

# 2024 TINIAN WATER QUALITY REPORT

JULY 1, 2025

# 2024 CUC Tinian Water Quality Report

This report is designed to inform you about the water CUC delivers to you, our customer. Our goal is to provide you and your family a safe and dependable supply of drinking water.

Today, 100% of Tinian water customers enjoy 24-hour water service. Our CUC water employees continue to strive to deliver a quality product to all of our customers and to protect the CNMI's water resources.

To ensure the safety of your water, CUC routinely monitors for contaminants in your drinking water according to CNMI Bureau of Environmental and Coastal Quality (BECQ) and the United States Environmental Protection Agency (EPA) laws, rules, and regulations.

Each year, trained laboratory and water treatment specialists conduct or supervise more than 1,000 tests on Tinian water samples. Water quality samples are collected throughout the CUC Tinian water systems and tested regularly. Samples include untreated and treated water taken from our facilities, sample sites throughout the service areas, and at customers' homes.

Except where indicated otherwise, this water quality report is based on the results of CUC's monitoring for the period of January 1, 2024, to December 31, 2024. Any results reported before January 1, 2024, and presented here, are from the most recent monitoring period.

## A Message from the CUC Acting Deputy Executive Director

I'd like to take this opportunity to share with our valued customers the major accomplishments and ongoing efforts of CUC to deliver reliable, high-quality water service. Each year, we produce an Annual Water Quality Report to keep you informed about the safety and quality of your drinking water.

CUC serves 14 tank areas with 134 wells, one spring, and two Maui wells on Saipan, one Maui well on Tinian, and one spring and three wells on Rota. Our dedicated team of engineers, operators, technicians, lab analysts, and administrative staff work around the clock to ensure continuous, safe water service.

Thanks to strong partnerships and federal funding from agencies such as the U.S. Environmental Protection Agency (EPA), the Economic Development Administration (EDA), the American Rescue Plan Act (ARPA), the Department of Interior-Office of Insular Affairs, the Northern Marianas Housing Corporation Community Development Block Grant-Disaster Recovery (NMHC CDBG-DR), and the Hazard Mitigation Grant Program (HMGP), CUC continues to improve water infrastructure across the CNMI.

Our completed projects include the San Antonio Waterline Replacement, Isley and Obyan GAC Filtration System, Kagman Modular Tank Relocation (Phase I), Sadog Tasi Clarifier Replacement, A-5 and A-16 Lift Station Upgrades, Phase I Sewer and Manhole Replacements in Capitol Hill, Tanapag, and Oleai, Garapan Sewer Improvements, and Lower Base Sewer Replacement – Phase I.

Under construction are waterline replacements in Kailing, Sihek, Tangan-Tangan, and Commonwealth Drives; Agag Booster Pump Upgrade; AMI/AMR Pilot Study (Phase I); Dandan and Kagman Tank Projects; As Matuis Temporary Tank; Chalan Galaide and Afetnas Waterline Replacements; Sewer Replacement (Phase II); Agingan WWTP Upgrade; Island-Wide Sewer Improvements (Lower MIHA); and A-5 and A-16 Lift Station Upgrades and Relocations.

Design is ongoing for projects such as the Lower Base/San Roque Cut & Cap, As Teo and Isley-As Perdido Waterline Replacements (Phases I–II), Dandan Homestead, Tinian Marpo Heights, and Chalan Kanoa Sewer Line Repairs.

Upcoming projects include the Donni Springs Rehabilitation, As Matuis Tank Replacement, PFAS Treatment at Isley Tank, Marpo Valley Waterline, well rehabilitations in Tinian, Rota water system improvements, Chalan Kanoa and Capitol Hill Sewer Replacements, Navy Hill Sewer Rediversion, and multiple wastewater facility and sewer lift station upgrades.

Our staff continues to make progress on the multi-year Sustainable Water Infrastructure Management Strategy (SWIMS) Program, a comprehensive approach to managing and reducing Non-Revenue Water and delivering 24-hour safe and affordable drinking water to meet all quality control standards for the Commonwealth of the Northern Mariana Islands. We will continue working collaboratively with all our partners to meet or exceed all regulatory standards, providing 24-hour water service and more palatable water for all we serve.

**Rodolfo Steven Rodriguez**  
*Acting Deputy Executive Director for Water and Wastewater*



## The Sources of CUC Tinian Water

The primary source of water for the island of Tinian is one (1) Maui-type well. To control bacterial contamination in our water, the CUC operates one chlorine treatment station.

Every day, CUC water operators measure and adjust the trace amounts of chlorine added to the water before it goes into the water lines to you, our customer.



