IS-108 Reykjavik, Iceland

Reports 2011 Number 8

APPENDICES TO THE REPORT: RESISTIVITY IMAGING OF THE SANTA MARIA SECTOR AND THE NORTHERN ZONE OF LAS PAILAS GEOTHERMAL AREA, COSTA RICA, USING JOINT 1D INVERSION OF TDEM AND MT DATA

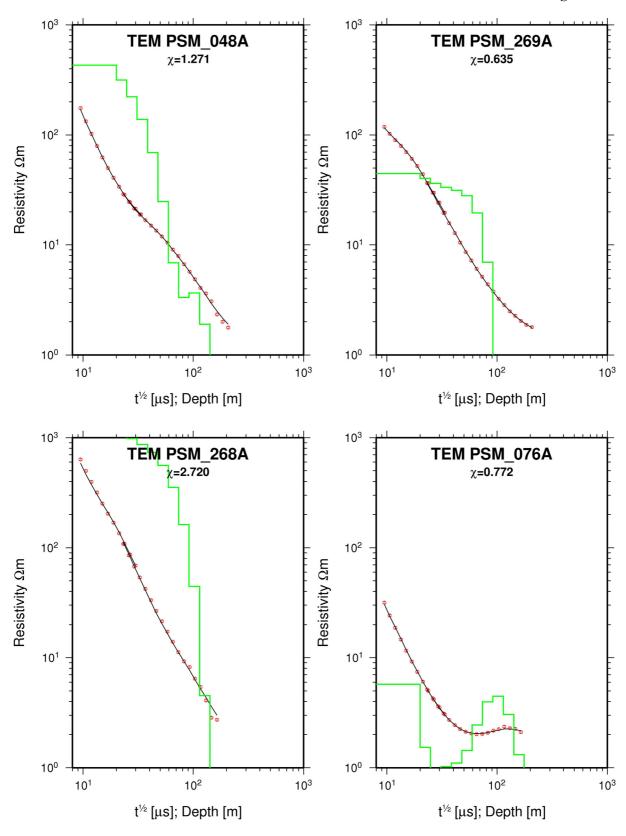
by

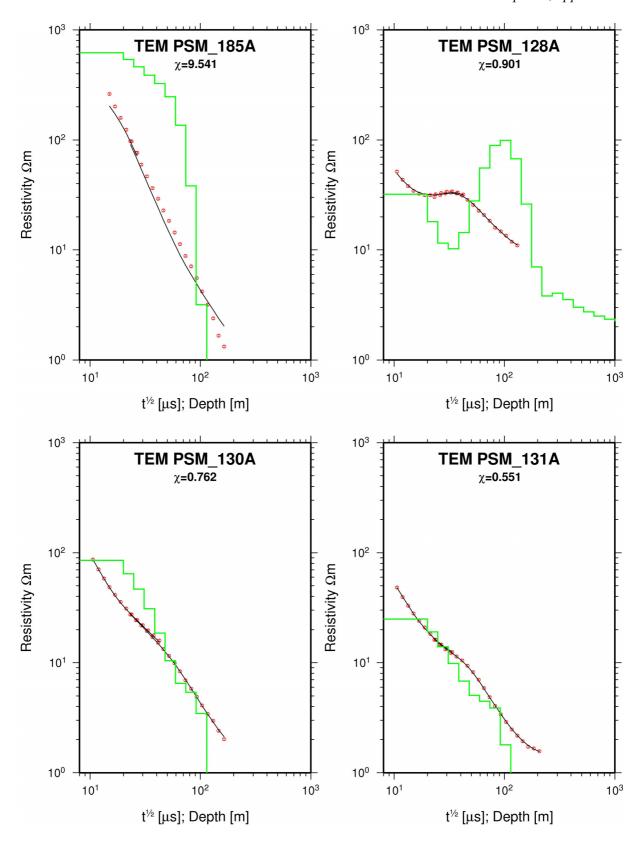
Diego Badilla Elizondo

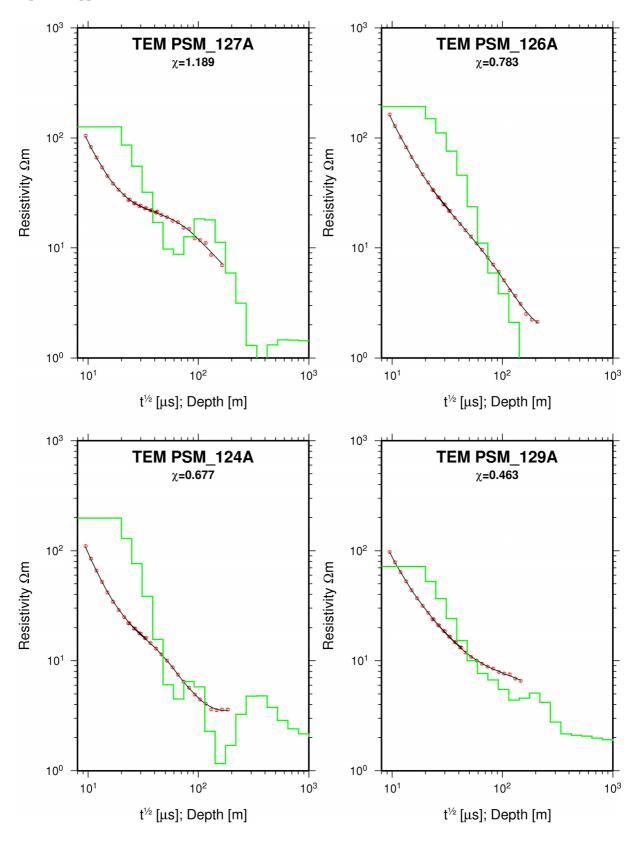
Instituto Costarricense de Electricidad (ICE)
P.O. Box 10032
Sabana Norte, San José
Costa Rica
dbadillae@ice.go.cr

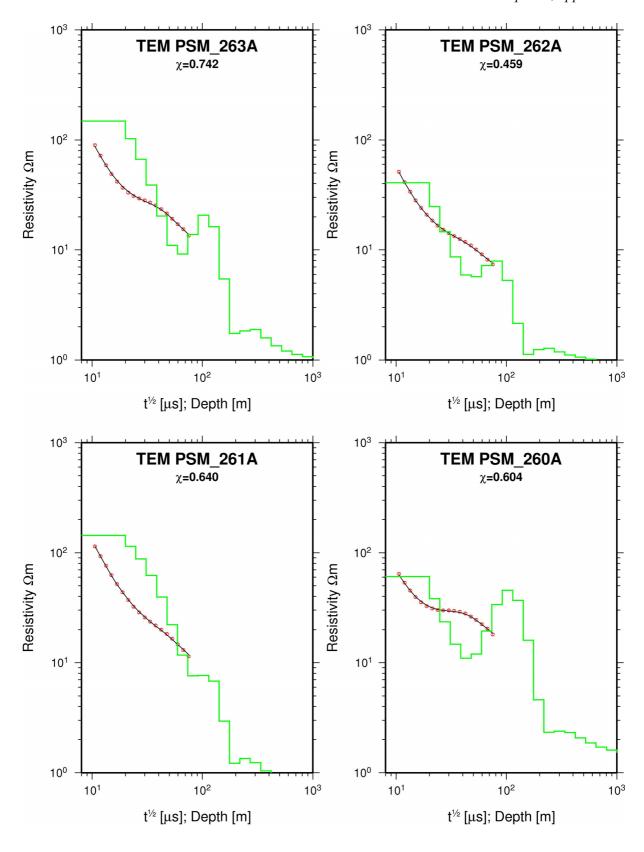
United Nations University Geothermal Training Programme Reykjavík, Iceland Published in 2011 These are appendices to the report "Resistivity imaging of the Santa Maria sector and the northern zone of Las Pailas geothermal area, Costa Rica, using joint 1D inversion of TDEM and MT data" by Diego Badilla Elizondo at the UNU Geothermal Training Programme in 2011. Appendix I shows the TDEM data and the associated 1D models for the TDEM soundings. Appendix II shows the processed data for all the MT soundings. Appendix III contains the 1D models of the joint inversion for all of the TDEM and MT data. Appendix IV, finally, shows additional resistivity cross-sections and iso-resistivity maps from Las Pailas geothermal area.

