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 near Candelaria Hills (Class A) No. 1318

Last Review Date: 1998-07-19

citation for this record: Adams, K., and Sawyer, T.L., compilers, 1998, Fault number 1318, unnamed faults near Candelaria Hills, 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 02:15 PM.

Synopsis	These short, generally subparallel faults strike east-west and extend from the vicinity of Candelaria west across Nevada State Highway 360 to the vicinity of German Spring. The faults bound both sides of Candelaria Mountain but also cut through intermontane and piedmont slope areas where they bound both bedrock and surficial units. At the west end of the zone, a series of short faults form a distinct left-stepping pattern. Three short north-south striking faults, in the vicinity of Candelaria, are also included in this group of faults. Reconnaissance photogeologic mapping and bedrock mapping of the fault zone are the sources of data. Trench investigations and detailed studies of scarp morphology have not been completed.
Name	Refers to faults near Candelaria Hills mapped by Speed and

comments	Cogbill (1979 #2913), Dohrenwend (1982 #2481; 1982 #2870; 1982 #2900), and Stewart (1981 #2914; 1984 #2911). Included in this group are the Candelaria, Junction, Reservoir, and County Line faults of Speed and Cogbill (1979 #2913).
County(s) and State(s)	ESMERALDA COUNTY, NEVADA MINERAL COUNTY, NEVADA
Physiographic province(s)	BASIN AND RANGE
Reliability of location	Good Compiled at 1:100,000 scale. *Comments:* Location based on 1:62,500-scale (Dohrenwend, 1982 #2900) and 1:250,000-scale (Dohrenwend, 1982 #2481) maps; small-scale mapping by photogeologic 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.
Geologic setting	These short, generally subparallel faults strike east-west and bound both sides of Candelaria Mountain but also cut through intermontane and piedmont slope areas where they bound both bedrock and surficial units.
Length (km)	31 km.
Average strike	N°78E
Sense of movement	Normal *Comments:* Not studied in detail; normal sense of movement is inferred from topography.
Dip	60° N *Comments:* Page (1959 #2912) and Speed and Cogbill (1979 #2913) reported a 60? north-dipping fault near Blanch Mine on the fault-bounding north side of the Candelaria Mountains.
Paleoseismology studies	
Geomorphic expression	The faults are expressed as scarps on Quaternary alluvium and as faults juxtaposing Quaternary alluvium and erosional surfaces

	against bedrock (Dohrenwend, 1982 #2900). Intermontane faults are located along aligned drainages and some bound small alluvial filled basins.
Age of faulted surficial deposits	Holocene through Tertiary. Dohrenwend (1982 #2481; 1982 #2900) mapped faults displacing Holocene and late Quaternary piedmont-slope and valley floor deposits and juxtaposing late Quaternary deposits against Tertiary bedrock. Near the west end of the zone, Stewart (1984 #2911) mapped a short fault which offsets Quaternary spring deposits. Several faults also have been mapped displacing Tertiary bedrock (Stewart, 1981 #2914; Dohrenwend, 1982 #2481; 1982 #2900; 1984 #2911).
Historic earthquake	
Most recent prehistoric deformation	late Quaternary (<130 ka) *Comments:* The timing of most recent event is not well constrained, and some of the mapping may indicate young faulting (Dohrenwend, 1982 #2481; 1982 #2900). However, the late Quaternary age assignment here is based on Dohrenwend and others (1996 #2846).
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr *Comments:* A low slip rate is inferred from general knowledge of slip rates estimated for other faults in the region.
Date and Compiler(s)	1998 Kenneth Adams, Piedmont Geosciences, Inc. Thomas L. Sawyer, Piedmont Geosciences, Inc.
References	#2481 Dohrenwend, J.C., 1982, Map showing late Cenozoic faults in the Walker Lake 1° by 2° quadrangle, Nevada-California: U.S. Geological Survey Miscellaneous Field Studies Map MF-1382-D, 1 sheet, scale 1:250,000. #2870 Dohrenwend, J.C., 1982, Surficial geologic map of the Walker Lake 1° by 2° quadrangle, Nevada-California: U.S. Geological Survey Miscellaneous Field Studies Map MF-1382-C, 1 sheet, scale 1:250,000.

#2900 Dohrenwend, J.C., 1982, Preliminary surficial geologic map of the Excelsior Mountains area, west-central Nevada: U.S. Geological Survey Miscellaneous Field Studies Map MF-1372, scale 1:62,500.

#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.

#2912 Page, B.M., 1959, Geology of the Candelaria mining district, Mineral County, Nevada: Nevada Bureau of Mines Bulletin, v. 56, p. 67.

#2913 Speed, R.C., and Cogbill, A.H., 1979, Candelaria and other left-oblique slip faults of the Candelaria region, Nevada: Geological Society of America Bulletin, Part 1, v. 90, p. 149-163.

#2914 Stewart, J.H., 1981, Geology map of the Basalt quadrangle, Mineral County, Nevada: U.S. Geological Survey Open-File Report 81-369, scale 1:24,000.

#2911 Stewart, J.H., 1984, Geologic map of the Teels Marsh quadrangle, Mineral County, Nevada: U.S. Geological Survey Open-File Report 84-504, scale 1:24,000.

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