

**EVALUATION THE PERFORMANCE OF TWO STAGE FIBER FILTER
SYSTEM**

By

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DECLARATION BY CANDIDATE

I (Emmie Fadzreena Bt Mahadi, 2006132943) confirm that the work in this report is my own work and appropriate credit has been given where reference has been made to the work of other researches.

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ABSTRACT

Water is undoubtedly the most essential resource for mankind survival. However, during the recent development of the country, water pollution has become such an inevitable and yet serious problem. In order to mitigate this problem, there are several new technologies being introduced to treat polluted raw water. However, the introduction of these new technologies has caused difficulties to water services provider in choosing the appropriate system. Therefore studies to evaluate performance of Lift Pore Controlled Fiber (LPCF) Filter systems were conducted in order to facilitate selection of this. The purpose of the study is to investigate the efficiency and effectiveness of LPCF system for pollutant removal such as COD, total phosphorous, pH, and conductivity in raw water. Average removal efficiency for COD, TP and turbidity was found to be at 56.84%, 90.56% and 99.6%. There were no significant changes to the pH and conductivity of treated water with relative increment of only 6.04% and 8.66% respectively. The results show that the LPCF filter system is effective in removing selected pollutant in water and the treated water is within the limits stipulated by WHO for drinking water.

Keywords: *Fiber Filter, Filtration System, Backwash.*

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