

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 of the Seaman Range (Class A) No. 1402

Last Review Date: 1998-06-29

citation for this record: Sawyer, T.L., and Anderson, R.E., compilers, 1998, Fault number 1402, unnamed fault of the Seaman 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 02:05 PM.

Synopsis	This down-to-the-east normal fault bounds the eastern front of the Timber Mountain portion of the north-trending Seaman Range. Reconnaissance photogeologic mapping of the fault is the source of data. Trench investigations and studies of scarp morphology have not been completed. There is considerable lack of agreement among Quaternary fault compilations as to what part of this fault has a Quaternary record of displacement and whether or how it connects with faults to the south [1128].
Name comments	Refers to a short (approximately 5-km-long) fault mapped by Dohrenwend and others (1991 #287) in the Lund 1? x2? sheet and shown extending southward about 5 km into the Caliente 1? x 2? sheet in an unpublished compilation of Quaternary faults in that sheet by J. C. Dohrenwend (compiled at 1:1,000,000 as a map of

	<p>Quaternary faults in Nevada by Dohrenwend and others, 1996 #2846). On the 1:1,000,000 map, the Quaternary fault trace is show as extending farther south than on the unpublished map, but the source of that southerly extension is not known. Because Schell (1981 #2844), in his study of Quaternary faults in the region, does not map any part of the fault in the Caliente sheet as a Quaternary fault, the 1:250,000-scale map of J. C. Dohrenwend (unpublished) is used in the present compilation. This unnamed fault of the Seaman Range was included as the C11A part of the North Pahroc Range fault by dePolo (1998 #2845). That name is not used here because no part of the fault is in the North Pahroc Range. The southern part of dePolo's North Pahroc Range fault (his fault C11B) is compiled as fault [1128] herein and the Pahroc fault terminology of Schell (1981 #2844) is used for that fault.</p> <p>Fault ID: Refers to fault C11A (North Pahroc Range fault) of dePolo (1998 #2845).</p>
<p>County(s) and State(s)</p>	<p>LINCOLN COUNTY, NEVADA</p>
<p>Physiographic province(s)</p>	<p>BASIN AND RANGE</p>
<p>Reliability of location</p>	<p>Good Compiled at 1:100,000 scale.</p> <p><i>Comments:</i> North part based on 1:250,000-scale map of Dohrenwend and others (1991 #287) and south part on 1:250,000-scale unpublished map by J. C. Dohrenwend (for 1:1,000,000-scale compilation Dohrenwend and others, 1996 #2846). Both maps 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.</p>
<p>Geologic setting</p>	<p>This down-to-the-east normal fault bounds the eastern front of the north-trending Seaman Range along the west base of Timber Mountain, a portion of the range composed of Paleozoic sedimentary rocks (Stewart and Carlson, 1978 #3413). The fault was not mapped by Ekren and others (1977 #1036) and was not mapped as a major range-front fault by Dohrenwend and others (1991 #287). It may connect with the Pahroc fault [1128] to the south, as suggested by dePolo (1998 #2845).</p>

Length (km)	10 km.
Average strike	N2°W
Sense of movement	Normal <i>Comments:</i> Sense of movement inferred based on topographic expression.
Dip Direction	E
Paleoseismology studies	
Geomorphic expression	The fault is marked by east-facing scarps on Quaternary surfaces or deposits (Dohrenwend and others, 1991 #287, 1996 #2846). dePolo (1998 #2845) indicates that there are scarps on alluvium but no basal fault facets.
Age of faulted surficial deposits	Quaternary (Dohrenwend and others, 1991 #287). In an unpublished map of the Quaternary faults of the Caliente 1? x 2? sheet by J.C. Dohrenwend compiled at 1:1,000,000 scale (Dohrenwend and others, 1996 #2846), a short (<2 km long) part of the fault is shown as questionably formed on deposits or surfaces of late Pleistocene (10-130 ka) age.
Historic earthquake	
Most recent prehistoric deformation	undifferentiated Quaternary (<1.6 Ma) <i>Comments:</i> Although timing of the most recent event is not well constrained, reconnaissance study by Dohrenwend and others (1991 #287) suggests an early to mid Quaternary time (10-1500 ka) based on photogeologic interpretation. However, a short (<2 km) part of the fault is shown as questionably formed on deposits or surfaces of late Pleistocene (10-130 ka) age as noted above.
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr <i>Comments:</i> No detailed data exists to determine slip rates for this fault. dePolo (1998 #2845) assigned a reconnaissance vertical slip rate of 0.01 mm/yr for the fault based on the presence of scarps on alluvium and the absence of basal facets. The late Quaternary

	<p>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.</p>
<p>Date and Compiler(s)</p>	<p>1998 Thomas L. Sawyer, Piedmont Geosciences, Inc. R. Ernest Anderson, U.S. Geological Survey, Emeritus</p>
<p>References</p>	<p>#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.</p> <p>#287 Dohrenwend, J.C., Schell, B.A., and Moring, B.C., 1991, Reconnaissance photogeologic map of young faults in the Lund 1° by 2° quadrangle, Nevada and Utah: U.S. Geological Survey Miscellaneous Field Studies Map MF-2180, 1 sheet, scale 1:250,000.</p> <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, <i>in</i> 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.</p> <p>#1036 Ekren, E.B., Orkild, P.P., Sargent, K.A., and Dixon, G.L., 1977, Geologic map of Tertiary rocks, Lincoln County, Nevada: U.S. Geological Survey Miscellaneous Investigations Map I-1041, 1 sheet, scale 1:250,000.</p> <p>#2844 Schell, B.A., 1981, Faults and lineaments in the MX Siting Region, Nevada and Utah, Volume II: Technical report to U.S. Department of [Defense] the Air Force, Norton Air Force Base, California, under Contract FO4704-80-C-0006, November 6, 1981, 29 p., 11 pls., scale 1:250,000.</p> <p>#3413 Stewart, J.H., and Carlson, J.E., 1978, Geologic map of Nevada: U.S. Geological Survey, Special Geologic Map, 1, scale 1:500,000.</p>

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