

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](#).

Sidehill Pass fault (Class A) No. 1405

Last Review Date: 1998-06-29

citation for this record: Sawyer, T.L., compiler, 1998, Fault number 1405, Sidehill Pass 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 02:05 PM.

Synopsis	These down-to-the-east normal faults bound east front of the Schell Creek Range and extend obliquely across the range to east margin of Cave Valley; includes west-trending, down-to-the-south cross fault at Big Mud Pass. Faults within the range displace bedrock, but are suspected of Quaternary movement. Reconnaissance photogeologic mapping of these faults is the source of data. Trench investigations and studies of scarp morphology have not been completed.
Name comments	Refers to the Sidehill Pass fault mapped and named by Schell (1981 #2844; 1981 #2857; 1981 #2858) and subsequently mapped by Dohrenwend and others (1991 #287). Fault extends from northern Dry Lake Valley, across southern Schell Creek Range, to edge of Cave Valley. Fault ID: Refers to fault 18 on Plate A6 in Schell (1981 #2844).
County(s) and	

County(s) and State(s)	LINCOLN COUNTY, NEVADA
Physiographic province(s)	BASIN AND RANGE
Reliability of location	<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) and 1:125,000-scale map of Schell (1981 #2857). 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 1:125,000-scale or 1:250,000-scale topographic maps (Schell, 1981 #2843; 1981 #2857). Subsequent 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 (Dohrenwend and others, 1991 #287).</p>
Geologic setting	These down-to-the-east normal faults bound east front of the Schell Creek Range and extend obliquely across the range to east margin of Cave Valley; includes west-trending, down-to-the-south cross fault at Big Mud Pass.
Length (km)	11 km.
Average strike	N7°W
Sense of movement	<p>Normal</p> <p><i>Comments:</i> (Schell, 1981 #2844)</p>
Dip Direction	E; S
Paleoseismology studies	
Geomorphic expression	The fault is marked by abrupt well-defined fault scarps juxtaposing Quaternary alluvium against bedrock and by lineaments and scarps on Tertiary deposits (Dohrenwend and others, 1991 #287).
Age of faulted	

surficial deposits	Quaternary (?); middle Tertiary
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, Dohrenwend and others (1991 #287) suggest a Quaternary time based on a reconnaissance photogeologic study.
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 Thomas L. Sawyer, Piedmont Geosciences, Inc.
References	#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. #2857 Schell, B.A., 1981, MX Siting Investigation, geotechnical evaluation, verification study, Muleshoe Valley, NV, Volume I—Synthesis: Technical report to U.S. Department of [Defense] the Air Force, Norton Air Force Base, California, November 6, 1981, scale 1:125,000.

#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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