

The Cerrillos Uplift, the La Bajada Constriction, and Hydrogeologic Framework of the Santo Domingo Basin, Rio Grande Rift, New Mexico



Professional Paper 1720

U.S. Department of the Interior
U.S. Geological Survey

Cover. High-oblique scene looking northeast up the Rio Grande valley showing the La Bajada constriction area, which is the focus of this report, and the region beyond. The broad multicolored area in the foreground is the geologic map of the Cochiti Pueblo area (see pl. 2) that is draped over a 30-m-hillshade of the region rendered with a color-ramped transparent hypsometric tint. The scene, which was generated with ESRI ArcGlobe software version 9.1 by T.R. Brandt, is illuminated from the northwest; vertical exaggeration is 3. The La Bajada fault escarpment and White Rock Canyon are clearly visible in the right and central parts of image, respectively. Lowlands of the Española Basin are apparent just northeast of the geologic map area, and the bordering high peaks of the Jemez and Sangre de Cristo Mountains are rendered in light shades of gray in the upper left and upper right parts of the image, respectively.

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Volume comprises Chapters A, B, C, D, E, F, and G

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U.S. Geological Survey**

U.S. Department of the Interior
DIRK KEMPTHORNE, Secretary

U.S. Geological Survey
Mark D. Myers, Director

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Conversion Factors and Abbreviations

Multiply	By	To obtain
foot (ft)	0.3048	meter (m)
inch (in.)	25.4	millimeter (mm)
mile (mi)	1.609	kilometer (km)

AAR	amino-acid racemization
AMT	audio-magnetotelluric
DEM	digital elevation model
elev.	elevation
EM	electromagnetic
FFT	fast Fourier transform
ft	foot, feet
GR API	gamma-ray API units
g/cc	grams per cubic centimeter
Hz	hertz
in.	inch, inches
ka	kiloannum; thousands of years ago
kg/m ³	kilograms per cubic meter
km	kilometer(s)
k.y.	thousand years
m	meter(s)
ms	millisecond
m.y.	million years
Ma	megaannum; millions of years ago
mgal	milligal
ms	milliseconds
MT	magnetotelluric
mV	millivolts
nT	nanoTesla
ohm-m	ohm-metre(s) per meter
RDI	resistivity depth-image
RTP	reduced-to-pole
SI	système international; international system of units of measure
SWL	static water level
TDEM	time-domain electromagnetic
TE	transverse electric
TM	transverse magnetic
USGS	United States Geological Survey



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