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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 on north end of Snake Range (Class A) No. 1247

**Last Review Date: 2000-11-16**

***citation for this record:*** **Redsteer, M.H., and Machette, M.N., compilers, 2000, Fault number 1247, unnamed faults on north end of Snake Range, 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 02:15 PM.**

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| **Synopsis** | These unnamed faults on the northern end of Snake Range are collectively described herein; little is known about their individual movement history other than they may be of Quaternary age. In general, the faults have north trends and dip either east or west away from bedrock-cored hills or the Snake Range. The fault escarpments were mapped as juxtaposing bedrock against Quaternary alluvium. Reconnaissance photogeologic mapping and detailed bedrock mapping are the sources of data. Trench investigations and detailed studies of scarp morphology have not been completed. |
| **Name comments** | This group of unnamed faults are located on the northern end of the Snake Range. They are comprised of bedrock escarpments on the east and west sides of the Little Hills, to the south of White |

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| | Cloud basin, and between Devils Gate Canyon and Marble Wash as mapped by Dohrenwend and others (1992 #2480). |
| **County(s) and State(s)** | WHITE PINE COUNTY, NEVADA |
| **Physiographic province(s)** | BASIN AND RANGE |
| **Reliability of location** | Good<br>Compiled at 1:100,000 scale.<br><br>*Comments:* Location based on 1:250,000-scale map of Dohrenwend and others (1992 #2480). Mapping based on photogeologic analysis of 1:24,000-scale color aerial photography supplemented with 1:60,000-scale black-and-white aerial photography, transferred to 1:62,500-scale topographic maps and photographically reduced and transferred to 1:250,000-scale topographic maps, with 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. |
| **Geologic setting** | These unnamed faults were mapped by Dohrenwend and others (1992 #2480) as juxtaposing bedrock against Quaternary alluvium in the northeastern end of the Snake Range. Some of the faults are located along a series of Tertiary intrusions on the Mormon Jack Pass quadrangle mapped by Lee and others (1999 #4344). Bedrock in the northern Snake Range includes a Paleozoic sequence of miogeoclinal strata that was deposited on the western margin of North America. These units are metamorphosed and intruded by Jurassic granite. Other units include Tertiary lava flows, intrusions and tuffs, Tertiary conglomerate, Pleistocene lacustrine sediments, and alluvial-fan deposits which have been subdivided into older and younger Quaternary units (Gans and others, 1999 #4343). The most prominent structural feature is the northern Snake Range decollement that juxtaposes faulted Paleozoic and tertiary strata of the hanging wall against ductily attenuated metasedimentary and igneous rocks of the footwall (Gans and others, 1999 #4343). These unnamed faults are located to the north of this structural feature. |
| **Length (km)** | 18 km. |
| **Average strike** | N10°E |
| **Sense of** | |

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| **Sense of movement** | Normal |
| **Dip Direction** | E; W |
| **Paleoseismology studies** | |
| **Geomorphic expression** | The faults were mapped by Dohrenwend and others (1992 #2480) where resistant Paleozoic bedrock is juxtaposed against Quaternary sediment, producing an abrupt change in topography. Fault locations coincide with transition between the eastern and western margins of the Little Hills, and the flat-floored valleys between the Red Hills, Kern Mountains, and the Snake Range. |
| **Age of faulted surficial deposits** | Most of the faults are marked by prominent escarpments that juxtapose bedrock against Quaternary alluvium or topographic lineaments on Tertiary rock with unproven Quaternary displacement. |
| **Historic earthquake** | |
| **Most recent prehistoric deformation** | undifferentiated Quaternary (<1.6 Ma)<br><br>*Comments:* Dohrenwend and others (1992 #2480) considered the last fault movement to be of Quaternary age. |
| **Recurrence interval** | |
| **Slip-rate category** | Less than 0.2 mm/yr<br><br>*Comments:* Low slip-rate category is assigned on the basis of poor geomorphic preservation, lack of mapped fault scarps, and relative inactivity of similar distributed faults in the Basin and Range province. |
| **Date and Compiler(s)** | 2000<br>Margaret Hisa Redsteer, U.S. Geological Survey<br>Michael N. Machette, U.S. Geological Survey, Retired |
| **References** | #2480 Dohrenwend, J.C., Schell, B.A., and Moring, B.C., 1992, Reconnaissance photogeologic map of young faults in the Ely 1° by 2° quadrangle, Nevada and Utah: U.S. Geological Survey Miscellaneous Field Studies Map MF-2181, 1 sheet, scale 1:250,000.<br><br>#4343 Gans, P.B., Miller, E.L., and Lee, J., 1999, Geologic map |

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| | of the Spring Mountain quadrangle, Nevada and Utah: Nevada Bureau of Mines and Geology Field Studies Map 18, 1 sheet, scale 1:24,000.<br><br>#4344 Lee, J., Gans, P.B., and Miller, E.L., 1999, Geologic map of the Mormon Jack Pass quadrangle, Nevada: Nevada Bureau of Mines and Geology Field Studies Map 17, 1 sheet, scale 1:24,000. |