

**Figure F1.** Location map, Sites U1517–U1519. Bathymetry is shown at 1000 m contours.

**Figure F2.** Consolidation cell used for tests. Flow lines, pumps, valves, and transducers not shown to scale.

**Figure F3.** Example stress-strain curve from CRS consolidation test, Site U1517. Using Casagrande graphical method: red line = linear fit of virgin consolidation curve, black line = drawn horizontal at point of maximum curvature, green line = anchored to point of maximum curvature and bisects red and black lines. Point where green and red lines intersect is  $\sigma'_p$ . CSF-B = core depth below seafloor, Method B.

**Figure F4.** Example permeability-porosity relationship from CRS consolidation test, Sites U1517–U1519. In situ permeability ( $k_0$ ) was determined by fitting a line to porosity vs.  $\log(k)$  and extrapolating to in situ porosity ( $\phi_0$ ).

**Figure F5.** Example plot of accessibility functions used to relate NMR  $T_2$  distribution and pore size, Site U1517.

**Figure F6.** Permeability from CRS testing on whole-round core samples, Sites U1517–U1519.

**Figure F7.** Porosity from CRS testing on whole-round core samples, Sites U1517–U1519.

**Figure F8.** MICP pore size distributions, Site U1517.

**Figure F9.** MICP pore size distributions, Site U1518.

**Figure F10.** MICP pore size distributions, Site U1519.

**Figure F11.** NMR  $T_2$  distributions, Site U1517.

**Figure F12.** NMR  $T_2$  distributions, Site U1518.

**Figure F13.** NMR  $T_2$  distributions, Site U1519.

**Figure F14.** Grain size distributions, Sites U1517–U1519.