ISOLATION AND IDENTIFICATION OF WATER-BORNE BACTERIA FROM CLSU WATER SYSTEM

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

LIST OF APPENDIX TABLES

LIST OF APPENDIX FIGURES

ABSTRACT

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Water is essential to life, it is used in recreational activities in every household, water is said to be a best way on disseminating pathogenic microbes because it can harbor many microorganisms such as bacteria and fungi that can cause various water-borne infections and diseases in plants, animals and also human. MPN of coliforms was evaluated on water sample from CLSU water system by multiple fermentation tubes. Results have showed that water sample has 45/100 ml coliform count and graded as unsatisfactory. Two (2) strains of *Pseudomonas* sp., one (1) strain of *Escherichia coli*, one (1) strain of *Enterobacter aerogenes* and one (1) strain of *Klebsiella michiganensis* was identified using 16s molecular marker after subjected to BLAST analysis and morphological-cultural characterization. Molecular approach with the traditional way of morphological and cultural characterization in identifying microorganism has been a widely used technique, and with the use of 16s rDNA sequencing as a tool this study are able to identify fecal coliforms isolated from CLSU water system.

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