

## ABSTRAK

### **PENENTUAN KANDUNGAN LOGAM BERAT TIMBAL, KADMIUM, DAN MANGAN PADA SEDIMEN MUARA SUNGAI WAY KURIPAN**

Oleh

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Telah dilakukannya penentuan kandungan logam berat Timbal, Kadmium, dan Mangan pada sedimen yang diperoleh dari Muara Sungai Way Kuripan Teluk Betung, Kota Bandar Lampung. Penelitian ini dilakukan untuk mengetahui cemaran logam berat di perairan Muara Sungai Way Kuripan Teluk Betung, Kota Bandar Lampung. Sampel yang diambil berasal dari 9 titik dan pengukuran logam berat Pb, Cd, dan Mn pada air serta pengukuran dengan parameter pH, Suhu, dan Kekeruhan sebagai data penunjang. Preparasi sampel dilakukan dengan cara destruksi basah dan dianalisis menggunakan Spektrofotometer Serapan Atom (SSA). Hasil analisis pada sampel sedimen menunjukkan bahwa kadar logam Pb antara  $23,625 \pm 0,310$  ppm –  $36,030 \pm 0,647$  ppm, logam Cd antara  $2,143 \pm 0,033$  ppm –  $2,421 \pm 0,028$  ppm, dan logam Mn antara  $98,776 \pm 0,425$  ppm –  $141,663 \pm 0,425$  ppm berada di bawah ambang batas yang telah ditetapkan *National Sediment Quality Survey* USEPA (2004). Hasil analisis kandungan logam Pb, dan Mn pada Air berturut-turut sebesar 0,049 ppm, dan 0,163 ppm berada di bawah baku mutu sedangkan logam Cd sebesar 0,22 ppm berada di atas baku mutu yang ditetapkan oleh Keputusan Kementerian Negara Lingkungan Hidup No. 51 tahun 2004 tentang Baku Mutu air laut serta pengukuran pH pada air didapatkan sebesar 7,2 – 7,7 dengan suhu sebesar 28 – 29 °C, dan kekeruhan sebesar 20,9 – 23,0 NTU.

**Kata kunci:** Sungai Way Kuripan, logam berat, sedimen, air.

## **ABSTRACT**

### **DETERMINATION OF THE HEAVY METAL CONTENT OF LEAD, CADMIUM, AND MANGANESE IN THE ESTUARY SEDIMENTS OF THE WAY KURIPAN RIVER**

**By**

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The content of heavy metals lead, cadmium, and mangan has been determined in sediment obtained from the Estuary of the Way Kuripan River in Teluk Betung, Bandar Lampung City. This research was conducted to determine the heavy metal contamination in the waters of the Way Kuripan River Estuary, Teluk Betung, Bandar Lampung City. The samples taken came from 9 points and measurements of heavy metals Pb, Cd, and Mn in water as well as measurements with pH, temperature, and turbidity parameters as supporting data. Sample preparation was carried out by wet digestion and analyzed using an Atomic Absorption Spectrophotometer (SSA). The results of the analysis on sediment samples showed that pb metal content between  $23.625 \pm 0.310$  ppm –  $36.030 \pm 0.647$  ppm, Cd metal between  $2.143 \pm 0.033$  ppm –  $2.421 \pm 0.028$  ppm, and Mn metal between  $98.776 \pm 0.425$  ppm –  $141.663 \pm 0.425$  ppm were below the threshold set by the National Sediment Quality Survey USEPA (2004). The results of the analysis of the metal content of Pb, and Mn in water are consecutively 0.049 ppm, and 0.163 ppm is below the quality standard while the Cd metal of 0.22 ppm is above the quality standard set by the Decree of the State Ministry of environment No. 51 of 2004 concerning Seawater Quality Standards and pH measurements in water were obtained by 7.2 – 7.7 with a temperature of 28 - 29 °C, and turbidity of 20.9 – 23.0 NTU.

**Keywords:** The estuary of the way kuripan, heavy metals, sediment, water.