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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 faults west of Hungry Valley (Class A) No. 1658

Last Review Date: 1999-03-31

citation for this record: **Sawyer, J.E., and Sawyer, T.L., compilers, 1999, Fault number 1658, unnamed faults west of Hungry 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 02:35 PM.**

Synopsis	This short distributed zone has intra basin, range-front, piedmont, and intermontane faults in northeast Antelope Valley, in and bounding the Warm Springs Mountain, and throughout Hungry Valley. Reconnaissance photogeologic mapping of the fault and detailed surficial geologic mapping in the region are the sources of data. Trench investigations and detailed studies of scarp morphology have not been conducted.
Name comments	Refers to faults mapped by Bonham (1969 #2999), Bell (1984 #105), Cordy (1985 #2448; 1985 #2449), and Greene and others (1991 #3487) in northeastern Antelope Valley, northwest of Warm Springs Mountain and in Hungry Valley from west of Warm Springs Mountain to south of Hungry Mountain; includes Hungry Valley fault zone of dePolo (1998 #2845).

	Fault ID: Refers in part to fault number R5 (Hungry Valley fault zone) by dePolo (1998 #2845). Structure Name Unnamed faults west of Hungry Valley
County(s) and State(s)	WASHOE COUNTY, NEVADA
Physiographic province(s)	BASIN AND RANGE
Reliability of location	Good Compiled at 1:100,000 scale. *Comments:* Fault locations are based on 1:24,000-scale map of Cordy (1985 #2448) and 1:250,000-scale map of Bell (1984 #105). Mapping of Bell (1984 #105) 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.
Geologic setting	This short distributed zone has intra basin, range-front, piedmont, and intermontane faults in northeast Antelope Valley, in and bounding the Warm Springs Mountain, and throughout Hungry Valley (Bonham, 1969 #2999; Bell, 1984 #105; Cordy, 1985 #2448; 1985 #2449; Greene and others, 1991 #3487).
Length (km)	19 km.
Average strike	N19°E
Sense of movement	Normal *Comments:* Not studied in detail; normal sense of movement is from Bonham (1969 #2999), Cordy (1985 #2448; 1985 #2449) and Greene and others (1991 #3487); dePolo (1998 #2845) suspected strike-slip movement, presumably based on its northeast-strike which is characteristic of recognized left-slip faults in the region.
Dip Direction	E; W
Paleoseismology studies	
Geomorphic	Intrabasin faults are expressed as northeast-striking topographic

expression	lineaments and a curvilinear scarp on Quaternary deposits and locally on Tertiary sediments in western and southern Hungry Valley, and as predominantly west- to northwest-striking lineaments on Quaternary deposits in the northeastern Antelope Valley. Range-front faults are expressed as topographic lineaments coinciding with the bedrock-alluvial contact bounding east and west sides of Warm Springs Mountain, northeast side of Hungry Mountain, and southwest side of Hungry Ridge. A short intermontane fault in western Warm Springs Mountain is expressed as a topographic lineament and a ridge-crest saddle and extends southward as a piedmont fault, suggesting young movement (Bell, 1984 #105; Cordy, 1985 #2448; 1985 #2449).
Age of faulted surficial deposits	Quaternary; Tertiary. Faults in this zone offset Quaternary piedmont-slope deposits, possibly as young as late Quaternary in age, and these deposits and Tertiary sediments are juxtaposed against bedrock (Bonham, 1969 #2999; Bell, 1984 #105; Cordy, 1985 #2449; Greene and others, 1991 #3487).
Historic earthquake	
Most recent prehistoric deformation	undifferentiated Quaternary (<1.6 Ma) *Comments:* Although timing of most recent event is not well constrained, a Pleistocene time is suggested based on mapping of Bell (1984 #105) and Cordy (1985 #2448; 1985 #2449), which is generally consistent with Dohrenwend and others (1996 #2846). However, faulting may have occurred during the late Quaternary as suggested by Cordy (1985 #2449). The most conservative age category is indicated here due to lack of conclusive data.
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr *Comments:* Not studied in detail. A low slip rate is inferred from general knowledge of slip rates estimated for other faults in the region.
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. #2999 Bonham, H.F., 1969, Geology and mineral deposits of Washoe and Storey Counties, Nevada: Nevada Bureau of Mines and Geology Bulletin 70, 140 p., 1 pl., scale 1:250,000. #2448 Cordy, G.E., 1985, Earthquake hazards map, Reno NE quadrangle: Nevada Bureau of Mines and Geology Map 4Ci, scale 1:24,000. #2449 Cordy, G.E., 1985, Geologic map, Reno NE quadrangle: Nevada Bureau of Mines and Geology Map 4Cg, scale 1:24,000. #2845 dePolo, C.M., 1998, A reconnaissance technique for estimating the slip rate of normal-slip faults in the Great Basin, and application to faults in Nevada, U.S.A.: Reno, University of Nevada, unpublished Ph.D. dissertation, 199 p. #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.