Blowhole, Tinian

## How Drinking Water Becomes Contaminated

The sources of drinking water, both tap water and bottled water, include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals, and in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.






Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm-water runoff, and septic systems.



Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

Contaminants that may be present in source water include:

-  Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
-  Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm-water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
-  Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm-water runoff, and residential uses.

In order to ensure that your tap water is safe to drink, the US EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the **EPA's Safe Drinking Water Hotline** at **1 (800) 426-4791** or on the Internet at [www.epa.gov/safewater/](http://www.epa.gov/safewater/).

## For People with Sensitive Immune Systems

**Some people may be more vulnerable to contaminants in drinking water than the general population.**

Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone an organ transplant, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from health care providers. The US EPA and the Centers of Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available at the **US EPA's Safe Drinking Water Hotline** at **1 (800) 426-4791** or on the Internet at [www.epa.gov/safewater/](http://www.epa.gov/safewater/).

## Information About Nitrates

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider. CUC tests the water in Tinian at least once per year. The amount of nitrates in all CUC water is below the health effect level.

**For more information about your water quality, please call our Water Laboratory at (670) 322-5140.**





Microbiological Contaminant	Ideal Goal MCLG	Highest Level Allowed	Year Tested	Number of Positive Samples in Assessments Conducted	Month	Major Source of Contaminant
Coliform Bacteria	Zero	No more than 1	2024	Two (2) positive samples in September		Naturally present in the environment
<b>More than 1 positive sample triggers a Level 1 Assessment</b>						
Disinfection Residual	MRDLG	MRDL	Year Tested	Highest Running Annual Average	Range	Violation?
Chlorine (ppm)	4	4	2024	1.3	0.2 - 3.2	NO
Disinfection By-Products at Taps	MCLG	MCL	Year Tested	Highest Running Annual Average	Violation?	Major Source of Contaminant
Total Trihalomethanes (TTHM) Locational Running Annual Average (ppb)	NA	80	2024	6.5	NO	By-product of drinking water disinfection
Inorganic Contaminants	MCLG	MCL	Year Tested	Highest Result	Violation?	Major Source of Contaminant
Barium (ppm)	2	2	2022	0.0031	NO	Erosion of natural deposits; discharge of drilling wastes; discharge from metal refineries
Copper (ppb)	1.3	1.3	2022	0.0024	NO	Erosion of natural deposits; corrosion of water lines
Fluoride (ppm)	4	4	2023	0.098	NO	Erosion of natural deposits
Nitrates + Nitrites as Nitrogen (ppm)	10	10	2024	4.37	NO	Runoff from fertilizer; leaking septic tanks; sewage; erosion from natural deposits
Per- and Polyfluoroalkyl Substances	MCLG	MCL	Year Tested	Highest Result	Violation?	Major Source of Contaminant
Perfluorooctanesulfonic acid - PFOS (ppt)	0	70	2024	3.1	NO	Manufacturing of grease, water, oil-resistant products; firefighting foams, electroplating, leaching from unpermitted landfills
Volatile Organic Contaminants	MCLG	MCL	Year Tested	Highest Result	Violation?	Major Source of Contaminant
Total Trihalomethanes (TTHM) (ppb)	NA	80	2022	1.2	NO	By-product of drinking water disinfection
Lead and Copper at Customer Taps	Action Level Goal	Action Level	Year Tested	Sites Exceeding AL/ Number of Sites	90th Percentile	Violation?
Lead (ppb)	0	15	2022	0 / 20	0.88	NO
Copper (ppm)	1.3	1.3	2022	0 / 20	0.03	NO

### Definitions

#### MCL: Maximum Contaminant Level

The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

#### MCLG: Maximum Contaminant Level Goal

The level of a contaminant in drinking water below which there is no known or expected risks to your health. The MCLG amount allows for a margin of safety.

#### MRDL: Maximum Residual Disinfectant Level

The highest level of a disinfectant allowed in drinking water. There is evidence that addition of a disinfectant is necessary for control of microbial contaminants.

#### MRDLG: Maximum Residual Disinfectant Level Goal

The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

#### TT: Treatment Technique

A required process or method intended to reduce the level of a contaminant in drinking water.

#### AL: Action Level

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that the utility must follow.

#### 90th Percentile

Statistical value used to determine if Action Level is exceeded. Determined by calculating the value at which 90% of the samples tested were below that value.

