TINGKAT PENCEMARAN DARI *WASTEWATER TREATMENT PLANT* (WWTP) INDUSTRI KERTAS TERHADAP AIR TANAH DI PT. PAPERTECH INDONESIA, DESA MUNGKID, KABUPATEN MAGELANG, JAWA TENGAH

ABSTRACT

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Paper is a material that is thin and flat, usuallu made of wood. The main ingredient in the papermaking process is pulp. PT. Papertech Indonesia Unit II magelang is one of company that is enganged in the paper Industry, which is located very close to the very dense residential area, fields and rivers. Researchers want to know how big the leak wastes that affect the community around the factory environment, especially groundwater. Because waste water from the WWTP before being discharged into the river was through the ditch around the settlements.

The method used in this study is a survey method. Laboratory analytical methods and method of LeGrand which among others include : (1) Depth of groundwater surface, (2) Absorption above the groundwater surface, (3) Permeability of the Aquifer, (4) The tilt of the groundwater surface, (5) Horizontal Range. Laboratory analysis was conducted to determine levels of pH, TSS, BOD, COD and Pb based quality standard and measurement of efficiency WasteWater Treatment Plant (WWTP) in the paper Industry.

WWTP efficiency levels for COD parameter (73,22 %), BOD (70,23 %) and TSS (70 %) are quite efficient in the processing of waste water, whereas for Pb parameter (30,50 %) is not efficient. Based on the results of field measurements at 12 observation wells obtained small pollution potential class (very difficult polluted). Based on laboratory testing obtained BOD parameter exceeds the quality standard in all wells, COD parameter for all research wells exceeded the quality standard and Pb parameter above the threshold quality standards of government regulations, on 5th wells (0,061 mg/L), 7th wells (0,075 mg/L) and 12th (0,086 mg/L). At the WWTP is obtained Pb on the first day of sampling inlet is 1,697 mg/L and oulet 1,589 mg/L.

Keyword : Pollution level, Paper industry, Groundwater, Le Grand, efficiency