# Appendix IV

Digital Borehole Images, Slabbed Core Photographs, Thin-Section Photomicrographs, and Whole-Core Porosity and Permeability Data

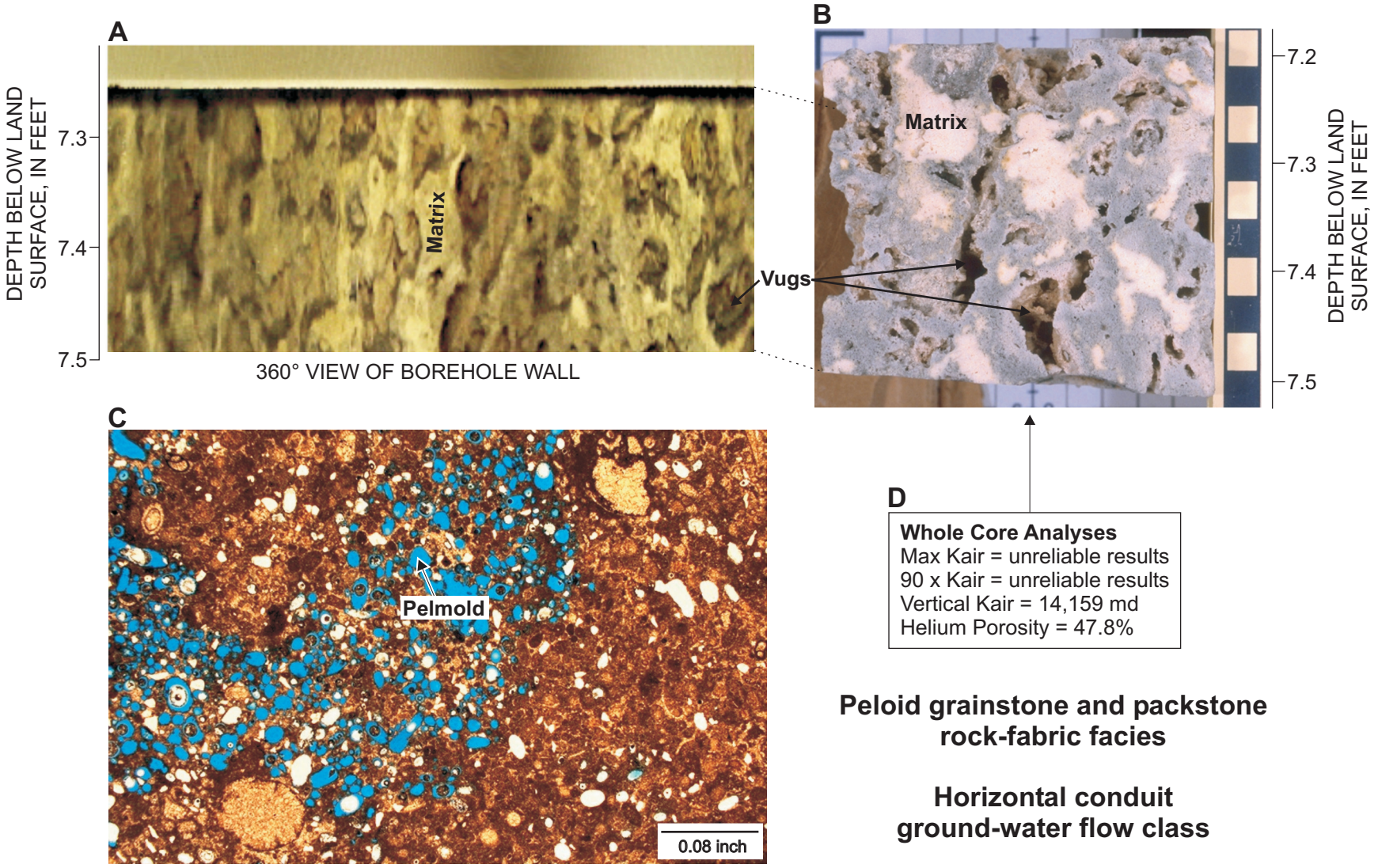


**Figure A1.** (A) Digital borehole image, (B) slabbed core photograph, (C) thin-section photomicrograph, and (D) whole-core porosity and permeability data for the peloid grainstone and packstone rock-fabric facies of HFC5 for the G-3712 test corehole. Slabbed core sample (B) is from a depth of approximately 7.18 to 7.52 feet below land surface. The thin section photomicrograph (C) is from a depth of 7.3 feet below land surface. The depths have been adjusted downward 1.1 feet to match the digital optical log depth.

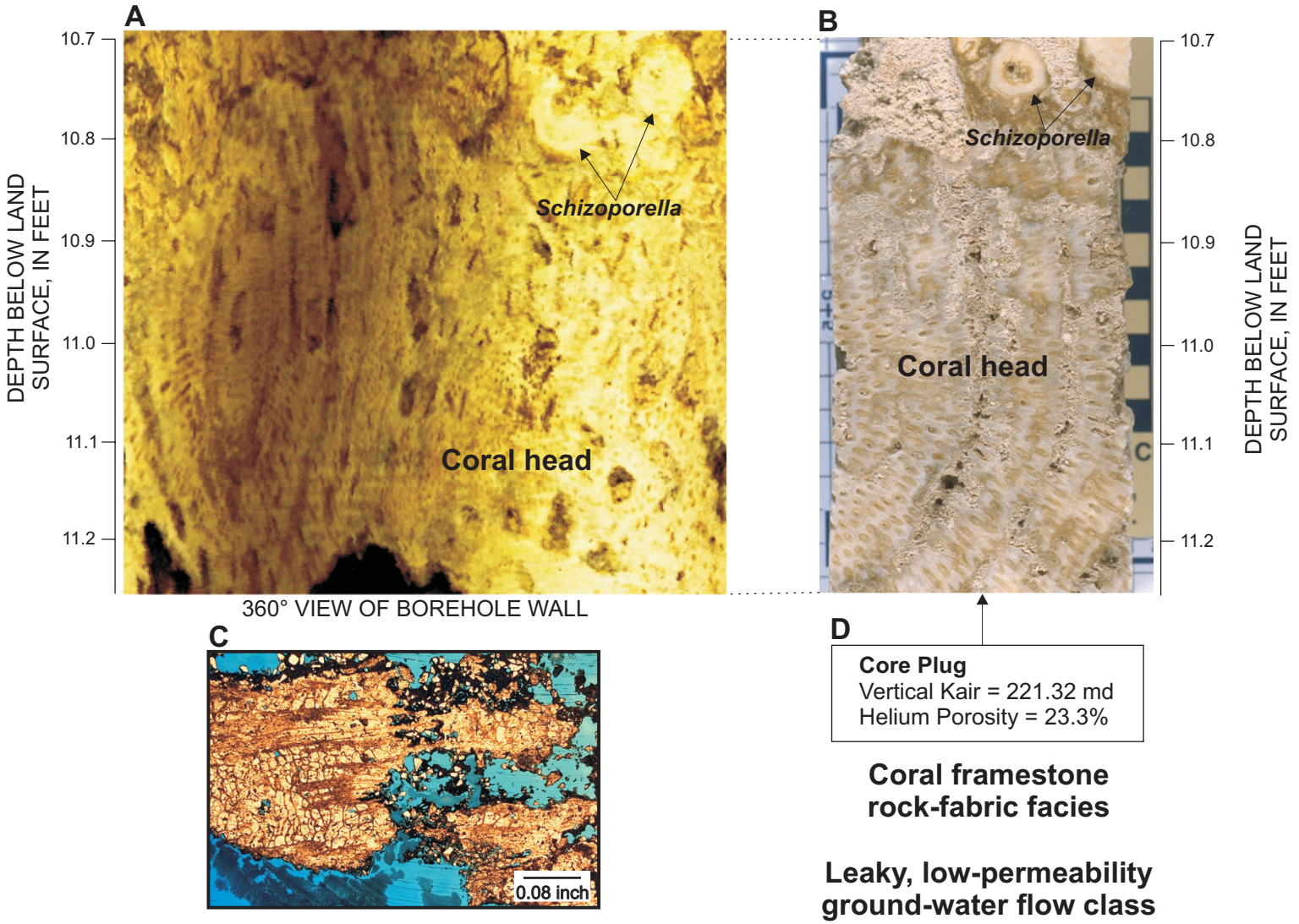


**Figure A2.** (A) Digital borehole image, (B) slabbed core photograph, (C) thin-section photomicrograph, and (D) whole-core porosity and permeability data for the coral framestone rock-fabric facies of HFC4 for the G-3692 test corehole. Slabbed core sample (B) is from a depth of approximately 10.7 to 11.25 feet below land surface The thin section photomicrograph (C) is from a depth of 10.8 feet below land surface.

