

**ABSORPTION OF HEAVY METALS FROM LIQUID WASTE BY SOIL
AMALGAMATION PROCESS AT THE PEOPLE'S GOLD MINING
LAND IN BOTO VILLAGE, JATIROTO DISTRICT, WONOGIRI
REGENCY.**

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ABSTRACT

Amalgamation is a gold extraction process by mixing gold ore with mercury (Hg) so that it can pollute the environment around mining. This was aimed to 1) determine the ability of the soil as an adsorbent to adsorb heavy metals. 2) knowing the types of heavy metals that contaminate wastewater. Sampling of soil and water in the gold mining area of the people of Boto Village, Jatiroto District, Wonogiri Regency. The research was carried out by the Laboratory of Soil Conservation and Land Reclamation, Soil Science Study Program, Faculty of Agriculture, UPN "Veteran" Yogyakarta. For chemical analysis and analysis of heavy metals at the Center for the Study of Agricultural Technology (BPTP) Special Region of Yogyakarta. The method used in this research was to analyze the type of heavy metal content that is adsorbed in the soil using AAS (atomic absorption spectrometry) or often called atomic absorption spectrophotometry. The treatment was carried out by giving liquid waste from the amalgamation process to the soil that was not contaminated with metal. Analysis of heavy metal content including Hg, Pb, Fe and Mn. The results showed that Podsolc 2 soil was greater in adsorption of heavy metals Hg, Pb, Fe and Mn from amalgamated liquid waste than Podsolc 1 soil.

Key words : heavy metal, liquid waste, amalgamation, soil as adsorbent, adsorption