#### Level 1 Assessment

A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

## SUMMARY OF SECONDARY DRINKING WATER QUALITY RESULTS FOR 2024

Compound	Recommended Level	Year Tested	Average Result	Range	Violation?	What This Compound Measures or Major Source
Chloride (ppm)	250	2024	186	180 - 192	NA	Measures the amount of several naturally occurring salts in water
pH	6.5 to 8.5	2024	7.3	7.1 - 7.4	NA	Measure of acidity or alkalinity of water
Sodium (ppm)	NE	2022	93	NA	NA	Measures sodium in water from natural deposits or salt water intrusion
Specific Conductance (µS/cm)	NE	2024	1,084	1,064 - 1,103	NA	Measures how well water conducts electricity depending on amount of dissolved ions
Total Dissolved Solids (ppm)	500	2024	604	597 - 611	NA	Measure of naturally occurring salts and minerals dissolved in water
Total Hardness as Calcium Carbonate (ppm)	NE	2024	299	288 - 310	NA	Hardness is the sum of the many forms of naturally occurring calcium and magnesium compounds

NA: Not Applicable NE: None Established

### Secondary Water Constituents

*Not Associated with Adverse Health Effects*

Many constituents, such as calcium or chlorides, which are often found in drinking water, can cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are not regulated by the United States Environmental Protection Agency (EPA) or the CNMI Bureau of Environmental and Coastal Quality (BECQ). **These constituents are not causes for health concern.** While secondary constituents are not required to be reported in this document, they may greatly affect the appearance and taste of your water.

Hardness is a measure of the amount of calcium and magnesium compounds in the water. Chlorides measure the amount of salts in the water. The amount of chlorides in the CUC Tinian water is within the EPA recommended level. All Secondary and Unregulated Constituents results can be seen on the table on the previous page.

### Measurements

Contaminants are measured in:

- ppm:** Parts Per Million or milligrams per Liter (mg/L)
- ppb:** Parts Per Billion or micrograms per Liter (µg/L)
- ppt:** Parts Per Trillion or nanograms per Liter (ng/L)
- pCi/L:** Picocuries per Liter - a measurement of radioactivity in water
- µS/cm:** micro Siemens per centimeter - a measurement of a solution's ability to conduct electricity

### If the units are hard to imagine, think about these comparisons:

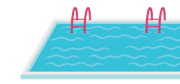
#### Parts per MILLION

- 1 second in 12 days
- 1 penny in \$10,000
- 7 drops of water in a bathtub



#### Parts per BILLION

- 1 second in 32 years
- 1 penny in \$10 Million
- 1 drop of water in a swimming pool



#### Parts per TRILLION

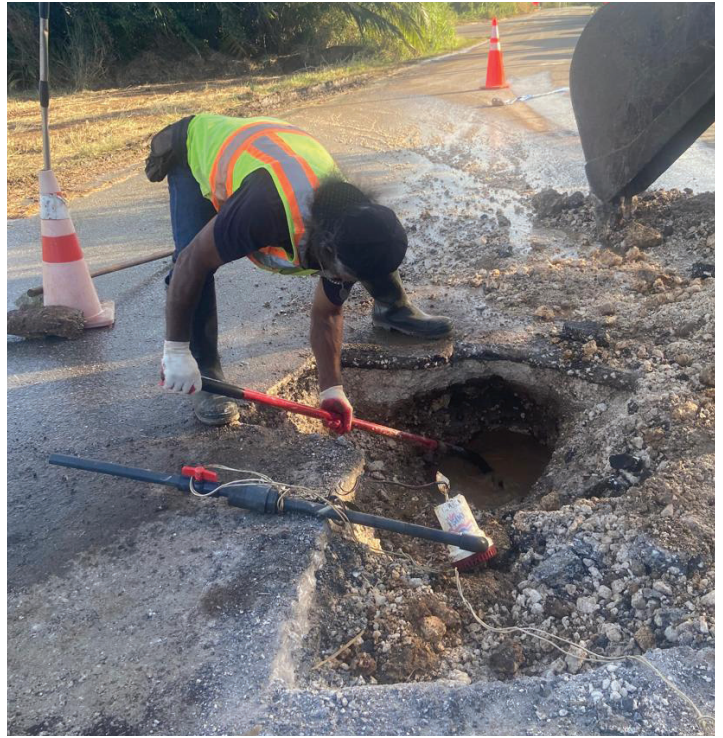
- 1 second in 32,000 years
- 1 penny in \$10 Billion
- 10 drops of water in the Rose Bowl



## Bacterial Contaminants

**Total coliforms** are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessments to identify and correct any problems that were found during these assessments.

