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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.**

## Saleratus Creek fault (Class A) No. 2365

**Last Review Date: 1999-10-01**

## Compiled in cooperation with the Utah Geological Survey

***citation for this record:*** **Black, B.D., Hylland, M.D., and Hecker, S., compilers, 1999, Fault number 2365, Saleratus Creek fault, 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.**

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| **Synopsis** | Poorly understood late Quaternary(?) fault paralleling Saleratus Creek at the south end of the Crawford Mountains fault [2346]. Late Pleistocene faulting at the south end of the Crawford Mountains fault may have extended onto the Saleratus Creek fault. |
| **Name comments** | **Fault ID:** Refers to fault number 11-6 of Hecker (1993 #642). |
| **County(s) and State(s)** | MORGAN COUNTY, UTAH<br>RICH COUNTY, UTAH |
| **Physiographic** | |

| | |
|---|---|
| **Physiographic province(s)** | MIDDLE ROCKY MOUNTAINS |
| **Reliability of location** | Good<br>Compiled at 1:250,000 scale.<br><br>*Comments:* Mapping from Hecker (1987 #4460) and J.C. Coogan and J.K. King (unpublished UGS 1:100,000-scale mapping for the Ogden 30' x 60' quadrangle). |
| **Geologic setting** | Northeast-trending west-dipping normal fault paralleling Saleratus Creek at the south end of the Crawford Mountains. Structurally, the Crawford Mountains are a north-trending tightly folded syncline with normal faults along the east and west flanks. The west fault extends southward into the valley floor and Bear River flood plain. |
| **Length (km)** | 38 km. |
| **Average strike** | N23°E |
| **Sense of movement** | Normal |
| **Dip Direction** | NW |
| **Paleoseismology studies** | |
| **Geomorphic expression** | The Saleratus Creek fault is expressed as scarps on bedrock, lineaments, linear bedrock-alluvium contacts, and possible alluvial-scarp remnants. Ponded water adjacent to the fault suggests recent tectonic subsidence. Young scarps at the north end of Saleratus Creek could be tectonic in origin, but appear to be stream cut. The fault has a more subdued geomorphic expression than the fault along the Crawford Mountains [2346], though this could be from an absence of structurally controlled range-front slopes and less resistant bedrock. |
| **Age of faulted surficial deposits** | Late Quaternary? |
| **Historic earthquake** | |
| **Most recent prehistoric** | middle and late Quaternary (<750 ka) |

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|---|---|
| **deformation** | *Comments:* Based on association with faulting on the Crawford Mountains fault [2346]. |
| **Recurrence interval** | |
| **Slip-rate category** | Less than 0.2 mm/yr<br><br>*Comments:* Poor preservation of alluvial scarps indicates a low slip rate. |
| **Date and Compiler(s)** | 1999<br>Bill D. Black, Utah Geological Survey<br>Michael D. Hylland, Utah Geological Survey<br>Suzanne Hecker, U.S. Geological Survey |
| **References** | #4460 Hecker, S., 1987, June 29-30 reconnaissance of Crawford Mountains and "Saleratus Creek" faults by Suzanne Hecker and Gary E. Christenson: Utah Geological and Mineral Survey memorandum, 5 p., scale 1:24,000.<br><br>#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. |