ABSTRACT

3D MAGNETIC MODELING USING MAG3D TO IDENTIFY THE DISTRIBUTION OF IRON ORE IN THE AREA OF “RAM-UNILA”

By

ARDI MAULANA RACHMAWIANA

Upward Continuation process to be done because he wanted to see how the boundary where the body of iron ore minerals, and Reduction To The Pole was done because initially dipole magnetic anomalies, the process is carried out so that its response to the monopole magnetic anomalies that are very helpful in the 2D modeling. Zone of iron ore mineralization in the study area from 2D modeling results the model predicted the existence of iron ore minerals with susceptibility contrast amounted to 0.8585 cgs (10^3 SI), 1.0100 cgs (10^3 SI), 0.7100 cgs (10^3 SI) with thickness of about 35 until 50 meters which can be found at a depth of 25 meters. Results of 3D modeling where the body produces iron ore mineral is seen at a depth of 15 meters. Which is the value of susceptibility contrast to 0.100 cgs (10^3 SI) to 0.122 cgs (10^3 SI) and a granite rock, iron oxide, pyrite, and tuff of which are associated with the iron ore. Interpretation of results in 2D, 3D and regional geological information showed that the depth of the iron ore minerals associated with granitic rocks, iron oxides, pyrite, and iron tuff located at a depth of 15-30 meters.

Keywords: Upward Continuation, Reduction To The Pole, Iron Ore.