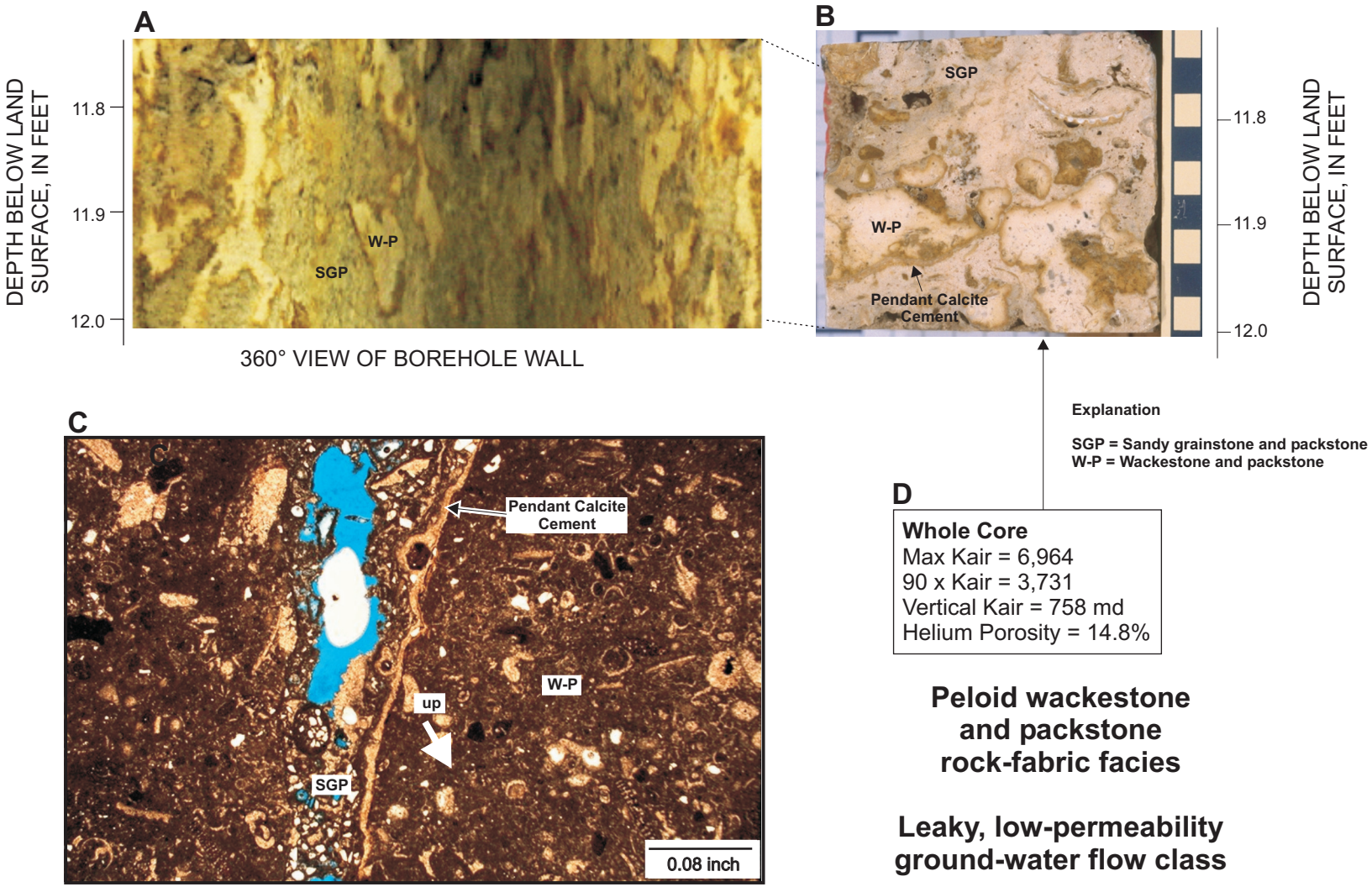


**Figure A3.** (A) Digital borehole image, (B) slabbed core photograph, (C) thin-section photomicrograph, and (D) whole-core porosity and permeability data for the peloid wackestone and packstone rock-fabric facies of HFC4 for the G-3725 test corehole. Slabbed core sample (B) is from a depth of approximately 11.71 to 12.0 feet below land surface The thin section photomicrograph (C) is from a depth of 11.9 feet below land surface. The depths have been adjusted downward 2.0 feet to match the digital optical log depth.

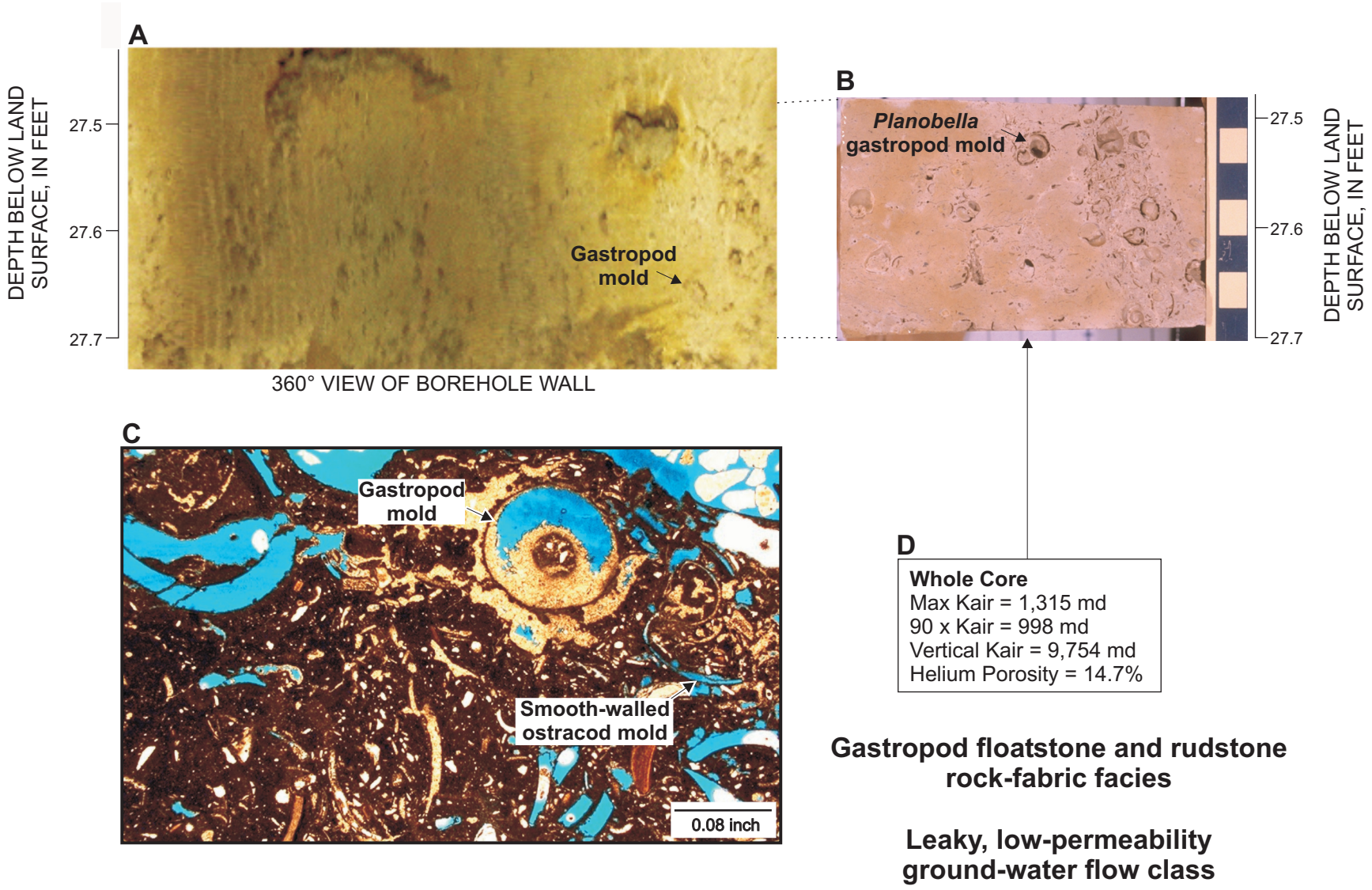


**Figure A4.** (A) Digital borehole image, (B) slabbed core photograph, (C) thin-section photomicrograph, and (D) whole-core porosity and permeability data for the gastropod floatstone and rudstone rock-fabric facies of HFC2 for the G-3710 test corehole. Slabbed core sample (B) is from a depth of approximately 27.48 to 27.70 feet below land surface The thin section photomicrograph (C) is from a depth of 27.63 feet below land surface. The depths have been adjusted downward 3.3 feet to match the digital optical log depth.