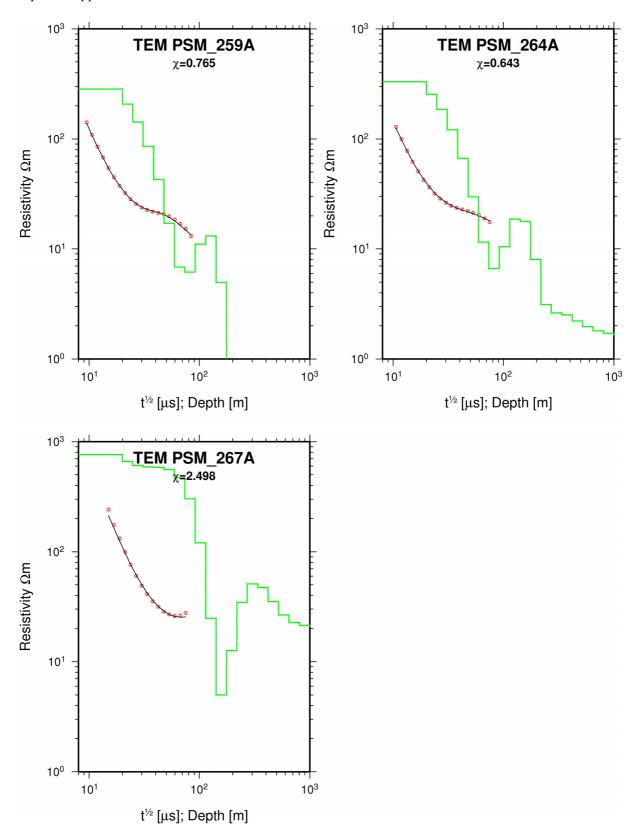
APPENDIX I: TDEM data and the associated 1D models for the TDEM soundings



