

ABSTRACT

The injection system and the electric current induced magnetic field has its advantages and disadvantages of each. The injection system is very sensitive to detect anomalies on the edges of the object, but is not sensitive to the central object. So did the opposite in the induction system. This study discusses the feasibility of merging the two systems in the hope of both systems can be complementary advantages and shortfalls of each system. The initial step in this research is to determine the test object. Soil with a mixture of brine chosen as a test object in this study because this type of soil has a lower resistivity than most other soil types. Determination parameters of the injection system is made to the process of merging with the induction system with the parameters that have been set. The potential difference of each system is influenced by the parameters used to determine the parameters necessary so that the system can work optimally. Parameter injection system with a rated current of 5 mA suitable as a parameter to the merger of the two systems. Therefore, the incorporation of the injection system 5 mA and magnetic field induction system is feasible.