

# 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](#).

## Lake Valley fault (Class A) No. 1416

Last Review Date: 1998-06-29

*citation for this record:* Sawyer, T.L., compiler, 1998, Fault number 1416, Lake Valley fault, 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 02:04 PM.

<b>Synopsis</b>	This echelon zone of down-to-the-east normal faults is on the west side of Lake Valley, parallel to the north-trending valley axis. Reconnaissance photogeologic mapping of these faults is the source of data. Trench investigations and studies of scarp morphology have not been completed.
<b>Name comments</b>	Refers to the Lake Valley fault of Schell (1981 #2844) and also mapped by Dohrenwend and others (1991 #287). Fault extends on floor of Lake Valley from east of Patterson Pass to east of the north end of Dutch John Mountain.  <b>Fault ID:</b> Refers to fault 60 on Plate A6 in Schell (1981 #2844).
<b>County(s) and State(s)</b>	LINCOLN COUNTY, NEVADA
<b>Physiographic province(s)</b>	BASIN AND RANGE

<b>Reliability of location</b>	<p>Good 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 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 (Schell, 1981 #2843; 1981 #2844). 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>	This echelon zone of curvilinear, down-to-the-east normal faults is on the west side of Lake Valley, parallel to the north-trending valley axis.
<b>Length (km)</b>	14 km.
<b>Average strike</b>	N4°E
<b>Sense of movement</b>	<p>Normal</p> <p><i>Comments:</i> (Schell, 1981 #2844)</p>
<b>Dip Direction</b>	E
<b>Paleoseismology studies</b>	
<b>Geomorphic expression</b>	The fault is marked by lineaments on Quaternary alluvium (Dohrenwend and others, 1991 #287).
<b>Age of faulted surficial deposits</b>	Holocene alluvium (Dohrenwend and others, 1991 #287); late Pleistocene late deposits (Schell, 1981 #2844; 1981 #2858).
<b>Historic earthquake</b>	
<b>Most recent prehistoric</b>	late Quaternary (<130 ka)

<b>deformation</b>	<i>Comments:</i> Although timing of the most recent event is not well constrained, Dohrenwend and others (1991 #287; 1996 #2846) suggested a Holocene time based on reconnaissance photogeologic studies. However, Schell (1981 #2843; 1981 #2844) suggested that the most recent event occurred during the late Pleistocene based on undisturbed Pleistocene shorelines extending across the fault. We assign the most conservative age category here.
<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>	<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>#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.</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>

#2858 Schell, B.A., 1981, MX Siting Investigation, Geotechnical Evaluation, Verification Study, Lake Valley, NV, Volume I— Synthesis: Technical report to U.S. Department of [Defense] Air Force, Norton Air Force Base, California, November 6, 1981, scale 1:125,000.

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