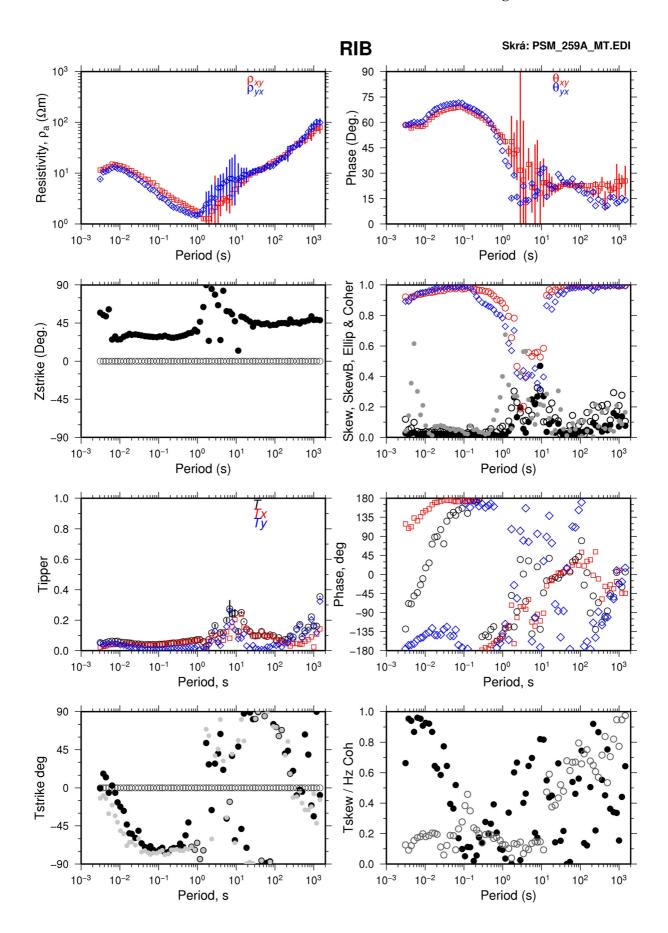


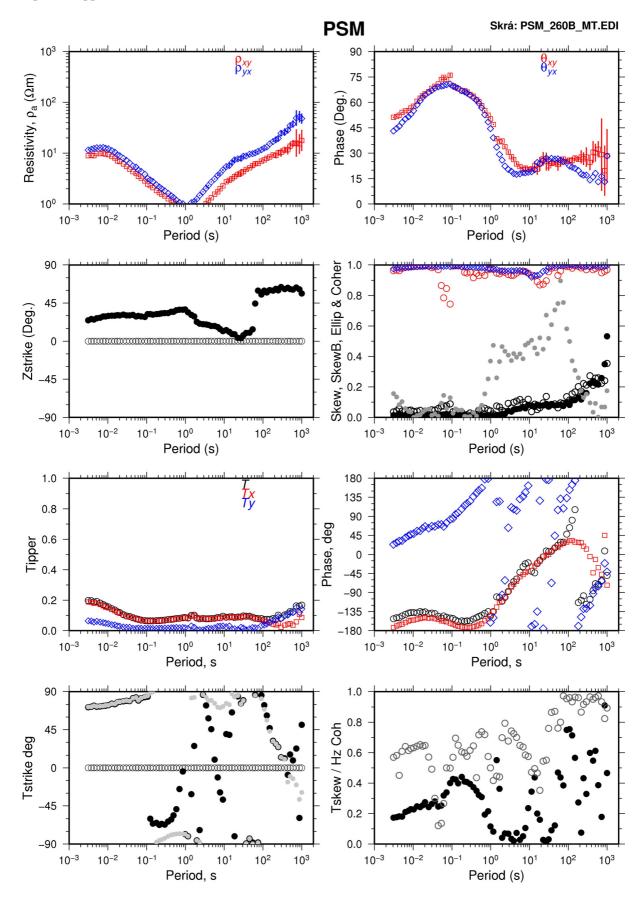


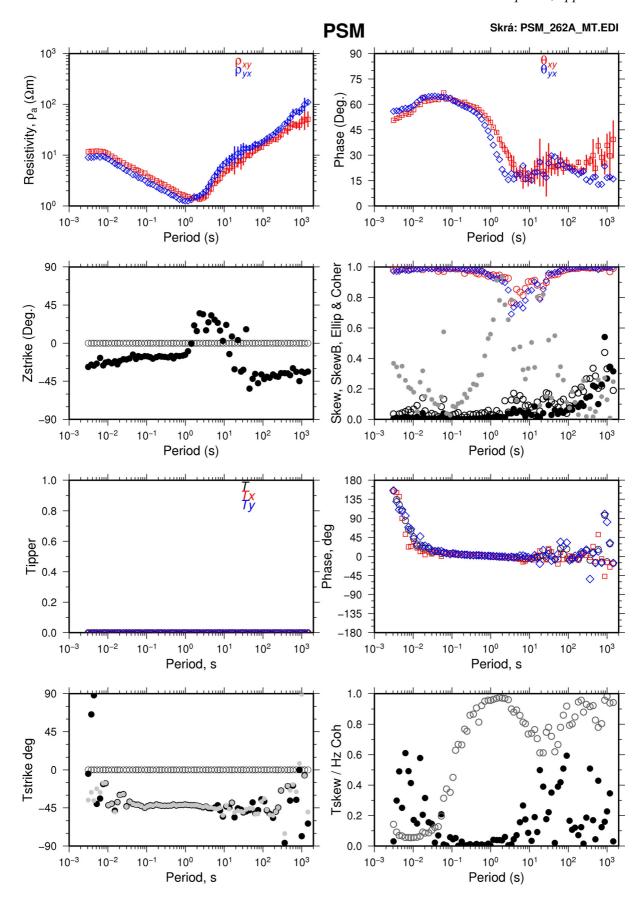


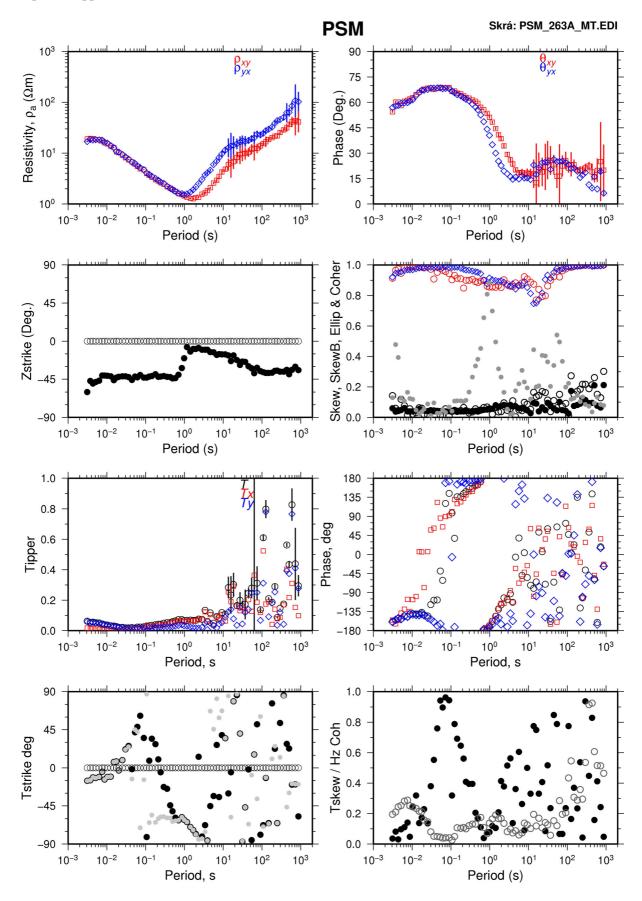


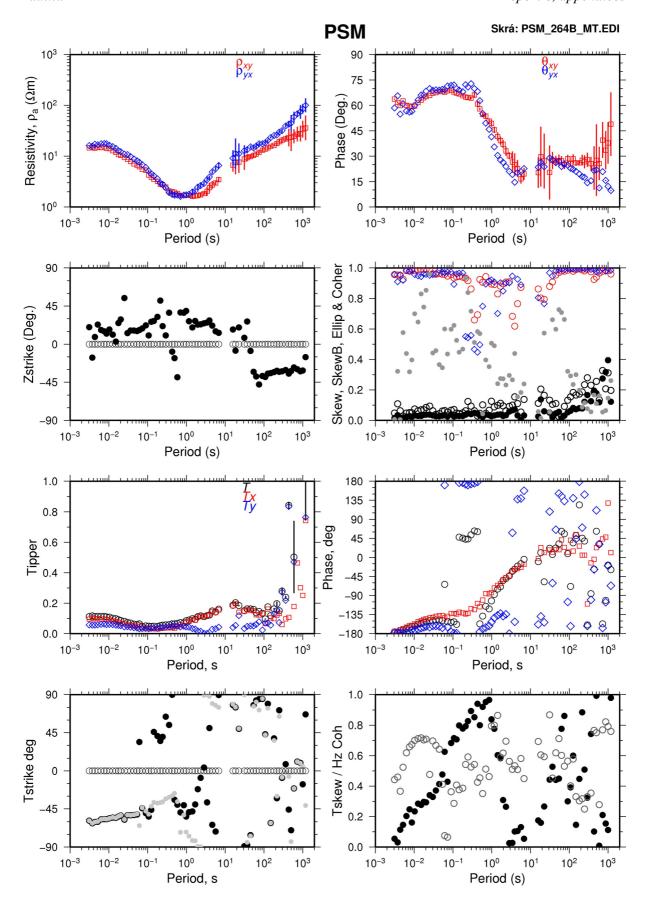
APPENDIX II: Processed data for all the MT soundings

