

**WATER QUALITY ANALYSIS OF SELECTED  
GROUNDWATER OF INDANG**

**Research Study**

**KIMWEL MERIAH SOFYA D. MATEL  
ELLIAH AUBREY G. ROXAS  
FRANCES ALLYAN A. TENA**

**Science High School  
CAVITE STATE UNIVERSITY**

**Indang, Cavite**

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# **WATER QUALITY ANALYSIS OF SELECTED GROUNDWATER OF INDANG**

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Submitted to the Faculty of  
Science High School, College of Education  
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Indang, Cavite

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*Water quality analysis of selected  
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**KIMWEL MERIAH SOFYA D. MATEL**  
**ELLIAH AUBREY G. ROXAS**  
**FRANCES ALLYAN A. TENA**  
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## ABSTRACT

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A study entitled “Water Quality Analysis of Selected Groundwater of Indang” generally aimed to determine the quality of selected groundwater of Indang. Specifically, the study was undertaken to: 1. determine the physical properties of selected groundwater of Indang in terms of color and turbidity; 2. determine the chemical properties of selected groundwater of Indang in terms of chlorine residual, hardness, iron content, and pH level; 3. determine which among the selected groundwater of Indang has a possible presence of coliforms; 4. and determine which among the selected groundwater of Indang has a higher bacterial presence.

The physical properties of selected groundwater of Indang based on the results of the study in terms of color, Calumpang Cerca, Bancod, Binambangan, and Buna Cerca are all colorless. In terms of turbidity, Calumpang Cerca has been considered to have low turbidity, Bancod has been considered to be slightly turbid, and Binambangan and Buna Cerca have been considered to be moderately turbid. The chemical properties of selected groundwater of Indang in terms of chlorine residual, Calumpang Cerca, Bancod, Binambangan, and Buna Cerca all passed the desirable level for chloride content in groundwater. In terms of hardness, Calumpang Cerca is considered to be hard while Bancod, Binambangan, and Buna Cerca are considered to be very hard. In terms of iron content, Calumpang Cerca, Bancod, Binambangan, and Buna Cerca all contain clear

water iron. In terms of pH level, Calumpang Cerca, Bancod, Binambangan, and Buna Cerca groundwater are all neutral in nature. Total coliforms are present in water samples from Calumpang Cerca, Bancod, Binambangan, and Buna Cerca, while Calumpang Cerca water samples had the most bacterial presence.

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**Kimwel Meriah Sofyya D. Matel**  
**Elliah Aubrey G. Roxas**  
**Frances Allyan A. Tena**

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## **INTRODUCTION**

World Health Organization (WHO, 2008) stated that water is one of the important elements of all forms of life. More than 95 percent of the world's available fresh water is underground. This groundwater is valuable as a source of drinking water for most communities in the world, especially small ones. One of the water forms used as a source of drinking water is the groundwater. Groundwater has traditionally been considered to be the water source least susceptible to contamination by indicator bacteria or human pathogens. It is now recognized that the quality of groundwater is just as important as its quantity. The quality required of a groundwater supply depends on its purpose; thus, needs for drinking water, industrial water, and irrigation water varies widely.

Water quality standards are put in place to ensure the efficient use of water for a designated purpose. Water quality analysis is done to measure the required parameters