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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.

Pleasant Valley fault zone, Dry Valley graben (Class A) No. 2427

Last Review Date: 1999-10-01

Compiled in cooperation with the Utah Geological Survey

citation for this record: **Black, B.D., and Hecker, S., compilers, 1999, Fault number 2427, Pleasant Valley fault zone, Dry Valley graben, 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 02:55 PM.**

Synopsis	Poorly understood zone of middle to late Pleistocene faults that form the Dry Valley (graben) in the north-central part of the Pleasant Valley fault zone.
Name comments	**Fault ID:** Refers to fault number 13-10 of Hecker (1993 #642).
County(s) and State(s)	UTAH COUNTY, UTAH
Physiographic	

Physiographic province(s)	COLORADO PLATEAUS
Reliability of location	Good Compiled at 1:60,000 scale. *Comments:* Fault traces from mapping of Foley and others (1986 #1165).
Geologic setting	North-trending graben generally on Cretaceous bedrock in the north-central part of the Pleasant Valley fault zone, near the eastern edge of the Wasatch Plateau.
Length (km)	12 km.
Average strike	N10°W
Sense of movement	Normal
Dip Direction	E; W
Paleoseismology studies	
Geomorphic expression	North-trending basin bounded by two linear faults (i.e., graben) that converge at the north and south ends. The eastern fault is at an abrupt dip change and subtle lithology change in the North Horn and Price River Formations, several hundred feet west of the bedrock escarpment bounding Dry Valley. Foley and others (1986 #1165) suggest this relationship is probably due to considerable erosion of the scarp since the principal period of displacement.
Age of faulted surficial deposits	Tertiary (Foley and others, 1986 #1165).
Historic earthquake	
Most recent prehistoric deformation	middle and late Quaternary (<750 ka) *Comments:*
Recurrence interval	*Comments:* For the purpose of seismic-hazard assessment, late

	Quaternary recurrence intervals are inferred to be comparable to intervals for the Joes Valley fault zone west fault [2453].
Slip-rate category	Less than 0.2 mm/yr
Date and Compiler(s)	1999 Bill D. Black, Utah Geological Survey Suzanne Hecker, U.S. Geological Survey
References	#1165 Foley, L.L., Martin, R.A., Jr., and Sullivan, J.T., 1986, Seismotectonic study for Joes Valley, Scofield and Huntington North Dams, Emery County and Scofield Projects, Utah: U.S. Bureau of Reclamation Seismotectonic Report 86-7, 132 p., 3 pls. #642 Hecker, S., 1993, Quaternary tectonics of Utah with emphasis on earthquake-hazard characterization: Utah Geological Survey Bulletin 127, 157 p., 6 pls., scale 1:500,000.