

ABSTRAK

Putri Wulandari Hamid. NPM 05181811008. Analisis Kosentrasi Logam Berat Pb dan Cu di Perairan Pantai Pulau Ternate. Dibimbing Oleh Najamuddin dan Halikuddin Umasangadji.

Perairan Pantai Pulau Ternate merupakan salah satu perairan pulau-pulau kecil yang dipadati oleh beberapa aktivitas seperti, urban, pariwisata, dan pelayaran yang membuat aktivitas-aktivitas antropogenik ini telah memberikan dampak lingkungan, salah satunya deposisi logam berat pada material sedimen di perairan pantai. Penelitian ini bertujuan untuk mengetahui keberadaan dan distribusi serta konsentrasi dari logam berat Pb dan Cu di perairan pantai Pulau Ternate. Sedimen laut di koleksi sebanyak 15 sampel pada 5 stasiun yang berlokasi di Kastela, PPN Ternate, 2 Pusat Kormesial (Belakang jatiland mall dan belakang hypermart), PPI Dufa-Dufa. Sampel di ambil menggunakan Sedimen Core dan alat Scuba Diving. Hasil penelitian menyatakan kosentrasi Pb dan Cu tertinggi berada pada PPN Ternate dengan nilai kosentrasi sebesar 6.76 mg/kg dan 2.41 mg/kg masih di kategorikan rendah berdasarkan SEPA dan nilai terendah yang berada pada penelitian ini terdapat di Pantai Kastela dengan nilai kosentrasi Pb dan Cu sebesar < 0.01 mg/kg dan 0.3 mg/kg dan di katgorikan sangat rendah berdasarkan SEPA. Untuk kosentrasi logam berat pada penelitian ini menyatakan bahwa logam berat Pb (1.44 mg/kg) yang paling tinggi nilainya dari pada Cu (0.728 mg/kg). Penelitian ini menjelaskan bahwa keberadaan logam berat Pb dan Cu di perairan pantai Pulau Ternate memang ada akan tetapi tidak melewati ambang baku mutu sesuai dengan SEPA (*Swedish Environmental Protection Agency*), serta distribusi per stasiunnya begitu bervariasi. Dalam penelitian Pb dan Cu dalam sedimen di perairan pantai Pulau Ternate juga dilakukan pengambilah dan perhitungan data parameter fisika kimia perairan yang meliputi : pH, DO (Oksigen Terlarut), salinitas, suhu dan Arus.

Kata Kunci : Logam berat Pb dan Cu, Sedimen, Pulau Ternate

ABSTRACT

Putri Wulandari Hamid. NPM 05181811008. Analysis of Heavy Metal Pb and Cu Concentrations in Ternate Island Coastal Waters. Supervised by Najamuddin and Halikuddin Umasangadji.

The coastal waters of Ternate Island are one of the waters of small islands which are crowded with several activities such as urban, tourism, and shipping which make these anthropogenic activities have an environmental impact, one of which is the deposition of heavy metals on sedimentary material in coastal waters. This study aims to determine the presence and distribution and concentration of heavy metals Pb and Cu in the coastal waters of Ternate Island. Marine sediments were collected as many as 15 samples at 5 stations located in Kastela, PPN Ternate, 2 Commercial Centers (behind Jatiland mall and behind hypermart), PPI Dufa-Dufa. Samples were taken using Sediment Core and Scuba Diving tools. The results showed that the highest concentrations of Pb and Cu were in PPN Ternate with a concentration value of 6.76 mg/kg and 2.41 mg/kg still categorized as low based on SEPA and the lowest value in this study was at Kastela Beach with a Pb and Cu concentration value of < 0.01 mg/kg and 0.3 mg/kg and categorized as very low according to SEPA. For the concentration of heavy metals in this study, it was stated that the heavy metal Pb (1.44 mg/kg) had the highest value than Cu (0.728 mg/kg). This study explains that the presence of heavy metals Pb and Cu in the coastal waters of Ternate Island does exist but does not exceed the quality standard threshold according to the SEPA (*Swedish Environmental Protection Agency*), and the distribution per station is very varied. In the study of Pb and Cu in sediments in the coastal waters of Ternate Island, data collection and calculation of water physicochemical parameters were also carried out including: pH, DO (Dissolved Oxygen), salinity, temperature and currents.

Keywords : Pb and Cu heavy metals, Sediment, Ternate Island