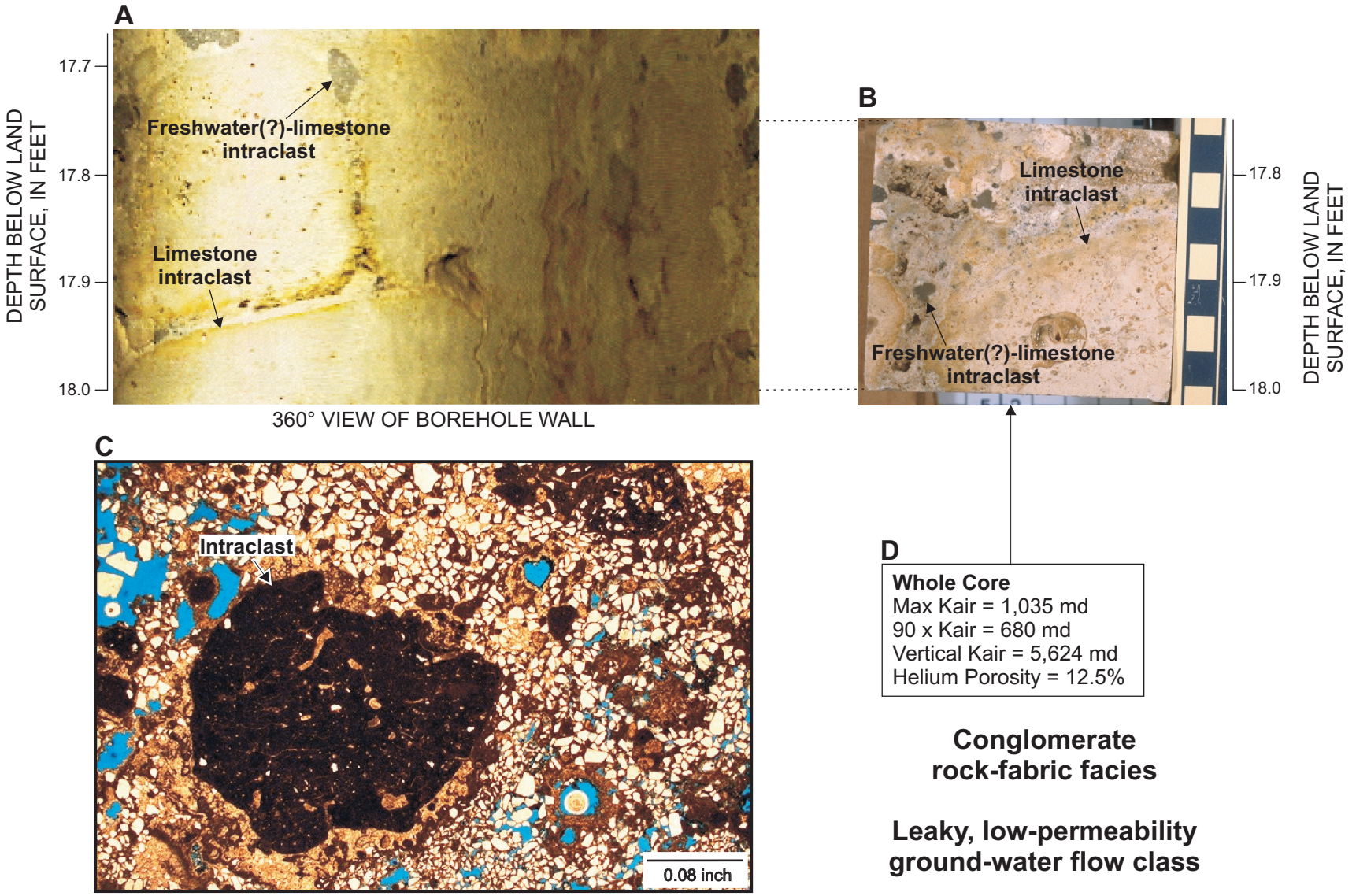


**Figure A5.** (A) Digital borehole image, (B) slabbed core photograph, (C) thin-section photomicrograph, and (D) whole-core porosity and permeability data for the conglomerate rock-fabric facies of HFC4 for the G-3696 test corehole. Slabbed core sample (B) is from a depth of approximately 17.75 to 18.01 feet below land surface The thin section photomicrograph (C) is from a depth of 17.9 feet below land surface. The depths have been adjusted upward 1.1 feet to match the digital optical log depth.

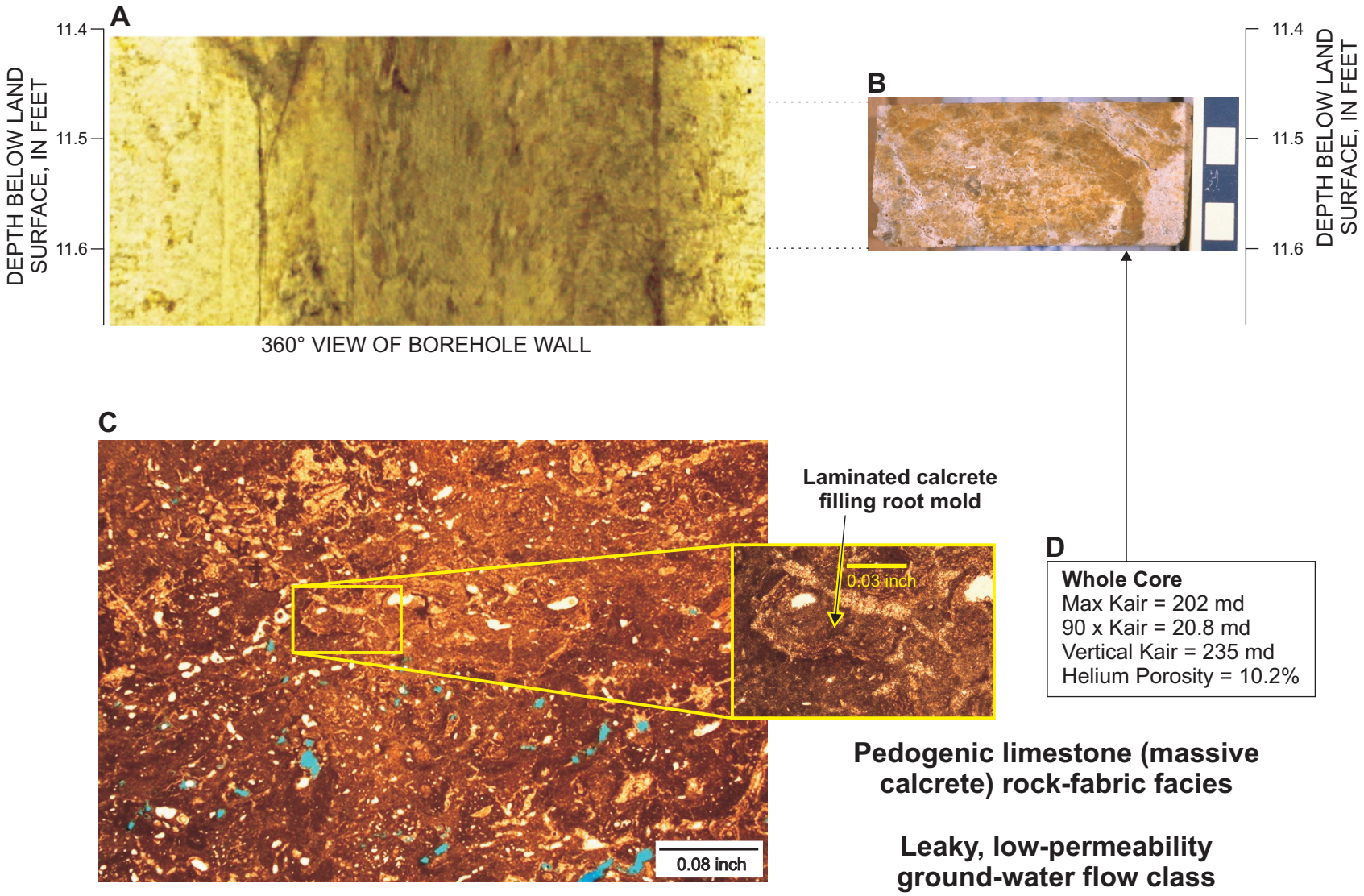


**Figure A6.** (A) Digital borehole image, (B) slabbed core photograph, (C) thin-section photomicrograph, and (D) whole-core porosity and permeability data for the pedogenic limestone (massive calcrete) rock-fabric facies of HFC3b for the G-3690 test corehole. Slabbed core sample (B) is from a depth of approximately 11.46 to 11.60 feet below land surface The thin section photomicrograph (C) is from a depth of 11.5 feet below land surface. The depths have been adjusted upward 0.2 feet to match the digital optical log depth.

