


This Final Year Project Report entitled "Cadmium Concentration in Water Supply from Telibong Water Treatment 2 to its Receivers" was submitted by
CADMIUM CONCENTRATION IN WATER SUPPLY FROM TELIBONG WATER TREATMENT 2 TO ITS RECIEVERS
of the Degree of Bachelor of Science (Hons.) Biology in the Faculty of Applied Sciences and was approved by



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ABSTRACT

CADMIUM CONCENTRATION IN WATER SUPPLY FROM TELIBONG WATER TREATMENT 2 TO ITS RECIEVERS

Water supply from Telibong Water Treatment Plant 2 comes from three different sources of raw water which are fully from river, fully from dam or mix of river and dam. The raw water undergoes treatment before being distributed to supply receivers. The water supply might be contaminated with cadmium along the channel as it passes through several pipes and tanks. This study focuses on heavy metal cadmium as cadmium is toxic to human and animals even at low levels. Therefore, analysis was carried out on cadmium concentration in water supply from Telibong Water Treatment Plant 2 to its receivers. Water samples were taken from Sungai Tuaran, Telibong 2 dam, Telibong Water Treatment Plant 2, K1 tank, R17B tank, R17C tank, K2 tank, R13 tank and UiTM Sabah tank with three replications. Cadmium concentration in water supply was analyzed using Atomic Absorption Spectrophotometer (AAS) machine. The result showed that water supply from fully dam raw water source has the highest cadmium concentration with the value of 0.846 mg/L which is exceeding the maximum acceptable value set by Ministry of Health. The pattern of cadmium concentration is increasing throughout the channel and UiTM Sabah has highest cadmium content in the channel with the concentration of 0.880mg/L. The increase in cadmium contamination in the water supply after being treated showed that there is contamination of cadmium occurred during treatment. UiTM Sabah also has the highest difference in cadmium concentration from the maximum acceptable value. This indicates that UiTM Sabah faces the highest risk to health problems due to cadmium toxicity. Further studies are encouraged to use smaller standard which is below 0.01ppm to increase accuracy in the concentration content and identify the factors that contribute to high level of cadmium in fully dam water source.