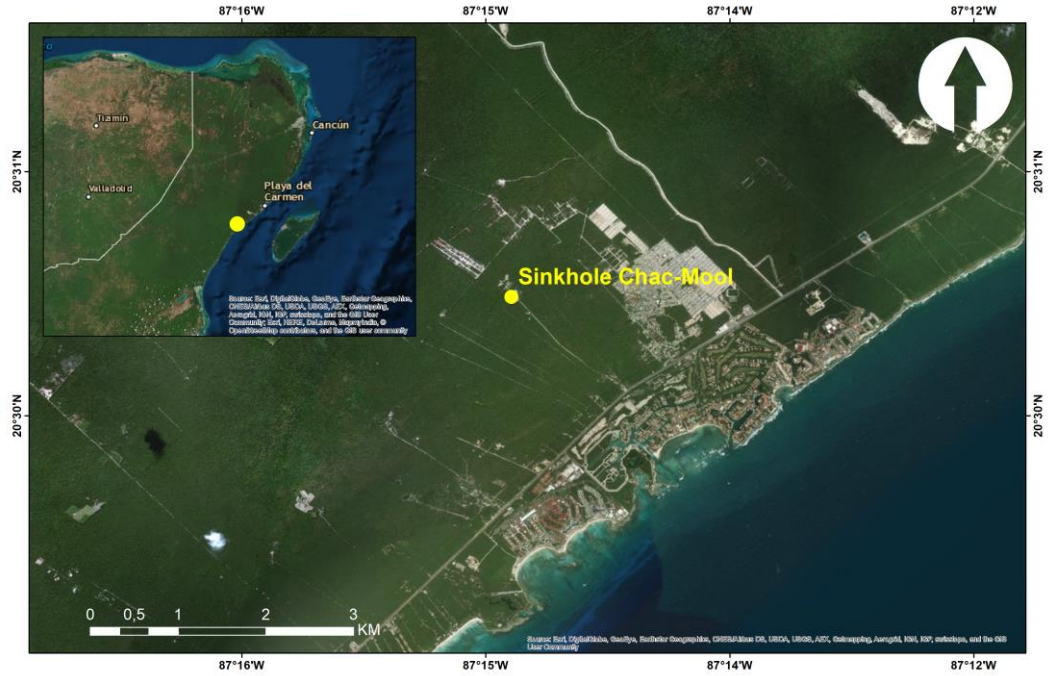

Figure 1. Study area: Chack-Mool sinkhole in the Quintana Roo state, Mexico.

Figure 2. EM survey on the Chac-Mool sinkhole. Numbered profiles crossing the hidden rivers. With white wide line are the sinkholes exposed

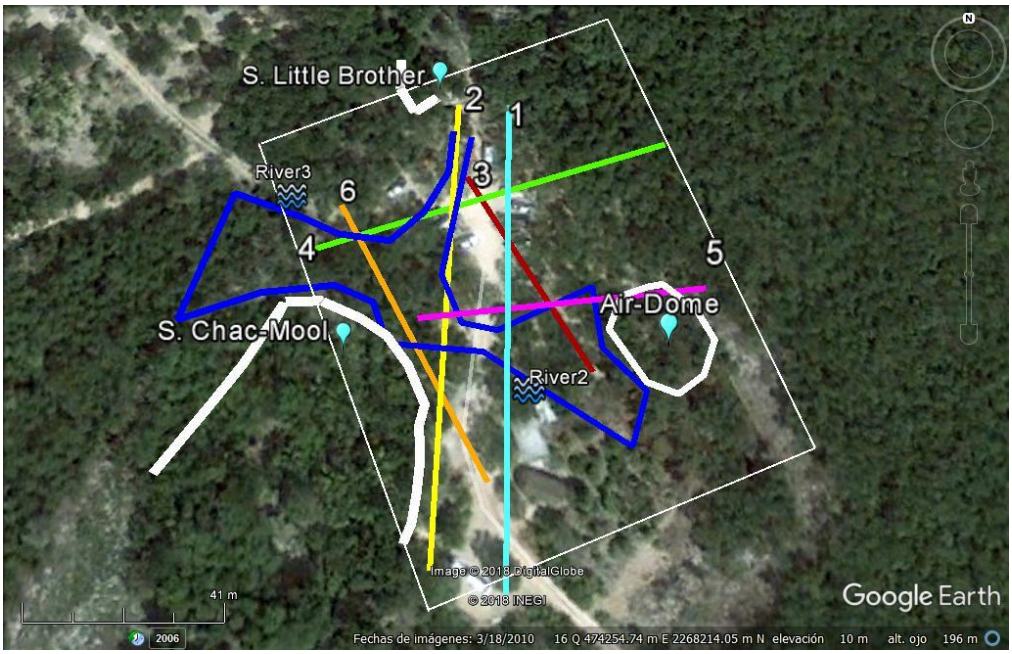

Figure 3. Profiles crossing the hidden rivers on the sinkhole area (numbered). The white rectangle is the 3D modeling area. White wide lines are the sinkholes exposed. Dark blue lines are the suggested rivers paths.