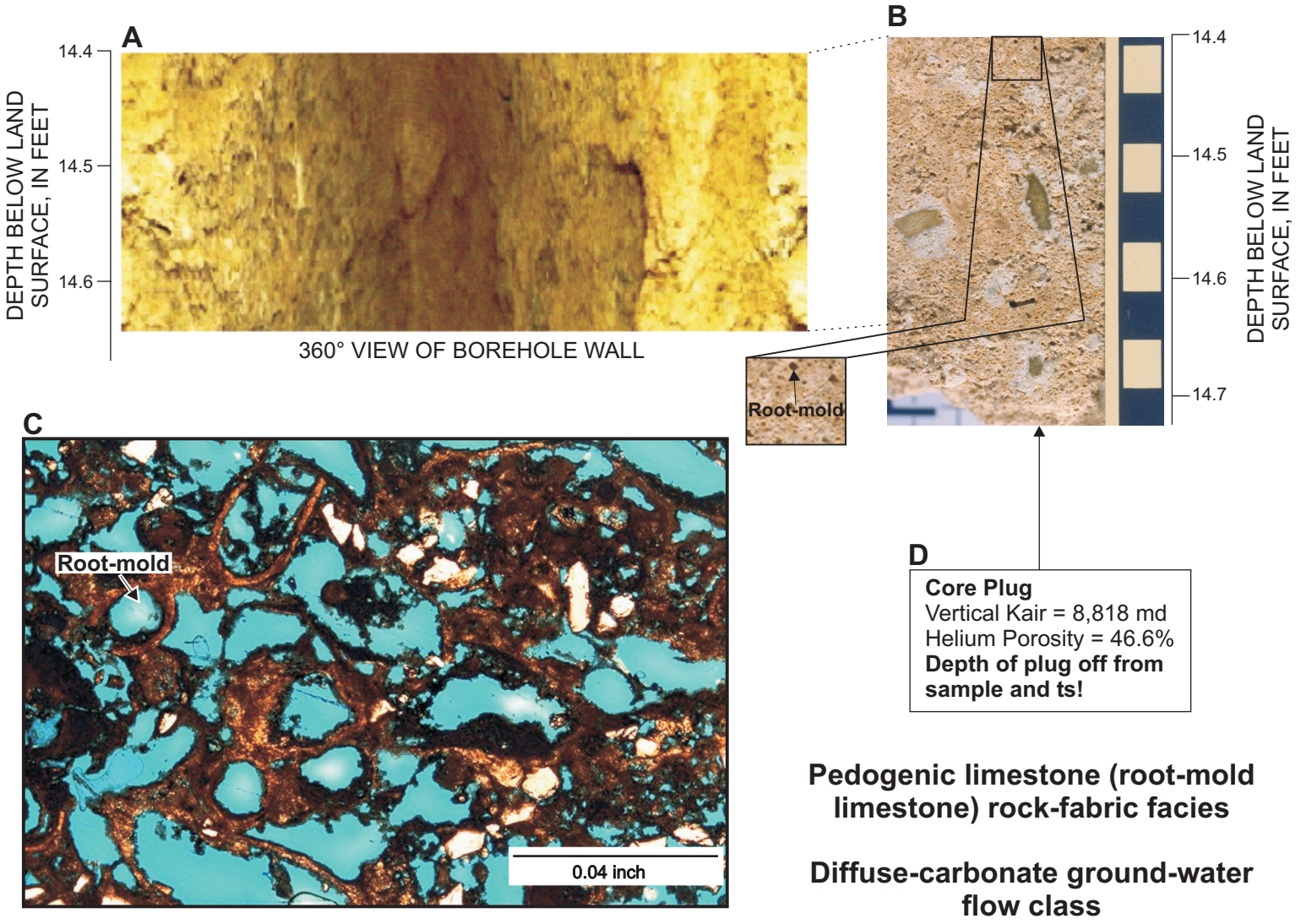


**Figure A7.** (A) Digital borehole image, (B) slabbed core photograph, (C) thin-section photomicrograph, and (D) whole-core porosity and permeability data for the pedogenic limestone (root-mold limestone) rock-fabric facies of HFC3b for the G-3679 test corehole. Slabbed core sample (B) is from a depth of approximately 14.40 to 14.73 feet below land surface The thin section photomicrograph (C) is from a depth of 14.6 feet below land surface.

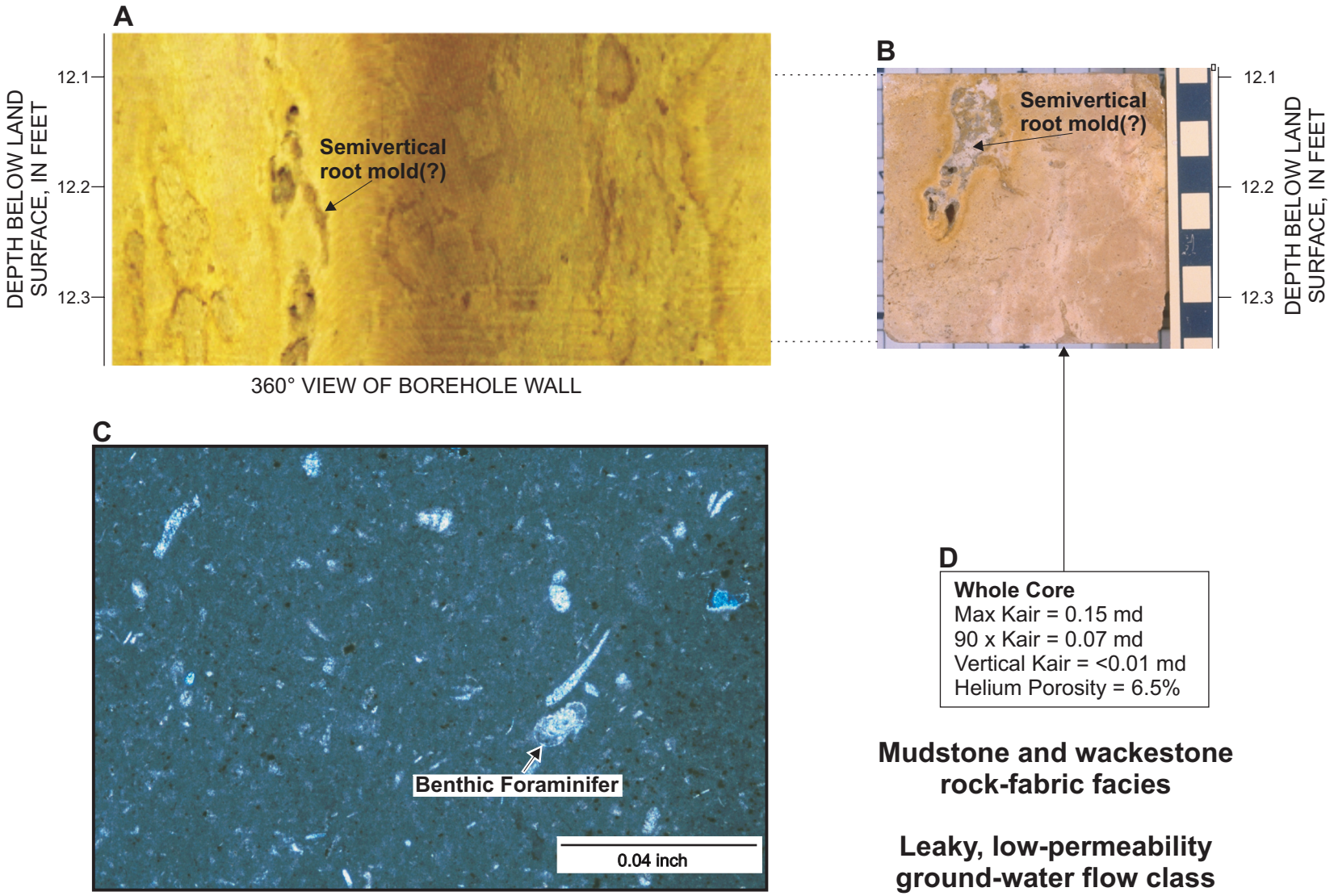


**Figure A8.** (A) Digital borehole image, (B) slabbed core photograph, (C) thin-section photomicrograph, and (D) whole-core porosity and permeability data for the mudstone and wackestone rock-fabric facies of HFC3b for the G-3688 test corehole. Slabbed core sample (B) is from a depth of approximately 12.09 to 12.34 feet below land surface The thin section photomicrograph (C) is from a depth of 12.3 feet below land surface. The depths have been adjusted upward 1.0 foot to match the digital optical log depth.

