

ABSTRACT

DISTRIBUTION OF HEAVY METAL Cd AND Ni IN SEDIMENT OF PANJANG PORT BY ATOMIC ABSORPTION SPECTROPHOTOMETER (SSA) METHOD

By

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Distribution of heavy metals Cd and Ni in sediment of Panjang port Bandar Lampung was conducted . Metals concentration of Cd and Ni was determined by using spectrophotometer atomic absorption. validation method was performed by limit of detection, linearity, accuracy, and precision. The result showed that the concentration of Cd ranged from $152,4434 \pm 0,2089$ ppm to $153,2679 \pm 0,1152$ ppm, indicating above the quality standards set of the *National Sediment Quality Survey* USEPA (0,6 - 2,49 ppm). Heavy metal concentration of Ni ranged from $427,4125 \pm 0,1020$ ppm to $443,7875 \pm 1,5444$ ppm. The result showed that the concentration of Ni have exceeded the quality standard of USEPA (23,77 – 80,07 ppm). Validation of the method on determining the level of Cd and Ni metal in the sediments showed the high precision performing the relative standard deviation values (RSD) < 5%, accuracy in ranging 85,2153 - 98,7500 %, limit of detection for heavy metal Cd and Ni of 0,00047 ppm and 0,13258 ppm and correlation coefisient value for Cd and Ni metal of 0,99887 and 0,99964, respectively.

Key words : Cd, Ni, sediment, Panjang port, Heavy metal, AAS