During the past year, we were required to conduct a Level 1 assessment. We conducted and completed the Level 1 assessment on October 8, 2024, and were required to take six (6) corrective actions. The Tinian Water operators completed all six corrective actions before the November 10, 2024, due date.



Laurence Tumed, CUC Tinian Water Distribution Trades Technician, repairing a main service line in Marpo Heights.



CUC remains committed to delivering safe, reliable, and sustainable water services for its customers across the CNMI. As part of this commitment, the groundbreaking ceremony for the Carolinas Heights Waterline Replacement Project in Tinian marked a key step in upgrading critical infrastructure to support current and future water needs.

## Per- and Polyfluoroalkyl Substances (PFAS) Monitoring

The CUC Tinian water system was required to monitor for PFAS as part of the CNMI's updated drinking water regulations. In 2024, we detected Perfluorooctanesulfonic acid (PFOS) in your drinking water at 3.1 parts per trillion (ppt). PFAS are a group of thousands of synthetic chemicals that have been in use since the 1940s.

PFAS have been found in a wide array of consumer and industrial products and as an ingredient in firefighting foam. Current scientific research has shown links between exposure to some PFAS chemicals and adverse health outcomes. Drinking water may be impacted in communities where these chemicals have contaminated the water supply.

You can find more information about EPA's actions to address PFAS in drinking water and links to informational resources at [www.epa.gov/pfas](http://www.epa.gov/pfas).

## Information About Lead

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Commonwealth Utilities Corporation is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, **you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using the water for drinking or cooking.**

If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the **Safe Drinking Water Hotline at 1 (800) 426-4791** or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

**EPA requires testing for lead and copper at customer's taps that are most likely to contain lead and copper.**

**None of the sites tested exceeded the action level for lead or copper.**

**We thank our customers for their help in collecting these samples!**



## Call your CNMI Water Regulators and Operators:

**Zabrina Shai**  
Director, BECQ-DEQ  
(670) 664-8500

**Carson Madrangchar**  
Acting Drinking Water and  
Wastewater Division Manager, CUC  
(670) 322-5033

**Heidi Yelin**  
Water Laboratory Manager, CUC  
(670) 322-5140



CUC Tinian water operators work daily to ensure safe and reliable water service for the island community—conducting system checks, performing maintenance, and keeping the water flowing. Here, Laurence Tumed and John Sablan are hard at work in the field.

### Water Outages to Repair Lines

Unscheduled service interruptions occur when operators need to make adjustments or repairs to the water system.

For updates about when water services will be restored, please contact **CUC Customer Service at (670) 664-4282**, or the **CUC Tinian Office at (670) 433-9265**.

### Do You Have Questions?

For more information about your water quality or to find out about opportunities to participate in public meetings, please contact our 24-hour **Call Center at (670) 664-4282**.

### Pay Your Utility Bill Online or By Phone!

Save time and money by paying your CUC bill online or by phone! You can pay with your Visa, MasterCard, or Discover debit or credit card.

Register your account for online payments at <https://www.iwebms.net/cucgov>.

For payment by phone, please call **1 (855) 729-2282**.

### Checking the Material of Your Water Service Line

CUC is conducting an inventory of water service line material in our system following the U.S. EPA's Lead and Copper Rule Revisions. We must conduct the inventory to comply with the EPA's revised rule.

We need your help to determine the material of your water service line. The property owner is responsible for the service line between the meter and the home. But, we still need to know what your material is.

#### Submit your results to CUC's Water Service Line Inventory Form:


1. Scan this QR code or type <https://shorturl.at/zYG5i> into your browser.
2. Fill in all the fields on the form.
3. Click Submit and you will receive an email confirming your submission.



### Stay Informed!

For more information and updates, visit us at:

 Customer Center  
San Jose Village, Tinian

 (670) 433-9265

 [www.cucgov.org](http://www.cucgov.org)



@CommonwealthUtilitiesCorporation



# WHAT IS A WATER QUALITY REPORT?



Here is your annual Water Quality Report. It is about the water supplied by the Commonwealth Utilities Corporation. In 1996, the U.S. Congress amended the Safe Drinking Water Act and now requires that the CUC, your “Community Water System,” publish this report before July 1. **This report contains important information about your drinking water. Speak with someone who understands it or who can translate it.**

We hope you read about the source of your water, the levels of detected contaminants, why our water is so different from village to village, and what is being done to correct or improve water services in the CNMI.

As consumers become better informed, they become involved and make better decisions about our environment, how money is spent, and our options in water utility management.