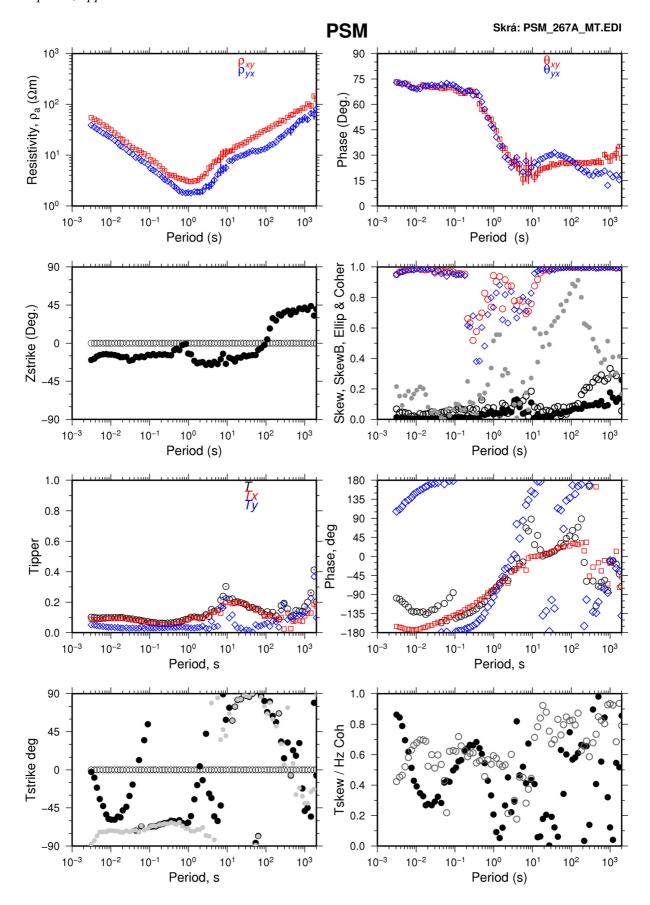


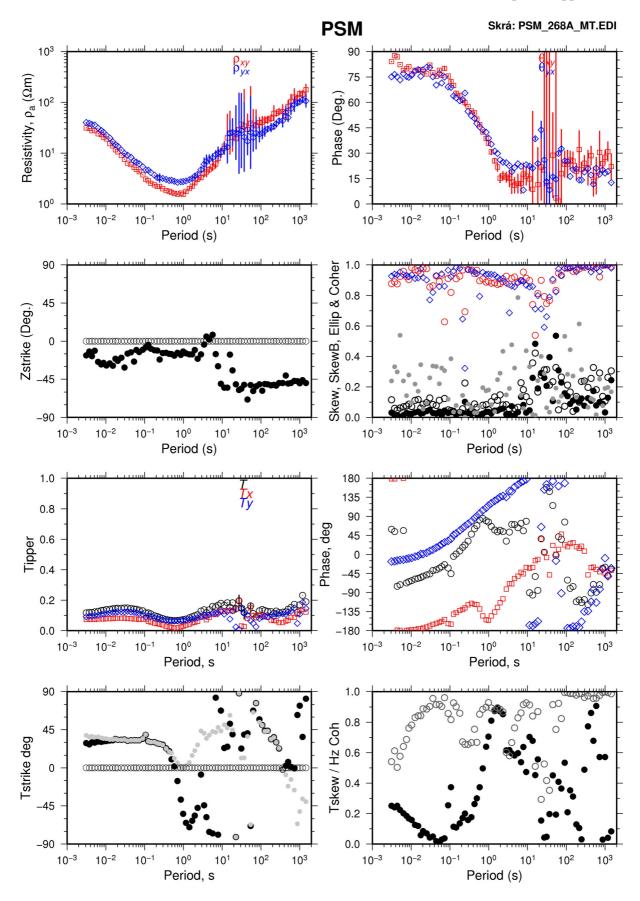


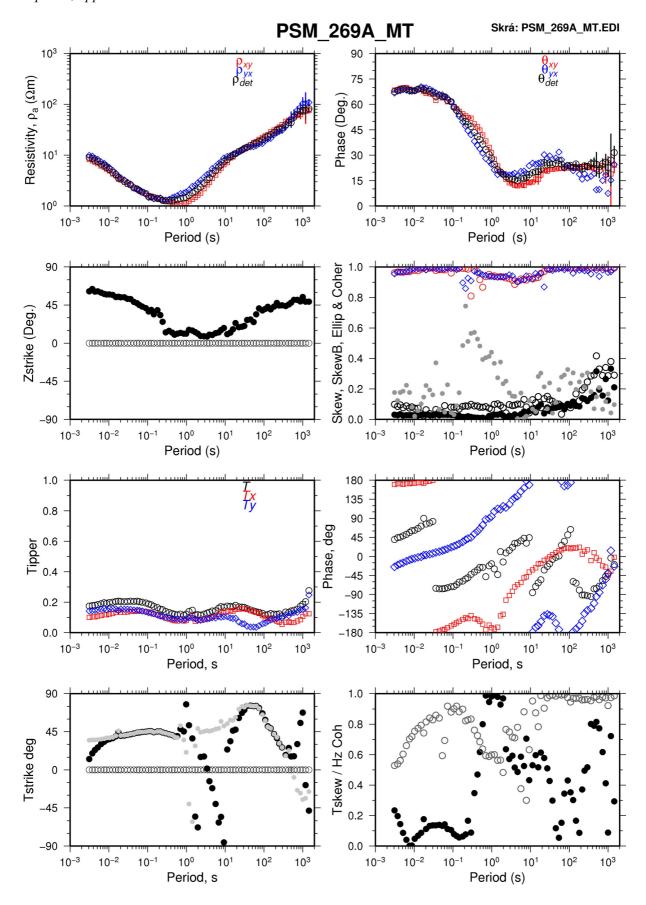


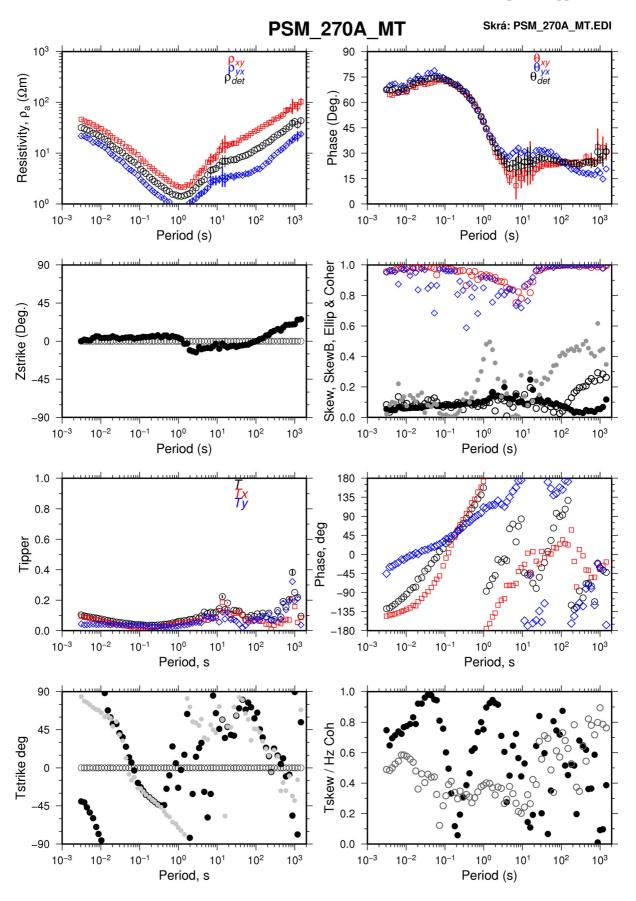


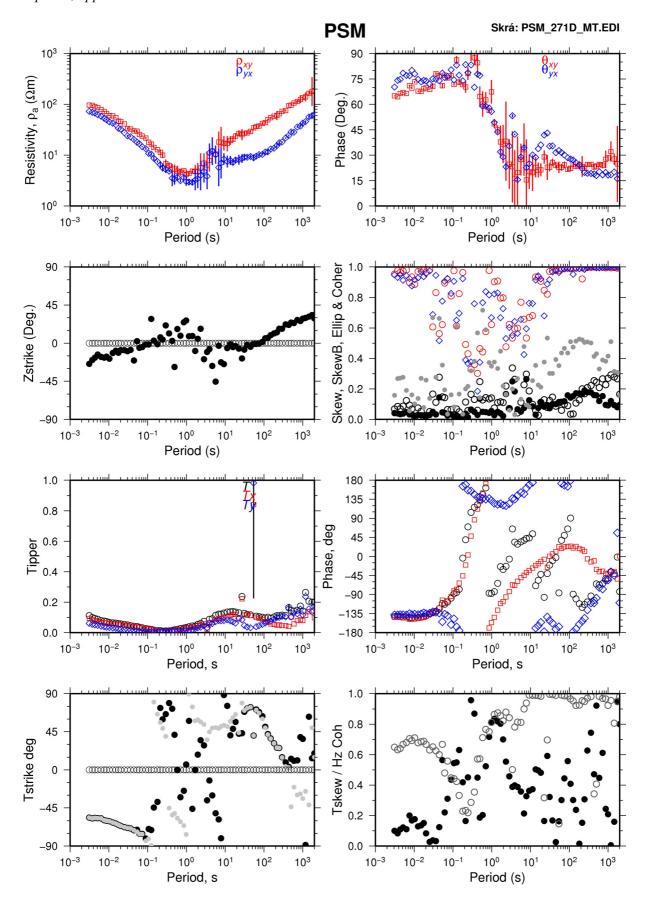


