

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 south of Fourmile Butte (Class A) No. 1541

Last Review Date: 1999-01-20

citation for this record: Adams, K., and Sawyer, T.L., compilers, 1999, Fault number 1541, unnamed faults south of Fourmile Butte, 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 02:36 PM.

Synopsis	This distributed group of variously striking intra-plateau faults are near Fourmile Creek south of Fourmile Butte. Although these faults only displace Tertiary volcanic and sedimentary rocks, young movement is suspected based on their expression as minor topographic lineaments that appear to locally influence the drainage. Reconnaissance photogeologic and bedrock mapping of the faults are the sources of data. Trench investigations and detailed studies of scarp morphology have not been completed.
Name comments	Refers to faults mapped by Slemmons (1966, unpublished McDermitt 1? X 2? sheet) and Coats (1987 #2861) near Fourmile Creek south of Fourmile Butte.
County(s) and	ELKO COUNTY, NEVADA

State(s)	ELKO COUNTY, NEVADA
Physiographic province(s)	BASIN AND RANGE
Reliability of location	<p>Good Compiled at 1:100,000 scale.</p> <p><i>Comments:</i> Fault locations are primarily based on 1:250,000-scale maps of Slemmons (1966, unpublished McDermitt 1? X 2? sheet) based on analysis of 1:60,000-scale AMS photography transferred to mylar overlaid onto a 1:250,000-scale topographic map using proportional dividers. Fault locations checked against 1:250,000-scale geologic map of Coats (1987 #2861).</p>
Geologic setting	<p>This highly distributed group of predominately east-west-striking intra-plateau faults crosses the southern Owyhee form headwaters of Wolf Creek northeast of McCleary Well No. 1, eastward across Chimney Creek and Winters Creek, to Fourmile Creek south of Fourmile Butte (Slemmons, unpublished McDermitt 1? X 2? sheet).</p>
Length (km)	4 km.
Average strike	N38°E
Sense of movement	<p>Normal</p> <p><i>Comments:</i> (Slemmons, 1966, unpublished McDermitt 1? X 2? sheet)</p>
Dip Direction	N; W; E
Paleoseismology studies	
Geomorphic expression	<p>Although these faults only displace Tertiary volcanic and sedimentary rocks, young movement is suspected based on their expression as minor topographic lineaments that appear to locally influence the drainage.</p>
Age of faulted surficial deposits	<p>Tertiary. The faults apparently displace only Tertiary volcanic and sedimentary rocks (Coats, 1987 #2861).</p>
Historic earthquake	

Most recent prehistoric deformation	undifferentiated Quaternary (<1.6 Ma) <i>Comments:</i> Although timing of most recent event is not well constrained, a Quaternary time is suspected based on reconnaissance photogeologic mapping by Slemmons (1966, unpublished McDermitt 1° X 2° sheet). Dohrenwend and Moring (1991 #284) do not show a fault in this location.
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 and the modest height of topographic lineaments on Tertiary bedrock.
Date and Compiler(s)	1999 Kenneth Adams, Piedmont Geosciences, Inc. Thomas L. Sawyer, Piedmont Geosciences, Inc.
References	#2861 Coats, R.R., 1987, Geology of Elko County, Nevada: Nevada Bureau of Mines and Geology Bulletin 101, 112 p., scale 1:250,000. #284 Dohrenwend, J.C., and Moring, B.C., 1991, Reconnaissance photogeologic map of young faults in the McDermitt 1° by 2° quadrangle, Nevada, Oregon, and Idaho: U.S. Geological Survey Miscellaneous Field Studies Map MF-2177, 1 sheet, scale 1:250,000.

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