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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 in East Muleshoe Valley (Class A) No. 1421

Last Review Date: 1998-06-29

citation for this record: **Sawyer, T.L., compiler, 1998, Fault number 1421, unnamed fault in East Muleshoe Valley, 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 short normal faults bounds low hills at southwestern end of the Fairview Range and has two piedmont faults that form a graben in southern Muleshoe Valley. 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 faults mapped by Schell (1981 #2857) including two faults within the East Muleshoe Valley lineament zone of Schell (1981 #2844). Fault extends along front of southernmost Fairview Range northward to west of Fairview Peak). Includes two short faults on piedmont slope in southernmost Muleshoe Valley. **Fault ID:** Refers in part to lineament zone 150 on Plate A6 in

	Schell (1981 #2844).
County(s) and 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 map of Schell (1981 #2844); mapped by 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 by field verification (Schell, 1981 #2843).
Geologic setting	This group of short normal faults bounds low hills at southwestern end of the Fairview Range and has two piedmont faults that form a graben in southern Muleshoe Valley.
Length (km)	7 km.
Average strike	N14°W
Sense of movement	Normal *Comments:* Not studied in detail; sense of movement inferred from topography.
Dip Direction	W
Paleoseismology studies	
Geomorphic expression	The fault is marked by lineaments and scarps of low relief bounding graben on Quaternary deposits and on bedrock (Schell, 1981 #2844; 1981 #2857).
Age of faulted surficial deposits	Quaternary and Tertiary (Schell, 1981 #2844; 1981 #2857).
Historic	

earthquake	
Most recent prehistoric deformation	late Quaternary (<130 ka) *Comments:* Although timing of the most recent event is not well constrained, Schell (1981 #2844; 1981 #2857) suggested a late Pleistocene time based on photogeologic analysis and field reconnaissance.
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	#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.