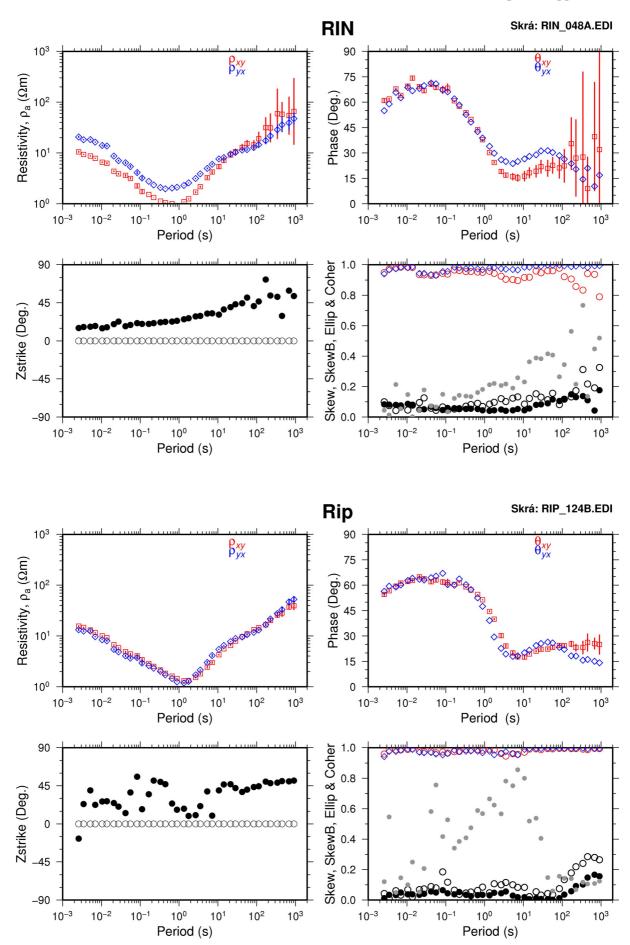


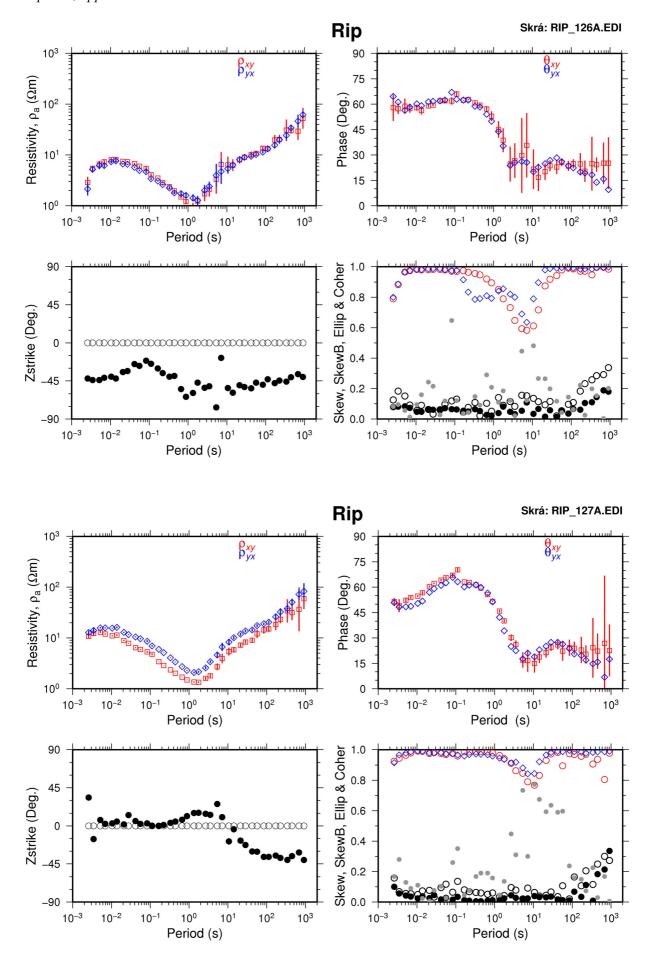












-45

-90

 10^{-3}

 10^{-2}

 10^{-1}

10⁰

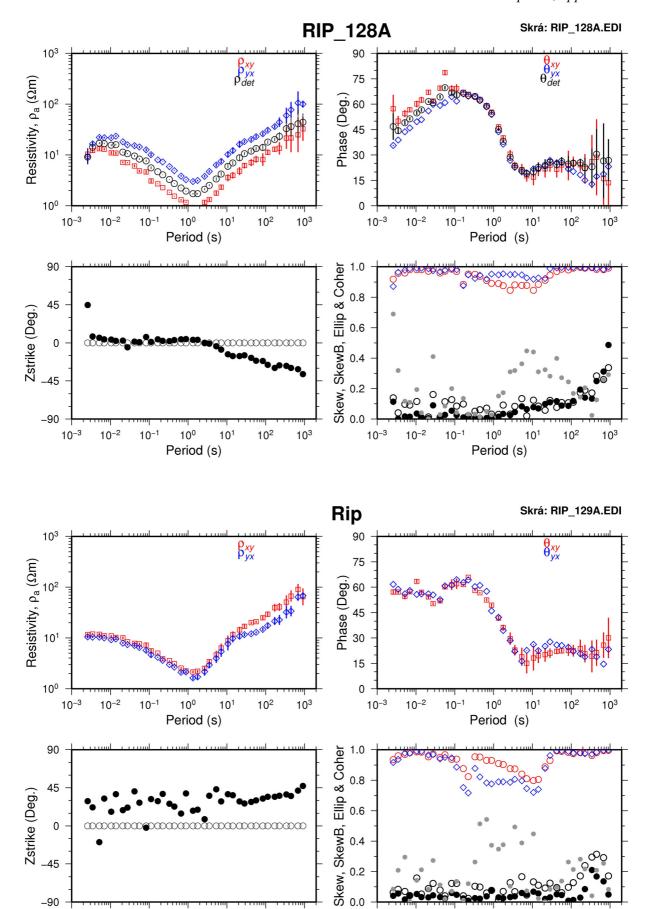
Period (s)

10¹

10⁰ 1 Period (s)

