

## **ABSTRACT**

### **DISTRIBUTION OF HEAVY METAL COPPER (Cu) AND COBALT (Co) IN SEDIMENT PANJANG PORT BANDAR LAMPUNG**

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Distribution of heavy metal Cu and Co in sediment of the Panjang port had been investigated. Determination of the metal's concentrations were analyzed by Atomic Absorption Spectrophotometer. The analysis was carried out with four validation methods including: limit detection, accuracy, precision and linearity. The analysis result showed that concentrations of sediment in Panjang Port has high concentration of Cu and Co i.e.  $93,345 \pm 4,772$  ppm (Cu) and  $107,558 \pm 0,403$  ppm (Co), except at site F and G is low. The concentration respectively of both metal ions has been exceeding the standard heavy metal weight on sediment as stated by *The Ontario Ministry Of The Environment*. Validation method on the determination of the ions showed precision with the value of standard deviations  $< 5 \%$ , accuracy in the range  $80 - 113 \%$ , the limit detection for each ion  $0,004$  (Cu) and  $0,060$  ppm (Co), and the correlation coefficient of Cu and Co was  $0,9998$  and  $1$ . Temperature, pH and the stream were not affecting metal contents in sediment but suggested were influenced by the type of sediment.

Keywords: Distribution of heavy metals, Cu, Co, Panjang Port.