SEM37-P07 　　　　Room:Convention Hall 　　　　Time:May 22 18:15-19:30

Two-dimensional Inversion Analysis of Magnetotelluric (MT) Data in Pelabuhan Ratu, West Java, Indonesia

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To identify the underground electrical structure close to Cimandiri fault, Pelabuhan Ratu, West Java, Indonesia, the subsurface structure near Cimandiri fault has been investigated by magnetotelluric (MT). This research is a advanced research of the previous research which was done by LIPI team in June-July 1999 and June 2000. The previous research have been analyzed by using two-dimensional inversion revealed the relative location of Cimandiri fault zone. This MT exploration was carried out during two weeks, from July 27, 2009 to August 8, 2009. There were forty eight MT sites which distributed on two line, A line and B line, along about 13 km x 6.5 km profile. The first line, A line, is perpendicular to Cimandiri river and the second one is parallel to Cimandiri river. The preliminary analysis by using one-dimensional Bostick inversion show that there are high resistivity structure between 8 km length and 13 km length underneath A line. The structure starts appearing from 3 km depth until 6 km depth. The analysis result of B line shows high resistivity body in two location. The first on is between 0 km and 2 km length. The second one is between 4 km and 6.5 km length. The high resistivity body in B line appears from 1.25 km depth. In the next analysis, we would like to apply two-dimensional modeling using the Ogawa and Uchida 2-D inversion to get more detail of the underground electrical structure close to Cimandiri fault. The data analysis of 2D inversion is now going on and details will be given in our presentation.

Keywords: magnetotelluric, two-dimesional inversion, Cimandiri fault, Indonesia