10²

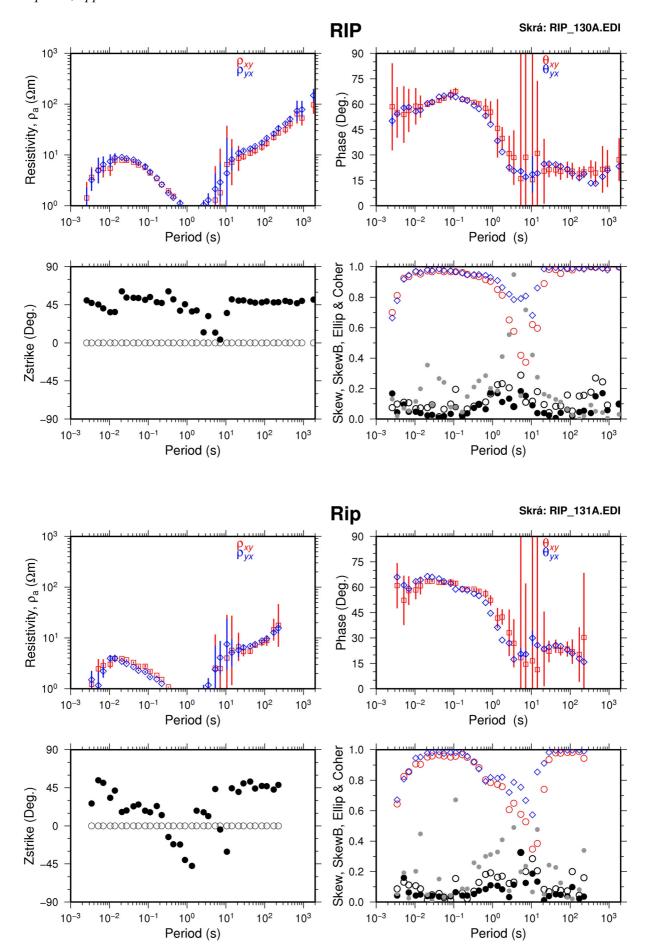
 10^{3}

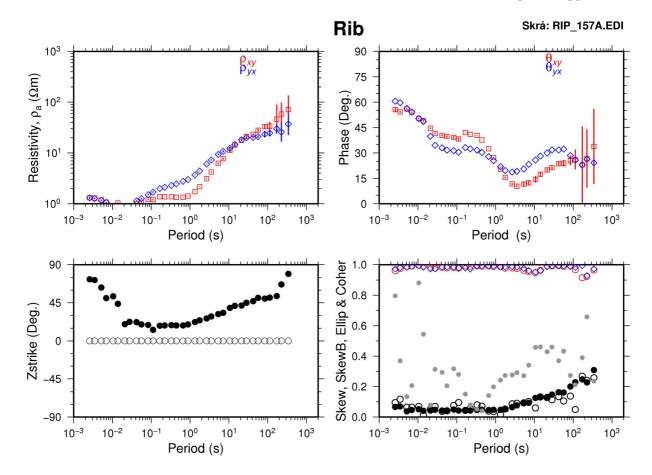


10³

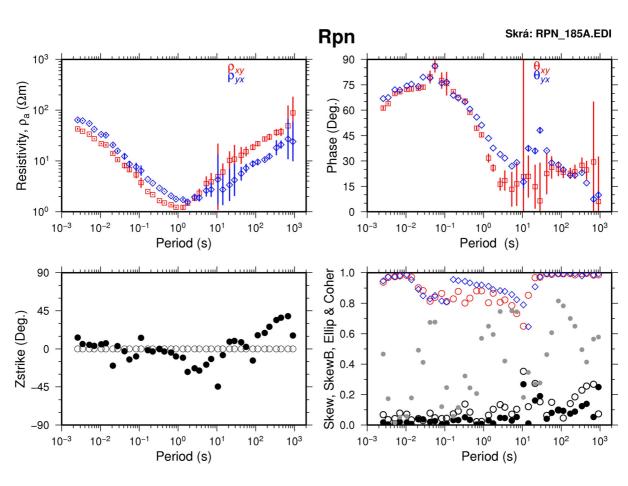
10²

 10^{-3}



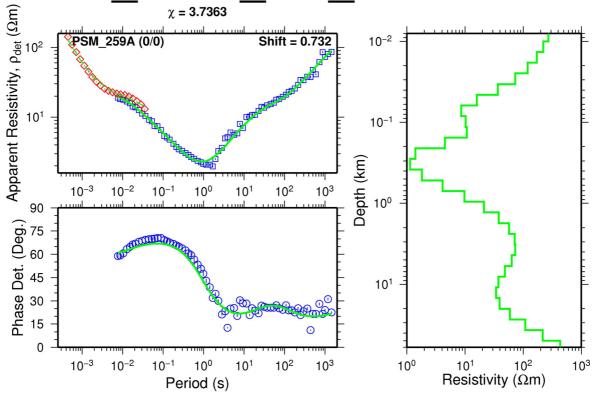


22

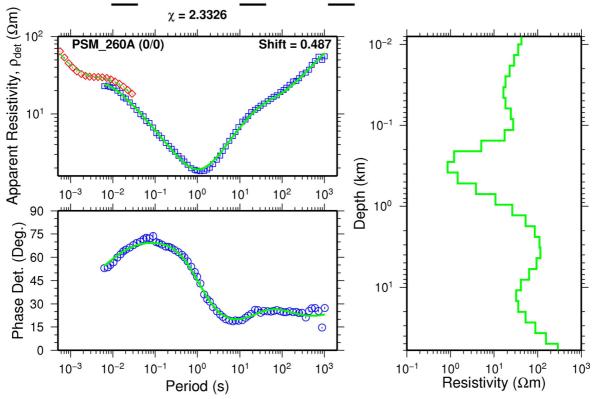


APPENDIX III: 1D models of the joint inversion for all of the TDEM and MT data

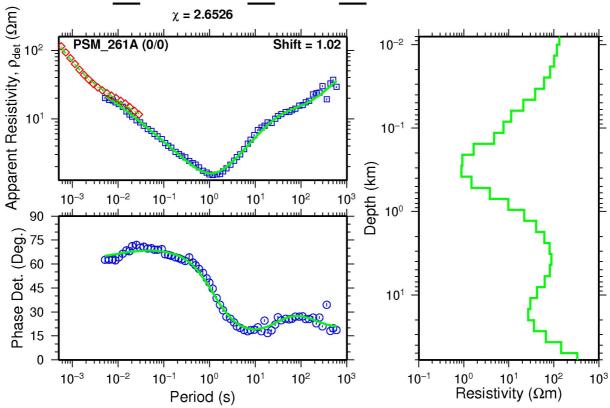
PSM 259A MT o



