

## APPENDIX 1

Delineating the structural and basin-fill boundaries of basins along the Rio Grande rift varies among geologists (e.g., Chapin, 1971; Kelley, 1977; Woodward et al., 1978; Cather et al., 1994; Grauch and Connell, 2013). For this article, we modified the southern boundary of the Albuquerque Basin of Grauch and Connell (2013) using bedrock contacts and the isostatic residual gravity contours of Gillespie et al. (2000; Fig. 1). Figure 1 shows two saddles, one between the southwestern Albuquerque Basin and the La Jencia basin, between the Ladron Mountains and the 15-18 mgal high on the west side of Cerritos de las Minas. The second saddle is between Cerritos de las Minas and the Joyita Hills. From the bedrock of the Ladron Mountains rift-flank uplift, we drew the boundary between the Albuquerque Basin and the La Jencia basin more or less along the Rio Salado to the Cerritos saddle, although a case could be made to connect the boundary to the east side of the Ladron Mountains along the 12-15 mgal prong west of the Loma Pelada fault. North and east of the Joyita Hills, we used the Grauch and Connell (2013) contact between basin fill and bedrock of the rift-flank uplift. On the western side of the northern end of the narrow Socorro basin we connected the bedrock of the Cerritos de las Minas to the northern corner of the Socorro Canyon fault. The uplifted north-trending prong of the Lemitar Mountains (Fig. 2) we included as part of the west-tilted blocks of the La Jencia Basin. The 15-18 mgal high in the area between Cerritos de las Minas and the northern extension of the Lemitar Mountains is also the location of maximum uplift above the Socorro magma body (Fialko and Simons, 2001; Finnegan and Pritchard, 2009). The east side of the Socorro basin continues south from the West Joyita fault along the western edge of Paleozoic, Mesozoic, and Paleogene volcanic bedrock.