

# 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 in Grant Range (Class A) No. 1391

Last Review Date: 1998-06-29

*citation for this record:* Sawyer, T.L., compiler, 1998, Fault number 1391, unnamed faults in Grant 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.

<b>Synopsis</b>	Reconnaissance photogeologic mapping of tectonic geomorphic features is the source of data. Trench investigations and studies of scarp morphology have not been completed.
<b>Name comments</b>	Refers to short faults mapped by Schell (1981 #2844) and Dohrenwend and others (1991 #287) within the Grant Range, in headwaters of Health Creek , and along western edge of White Range Valley.
<b>County(s) and State(s)</b>	NYE COUNTY, NEVADA
<b>Physiographic province(s)</b>	BASIN AND RANGE
<b>Reliability of</b>	Good

<b>location</b>	<p>Compiled at 1:100,000 scale.</p> <p><i>Comments:</i> Location based on 1:250,000-scale maps of Schell (1981 #2844) and of Dohrenwend and others (1991 #287). Original mapping by Schell (1981 #2843; 1981 #2844) based on photogeologic analysis of primarily 1:24,000-scale color aerial photography supplemented with 1:60,000-scale black-and-white aerial photography, transferred by inspection to 1:62,500-scale topographic maps and photographically reduced and directly transferred to 1:250,000-scale topographic maps, and field verification. Mapping by Dohrenwend and others (1991 #287) 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>
<b>Geologic setting</b>	<p>These short down-to-the-northwest normal faults bound the east front of the Grant Range and the southeast margin of a small intermountain valley.</p>
<b>Length (km)</b>	<p>6 km.</p>
<b>Average strike</b>	<p>N31°E</p>
<b>Sense of movement</b>	<p>Normal</p> <p><i>Comments:</i> Not studied in detail; sense of movement inferred from topography.</p>
<b>Dip Direction</b>	<p>E; NW</p>
<b>Paleoseismology studies</b>	
<b>Geomorphic expression</b>	<p>The fault is marked by abrupt well-defined fault scarps juxtaposing Quaternary alluvium against bedrock and by lineaments and scarps on Quaternary and Tertiary deposits (Schell, 1981 #2844; Dohrenwend and others, 1991 #287).</p>
<b>Age of faulted surficial deposits</b>	<p>Quaternary (Schell, 1981 #2844; Dohrenwend and others, 1991 #287).</p>
<b>Historic earthquake</b>	

<b>Most recent prehistoric deformation</b>	undifferentiated Quaternary (<1.6 Ma)  <i>Comments:</i> Although timing of the most recent event is not well constrained, reconnaissance studies by Dohrenwend and others (1991 #287) and Schell (1981 #2843; 1981 #2844) suggest a Quaternary time based on photogeologic interpretation.
<b>Recurrence interval</b>	
<b>Slip-rate category</b>	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.
<b>Date and Compiler(s)</b>	1998 Thomas L. Sawyer, Piedmont Geosciences, Inc.
<b>References</b>	#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.  #2843 Schell, B.A., 1981, Faults and lineaments in the MX Siting Region, Nevada and Utah, Volume I: 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, 77 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.

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