**If you need the report translated, wish to speak with someone about the report, or would like a paper copy delivered or e-mailed to you, please call CUC at (670) 664-4282.**

Estagui i kada sâkkan na iyon-miyu Ripot Kuâlidât Hânum. Esti na ripot put i hanum na i Commonwealth Utilities Corporation ha nânnâ'i hamyu, i iyon-mâmi customer. Gi 1996, i Kongresun Estâdus Unidus ma'amenda i Åkton Sinâfu' Magimin Hânum ya pâ'gu magagâogâo i CUC, i iyon-miyu “Sisteman Hânum Kumunidât” para u pupblisa esti na ripot ântis di Hului 1. **Esti na ripot ha sasahguan manimpottânti siha na infotmación put i magigimin na hânum-miyu. Kuentus yan ottru na tâotâo ni kumumprendi osino i hâyi siña umintetpiti i infotmación para hâgu.**

In diseseha na un taitai put ginen manu i hanum-miyu, i “levels” i mantinatmi ni masodda', hâfa na i hanum-ta na manggof difirensiâo gi kada songsong asta ottru songsong, yan hâfa macho'cho'gui para u mana'dinanchi pat mana'ke'mâolik i sitbisiun i hanum siha gi halum iya CNMI.

Komu i “consumers” manininfotman mâolik, siempri mañâonâo yan mama'tinas la'mâolik na disisión siha put i uriyâ-ta, taimanu i salâppi' magâsta, yan i inayek-ta siha gi minanehan “utility” hânum.

**Yanggin un nisissita i ripot matrânsládâ, ya malagu' hâo para un kuentusi hâyi put i ripot, pat malagu' hâo mahanâogui kopian pâppit osino para u ma- “e-mail” kopia guatu giya hâgu, put fabot âgang i CUC gi (670) 664-4282.**

Iyeel yóomw arongorong reel Water Quality ghal ráagh. Mileel nge reel schaal iye Commonwealth Utilities Corporation re ayooraí ngálúgh, lemám customer. Llól 1996, U. S. Congress re liiweli mille Safe Drinking Water Act nge ighila re tipáli bwe CUC, yóomw “Community Water System,” bwe ebwe ghommwal akkatééwow arongorong yeel mmwalil Ullyo 1. **Eyoor impotantil arongorong yeel reel schaal iye si ghal úlúmi. Kkapas ngáli iyo mwu e metaff me ebwe bwal affata ngálúgh reel mileel.**

Ai ghal tettengágh ngáli ghámi bwe ów bwe árághi milikka e toowow bwe arongorong reel schaal iye yóomw, level reel milikka re schúngi bwe mil nngaw, meta bwulul bwe schaal ese weewe me schaalil sóobw ikka akkâw, me meta iye emmwel sibwe féérú ngáre siiweli bwe ebwe ghatchúló aar alilis reel schaal llól CNMI.

Ngáre re aronga ghatchúr consumers, emmwel rebwe schuu bwe rebwe ppwol fengál reel mwóghutughut ikka e lo weleórosch, efaisúl re yáali selaapi, me sibwe áffilighatch reel mwóghutughutúl mille “water utility management”.

**Ngare eyoor arongorong iye u mwuschel rebwe seleti, ngare u mwuschel kkapas ngáli escháy reel arongorong yeel, me ngare u mwuschel rebwe afanga ngare e-mail ngalúgh pappid yeel, fafailó CUC reel (670) 664-4282.**

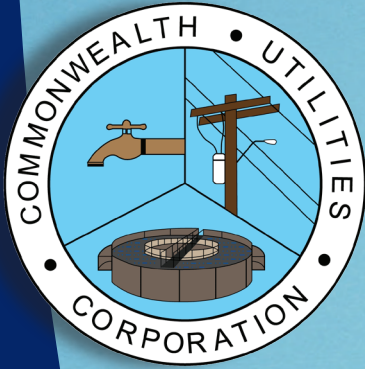
Naglalaman ang report na ito ng importanteng impormasyon tungkol sa iyong iniinom na tubig. Magkaroon ng isang tao na isasalin ito sa iyong wika para sa iyo, o makipag-usap sa isang tao na nakakaintindi dito.

このレポートには飲料水に関する重要な情報が記載されています。この英文を訳してもらおうか、またはどなたか英語が分かる方にたずねてください。

此报告包含有关您的饮用水的重要信息。请人帮您翻译出来，或请看懂此报告的人将内容说给您听。

이 보고서에는 귀하의 식수에 대한 중요한 내용이 실려있습니다. 그러므로 이 보고서를 이해할 수 있는 사람한테 번역해 달라고 부탁드립니다.





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