TO DESIGN A MODEL OF EVOLUTION WATER WASTE TRAP

By

IKHSAN HASHIM AHMAD RAZALI YATIMIN MOHD FEAIROZ SULAIMAN

A Project Report Submitted
In Partial Fulfillment of the Requirement For The
Diploma In Mechanical Engineering
Faculty Of Engineering
Mara University Of Technology

Department Of Mechanical Engineering

AC KNOW L E DC EMENT

APPRO VA L DOC EMENT

PROBLEM WATER

- INTRODUCTION OF WATER
- WATER PROBLEM
- SUGGESTION

FIBRE GLASS

- INTRODUCTION
- FIBREGLASS REINFORCED COMPOSITES
- TYPE OF GLASS FIBRE
- TYPE OF FIBREGLASS REINFORCING MATERIALS
- MATRIX MATERIALS
- COMPOSITE FABRICATION PROCESS

FILTERS

- INTRODUCTION OF FILTERS
- TYPE OF FILTERS

WASTE WATER TREATMENT

- INTRODUCTION OF WASTE WATER TREATMENT
- BRAINSTOMING
- * COLLECTING DATA
- * COST PRODUCT
- * DESIGN PROJECT
- DESIGN ANALYSIS

ACKNOWLEDGEMENT

in the name of Allah, the most Gracious and Merciful. Ali the praises and thanks only for Him. We are grateful for him to give us courage to finish this final project.

First of all, we would like to convey our gratitude and thankfulness to our project advisor, Puan Dzullijah Ibrahim for her guidance, supervision, encouragement and discussion throughout the work on this project.

We also like to thank to En. Wahab from Majlis Perbandaran Seberang Perai (MPSP) for their help and contribution of data and information required for our project.

Thank you also must be conveyed to En. Rosfan from Insa Java, Kawasan Industri Kecil Mara, Pongsu Serihu, Kepala Batas.

Not to forget, thank you to the owner of Cafeteria UiTM for their permission and cooperation given to us to make possible of the project testing and analysing

Lastly, thank you and appreciation to all above mentioned and any parties which involved directly or indirectly in preparation of this final project.

May Allah bless you.

MARA UNIVERSITY OF TECHNOLOGY PENANG BRANCH

APPROVAL DOCUMENT

TITLE: TO DESIGN A MODEL OF EVOLUTION WATER WASTE TRAP COURSE SESION: APRIL 2002 - OCTOBER 2002

iKHSAN HASHIM

99302486

allow that our report to be kept in iibrary Mara University Of Technology,

Penang Branch with these terms:

I Report will he property of Mara University Of Technology, Penang Branch.

2. UiTMPP library is allow to make a copy of this report.

Prepared by;

Name: iKHSAN HASHIM

Address: No 5, JaIan Bahagia,

132000 Kepala Batas,

Seberang Perai, Pulau Pinang.

Date: 10 October 2002

App roved

Supe tyisor name;

PN. DZULLIJAH IBRAHIM

DZULLIJAH BT IBRAHIM

Pensyarah

Jabatan Kejuruteraan Mekanikal Iniversiti Teknologi MARA Pulau Pinang 13500 Permatang Pauh

PULAU PINANG

1.1 introduction of water

Water is generally classified into two group: surface water and ground water. Surface water is just what the name implies,-it is water found in a river, lake or other surface impoundment. This water is usually not very high mineral content, and many time is called "soft water "even though it usually is not. Surface water is exposed to many different contaminant, such as animal wastes, insecticides, industrial wastes, algae and many other organic material". Even surface water found In a pristine mountain steam possible contain Giardia or Conform bacteria from the feces of wild animal, and should be boiled or disinfected by some means prior to drinking.

Ground Water is that which is trapped beneath the ground. Rain that soak into the ground, river that disappear beneath the earth, melting snow are but few of the sources that recharge the supply of underground water. Because of many sources of recharge, ground water may contain any or all of the