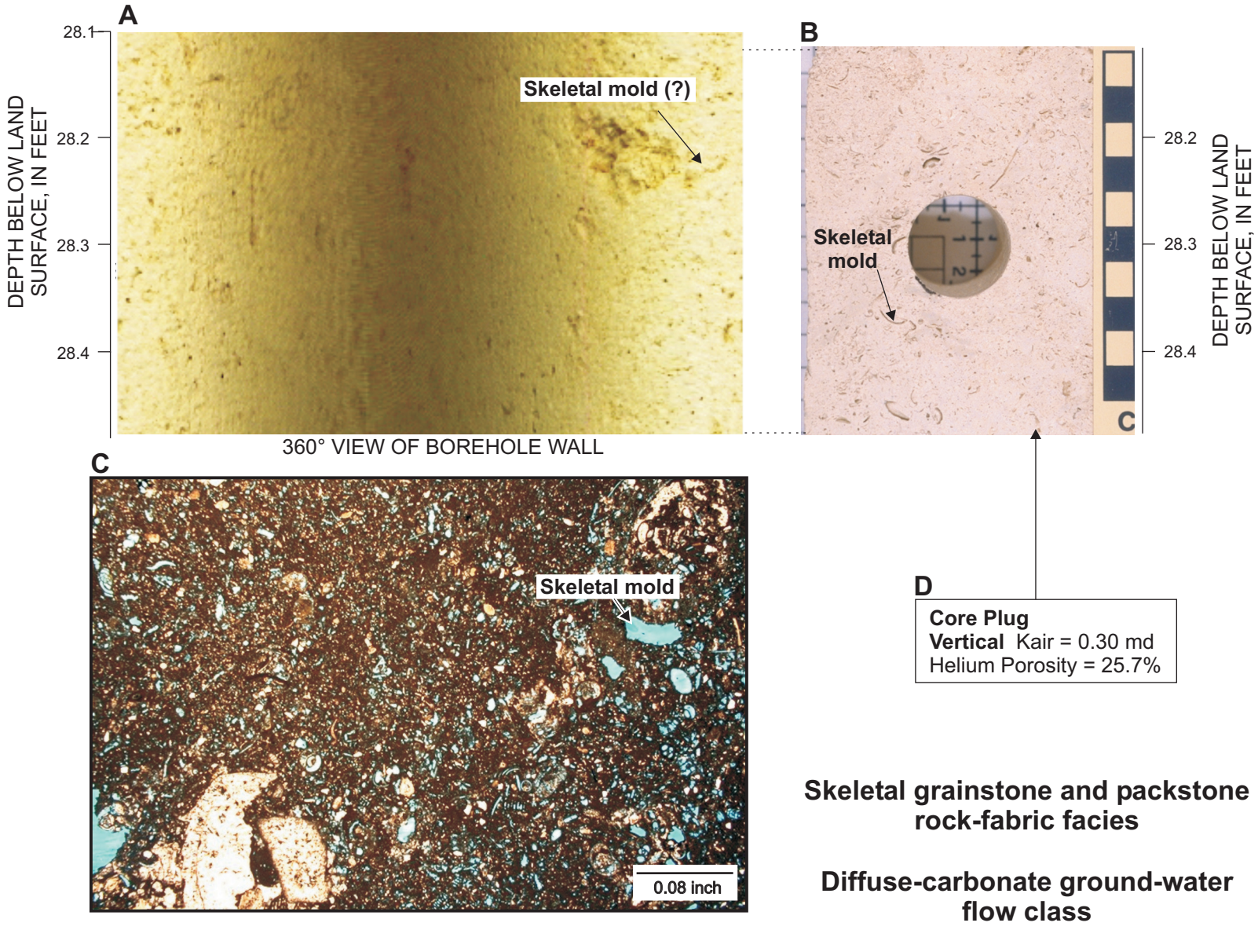


**Figure A9.** (A) Digital borehole image, (B) slabbed core photograph, (C) thin-section photomicrograph, and (D) whole-core porosity and permeability data for the skeletal grainstone and packstone rock-fabric facies of HFC2 for the G-3679 test corehole. Slabbed core sample (B) is from a depth of approximately 28.11 to 28.48 feet below land surface The thin section photomicrograph (C) is from a depth of 28.3 feet below land surface.

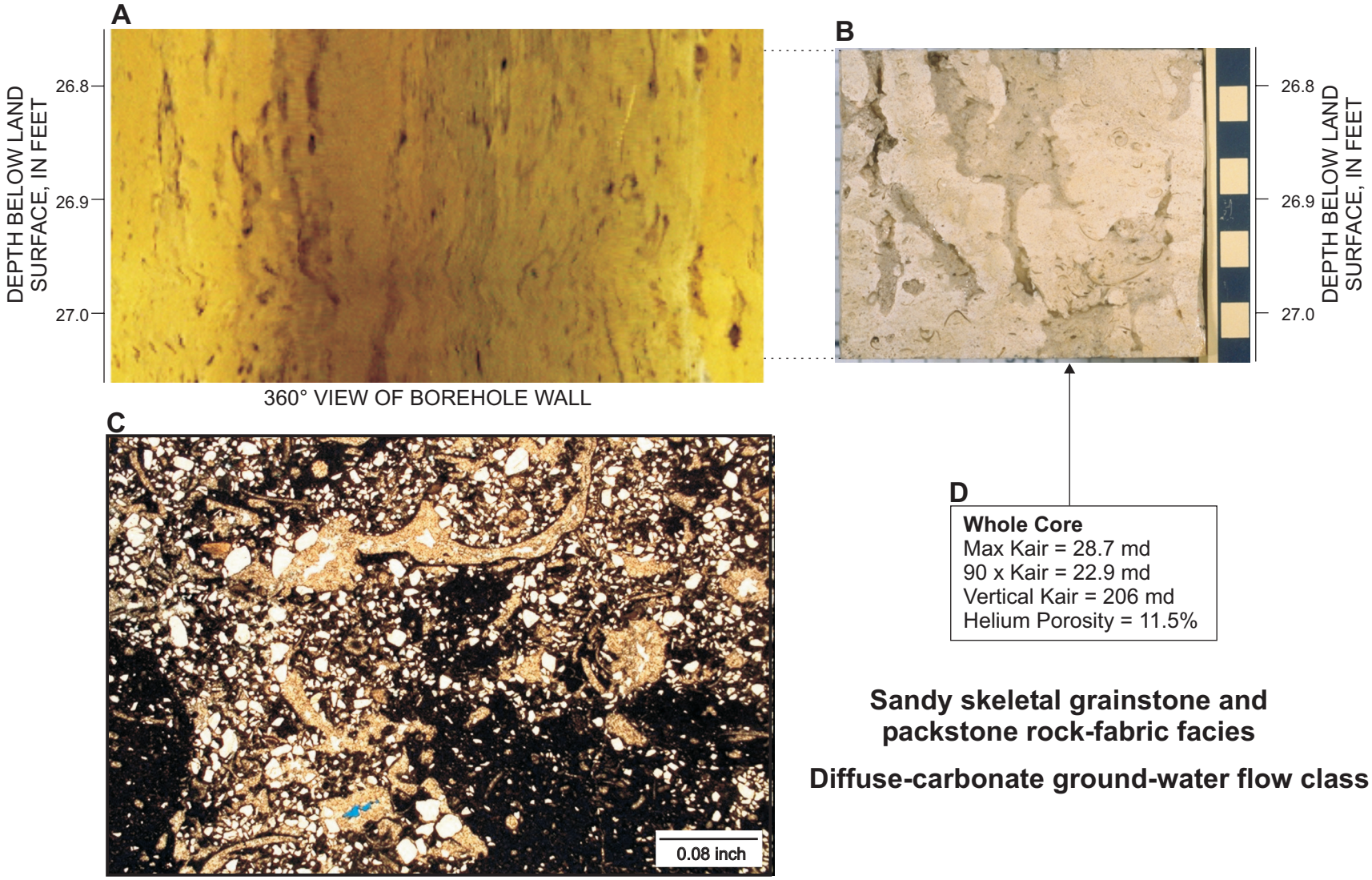


**Figure A10.** (A) Digital borehole image, (B) slabbed core photograph, (C) thin-section photomicrograph, and (D) whole-core porosity and permeability data for the sandy skeletal grainstone and packstone rock-fabric facies of HFC2 for the G-3732 test corehole. Slabbed core sample (B) is from a depth of approximately 26.77 to 27.05 feet below land surface The thin section photomicrograph (C) is from a depth of 27.0 feet below land surface. The depths have been adjusted downward 1.4 feet to match the digital optical log depth.

