

WATER QUALITY ASSESSMENT OF PAKA
RIVER BASIN, TERENGGANU BASED ON
DEPARTMENT OF ENVIRONMENT
WATER QUALITY INDEX

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on department of environment water quality index / Loh Ai Lin,




Tarikh	Waktu Pemulangan	Nombor Ahli	Tanda tangan
4/2/07		uk 10167	CA
4/3/07	1.30 tgh	UK 10167	RAH
5/3/07	10.30 pm	UK 12334	MY
15/3/07	1.00 pm	UK 12462	2.

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Tarikh : 22/3/03

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Tarikh : 27/3/2003

WATER QUALITY ASSESSMENT OF PAKA RIVER BASIN
BASED ON DEPARTMENT OF ENVIRONMENT
WATER QUALITY INDEX (DOE-WQI)

LOH AI LING

**This project report is submitted in partial fulfillment of the requirements for
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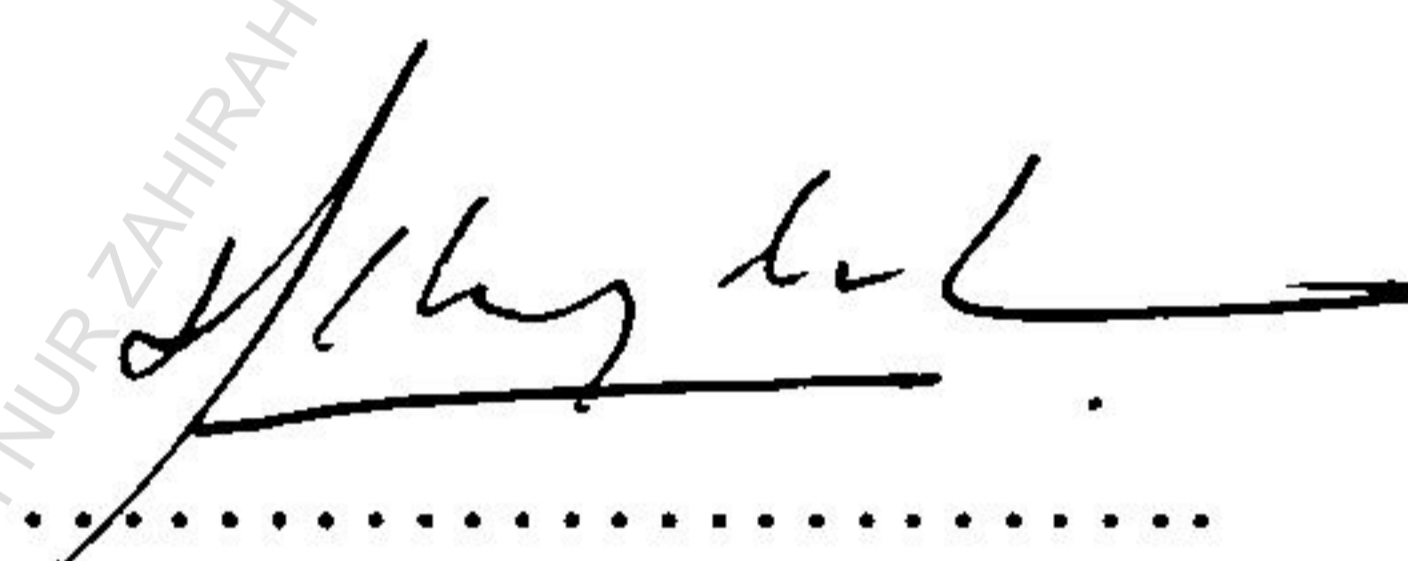
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ABSTRACT

A water quality study was conducted along Paka River Basin, Terengganu. The study that involved four times sampling was carried out from July 2002 to November 2002. Six parameters that scheduled in list 1 parameter of Department Of Environment Water Quality Index (DOE-WQI) were chosen for water quality appraisal. The selected parameters, which included acidity (pH), dissolved oxygen (DO), biochemical oxygen demand (BOD₅), chemical oxygen demand (COD), ammoniacal-nitrogen (AN@NH₃-N) and total suspended solid (TSS) were determined either by *in-situ* method or laboratory method. The first two parameters were tested by *in-situ* method and the remainings were tested by laboratory method. The American Public Health Association (APHA) standard methods for Examination of Water and Wastewater, 20th edition that published in 1998 were adopted to carry out the laboratory test. The result from this study indicated that all the stations were unpolluted except for the two polluted stations located at the creek of Rengat River and the creek of Rasau River. Nonetheless, overall WQI of Paka River Basin was 72.43 and can be classified as class III with the status of slightly polluted.

ABSTRAK

Satu kajian kualiti air telah dijalankan di sepanjang Lembangan Sungai Paka, Terengganu. Kajian ini yang melibatkan empat kali penyampelan yang telah dijalankan dari Julai 2002 sehingga November 2002. Enam parameter yang dijadualkan di dalam senarai parameter 1 Indeks Kualiti Air Jabatan Alam Sekitar (IKA-JAS) telah dipilih untuk penilaian kualiti air. Parameter-parameter terpilih termasuk keasidan (pH), oksigen terlarut (DO), keperluan oksigen biokimia (BOD), keperluan oksigen kimia (COD), amoniakal-nitrogen ($\text{AN@NH}_3\text{-N}$), jumlah pepejal terampai (TSS) ditentukan dengan kaedah *in-situ* dan kaedah makmal. Kedua-dua parameter yang pertama diuji secara *in-situ*. Empat parameter yang seterusnya diuji dengan kaedah makmal. Kaedah piawai *American Public Health Association (APHA) for Examination of Water and Wastewater*, edisi 20 yang diterbitkan pada tahun 1998 digunapakai untuk menjalankan ujian makmal. Keputusan daripada kajian ini menunjukkan semua stesen penyampelan adalah tidak tercemar kecuali dua stesen yang bertempat di alur Sungai Rengat dan alur Sungai Rasau adalah tercemar. Walau bagaimanapun, IKA keseluruhan bagi Lembangan Sungai Paka adalah 72.43 dan boleh diklasifikasikan sebagai kelas II dengan status tercemar sedikit.