

HYDROGRAPHIC SURVEY OF WHARF AT
NORTHPORT, PORT KLANG

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HYDROGRAPHIC SURVEY OF WHARF AT NORTHPORT, PORT KLANG

**BY:
NOR AINI BINTI HUSAIN**

**A Thesis in partial fulfillment of
the requirement for the award of the degree of
Bachelor of Applied Science (Maritime Technology)**

**DEPARTMENT OF MARITIME TECHNOLOGY
FACULTY OF MARITIME STUDIES AND MARINE SCIENCE
UNIVERSITI MALAYSIA TERENGGANU**

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DEPARTMENT OF MARITIME TECHNOLOGY
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DECLARATION AND REPORT CONFIRMATION OF MTM4299

Is this acknowledged and confirmed that research report entitled:

Hydrographic Survey of Wharf at Northport, Port Klang by Nor Aini Binti Husain, Matric No. : UK17722 was inspected and all correction that suggested was done. Report this posed to Department of Maritime Technology as fulfill part of the requirements obtain Bachelor Degree of Applied Science (Maritime Technology).

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DECLARATION

I admit entitled thesis Hydrographic Survey of Wharf at Northport, Port Klang is my own work except citation and summary that each one has I explain the source.

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ABSTRAK

Tinjauan hidrografi di pelabuhan adalah sangat penting bagi menyokong keselamatan navigasi kapal. Kajian ini tertumpu di kawasan laut di Pelabuhan Klang iaitu di Pelabuhan Utara (Northport). Pelabuhan Utara terletak pada Lat 03'Long N .101 ° 24' ° 00 E, merupakan lokasi yang strategik iaitu di tengah-tengah Pantai Barat Semenanjung Malaysia. Tinjauan hidrografi dilakukan di dermaga Pelabuhan Utara, kira-kira 3 kilometer panjang, bagi mengukur dan mengemas kini kedalaman laut sebelum proses pengorekan dijalankan. Untuk proses pengukuran, peralatan yang digunakan terbahagi kepada; peralatan untuk mengukur kedalaman, untuk menentukan kedudukan dan untuk mengukur paras pasang surut. Kedalaman diukur dengan menggunakan Single-beam Echo Sounder bersama transduser yang mana merupakan alat yang biasa di gunakan di pelabuhan. Selain itu, Sistem Kedudukan Global (GPS) atau (DGPS) juga digunakan. Data yang diperolehi daripada aktiviti pengukuran dilog untuk membetulkan parameter dan seterusnya untuk memproses dan menganalisis data. Daripada maklumat tinjauan, carta batimetri di dermaga dihasilkan. Hasil kajian menunjukkan perbezaan struktur batimetri yang signifikan seperti yang telah ditunjukkan oleh carta batimetri; lokasi yang lebih dekat dengan dermaga adalah lebih cetek iaitu antara 1 hingga 4 meter. Maklumat ini bersama-sama dengan batimetri diperlukan untuk kerja pengorekan.

ABSTRACT

A hydrographic survey of port is very important to support the safe navigation of ships. This research had focus in Port Klang sea area which is Northport. Northport, at Lat 03°00' N. Long 101°24' E, is strategically located midway on the West Coast of Peninsular Malaysia. Hydrographic surveys were done at Northport's wharf, about 3 kilometers long in order to measure the depth and declaring the update one before dredging process take place. For surveying process, the equipments used falls within the broad grouping of equipment to measure depth, to establish position, and to measure water level. Depth is measured using Single-beam Echo Sounder with its multi-transducer which is the most common tool used in port. Global Positioning System (GPS) or Differential GPS (DGPS) as positioning equipment while tide gauge equipment will be used to measure water level. The data collected from surveying is logged to correct parameters for further with data processing and analyzing. From the surveys information, graphical bathymetry chart of the wharf are generated. The result showed a significant difference of bathymetry structure between surveys as indicated by the bathymetry charts; much shallower at locations closer to the wharf between 1 to 4 meters. This information together with the bathymetry is needed for dredging work.