Figure F1. Schematic of the APC system used during Expedition 355. ID = inner diameter.

Figure F2. Schematic of the XCB system used during Expedition 355.

Figure F3. Schematic of the RCB system used during Expedition 355. OD = outer diameter.

Figure F4. IODP conventions for naming sites, holes, cores, and samples.

Figure F5. Example of a graphic VCD form showing major data sets collected during Expedition 355.

Figure F6. Symbols and nomenclature used for VCDs, Expedition 355.

Figure F7. Udden-Wentworth grain-size classification of terrigenous sediment (Wentworth, 1922).

Figure F8. A. Ternary plots of sediment classification and lithology naming scheme (modified from Shepard, 1954). B. Classification scheme for sediment that is a mixture of pelagic biogenic and terrigenous clastic components.

Figure F9. A–C. Geomagnetic polarity timescale (Gradstein et al., 2012), biostratigraphic zonation, and microfossil events used during Expedition 355. Planktonic foraminifer zonation from Berggren et al. (1995) and Wade et al. (2011); calcareous nannofossil zonation from Martini (1971; NN) and Okada and Bukry (1980; CN); diatom zonation for A and B from Barron (1985a, 1985b), Baldauf and Iwai (1995), and Barron (1992; NTD); diatom zonation for C from Fenner (1984, 1985); and radiolarian zonation from Sanfilippo and Nigrini (1996). B = base, T = top, Bc = base common, Tc = top common, Ba = base acme, Ta = top acme, Br = base regular, Tr = top regular, X = crossover in abundance. This figure is available in an **oversized format**.

Figure F10. Depth scales used during Expedition 355. Blue, dark gray, and purple intervals = recovered core. Dashed and dotted lines = equivalent horizons. The CSF-A scale is established by adding the curated core length to the core top DSF depth of each core. Red intervals = core expansion creates apparent overlaps and stratigraphic reversals when data are plotted on the CSF-A scale. Red dashed arrows = CCSF scale constructed by correlating distinct horizons identified in multiple holes from a drill site. The splice is constructed by combining selected intervals (purple) such that coring gaps and disturbed section are excluded, resulting in a complete stratigraphic section (less any natural, sedimentological hiatuses). Blue dashed lines = stratigraphic horizons that do not align because of lateral facies variations or drilling-induced disturbance.

Figure F11. Example of an igneous basement VCD standard graphic report, Expedition 355.

Figure F12. Example of thin section form used during Expedition 355.

Figure F13. Coordinate systems used for archive and working-half sections and SQUID during Expedition 355. Note that hardware conventions are different for the 2G demagnetizer.

Figure F14. A. Japanese sampling cube (7 cm^3). B. Measurement positions in the JR-6A spinner magnetometer. C. The three positions for SRM measurements designated by the direction of the "up" arrow face (gray) with respect to a user facing the magnetometer in the sample loading area and the direction of the up arrow with respect to the magnetometer +z-axis.

Figure F15. Demagnetization data exhibiting unwanted acquisition of ARM in the 2G AF demagnetizer from representative samples (A–C: 355-U1456A-60F-1, 19 cm; D–F: 355-U1456A-58F-2, 20 cm). A, D. Magnetization (M) remaining after each AF treatment step is plotted after normalization with the initial value (M_0). B, E. Directions of magnetization. Solid circles = downward directions, open circles = upward directions. C, F. Magnetization vectors. At each step, the vectors are represented as three orthogonal components (x, y, and z), whereby the specimen is rotated to the NRM direction (x'). Squares = x, y pairs, circles = x, z pairs. The coordinate system is plotted with $-z$ and $-y$ along the positive y-axis per convention. Data plotted in gray are unreprocessed, and the colored symbols are data after reprocessing. Note that the data after reprocessing decay smoothly to the origin, whereas those prior to reprocessing bend away from the origin.

Figure F16. Onboard WRMSL, which measures GRA bulk density, magnetic susceptibility, and P-wave velocity. A water standard is measured at the end of each core for QA/QC purposes.

Figure F17. NGRL on board for whole-round cores, which conducts eight measurements at a time in two positions, resulting in 16 measurements per core.

Figure F18. Main elements of the NGRL (Vasiliev et al., 2011).

Figure F19. SHMG showing the x-axis caliper and y- and z-axis bayonets to measure P-wave velocity on split core sections of soft sediment or discrete samples of indurated sediment or igneous rock. AVS is used to measure shear strength. A. Deformation in the sediment after rotation of the vane. B. Measurement of P-wave velocity on an igneous rock discrete sample using the x-axis caliper.

Figure F20. Pocket penetrometer for measuring (unconfined) compressive strength.

Figure F21. Pycnometer used to measure volume of dry samples, either in small vials for soft sediment or as discrete samples.

Figure F22. Wireline tool strings used during Expedition 355. For definitions of tool acronyms, see Table **T8**. LEH-MT = logging equipment head (model MT).