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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 in southeastern Gabbs Valley Range (Class A) No. 1323

Last Review Date: 1998-07-19

citation for this record: **Adams, K., and Sawyer, T.L., compilers, 1998, Fault number 1323, unnamed fault zone in southeastern Gabbs Valley 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 02:15 PM.**

Synopsis	These short subparallel generally north- to northwest-striking faults cut transversely across and bound east side of the southeastern Gabbs Valley Range. The faults mostly displace Tertiary rocks, although several faults displace Quaternary-Tertiary alluvium juxtapose Quaternary (?) erosional surfaces against bedrock providing evidence for young movement. Reconnaissance and locally detailed photogeologic mapping and bedrock mapping are the sources of data.
Name comments	Refers to a group of faults mapped by Dohrenwend (1982 #2481; 1982 #2909), Ekren and Byers (1985 #2905), and Dohrenwend and others (1996 #2846) that cross the southeastern Gabbs Valley Range from northern Monte Cristo Valley to southern Gabbs Valley near Finger Rock Wash.

County(s) and State(s)	NYE 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Location based on 1:62,500-scale (Dohrenwend, 1982 #2909) and 1:250,000-scale maps (Dohrenwend, 1982 #2481); and unpublished map of the Tonopah 1?x2? sheet by J.C. Dohrenwend published at 1:100,000-scale by Dohrenwend and others (1996 #2846). Mapping based on 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 subparallel generally north to northwest striking faults cut transversely across and bound east side of the southeastern Gabbs Valley Range.
Length (km)	23 km.
Average strike	N21°W
Sense of movement	Normal *Comments:* Normal sense of movement from Ekren and Byers (1985 #2905). Dextral sense is possible based on similar sense of movement on other northwest-striking faults in the region.
Dip	70°E *Comments:* Ekren and Byers (1985 #2905) reported a 70?E dip on a bedrock fault south of Finger Rock.
Paleoseismology studies	
Geomorphic expression	The faults are expressed in Tertiary rock as bedrock scarps, linear stream segments, and sidehill benches. Quaternary alluvium and erosional surfaces are juxtaposed against bedrock along front and within the southeastern Gabbs Valley Range (Dohrenwend, 1982 #2481; Ekren and Byers, 1985 #2905; Dohrenwend and others, 1996 #2846).

Age of faulted surficial deposits	Pleistocene and Tertiary. Fault-related features have been mapped on early to late Pleistocene alluvial-fan deposits, early (?) Pleistocene erosion surfaces, and on Tertiary bedrock (Dohrenwend, 1982 #2909; Ekren and Byers, 1985 #2905; Dohrenwend and others, 1996 #2846).
Historic earthquake	
Most recent prehistoric deformation	undifferentiated Quaternary (<1.6 Ma) *Comments:* Although timing of most recent prehistorical event is not well constrained, a Pleistocene time is suspected based on reconnaissance photogeologic mapping by Dohrenwend (1982 #2909) and Dohrenwend and others (1996 #2846).
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr *Comments:* No age or displacement data are reported that could constrain the slip rate. The late Quaternary characteristics of this fault (overall geomorphic expression, continuity of scarps, age of faulted deposits, etc.) support a low slip rate. Accordingly, the less than 0.2 mm/yr slip-rate category has been assigned to this fault.
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. #2909 Dohrenwend, J.C., 1982, Reconnaissance surficial geologic map of the Gabbs-Luning area, west-central Nevada: U.S. Geological Survey Miscellaneous Field Studies Map MF-1374, 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. #2905 Ekren, E.B., and Byers, F.M., Jr., 1985, Geologic map of the Gabbs Mountain, Mount Ferguson, Luning, and Sunrise Flat quadrangles, Mineral and Nye Counties, Nevada: U.S. Geological Survey Miscellaneous Investigations Map I-1577, 1 sheet, scale 1:48,000.