

Analysis of Pollution in Agriculture Land Using Decagon Em-50 and Rock Magnetism Method

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Abstract : This measurement has been done to analyze the impact of industrial pollution on the environment. Our research is to indicate the soil which has contained some pollution by industrial activity around the area, especially in Sumedang, West Java. The parameter physics such as total dissolved solid, volumetric water content, electrical conductivity bulk and FD have shown that the soil has polluted and measured by Decagon EM 50. Decagon EM 50 is one of the geophysical environment instrumentation that is used to interpret the soil condition. This experiment has given a result of these parameter physics, these are: Volumetric water content (m^3/m^3) = 0,154 - 0,384; Electrical Conductivity Bulk (dS/m) = 0,29 - 1,11 ; Dielectric Permittivity (DP) = 77,636 - 78, 339. Based on these data, we have got the conclusion that the area has, in fact, been contaminated by dangerous materials. VWC is parameter physics that has shown water in soil. The data show the pollution of the soil at the place, of which the specifications are PH, Total Dissolved Solid (TDS), Electrical Conductivity (EC) bigger ($>>$) and Frequency Dependent (FD) smaller ($<<$); that means the soil is alkali with big grain and has high salt concentration.

Keywords : Decagon EM 50, electrical conductivity, industrial textiles, land, pollution

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