

**“FREE GROUNDWATER QUALITY TO JETIS DUMP SITE LECHATE IN
BULUS VILLAGE, PAKEM AND RENDENG, GEBANG SUB-DISTRICT,
PURWOREJO DISTRICT, CENTRAL JAVA PROVINCE”**

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ABSTRACT

Purworejo Regency has dump site contained in Pakem Village which is directly adjacent to the village Bulus, Gebang subdistrict with a land area of 4,69 hectares. Jetis dump site started operating since 1997 with a system of controlled landfill. Budget constraints resulted in the funds management system switches from controlled landfill into a technology open dumping. This reaserch was intended to leachate condition at Jetis Dump Site in around Bulus Village, Gebang sub-district, Purworejo and to know groundwater quality in research field based on chemical properties: pH, BOD, COD, Ammoniac, Nitrate and Lead.

This research refers to Government Regulation No. 82 of 2001 on The Management of Water Quality and Water Pollution Control and Regulation of The Central Java Regional No. 10 of 2004 on Waste Water Quality Standard for leachete sample (outlet). This research was conducted by analyzing the results of laboratory tests and quality standards are used. The initial step of this research is to create a map of groundwater flow to determine the water sampling. Water samples were taken and tested water samples by Health Laboratory Yogyakarta. After that, the results compared to the quality standard to determine groundwater quality research areas. In addition, to determine the status of water quality research areas were calculated using Pollutant Index.

Based on laboratory result, 2 well in research areas have exceed among the water pollution index for pH that is S1 (5,99) and S2 (5,98), COD that is S1 (11,15 mg/L) , S2 (32,8 mg/L) dan Lead for all water sample. In testing of samples of the leachate (outlet) parameter that exceeds Water Quality Processing and Water Pollution Control that is BOD (72,73 mg/L), COD (1.010,24 mg/L) and Pb (0,1825 mg/L). The quality of groundwater aroind the research area based os research index method is have low pollution index. Technical guidelines for proper management to address leachete contamination is by optimizing and updating pools leachete management based on the characteristics of the leachate.

Keyword : Landfill, Garbage, Groundwater, leachate, Ground Water Quality, Pollution.