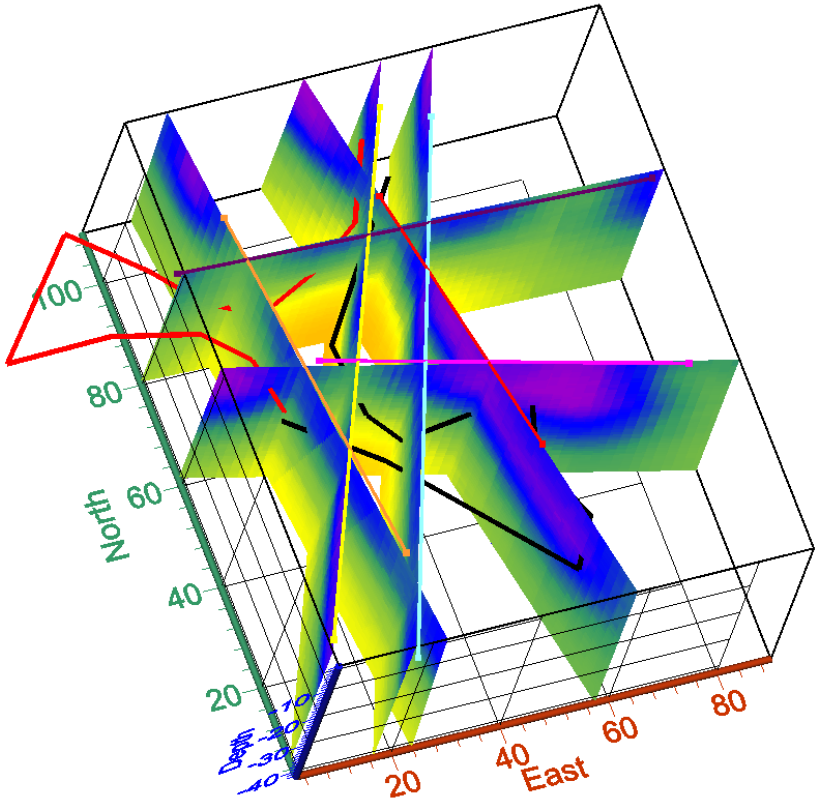

Figure 4**.** 3D resistivity model for Chac-Mool sinkhole. Here we just present the cross-sections distribution where the profiles run. The red and black irregular lines represent the hidden rivers

