Figure F1. A. Regional map of study area modified from McNeill et al. (2017a) showing Sunda subduction zone and surrounding eastern Himalayan provinces, Bengal-Nicobar submarine fan system, rupture area of 2004 Mw 9.2 earthquake (black outline), and location of Sites U1480 and U1481 (red dots). BB = Bengal Basin, SP = Shillong Plateau, SB = Surma Basin, IBR = Indo-Burman range, R = river. Blue lines = major river systems, yellow line = location of seismic profiles in B. Relative plate velocities are from Shearer and Bürgmann (2010). Inset = summarized lithostratigraphy, Site U1480. B. Seismic Profiles BGR06-101 and BGR06-102 with location of Site U1480 (see location in A) (McNeill et al., 2017b; data from McNeill et al., 2016). Blue line = unconformable boundary between trench wedge and underlying Nicobar Fan sediments, green line = transition from reflective to less reflective stratigraphy, dashed red line = high-amplitude reflector having negative polarity toward subduction zone, overlying oceanic basement. CDP = common depth point, TWT = two-way traveltime. C. Lithology, stratigraphic ages, and sample *P*-wave velocity and porosity data obtained during Expedition 362 (McNeill et al., 2017b), Site U1480. Seismic panel is based on time-depth tie at the seafloor and at 1431 mbsf (McNeill et al., 2017b).

Figure F2. Porosity estimated from Hole U1481A downhole resistivity logs (McNeill et al., 2017d) using resistivity-porosity relationships and Archie's coefficients derived in this study. Dotted line = Lithologic Subunit IIC/IIIA boundary (1360.12 mbsf). A. Porosity estimated by McNeill et al. (2017d) using Archie's coefficients (m = 2.2; b = 1). B. Calculated porosity using Archie's coefficients (m = 2.26; b = 0.73) based on Model 1. C. Calculated porosity using direct resistivity-porosity relationship shown in Figure F4A. D. Calculated porosity using Archie's coefficients (m = 3.40; b = 0.31) based on Model 2. E. Calculated porosity using Archie's coefficients (above 1360.12 mbsf [Units I–II]: m = 3.80, b = 0.20; below 1360.12 mbsf [Unit III] m = 2.2, b = 1).

Figure F3. A. Results of sample electrical resistivity measured in this study plotted with downhole resistivity logs acquired during Expedition 362, Site U1480. Squares = Unit I, white circles = Subunit IIA, gray circles = Subunit IIB, black circles = Subunit IIC, triangles = Unit III, diamonds = Unit IV. Hole U1480G downhole resistivity log data are from main run. Model 1 (0.225 Ωm) and Model 2 seawater resistivity values were used to calculate formation factor in this study. Dotted lines = lithologic unit boundaries (Units I–IV). B. Calculated formation factor based on Model 1 (assuming constant seawater resistivity with depth). C. Calculated formation factor based on Model 2 (computing seawater resistivity as a function of temperature). D. Shipboard porosity data (McNeill et al., 2017c) at the vicinity of samples measured in this study.

Figure F4. A. Porosity vs. resistivity, Sites U1480 and U1481. Porosity and downhole resistivity log data are from shipboard measurement (McNeill et al., 2017c, 2017d). Black line = approximate power-law curve for samples from all units measured in this study shown with fitting equation and correlation coefficient (R^2), blue line = approximate curve for measured samples from Units I and II. R_{eff} = resistivity of fluid-saturated sediment, ϕ = porosity (ratio) of the sediment. B. Porosity vs. calculated formation factor (F) of measured samples based on Model 1, Site U1480. Approximate power-law curve represents Archie's equation. C. Porosity vs. calculated formation factor of measured samples based on Model 2, Site U1480.