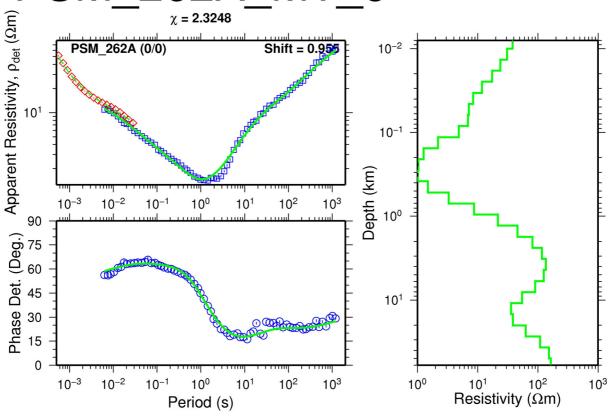
PSM_260B_MT_o



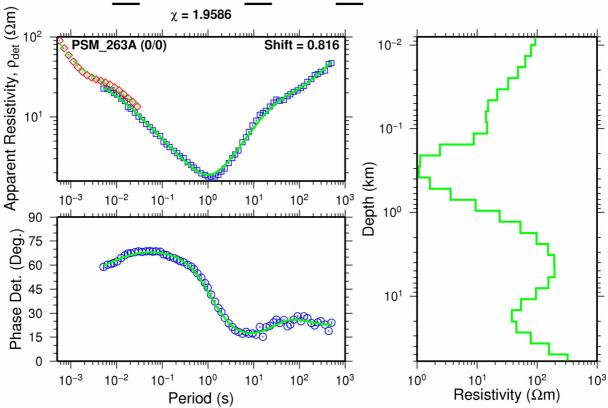
PSM 261D MT o



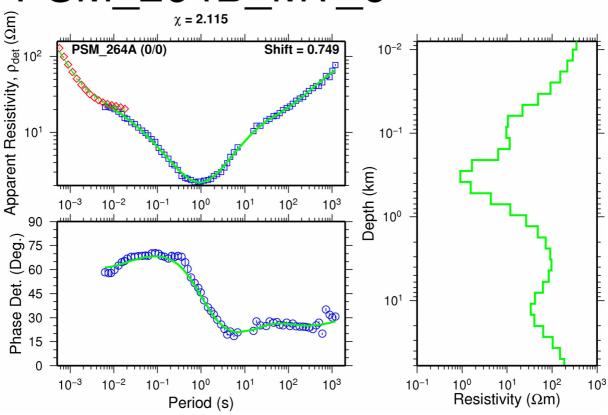
PSM_262A_MT_o



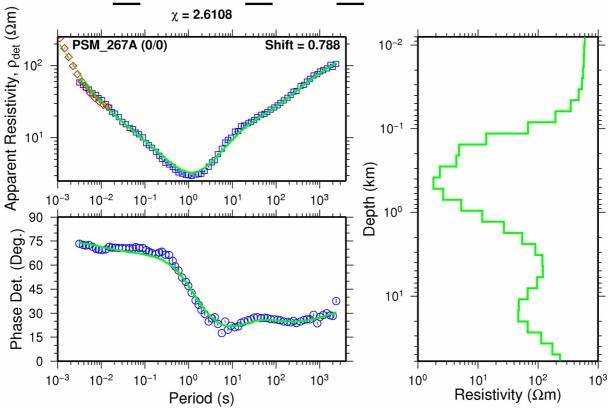




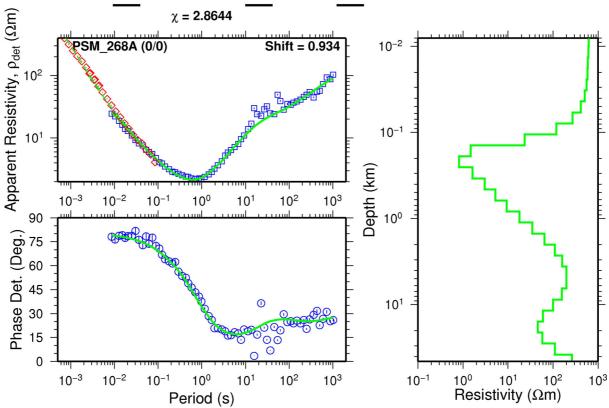
PSM 264B MT o

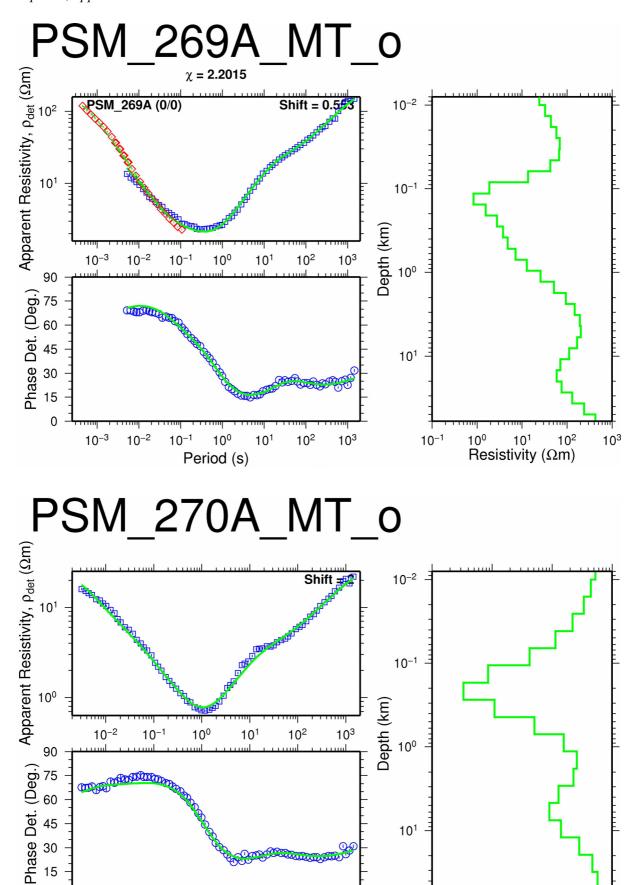


PSM 267A MT o



PSM_268A_MT_o





 10^0 10^1 Resistivity (Ω m)

 10^{2}

30 15 0

 10^{-2}

10⁰

Period (s)

