

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 fold northwest of Rincon (Class A) No. 2089

Last Review Date: 2016-01-12

Compiled in cooperation with the New Mexico Bureau of Geology & Mineral Resources

citation for this record: Machette, M.N., and Jochems, A.P., compilers, 2016, Fault number 2089, unnamed fold northwest of Rincon, 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 02:22 PM.

Synopsis	Little is known about the age of this fold. It is manifested at the surface as a southeast-trending syncline that deforms basin-fill deposits of the Pliocene to early or middle (?) Quaternary Camp Rice Formation, and thus is probably of Quaternary age.
Name comments	This unnamed fold is shown by Seager and Hawley (1973 #996) and by Seager and others (1982 #626) as extending parallel to but south of the southern margin of the Rincon and Black Hills, northwest of Rincon, New Mexico.
Country(s) and	

County(s) and State(s)	DOÑA ANA COUNTY, NEW MEXICO
Physiographic province(s)	BASIN AND RANGE
Reliability of location	Good Compiled at 1:24,000 scale. <i>Comments:</i> Location taken from 1:24,000-scale mapping of Seager and Hawley (1973 #996) combined with accurate placement using photogrammetric methods.
Geologic setting	This east-west-trending syncline may reflect folding in response to uplift of the Rincon and Black Hills to the north. The fold deforms basin-fill deposits of the Pliocene to early or middle (?) Quaternary Camp Rice Formation. To the north, it projects to the Black Hills fault [2085], a down-to-the-west normal fault.
Length (km)	5 km.
Average strike	N48°W
Sense of movement	Syncline
Dip Direction	NE; SW
Paleoseismology studies	
Geomorphic expression	The structure is expressed at the surface as a gentle fold that is elongated in the northwest-southeast direction. Constructional surfaces related to deposition of the Camp Rice Formation are deformed.
Age of faulted surficial deposits	Seager and Hawley (1973 #996) showed the fold developed in basin-fill deposits of the Camp Rice Formation, which is Pliocene to early or middle (?) Pleistocene. The structure deforms the surface of these deposits, and thus must postdate its stabilization. However, younger piedmont-slope and stream deposits are not deformed according to their mapping.
Historic earthquake	
Most recent prehistoric deformation	undifferentiated Quaternary (<1.6 Ma) <i>Comments:</i> Timing based on deformation of Camp Rice

	Formation sediment. Late Quaternary piedmont-slope deposits do not appear to be deformed.
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr <i>Comments:</i> A low deformation rate is inferred from the gentle dip of limbs and lack of deformation in late Quaternary deposits.
Date and Compiler(s)	2016 Michael N. Machette, U.S. Geological Survey, Retired Andrew P. Jochems, New Mexico Bureau of Geology & Mineral Resources
References	#996 Seager, W.R., and Hawley, J.W., 1973, Geology of Rincon quadrangle, Doña Ana County, New Mexico: New Mexico Bureau of Mines and Mineral Resources Bulletin 101, 42 p., 2 pls., scale 1:24,000. #626 Seager, W.R., Clemons, R.E., Hawley, J.W., and Kelley, R.E., 1982, Geology of northwest part of Las Cruces 1° x 2° sheet, New Mexico: New Mexico Bureau of Mines and Mineral Resources Geologic Map 53, 3 sheets, scale 1:125,000.

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