Analysis of Pollution Caused by the Animal Feed Industry and the Fertilizer Industry Using Rock Magnetic Method

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Abstract : Industrial activities get increase in this globalization era, one of the major impacts of industrial activities is a problem to the environment. This can happen because at the industrial production term will bring out pollutant in the shape of solid, liquid or gas. Normally this pollutant came from some dangerous materials for environment. However not every industry produces the same amount of pollutant, every industry produces different kind of pollution. To compare the pollution impact of industrial activities, soil sample has been taken around the animal feed industry and the fertilizer industry. This study applied the rock magnetic method and used Bartington MS2B to measured magnetic susceptibility (χ) as the physical parameter. This study tested soil samples using the value of susceptibility low frequency (χ lf) and Frequency Dependent (χ FD). Samples only taken in the soil surface with 0-5 cm depth and sampling interval was 20 cm. The animal feed factory has susceptibility low frequency (χ lf) = 111,9 – 325,7 and Frequency Dependent (χ FD) = 0,8 – 3,57 %. And the fertilizer factory has susceptibility low frequency (χ lf) = 187,1 – 494,8 and Frequency Dependent (χ FD) = 1,37 – 2,46 %. Based on the results, the highest value of susceptibility low frequency (χ lf) is the fertilizer factory, but the highest value of Frequency Dependent (FD) is the animal feed factory.