

Figure S1: Four examples of the H/V curves indicating prominent subsurface contrasts. The identified resonance frequencies are marked with gray solid lines and the values along with the location identifiers are in the titles.



Figure S2: Photograph (c) shows an extraction of the rock sample of the porous basalt (for explanation see text).

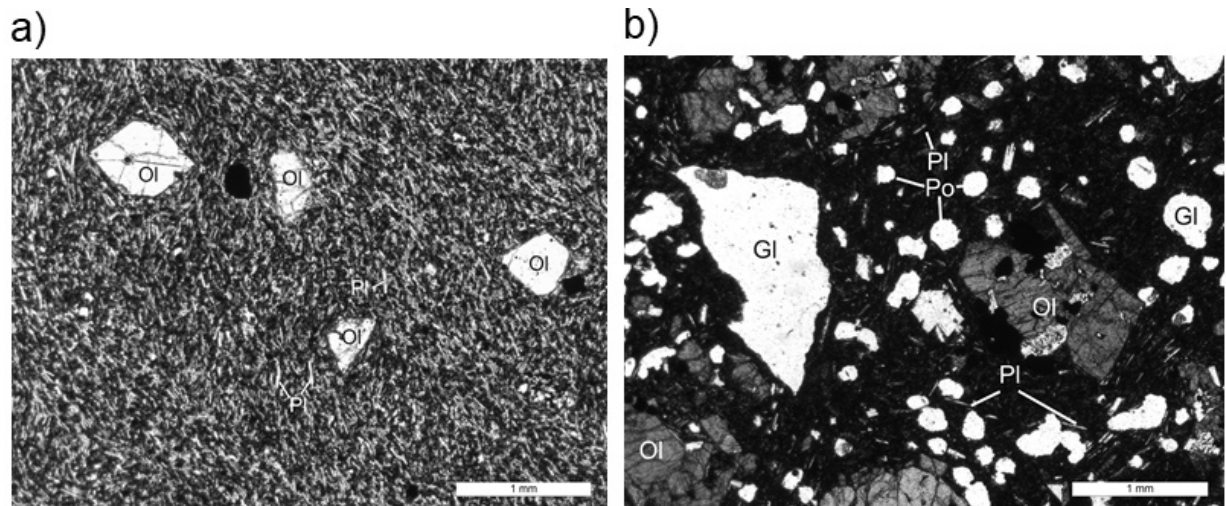


Figure S3: Photographs from the polarization microscope Leica DMR: a) compact basalt, b) porous basalt. The photographs show clear microstructure differences of the two tested types of basalts (Ol – olivine, Pl – plagioclase, Po – pores, Gl – volcanic glass).

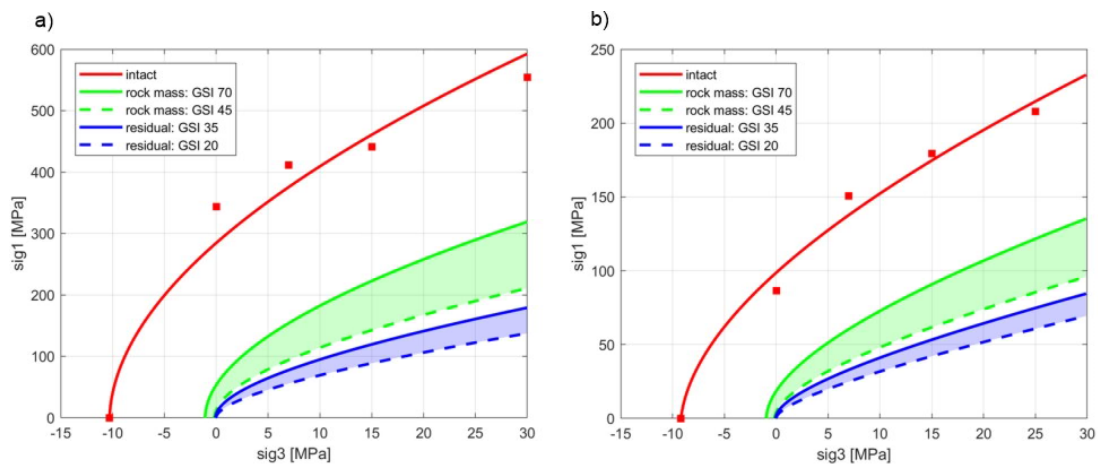


Figure S4: Hoek-Brown failure envelopes for intact rock, rock mass and residual rock mass for compact (a) and porous (b) basalts. The values of measured strengths of intact rock are in Table 4, while the parameters of all envelopes are in Table 5.



Figure S5: 3D view showing the spatial relationship of the water gallery and impedance contrast identified from the SEIS1 profile measurements.