2403, DEEP CREEK RANGE (NORTHWEST SIDE) FAULT ZONE

Structure number: 2403.
Comments: Hecker's (1993) fault number 7-8.
Structure name: Deep Creek Range (northwest side) fault zone.
Comments:
Synopsis: Poorly understood zone of late Quaternary faulting on the northwest side of the Deep Creek Mountains.
Date of compilation: 10/99.
Compiler and affiliation: Bill D. Black (Utah Geological Survey) and Suzanne Hecker (U.S. Geological Survey).
State: Utah.
County: Tooele.
1° x 2° sheet: Tooele.
Province: Basin and Range.
Reliability of location: Good.
Comments: Mapping from Barnhard and Dodge (1988).
Geologic setting: Generally north-trending normal fault zone on the northwest side of the Deep Creek Range. The Deep Creek Range is the highest range in the western part of Utah. Unconsolidated deposits in the valley to the west are mainly alluvium and lake deposits.
Sense of movement: N.
Comments:
Dip: No data.
Comments:
Dip direction: W.
Geomorphic expression: Scarps in alluvium. All scarps show evidence for multiple ages of movement, with measured cumulative displacements between 1.7 and 3.4 meters. An alignment of vegetation and springs marks the fault zone south of the scarps.
Age of faulted deposits: Late Pleistocene.
Paleoseismology studies: None.
Timing of most recent paleoevent: (3) Late Quaternary (<130 ka).
Comments: Scarps at the north end of the fault zone are short, highly dissected remnants, and appear to be older than scarps to the south.
Recurrence interval: No data.
Comments:
Slip rate: Unknown, probably <0.2 mm/yr.
Comments:
Length: End to end (km): 11
Cumulative trace (km): 10
Average strike (azimuth): N9°E

REFERENCES

Barnhard, T.P., and Dodge, R.L., 1988, Map of fault scarps formed on unconsolidated sediments, Tooele 1° x 2° quadrangle, northwestern Utah: U.S. Geological Survey Miscellaneous Field Studies Map MF-1990, scale 1:250,000.

Hecker, Suzanne, 1993, Quaternary tectonics of Utah with emphasis on earthquake-hazard characterization: Utah Geological Survey Bulletin 127, 2 plates, scale 1:500,000, 257 p.