

**DETERMINATION OF HEAVY METAL  
(CADMIUM, MANGANESE AND ALUMINIUM)  
CONCENTRATION IN LIKAS RIVER**

**MUHAMMAD FAIZAN BIN MASNAN**

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ACKNOWLEDGEMENT	PAGE
LIST OF TABLES	ii
LIST OF FIGURES	vii
LIST OF ABBREVIATIONS	viii

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2.1	Introduction	15
2.2	Formulation of Samples	16
2.3	Preparing Small Inoculated Tubes	17
2.4	Microbial Analysis	17
4.1	RESULTS AND DISCUSSION	
4.2	Data used for all values	19
4.3	Comparison of biochemical activities used	21
4.4	Comparison of physiological content in each group	25
4.5	Interpretation of the results	

Muhammad Faizan Bin Masnan

APPENDICES	28
LIST OF REFERENCES	33
APPENDICES	37

## TABLE OF CONTENTS

	<b>PAGE</b>
<b>ACKNOWLEDGEMENT</b>	iii
<b>LIST OF TABLES</b>	v
<b>LIST OF FIGURES</b>	vii
<b>LIST OF ABBREVIATIONS</b>	viii
<b>ABSTRACT</b>	ix
<b>ABSTRAK</b>	x
<b>1.0 INTRODUCTION</b>	<b>PAGE</b>
1.1 Background Study	1
1.2 Problem Statement	3
1.3 Significant of the Study	3
1.4 Objectives of the Study	4
<b>2.0 LITERATURE REVIEW</b>	
2.1 River Pollution	5
2.2 Determination of Water Quality	6
2.3 Characteristic of Heavy Metal	7
<b>3.0 METHODOLOGY</b>	
3.1 Samples Integrity	10
3.2 Sampling Sites	11
3.3 Equipment's	15
3.4 Material Data Sheets	16
3.5 Sampling Technique	16
3.6 Preservation of Samples	16
3.7 Preparing Stock Standard Solution	17
3.8 Statistical Analysis	17
<b>4.0 RESULTS AND DISCUSSION</b>	
4.1 Data sheet for all station	19
Comparison of heavy metal in different land used	22
4.2 Comparison of heavy metal present in each station	25
4.3 between April, May and June	
<b>5.0 CONCLUSION AND RECOMMENDATIONS</b>	28
<b>CITED REFERENCES</b>	30
<b>APPENDICES</b>	33

## LIST OF TABLES

<b>TABLE</b>	<b>TITLE</b>	<b>PAGE</b>
3.1	Characteristic of Sampling Stations	13
3.2	Characteristic of Sampling Stations	14
3.3	Heavy metal concentration range	17
4.1	Data sheet for all station in month of April	19
4.2	Data sheet for all station in month of May	20
4.3	Data sheet for all station in month of June	21
4.4	Cadmium concentration in three different months	25
4.5	Manganese concentration in three different months	26
4.6	Aluminium concentration in three different months	27
5.14	Average Heavy Metal concentration in month of April	41
5.15	Heavy Metal concentration in month of May	42
5.16	Average Heavy Metal concentration in month of May	43
5.17	Heavy Metal concentration in month of June	43
5.18	Average Heavy Metal concentration in month of June	43
5.19	National Water Quality Standards For Malaysia	44

## ABSTRACT

### DETERMINATION OF HEAVY METAL (CADMIUM, MANGANESE AND ALUMINIUM) CONCENTRATION IN LIKAS RIVER

Water quality status in rivers can be determined by various factors such as physical factors, chemical factors and heavy metals pollution. In this study, three types of heavy metals namely Cadmium (Cd), Manganese (Mn) and Aluminium (Al) were determined in seven selected sampling station along the Likas River. The selections of stations were based on their land used such as industrial development including houses, factories and also villages. The water sampling was done in 3 consecutive months of April, May and June 2013. Water samples collected using polietilena bottle, then preserved using 70% Nitric Acid and analysis using AAS machine model PG990. Sampling station 7 located to lower stream recorded the highest reading of Cadmium (0.931 ppm), Manganese (0.506 ppm) and Aluminium (11.803 ppm) between other stations. Concentrations of these three heavy metals were different in each sampling stations and also vary in different months. Heavy metals of Cadmium, Manganese and Aluminium were determined according to land used that present at each sampling stations for 3 consecutive months. Few types of other heavy metals can be determine in future research and proper equipment can also be used to get better data.