



Figure A1. Sensitivity test using forward modeling to check if the variation in the thickness of the basaltic layer is a required feature in the inversion model of Fig. 7. (a) Section of the edited geoelectric model; (b) comparison between the experimental phases (square symbols for TE mode and triangle symbols for TM mode) with phases from the inversion (continuous lines) and edited (dashed lines) models at site 02; (c) the same as (b) at site 03.