Figure F1. Coring systems and logging tool strings used during Expedition 371.

Figure F2. Core reference frame for structural and paleomagnetic orientation measurement, Expedition 371. A. Primary orientation of each core piece is up and down along the core axis. B. Coordinates in both archive- and working-half sections. C. Conventions for labeling samples and thin sections taken from working-half sections.

Figure F3. Depth scale types used during Expedition 371. DRF = drilling depth below rig floor, DSF = drilling depth below seafloor, CSF = core depth below seafloor (Method A or B), CCSF = core composite depth below seafloor, WRF = wireline log depth below rig floor, WSF = wireline log depth below seafloor, WSSF = wireline log speed-corrected depth below seafloor, WMSF = wireline log matched depth below seafloor.

Figure F4. Example VCD sheet that compiles initial lithologic data taken from core description and smear slide analyses and preliminary physical properties data, Expedition 371. See Figure F5 for legend. PF = planktic foraminifers. cps = counts per second.

Figure F5. Symbols used on visual core description sheets, graphic logs, and hole summaries, Expedition 371.

Figure F6. Simplified lithologic symbols used on site lithostratigraphic summaries, Expedition 371.

Figure F7. Sedimentary and volcaniclastic lithology naming conventions based on relative abundances of grain and clast types and used during Expedition 371. Principal lithology names are compulsory for all intervals. Prefixes are optional except for tuffaceous lithologies and can be combined with any combination of prefix/principal name. First-order division is based on abundance of volcanic-derived grains and clasts: >25% volcanic grains is either "volcanic" (>75% volcanic grains; from Fisher and Schmincke [1984; orange] grain size classification) or "tuffaceous" (25%–75% volcanic grains). Tuffaceous lithologies: if dominant nonvolcanic grain component is siliciclastic, Wentworth (1922; green) grain size classification was used; if not, it is named by dominant type of carbonate, chemical, or biogenic grain (blue). Lithologies with 0%–25% volcanic grains are classified as "nonvolcanic" and treated similarly to tuffaceous lithologies: when nonvolcanic siliciclastic sediment dominates, Wentworth (1922; green) grain size classification was used; when combined carbonate, other chemical, and biogenic sediment dominate, principal lithology is taken from dominant component type (blue). Closely intercalated intervals can be grouped as domains to avoid repetitive entry at small-scale level.

Figure F8. Udden-Wentworth grain size classification of terrigenous sediment (Wentworth, 1922).

Figure F9. Principal names, prefixes, and suffixes used in naming volcanic lithologies (based on Tamura et al., 2015).

Figure F10. Global and New Zealand chronostratigraphy and datums used during Expedition 371 with calcareous nannofossils, planktic foraminifers, radiolarians, and dinocyst palynomorph zones for 0–85 My interval. B = base, T = top, Bc = base common, Tc = top common, X = coiling change in planktic foraminifers. FCO = first common occurrence, LCO = last common occurrence. (This figure is also available in an **oversized format**.)

Figure F11. Depth distribution range of target ostracod taxa (Ayress and Correge, 1992; Ayress, 1993, 1995, 2006; Ayress et al., 1997, 2017; Yassini and Jones, 1995; Mazzini, 2005; Hunt, 2007).

Figure F12. Coordinate systems used for (A) pass-through SRM measurement on archive-half sections and (B) JR-6A spinner magnetometer measurement on discrete samples taken from working-half sections.