

การวิเคราะห์คุณภาพน้ำดิบในแหล่งน้ำที่ใช้ทำน้ำประปา

Raw Water Quality Analysis for Water Supply Production



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Abstract

Currently, tap water is the primary source of water for the public in daily life, whether for consumption, domestic use, or other activities related to cleanliness and hygiene in society. However, in many areas of Thailand, tap water users are unaware of the source of the water used for tap water production, as well as the quality of the raw water used in its production. This may result in consumers receiving water of low quality or unsafe for use, especially if the raw water source is contaminated or contains harmful substances that affect health.

Not knowing the quality of the raw water source used for tap water production puts consumers at risk of receiving water with undesirable properties, such as pH levels, turbidity, hardness, heavy metal content, or other chemicals that may have adverse health effects. Therefore, understanding and analyzing the quality of raw water is essential to ensure that tap water users can have confidence in the water quality used in daily life and take timely action to prevent and resolve any issues that may arise from unsafe water.

Studying and analyzing the quality of raw water used in tap water production will help users become aware of the quality of the water they are using, reducing the risks associated with contaminated or polluted water, especially in areas where the water sources may not be properly monitored or regulated by the relevant authorities. Furthermore, the data obtained can be used to improve the tap water production process, ensuring higher water quality, which will ultimately allow the public to use tap water with confidence and safety.

The organizing team has therefore developed this idea, recognizing the importance of enabling water users to accurately understand the quality of the water they use in their daily lives, and to take preventive measures against issues that may arise from unsafe water. This will help promote the development and improvement of the tap water production process to meet quality standards and ensure that the public receives clean and safe water for consumption.

Origin and importance of the product

accurately perceive the quality of water used in daily life, as well as take preventive measures to address potential issues from unsafe water.

Objective

- To study and analyze the quality of raw water from sources used in the production of tap water by checking various parameters related to raw water quality, such as pH level, heavy metal content, or other chemicals.
- To use the data obtained for improving the quality of tap water and to provide useful information to tap water users for safe daily life.

Research question

- Can the raw water source used for analysis provide accurate results for water quality?
- After the analysis, how can the water quality of tap water be determined to be safe?

Research hypothesis

Analyzing the raw water source used for tap water production will help determine the water quality parameters of the raw water source and can be used to study potential solutions for improving low water quality based on the results from the raw water quality analysis.

Result

ค่าที่ใช้วัด	น้ำที่นำมาตรวจ		
	น้ำจากแหล่งน้ำที่ 1	น้ำจากแหล่งน้ำที่ 2	น้ำจากแหล่งน้ำที่ 3
pH	5.77 ±0.10	5.75±0.09	5.73±0.07
TDS(mg/L)	59±5.29	52±0	52±0.58
DO(mg/l)	6.93±0.06	7.24±0.02	6.83±0.19
EC (µS/cm)	119±7.81	104±0.58	105±0.58
salinity (ppm)	58±1.73	52±0	52±0

Experimental method

Part 1

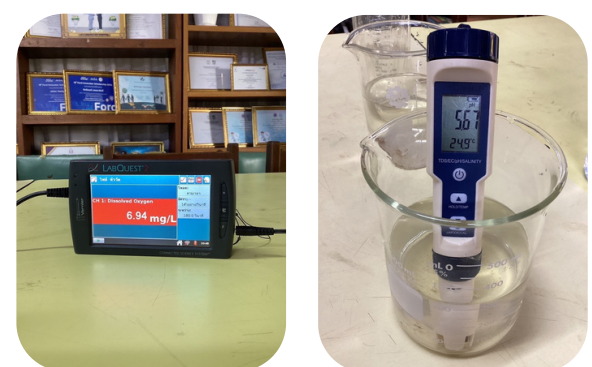


Experimental method

Part 2



Equipment



Refer

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