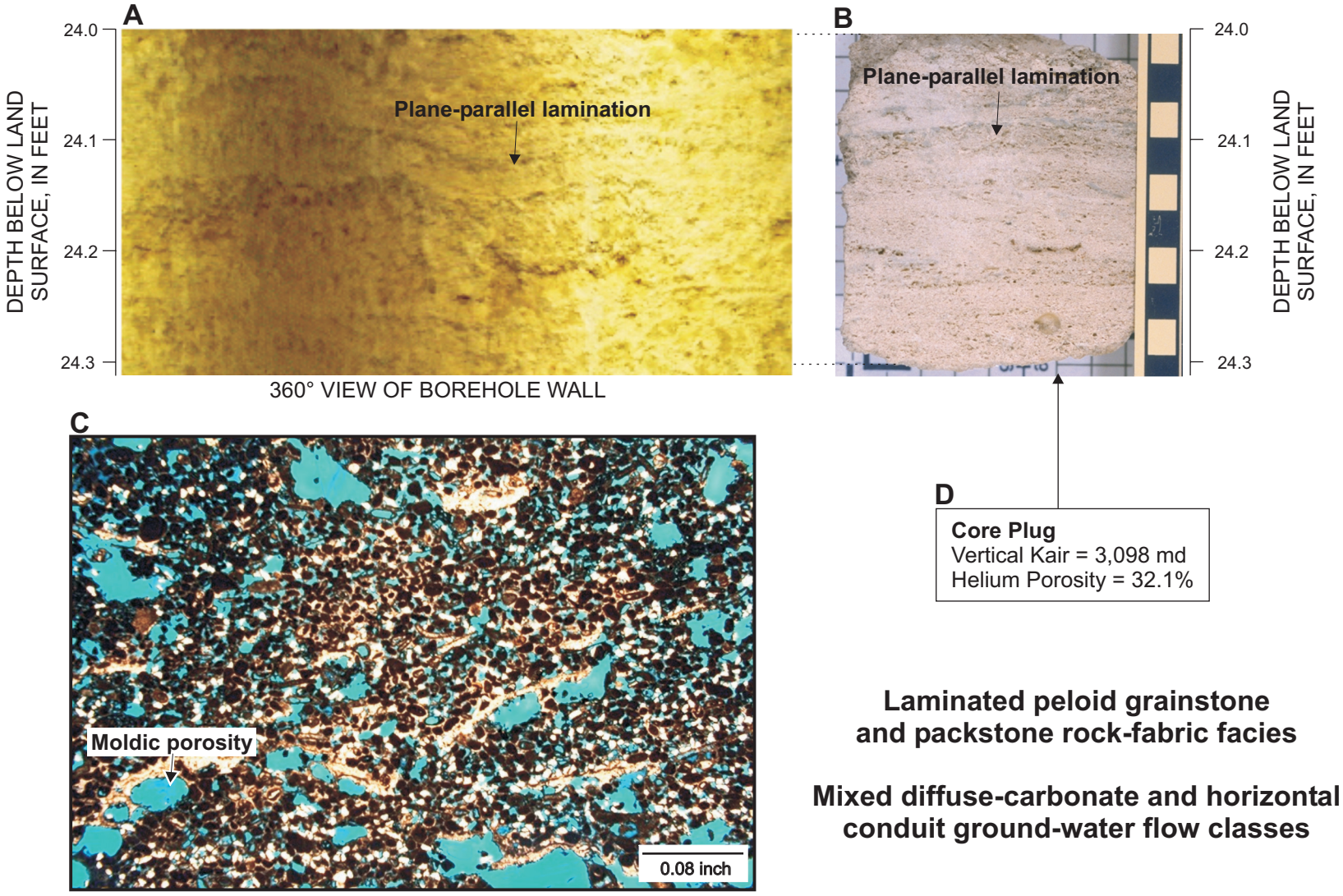


**Figure A11.** (A) Digital borehole image, (B) slabbed core photograph, (C) thin-section photomicrograph, and (D) whole-core porosity and permeability data for the laminated peloid grainstone and packstone rock-fabric facies of HFC3a for the G-3672 test corehole. Slabbed core sample (B) is from a depth of approximately 24.01 to 24.31 feet below land surface The thin section photomicrograph (C) is from a depth of 24.2 feet below land surface. The depths have been adjusted downward 0.2 feet to match the digital optical log depth.

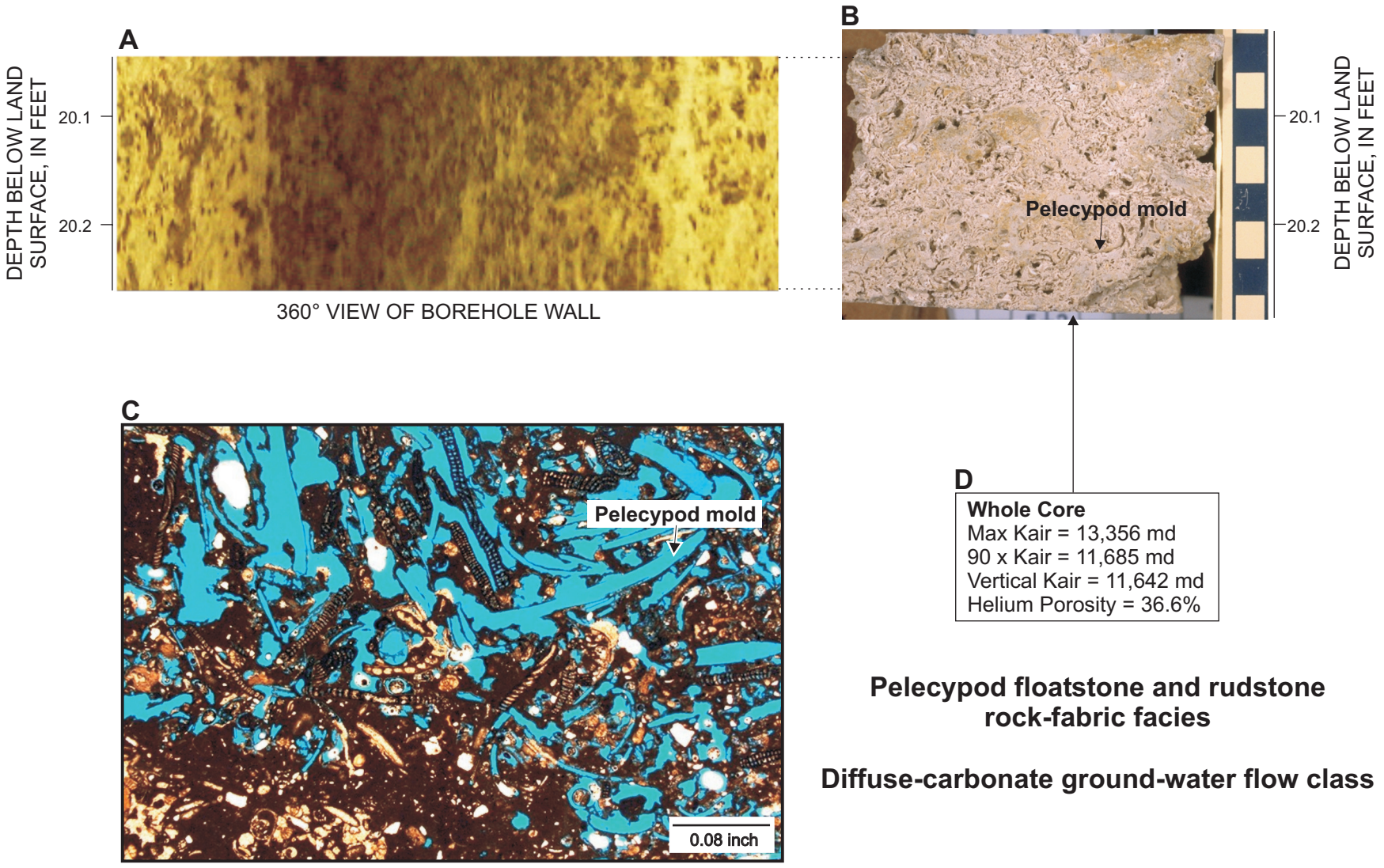


**Figure A12.** (A) Digital borehole image, (B) slabbed core photograph, (C) thin-section photomicrograph, and (D) whole-core porosity and permeability data for the pelecypod floatstone and rudstone rock-fabric facies of HFC3a for the G-3714 test corehole. Slabbed core sample (B) is from a depth of approximately 20.03 to 20.28 feet below land surface The thin section photomicrograph (C) is from a depth of 20.15 feet below land surface. The depths have been adjusted downward 1.32 feet to match the digital optical log depth.

