

HEAVY METAL STUDY OF THE TERENGGANU
RIVER ESTUARINE SEDIMENT

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**HEAVY METAL STUDY OF THE TERENGGANU RIVER ESTUARINE
SEDIMENT**

BY

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ABSTRACT

This study was conducted to determine the concentration of Mn, Co, Cu, Cr and Fe in the Terengganu River Estuarine sediment. The sediments were collected on board UNIPERTAMA III from fifteen stations along the Terengganu River. The sediments were collected using box corer and brought back to the laboratory for analysis. Results showed that the average value for Mn ranged from $430.13 \pm 204.85 \mu\text{g g}^{-1}$, $21.36 \pm 9.88 \mu\text{g g}^{-1}$ for Co, $38.90 \pm 37.19 \mu\text{g g}^{-1}$ for Cu, $47.40 \pm 48.68 \mu\text{g g}^{-1}$ for Cr and $2.59 \pm 1.31 \%$ for Fe. Correlation analyzes between heavy metals with mean size showed almost negligible relationship and for heavy metal and organic carbon small correlation was observed with value ranges from 0.152 to 0.201.

ABSTRAK

Kajian ini dijalankan untuk menentukan kandungan logam Mn, Co, Cu, Cr, Fe di dalam sedimen Muara Sungai Terengganu. Sampel sedimen dikumpul di atas kapal UNIPERTAMA III daripada 15 stesen sepanjang Sungai Terengganu. Sedimen tersebut dikumpul menggunakan box corer dan dibawa balik ke makmal untuk dianalisis. Hasil keputusan menunjukkan purata logam berat dalam sedimen bagi Mn adalah dari $430.13 \pm 204.85 \mu\text{g g}^{-1}$, $21.36 \pm 9.88 \mu\text{g g}^{-1}$ untuk Co, $38.90 \pm 37.19 \mu\text{g g}^{-1}$ untuk Cu, $47.40 \pm 48.68 \mu\text{g g}^{-1}$ untuk Cr dan $2.59 \pm 1.31 \%$ untuk Fe. Analisis hubungan antara logam berat dengan min saiz menunjukkan perhubungan yang tidak ketara manakala bagi logam berat dan kandungan karbon organik, perhubungan yang lemah diperhatikan dengan nilai antara 0.152 hingga 0.201.