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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 north of Dutch John Mountain (Class A) No. 1406

Last Review Date: 1998-06-29

citation for this record: **Sawyer, T.L., compiler, 1998, Fault number 1406, unnamed fault north of Dutch John Mountain, 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 group of down-to-the-east normal faults bound a short section of east front of the north-trending Schell Creek Range and has one fault that extends southwestward into the range at Milk Ranch Spring. Reconnaissance photogeologic mapping of tectonic geomorphic features is the source of data. Trench investigations and studies of scarp morphology have not been completed.
Name comments	Refers to faults mapped by Schell (1981 #2844; 1981 #2858), one of which was subsequently mapped by Dohrenwend and others (1991 #287). Faults extend along west edge of Lake Valley, north of Dutch John Mountain.
County(s) and	LINCOLN COUNTY, NEVADA

State(s)	LINCOLN COUNTY, NEVADA
Physiographic province(s)	BASIN AND RANGE
Reliability of location	Good Compiled at 1:100,000 scale. *Comments:* 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 and field verification (Schell, 1981 #2843; 1981 #2857). Subsequent mapping by 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).
Geologic setting	This group of down-to-the-east normal faults bound a short section of east front of the north-trending Schell Creek Range and has one fault that extends southwestward into the range at Milk Ranch Spring.
Length (km)	9 km.
Average strike	N7°W
Sense of movement	Normal *Comments:* (Schell, 1981 #2844; 1981 #2859)
Dip Direction	E
Paleoseismology studies	
Geomorphic expression	The fault is marked by fault scarps juxtaposing Quaternary alluvium against bedrock, by a lineament on Quaternary surfaces, and by lineaments and scarps on Tertiary deposits (Schell, 1981 #2844; Dohrenwend and others, 1991 #287).
Age of faulted	

surficial deposits	middle to late Quaternary (Schell, 1981 #2858)
Historic earthquake	
Most recent prehistoric deformation	middle and late Quaternary (<750 ka) *Comments:* Although timing of the most recent event is not well constrained, Schell (1981 #2858) suggested a middle to late Quaternary time based on the fault cutting their intermediate aged alluvial deposit.
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr *Comments:* 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 Sitting 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. #2859 Schell, B.A., 1981, MX Siting Investigation, geotechnical evaluation, verification study, Cave 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.