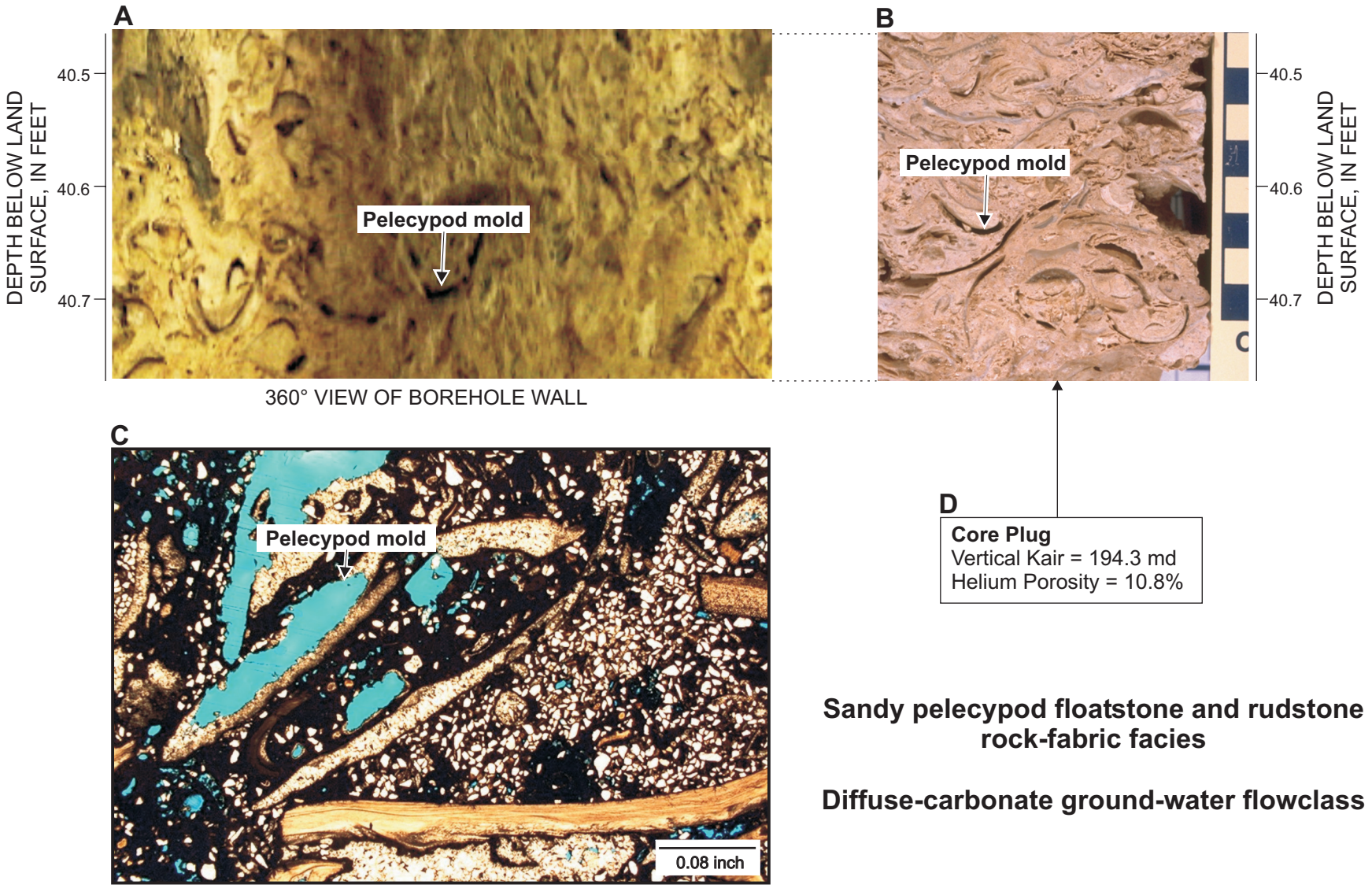


**Figure A13.** (A) Digital borehole image, (B) slabbed core photograph, (C) thin-section photomicrograph, and (D) whole-core porosity and permeability data for the sandy pelecypod floatstone and rudstone rock-fabric facies of HFC1? for the G-3732 test corehole. Slabbed core sample (B) is from a depth of approximately 40.47 to 40.76 feet below land surface The thin section photomicrograph (C) is from a depth of 40.6 feet below land surface. The depths have been adjusted downward 1.1 feet to match the digital optical log depth.

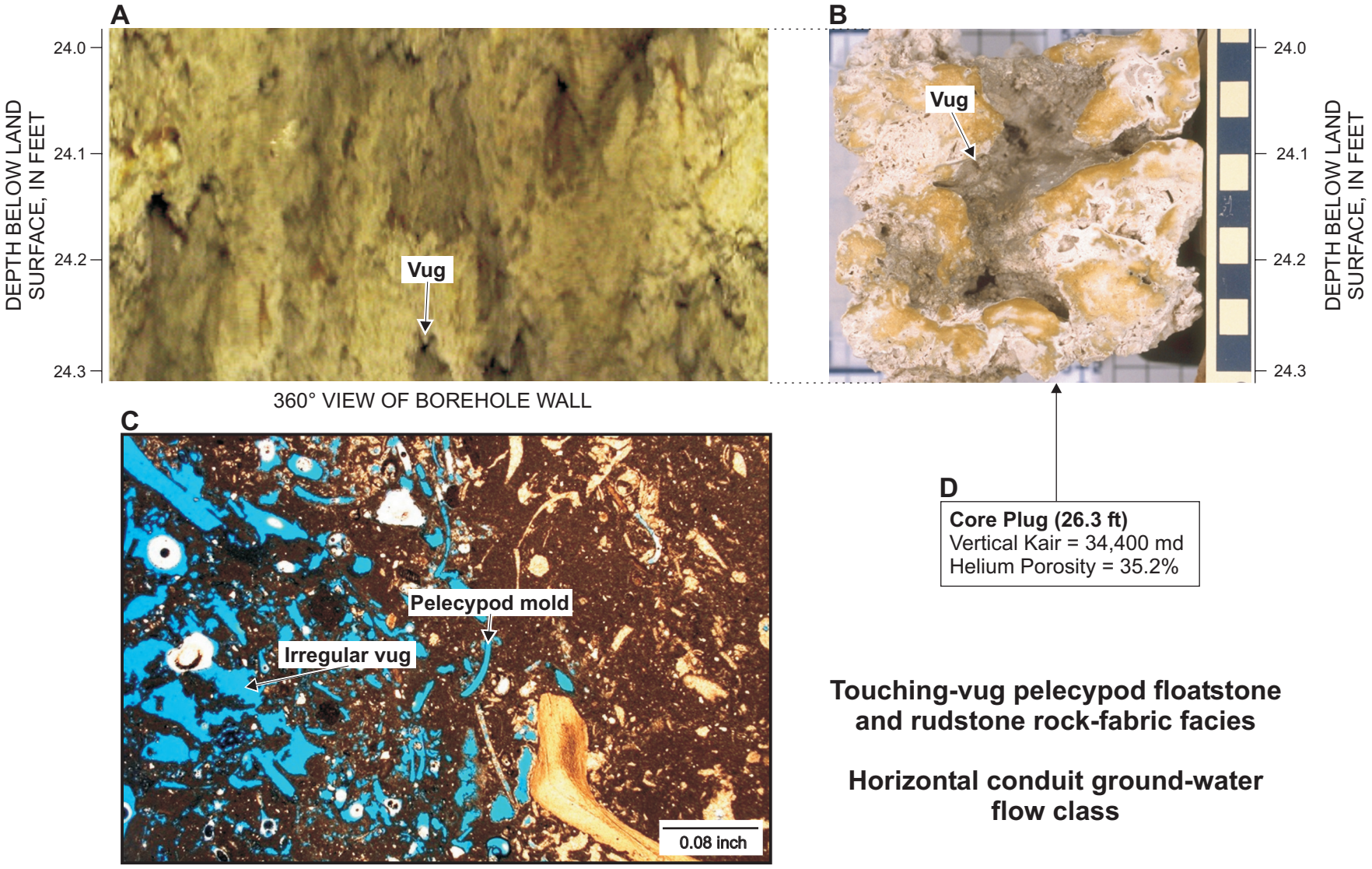


**Figure A14.** (A) Digital borehole image, (B) slabbed core photograph, (C) thin-section photomicrograph, and (D) whole-core porosity and permeability data for the touching-vug pelecypod floatstone and rudstone rock-fabric facies of HFC3a for the G-3710 test corehole. Slabbed core sample (B) is from a depth of approximately 23.98 to 24.31 feet below land surface The thin section photomicrograph (C) is from a depth of 24.2 feet below land surface. The depths have been adjusted upward 2.1 feet to match the digital optical log depth.

