Engel, J., et al., 2020, Using speleothems to constrain late Cenozoic uplift rates in karst terranes: *Geology*, v. 48, <https://doi.org/10.1130/G47466.1>.

Supplementary Table S1. U-Th and U-Pb radiometric ages ($k_a \pm 2\sigma$ absolute) for Buchan speleothem samples, including eight Royal cave ages derived from a previous study (unpublished PhD thesis). Sample nomenclature takes the form Cave Name–Location–Rubble Number (e.g. LP-2-3). Location numbers typically ascended from cave rear towards the entrance. U-Th ages were produced from single basal sub-samples (<100mg) obtained by a hand-held dental drill. *U-Pb* ^{**} isochron ages were generated from 5+ aliquots from a single clean (translucent) calcite growth band: the ~10 kyr growth history of a single sample was well within the U-Pb age precision of ~10%. In both radiometric techniques, isotopic values were determined via solution-mode multi-collector ICP-MS (Hellstrom, 2003; Woodhead et al., 2006).

Supplementary Table S2. All U-Pb concentrations and relevant isotopic ratios for constructing U-Pb Tera-Wasserburg isochrons. Data provided in 1σ absolute terms for isochron construction: all ages in this study are given in 2σ absolute terms (Supplementary Table S1). The low-dispersion isochrons resulting from the low U concentrations [0.03- 2.0 ppm U] of Buchan speleothems were bolstered by multiple (5+) calcite sub-sample analyses as generally described in Woodhead et al. (2006).

Supplementary Table S3. All U-Th ages and estimated initial [$^{234}\text{U}/^{238}\text{U}$]_i values for speleothem rubble samples resolvable with the analysis routine outlined in Hellstrom (2003).