 10^{-1}

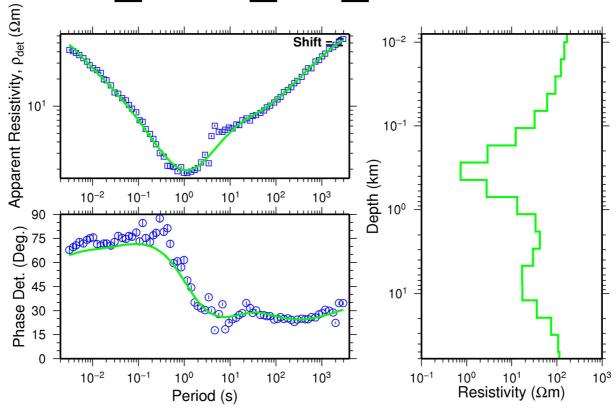
10²

10¹

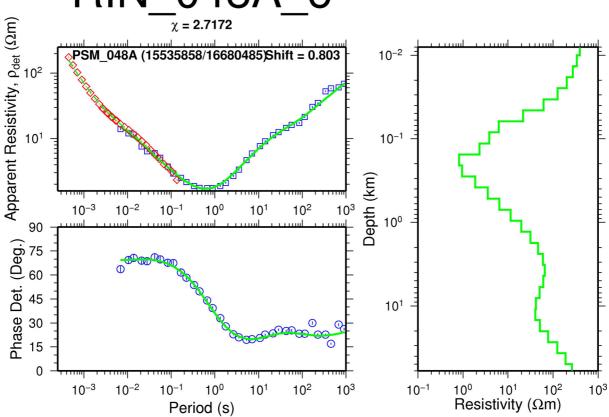
10³

 10^{-1}

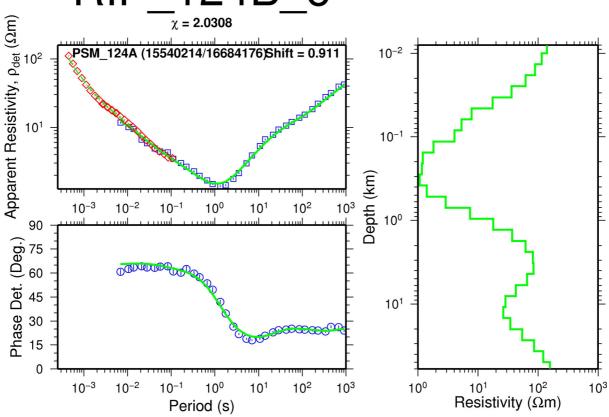
PSM_271D_MT_o



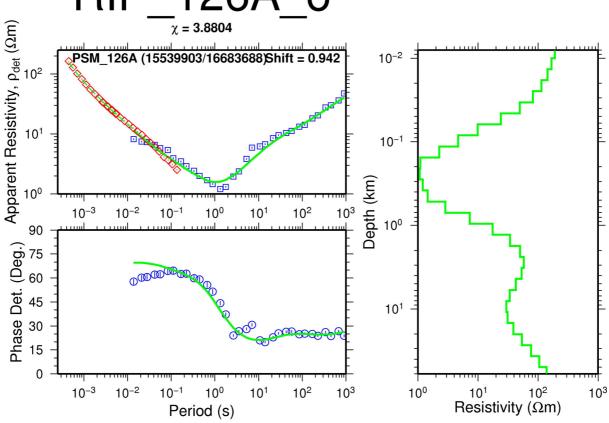
RIN 048A o

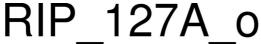


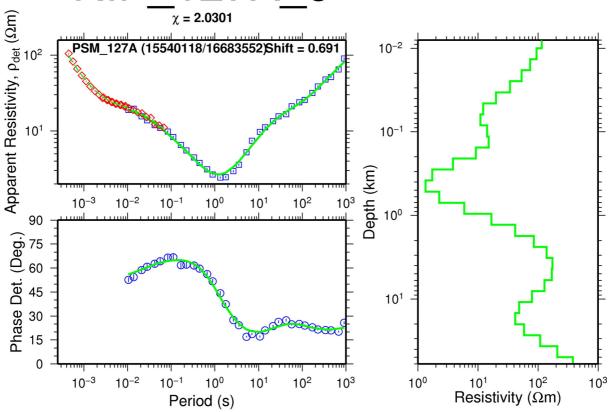




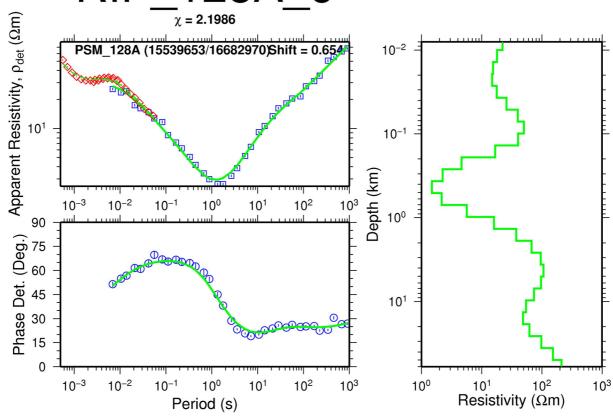
RIP 126A o



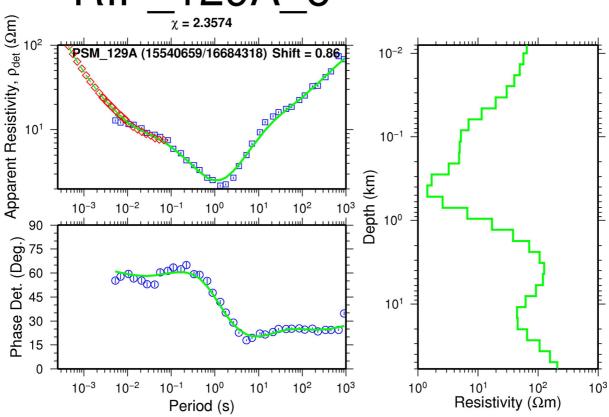




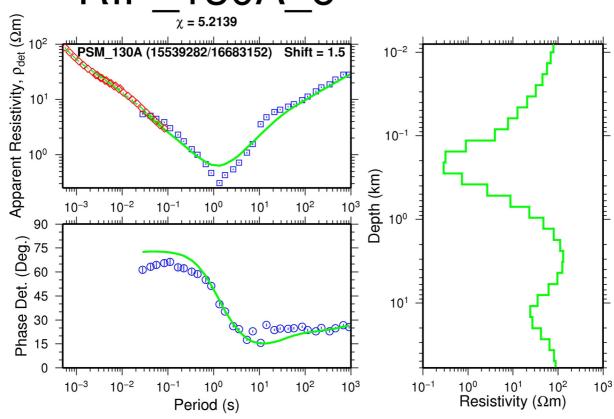
RIP 128A o



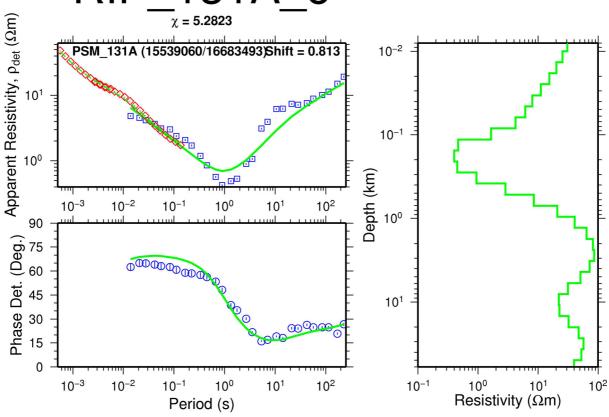
RIP 129A o



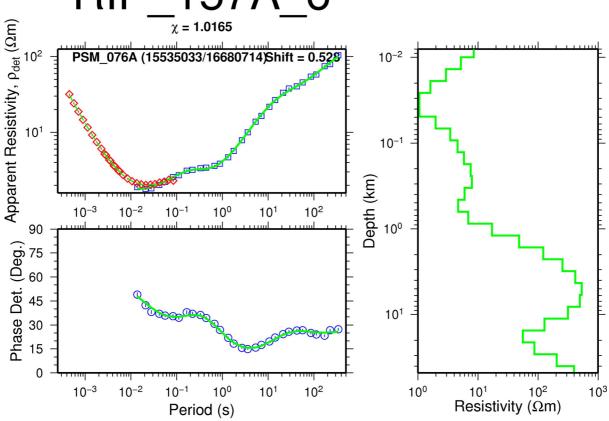
RIP 130A o



RIP_131A_o



RIP 157A o



RPN_185A_o $\chi = 5.3724$ Apparent Resistivity, $\rho_{det}\left(\Omega m\right)$ PSM_185A (15535541/16681467) Shift = 3.03 10-2 10¹ 10-1 10⁰ Depth (km) 10-2 10³ 10² 10^{-3} 10^{-1} 10⁰ 10¹ Phase Det. (Deg.) 21 00 42 09 10¹

10²

10³

 10^{-1}

 10^0 10^1 10^2 Resistivity (Ω m)

 10^{3}

0

 10^{-3}

 10^{-2}

 10^{-1}

100

Period (s)

10¹

APPENDIX IV: Additional resistivity cross-sections and iso-resistivity maps from Las Pailas geothermal area



