scale maps of Bell (1981 #2875; 1984 #105). Mapping is from 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. Northernmost fault trace is from 1:250,000-scale map of Slemmons (1968, unpublished Reno 1? X 2? sheet).
Geologic setting	This group of short, discontinuous intra basin faults in southwestern Lahontan Valley extends from northern piedmont slope of Desert Mountains near White Throne Mountains northwest to northeastern end of Dead Camel Mountains(Morrison, 1964 #3486, Slemmons 1968, unpublished Reno 1? X 2? sheet; Bell, 1984 #105; Greene and others, 1991 #3487).
Length (km)	27 km.
Average strike	N24°W
Sense of movement	Normal *Comments:* (Morrison, 1964 #3486; Slemmons, 1968, unpublished Reno 1? X 2? sheet)
Dip Direction	NE
Paleoseismology studies	
Geomorphic expression	Many faults are expressed as low east- and west-facing scarps on eroded late Pleistocene lacustrine sediments (Morrison, 1964 #3486). Other faults are expressed as short lineaments on late Pleistocene shore platforms or alluvial fans (Morrison, 1964 #3486, Slemmons 1968, unpublished Reno 1? X 2? sheet; Bell, 1984 #105); northernmost fault in zone, mapped by Slemmons (1968, unpublished Reno 1? X 2? sheet), may actually be a beach

	ridge (Morrison, 1964 #3486).
Age of faulted surficial deposits	late Pleistocene. Faults displace deposits of late Pleistocene Lake Lahontan (Morrison, 1964 #3486).
Historic earthquake	
Most recent prehistoric deformation	latest Quaternary (<15 ka) *Comments:* Although timing of most recent event is not well constrained, a latest Quaternary time is suggested based on reconnaissance photogeologic mapping of Bell (1984 #105) and Slemmons (1968, unpublished Reno 1? X 2? sheet), which is consistent with mapping by Morrison (1964 #3486) and Dohrenwend and others (1996 #2846).
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr *Comments:* A low slip rate is inferred from a general knowledge of slip rates estimated for other faults in the region.
Date and Compiler(s)	1999 Kenneth Adams, Piedmont Geosciences, Inc. Thomas L. Sawyer, Piedmont Geosciences, Inc.
References	#2875 Bell, J.W., 1981, Quaternary fault map of the Reno 1° by 2° quadrangle, Nevada-California: U.S. Geological Survey Open-File Report 81-982, 62 p., http://pubs.er.usgs.gov/publication/ofr81982. #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. #2846 Dohrenwend, J.C., Schell, B.A., Menges, C.M., Moring, B.C., and McKittrick, M.A., 1996, Reconnaissance photogeologic map of young (Quaternary and late Tertiary) faults in Nevada, *in* Singer, D.A., ed., Analysis of Nevada's metal-bearing mineral resources: Nevada Bureau of Mines and Geology Open-File Report 96-2, 1 pl., scale 1:1,000,000.

	#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. #3486 Morrison, R.B., 1964, Lake Lahontan—Geology of the southern Carson Desert, Nevada: U.S. Geological Survey Professional Paper 401, 156 p.