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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 faults at Dutch Flat (Class A) No. 1511

Last Review Date: 1999-02-03

citation for this record: **Adams, K., compiler, 1999, Fault number 1511, unnamed faults at Dutch Flat, 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 of short west- and north-striking faults on the floor of southern Paradise Valley at Dutch Flat, northwest of Golconda Butte, has two distinct clusters of scarps, that are herein grouped together because of their proximity and similar surface expression. The southern cluster is expressed as west -rending scarps apparently on Quaternary alluvium and Holocene eolian deposits. Scarps in this cluster face both north and south. Faults in the eastern cluster are expressed as short north-trending west-facing scarps on Quaternary alluvium. Scarps are on latest and late Quaternary alluvium. Reconnaissance photogeologic mapping of the fault is the source of data. Trench investigations and detailed studies of scarp morphology have not been completed.

Name comments	Refers to a group of faults mapped by Slemmons (1966, unpublished McDermitt 1? X 2? sheet) in Dutch Flat, southern Paradise Valley.
County(s) and State(s)	HUMBOLDT COUNTY, NEVADA
Physiographic province(s)	BASIN AND RANGE
Reliability of location	Good Compiled at 1:100,000 scale. *Comments:* Fault locations based on 1:250,000-scale map of Slemmons (1966, unpublished McDermitt 1? X 2? sheet); mapping from analysis of 1:60,000-scale AMS photography transferred to mylar overlaid onto a 1:250,000-scale topographic map using proportional dividers.
Geologic setting	This distributed group of short east-west- and north-striking faults on the floor of southern Paradise Valley at Dutch Flat, northwest of Golconda Butte, has two distinct clusters of scarps, that are herein grouped together because of their proximity and similar surface expression.
Length (km)	8 km.
Average strike	N22°W
Sense of movement	Normal *Comments:* Not studied in detail; normal sense of movement from Slemmons (1966, unpublished McDermitt 1? X 2? sheet).
Dip Direction	W; N; S
Paleoseismology studies	
Geomorphic expression	Faults in the southern cluster are expressed as west-trending scarps apparently on Quaternary alluvium and Holocene eolian deposits (Willden, 1964 #3002; Slemmons, 1966, unpublished McDermitt 1? X 2? sheet). Scarps in this cluster face both north and south. Faults in the eastern cluster are expressed as short north-trending west-facing scarps on Quaternary alluvium (Slemmons, 1966, unpublished McDermitt 1? X 2? sheet).

Age of faulted surficial deposits	Holocene; Pleistocene. Faults in the southern cluster apparently offset Holocene eolian deposits and other faults in this group displace Pleistocene alluvium (Willden, 1964 #3002; Slemmons, 1966, unpublished McDermitt 1? X 2? sheet).
Historic earthquake	
Most recent prehistoric deformation	latest Quaternary (<15 ka) *Comments:* Although timing of most recent event is not well constrained, a latest Quaternary time is suggested by the photogeologic mapping of Slemmons (1966, unpublished McDermitt 1? X 2? sheet).
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)	1999 Kenneth Adams, Piedmont Geosciences, Inc.
References	#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.