

# 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](#).

## Blue Springs Hills faults (Class A) No. 2363

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 2363, Blue Springs Hills faults, 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 02:57 PM.

<b>Synopsis</b>	Poorly understood Quaternary faults in the Blue Springs Hills in northern Utah.
<b>Name comments</b>	<b>Fault ID:</b> Refers to fault number 6-12 of Hecker (1993 #642).
<b>County(s) and State(s)</b>	BOX ELDER COUNTY, UTAH
<b>Physiographic province(s)</b>	BASIN AND RANGE
<b>Reliability of</b>	Poor

<b>location</b>	<p>Compiled at 1:62,500 scale.</p> <p><i>Comments:</i> Identified only in Everitt (1982 #4488) and unpublished Utah Geological Survey mapping in 1989 by Hecker (scales 1:24,000, 1:62,500, and 1:100,000). Mapping from these two sources.</p>
<b>Geologic setting</b>	<p>Two short northwest-trending range-front normal faults along the east side of the Blue Springs Hills. The Blue Springs Hills are in an aggregation of low, north-trending ranges and narrow valleys in northern Utah between Curlew Valley on the west and the Malad River Valley on the east. The ranges have few outcrops of bare rock, which is typical of weathering and erosion of the Permian Oquirrh Formation, and the valleys have great accumulations of gravel and sand along Lake Bonneville shorelines.</p>
<b>Length (km)</b>	2 km.
<b>Average strike</b>	N29°W
<b>Sense of movement</b>	Normal
<b>Dip Direction</b>	NE
<b>Paleoseismology studies</b>	
<b>Geomorphic expression</b>	<p>Surface expression of the faults is subdued on aerial photos. A short, unmapped fault in Holocene(?) alluvium is also identified by Miller and others (1991 #4500) on the west side of the Blue Springs Hills at the south end of Blue Creek Valley.</p>
<b>Age of faulted surficial deposits</b>	Quaternary.
<b>Historic earthquake</b>	
<b>Most recent prehistoric deformation</b>	<p>undifferentiated Quaternary (&lt;1.6 Ma)</p> <p><i>Comments:</i> The faults intersect the highest shoreline of Lake Bonneville, but age relations are uncertain.</p>
<b>Recurrence</b>	

<b>interval</b>	
<b>Slip-rate category</b>	Less than 0.2 mm/yr <i>Comments:</i> Poor geomorphic expression indicates a low slip rate.
<b>Date and Compiler(s)</b>	1999 Bill D. Black, Utah Geological Survey Suzanne Hecker, U.S. Geological Survey
<b>References</b>	#4488 Everitt, B.L., 1982, Potential for ground-water development in the Thatcher-Penrose area: Utah Division of Water Resources memorandum, 10 p.  #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.  #4500 Miller, D.M., Crittenden, M.D., and Jordan, T.E., 1991, Geologic map of the Lampo Junction quadrangle, Box Elder County, Utah: Utah Geological Survey Map 136, 16 p. pamphlet, scale 1:24,000.

[Questions or comments?](#)

[Facebook](#) [Twitter](#) [Google](#) [Email](#)

[Hazards](#)

[Design Ground Motions](#)[Seismic Hazard Maps & Site-Specific Data](#)[Faults](#)[Scenarios](#)

[Earthquakes](#)[Hazards](#)[Data](#)[Education](#)[Monitoring](#)[Research](#)



[Home](#)[About Us](#)[Contacts](#)[Legal](#)