

GEOCHEMISTRY OF SOME HEAVY METALS AND SEDIMENT  
CHARACTERISTIC IN NERUS RIVER

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MALAYSIA

2003



1100024846

LP 14 FST 7 2003



1100024846

Geochemistry of heavy metals and sediment characteristic in Nerus river / Kok Yik Hoy.

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(KUSTEM)

Pengarang <b>KOK YIK HOY</b>		No. Panggilan <b>LP 13</b>	
Judul <b>GEOCHEMISTRY OF SOME HEAVY...</b>		<b>PSM 1</b>	
Tarikh	Waktu Pemulangan	Nombor Ahli	Tanda tangan
<b>11/2/04</b>	<b>6-00 pm</b>	<b>UK 7554</b>	<b>Myi</b>

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**By**

**KOK YIK HOY**

**This project report is submitted in partial fulfillment of the requirement for the degree of  
Bachelor of Science (Marine Science)**

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MALAYSIA  
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**1100024846**

UNIVERSITY OF SCIENCE AND TECHNOLOGY MALAYSIA  
FACULTY OF SCIENCE AND TECHNOLOGY

BY

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This project report is submitted to the University of Science and Technology Malaysia in partial fulfillment of the requirements for the award of the Bachelor of Science in Marine Science, Faculty of Science and Technology, College University of Science and Technology Malaysia.

This project report should be cited as:

KOK, Y.K.2003. Geochemistry of some heavy metals and sediment characteristic in Nerus River. Undergraduate thesis, Bachelor of Science in Marine Science, Faculty of Science and Technology, College University of Science and Technology Malaysia.

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## ACKNOWLEDGMENTS

The author wishes to extend sincerest thanks and appreciation to Dr. Kamaruzzaman bin Hj. Yunus for allowing me to take my first steps in the interesting field of Geochemistry and for his comments and suggestions that help me frame my project.

I wish to thank my parents for their support and loving encouragement as well as tower of strength in my hour of needs. I would also like to extend my gratitude to all my fellow partners under Dr Kamaruzzaman for their outstanding support towards the whole project. Special appreciations are extended to Ong, James and San for their lending help in times of need.

## ABSTRAK

Satu kajian mengenai taburan elemen-elemen kimia dijalankan di Sungai Nerus, Terengganu. Nilai purata bagi kepekatan logam Cu ialah  $53.1 \pm 70.9$  ppm, kepekatan Mn ialah  $817.3 \pm 988.5$  ppm, kepekatan Pb ialah  $38.6 \pm 96.9$  ppm dan kepekatan Zn ialah  $19.9 \pm 38.8$  ppm.

Normalisasi Li terhadap Cu, Mn, Pb dan Zn menunjukkan taburan elemen-elemen kimia dalam Sungai Nerus adalah berasal daripada sumber semulajadi. Ini dapat dibuktikan dengan nilai EF. Analisis korelasi terhadap kepekatan elemen kimia dan min saiz menunjukkan korelasi yang lemah. Nilai min saiz dalam kedua-dua musim menunjukkan perbezaan yang ketara iaitu nilai min saiz yang lebih tinggi sewaktu musim monsun. Parameter fizikal menunjukkan perubahan yang ketara dalam kedua-dua musim.

## ABSTRACT

A study was carried out in order to determine the distribution of Cu, Mn, Pb and Zn in Nerus River, Terengganu. The total mean concentration of Cu were  $53.1 \pm 70.9$  ppm, Mn with the value  $817.3 \pm 988.5$  ppm, Pb with the value  $38.6 \pm 96.9$  ppm and Zn with the value  $19.9 \pm 38.8$  ppm.

The normalization Li with Cu, Mn, Pb and Zn were observed and indicating the sediment of Nerus River, is within the expected natural range, and can be characterized as natural sediments. This was also proven with the EF value significantly about unity. The correlations between heavy metals with mean size show a negligible correlation. In this study, the mean size were observed and indicating a significant different within the non-monsoon and monsoon seasons, with the higher mean size in the monsoon season. The variation of physical parameters also shows the different between non-monsoon and monsoon seasons.