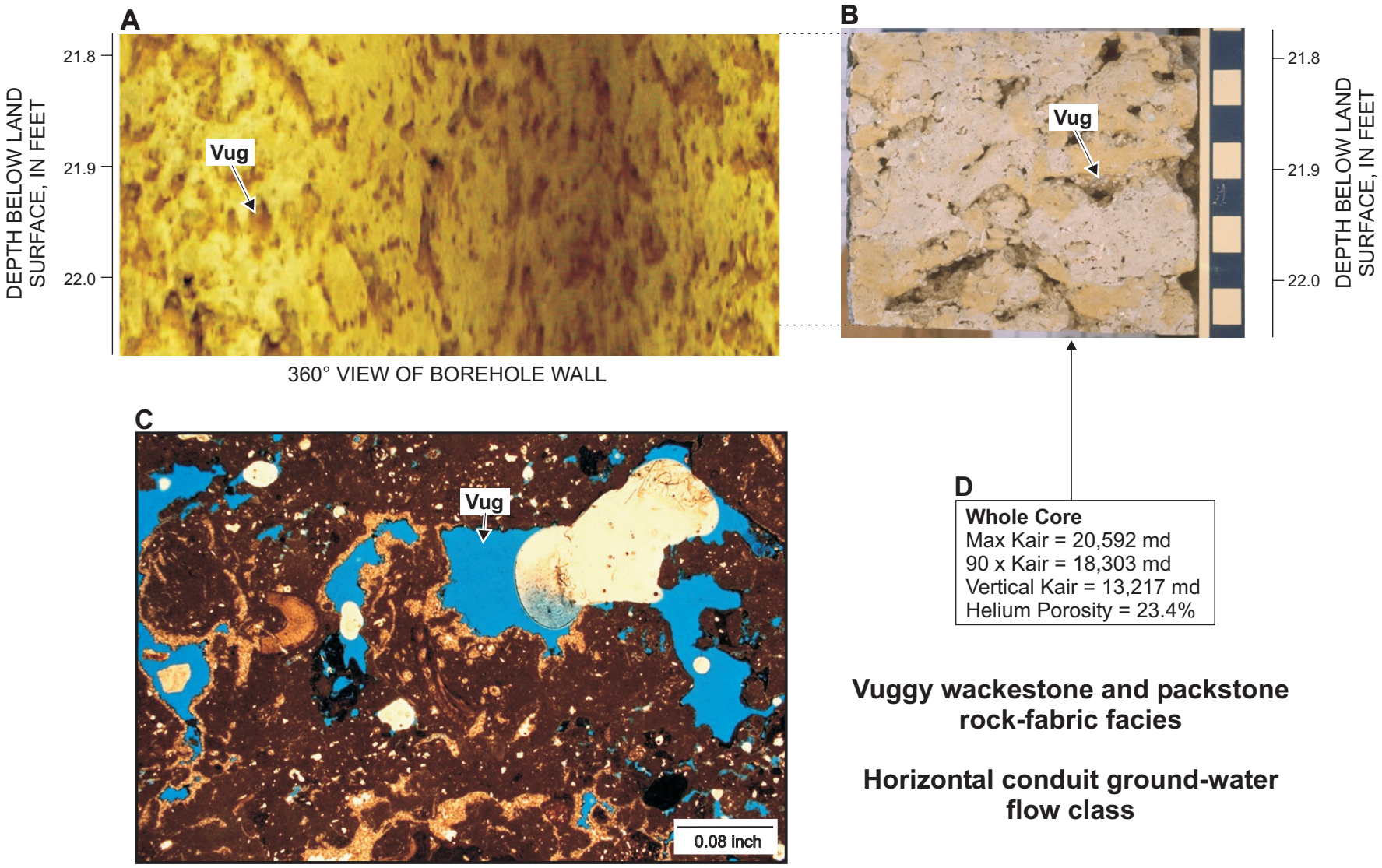


**Figure A15.** (A) Digital borehole image, (B) slabbed core photograph, (C) thin-section photomicrograph, and (D) whole-core porosity and permeability data for the vuggy wackestone and packstone rock-fabric facies of HFC3a for the G-3717 test corehole. Slabbed core sample (B) is from a depth of approximately 21.78 to 22.06 feet below land surface The thin section photomicrograph (C) is from a depth of 21.9 feet below land surface. The depths have been adjusted downward 1.6 feet to match the digital optical log depth.

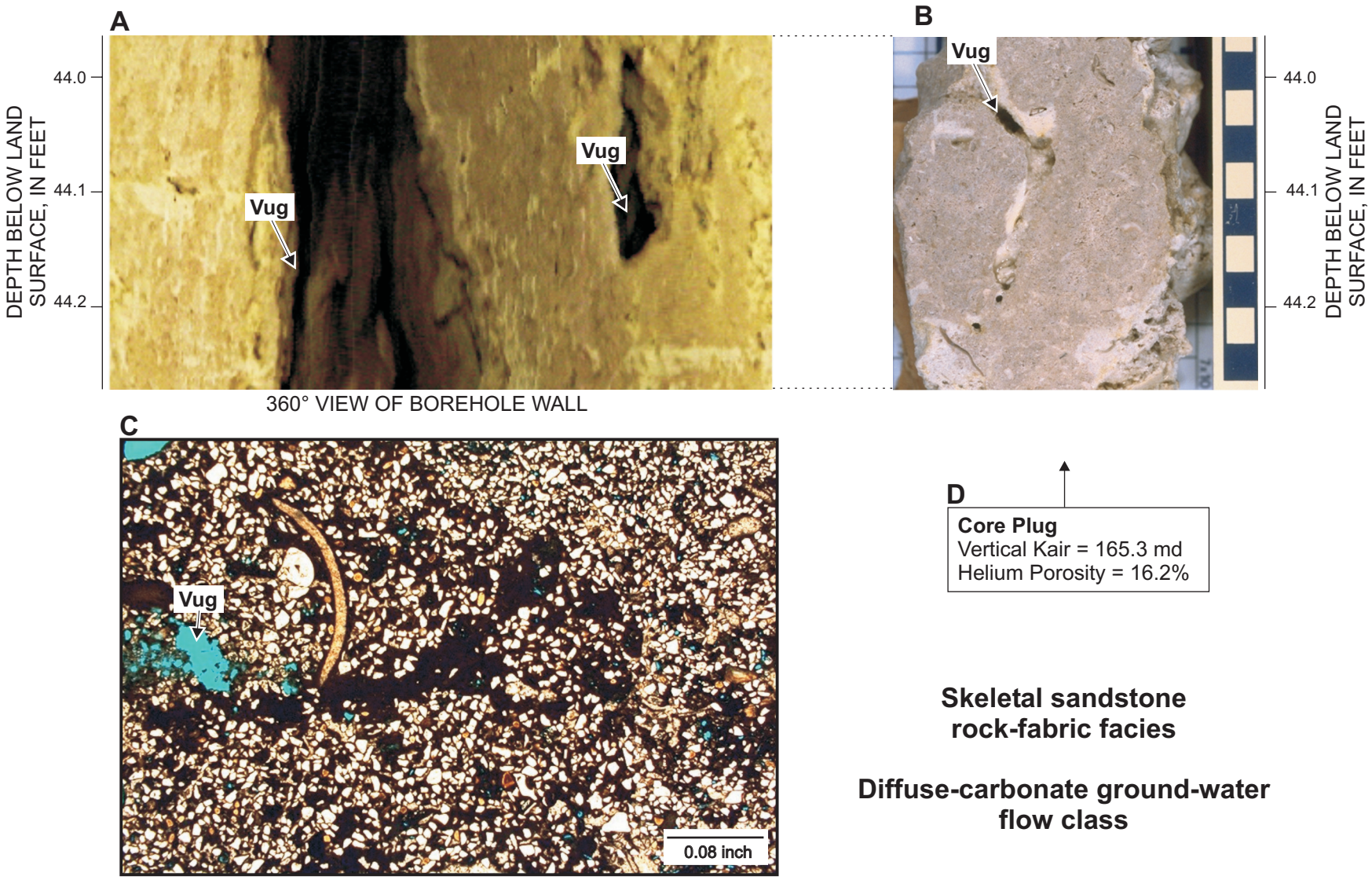


**Figure A16.** (A) Digital borehole image, (B) slabbed core photograph, (C) thin-section photomicrograph, and (D) whole-core porosity and permeability data for the skeletal sandstone rock-fabric facies of HFC3a for the G-3732 test corehole. Slabbed core sample (B) is from a depth of approximately 43.96 to 44.27 feet below land surface The thin section photomicrograph (C) is from a depth of 44.0 feet below land surface.