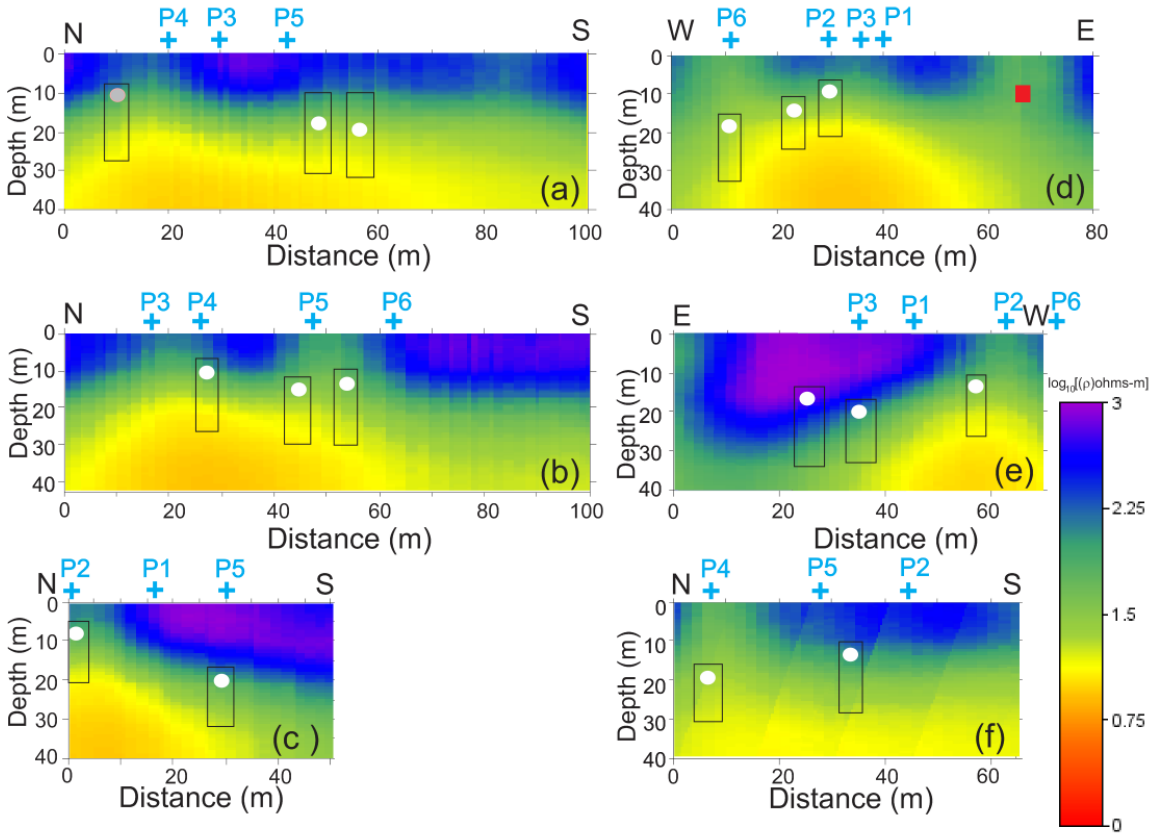

Figure 5. Cross-sections of the 3D resistivity model under profiles 1 to 6. Units are base 10 logarithm of the resistivity. Blue colors are more resistive areas and red colors the least resistive. Blue numbers signs the other profiles crossings. White dots signs shows where the scuba divers have mapped the underground rivers. Red dot sign shows the position of an underground river inferred from the model. Square polygon is a broad suggestion of the river tunnels.

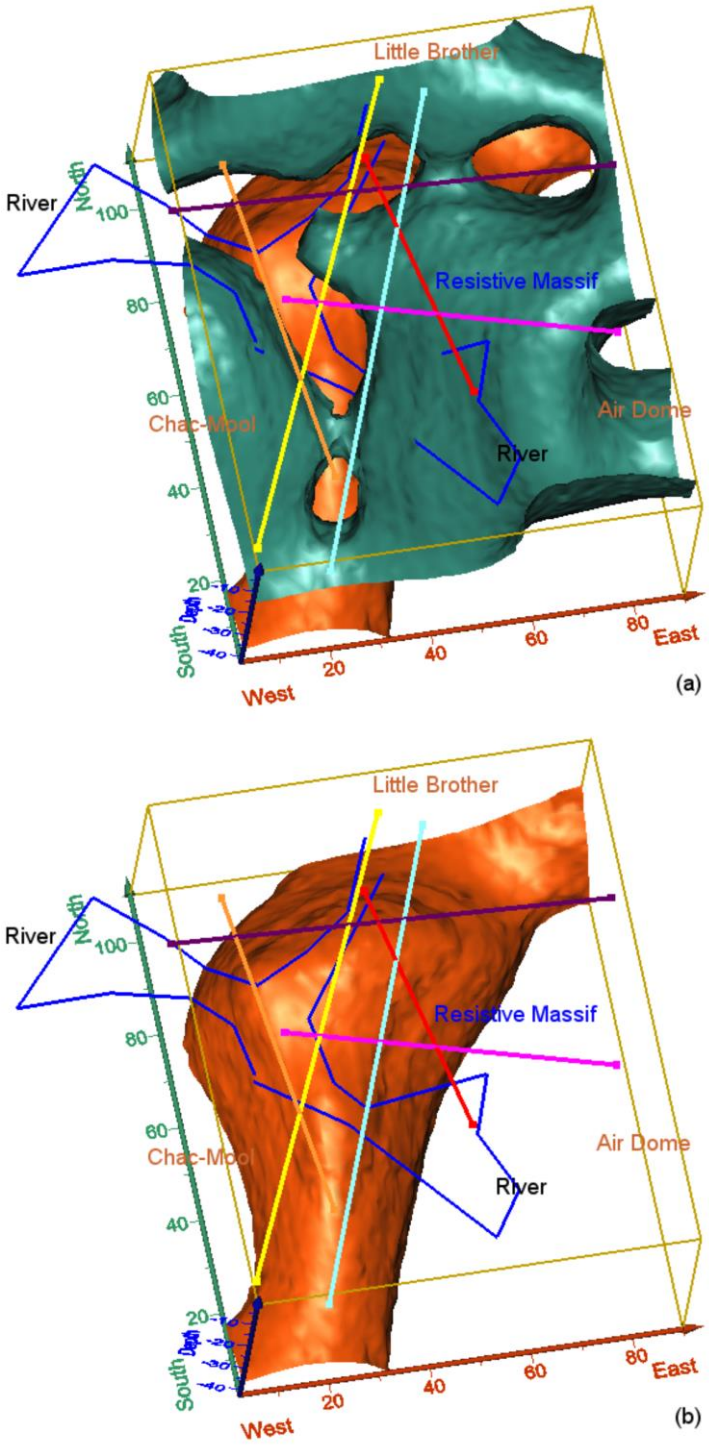

Figure 6. Isometric representation of the 3D resistivity model. Straight lines are the EM profiles done. (a) Blue iso-surface represents the bottom topography of the dry limestones. (b) Red iso-surface represents the contact between fresh and salty water.