

# 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 in Long Valley (Class A) No. 1517

Last Review Date: 1999-01-28

*citation for this record:* Adams, K., and Sawyer, T.L., compilers, 1999, Fault number 1517, unnamed faults in Long 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 02:50 PM.

### Synopsis

This distributed group predominately has northerly striking inter-plateau faults, that extend from the north flank of Coal Pit Peak across Long Valley to headwaters of East Fork of the Quinn River at south flank of Odell Mountain, and a few range-front faults along the east side of the Santa Rose Range and west side of Black Ridge. Faults are expressed as scarps and prominent topographic lineaments marked by linear segments of small stream valleys and aligned ridge-crest saddles. Several faults in the western part of this group bound steep east facing topographic escarpments along the east front of the Santa Rosa Range between Cabin Creek and Box Canyon. Reconnaissance photogeologic mapping of the faults is the source of data. Trench investigations and detailed studies of scarp morphology have not been completed.

<b>Name comments</b>	Refers to a group of faults mapped by Slemmons (1966, unpublished McDermitt 1? X 2? sheet) and Dohrenwend and Moring (1991 #284) in and along eastern Santa Rosa Range and in Long Valley, that extends from Coal Pit Peak northward along east side of the range and west side of Black Ridge to headwaters of East Fork of the Quinn River at south flank of Odell Mountain. Nearby faults that are probably Tertiary as indicated by Dohrenwend and Moring (1991 #284) are not included herein.
<b>County(s) and State(s)</b>	HUMBOLDT COUNTY, NEVADA
<b>Physiographic province(s)</b>	BASIN AND RANGE
<b>Reliability of location</b>	Good Compiled at 1:100,000 scale.  <i>Comments:</i> Fault locations are based on 1:250,000-scale maps of Dohrenwend and Moring (1991 #284) and Slemmons (1966, unpublished McDermitt 1? X 2? sheet). The map of Dohrenwend and Moring (1991 #284) was produced by 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. Slemmons (1966, unpublished McDermitt 1? X 2? sheet) mapped from analysis of 1:60,000-scale AMS photography transferred to mylar overlaid onto a 1:250,000-scale topographic map using proportional dividers.
<b>Geologic setting</b>	This distributed group predominately has northerly striking inter-plateau faults, that extend from the north flank of Coal Pit Peak across Long Valley to headwaters of East Fork of the Quinn River at south flank of Odell Mountain, and a few range-front faults along the east side of the Santa Rose Range and west side of Black Ridge (Willden, 1964 #3002).
<b>Length (km)</b>	24 km.
<b>Average strike</b>	N10°E
<b>Sense of movement</b>	Normal  <i>Comments:</i> (Dohrenwend and Moring, 1991 #284)
<b>Dip Direction</b>	E; SE

<b>Paleoseismology studies</b>	
<b>Geomorphic expression</b>	Faults are expressed as scarps or prominent topographic lineaments marked by small linear stream valleys and aligned ridge-crest saddles (Dohrenwend and Moring, 1991 #284). Several faults in the western part of this group bound steep east-facing topographic escarpments along the eastern range front of the Santa Rosa Range between Cabin Creek and Box Canyon.
<b>Age of faulted surficial deposits</b>	Tertiary. The faults apparently only involve Tertiary bedrock (Willden, 1964 #3002).
<b>Historic earthquake</b>	
<b>Most recent prehistoric deformation</b>	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 of Slemmons (1966, unpublished McDermitt 1° X 2° sheet) and Dohrenwend and Moring (1991 #284).
<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>	1999 Kenneth Adams, Piedmont Geosciences, Inc. Thomas L. Sawyer, Piedmont Geosciences, Inc.
<b>References</b>	#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.  #3002 Willden, R., 1964, Geology and mineral deposits of Humboldt County, Nevada: Nevada Bureau of Mines and Geology Bulletin 59, 154 p., scale 1:250,000.

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