

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 Wassuk Range (Class A) No. 1295

Last Review Date: 1998-07-19

citation for this record: Adams, K., and Sawyer, T.L., compilers, 1998, Fault number 1295, unnamed faults west of Wassuk Range, 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 02:14 PM.

Synopsis

This distributed group of predominately north- and northwest-striking faults is within and on the west side of the Wassuk Range from about 5 km north of Burro Mountain north to the vicinity of Black Mountain. Most of the faults in this group only displace bedrock and are expressed as aligned drainages, saddles, and small topographic escarpments. Evidence for Quaternary movement is provided by small east facing scarps on upper Pleistocene erosional surfaces, displacement of older Pleistocene erosional surfaces, and the juxtaposition of Quaternary erosional surfaces against bedrock. Reconnaissance photogeologic mapping and bedrock mapping of the faults are the sources of data. Trench investigations and detailed studies of scarp morphology have not been completed.

Name comments	Refers to a group of faults on west side of the Wassuk Range, mapped by Slemmons (1966, unpublished Walker Lake 1? X 2? sheet), Dohrenwend (1982 #2481; 1982 #2870), and Stewart and others (1982 #2873). Slemmons (1966, unpublished Walker Lake 1? X 2? sheet) named the northwest-striking fault in Reese River Canyon the Reese River Valley-Black Mountain fault.
County(s) and State(s)	MINERAL COUNTY, NEVADA LYON COUNTY, NEVADA
Physiographic province(s)	BASIN AND RANGE
Reliability of location	Good Compiled at 1:100,000 scale. <i>Comments:</i> Locations primarily based on 1:250,000-scale maps of Dohrenwend (1982 #2481; 1982 #2870); 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	This distributed group of predominately north- and northwest-striking faults is within and on the west side of the Wassuk Range from about 5 km north of Burro Mountain north to the vicinity of Black Mountain.
Length (km)	24 km.
Average strike	N29°W
Sense of movement	Normal <i>Comments:</i> Not studied in detail; normal sense of movement is inferred from topography.
Dip Direction	SW
Paleoseismology studies	
Geomorphic expression	Most of the faults in this group only displace bedrock and are expressed as aligned drainages, saddles, and small topographic escarpments. Two of the faults also bound small closed depressions. Faults bound the east side of low hills west of the Wassuk Range and the east side of the Gray Hills at the southwest end of the group. Reese River Valley has northwest-striking faults

	that form a left-stepping echelon pattern (Dohrenwend, 1982 #2481). Several generally northwest-striking faults to the west of Black Mountain also form a left-stepping pattern and bound the east sides of low hills and ridges. Evidence for Quaternary movement is the small east facing scarps on upper Pleistocene erosional surfaces, displacement of older Pleistocene erosional surfaces, and the juxtaposition of Quaternary erosional surfaces against bedrock shown by Dohrenwend (1982 #2870).
Age of faulted surficial deposits	Upper Pleistocene through middle and lower Pleistocene. Faults displace upper Pleistocene and older Pleistocene erosional surfaces and juxtapose Pleistocene surfaces against bedrock (Dohrenwend, 1982 #2870).
Historic earthquake	
Most recent prehistoric deformation	late Quaternary (<130 ka) <i>Comments:</i> Although timing of most recent event is not well constrained, a late Quaternary time is suspected based on mapping by Dohrenwend (1982 #2870).
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr <i>Comments:</i> 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. #2873 Stewart, J.H., Carlson, J.E., and Johannesen, D.C., 1982, Geologic map of the Walker Lake 1° by 2° quadrangle, California

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