

PUBLIC WATER SYSTEM #:1370003 OUR DRINKING WATER MEETS OR EXCEEDS STATE AND FEDERAL (EPA) DRINKING WATER REQUIREMENTS



This report is for the period of January 1 to December 31, 2018 unless otherwise noted. It is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.

Since the system is not considered vulnerable to certain types of contamination; some of our data, though representative, may be more than one year old. Violations and Enforcement Actions, if any, are also included in this report.

#### Espanol (Spanish)

Este reporte incluye informacion importante sobre el agua para tomar. Para asistancia en espanol, favor de llamar al telefono (361) 516-6102.

#### **Our Drinking Water is Regulated**

**All drinking water may contain contaminants:** When drinking water meets federal standards, there may not be any health benefits to purchasing bottled water or point-of-use devices. Drinking water, including bottled water, may reasonably be expected to contain small amounts of contaminants. Presence of contaminants does not necessarily indicate a health risk. For more information about contaminants and potential health effects call the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

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

Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily causes for health concerns. For more information on taste, odor, or color of drinking water, please contact (361) 516-6102.

## **Information About Your Drinking Water**

#### Special notice for the ELDERLY, INFANTS, CANCER PATIENTS, people with HIV/AIDS or other

**immune problems:** Some people may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly, or immunocompromised persons such as those undergoing chemotherapy for cancer; persons who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorders, can be particularly at risk from infections. You should seek advice about drinking water from your physician or health care providers. Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline (800-426-4791).

**Source of drinking water:** 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.

#### 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.

\* **Organic 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.

\* **Pesticides and herbicides**, which may come from a variety of sources such as agriculture or urban storm water runoff, and residential uses.

#### **Information About Secondary Contaminants**

Many constituents (such as calcium, sodium, or iron) 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 regulated by the State of Texas, not the EPA. These constituents are not causes for health concern. Therefore, secondary contaminants are not required to be reported in this document but they may greatly affect the appearance and taste of your water. For more information on taste, odor, or color of drinking water, please contact the Albert Guajardo Sr., Environmental Protection Specialist at (361) 516-6102.

## **Definitions and Abbreviations**

**Action Level:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Action Level Goal (ALG): The Level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

**Avg:** Regulatory compliance with some MCLs are based on running annual average of monthly samples.

**Gross Alpha (No Abbreviation):** Gross alpha particle activity compliance value. It includes radium-226, but excludes radon 222, and uranium.

**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.

**Level 2 Assessment:** A level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

MFL: Million fibers per liter (a measure of asbestos)

**mrem:** millirems per year (a measure of radiation absorbed by the body).

Not Applicable (na): Does not apply or not available.

NTU: Nephelometric turbidity units (a measure of turbidity)

pCi/L: Picocuries per liter (a measure of radioactivity)

**ppb:** parts per billion or micrograms per liter – or one ounce in 7,350,000 gallons of water.

**ppm:** parts per million or milligrams per liter - or one ounce in 7,350 gallons of water.

Maximum Contaminant Level Goal or MCLG: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for margin of safety.

**Maximum Contaminant Level or MCL:** 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.

Maximum Residual Disinfectant Level Goal or MRDLG: 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 contaminants.

**Maximum Residual Disinfectant Level or MRDL:** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

ppq: parts per quadrillion, or picograms per liter (pg/L)

ppt: parts per trillion, or nanograms per liter (ng/L)

**PWS ID#:** Public Water System Identification Number

TT: Treatment Technique

**ug/L:** micrograms per liter of water. One thousands micrograms per liter is equivalent to 1 milligram per liter. This measure is equivalent to parts per billion (ppb)

**Violation (No Abbreviation):** Failure to meet a Drinking Water Quality Regulation.

## **Information About Source Water**

Naval Air Station (NAS) Kingsville public water system purchases treated drinking water from the City of Kingsville. This source is made up of a blended mix of mainly groundwater and some surface water. These sources are produced through seven (7) active wells that make up approximately 85% of the water source extracted from the Goliad Sands Aquifer located in Kleberg County. The other 15% is purchased surface water from South Texas Water Authority (STWA), which comes from Corpus Christi Lake and Choke Canyon.

Inorganic Contaminants	Collection Date	Highest Level or Average Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2018	9	8.6 - 8.6	0	10	ppb	Ν	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.

While your drinking water meets EPA standards for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenics possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Barium	2018	0.0272	0.0272—0.0	272 2	2	ppm	Ν	5	drilling wastes; Discharge efineries; Erosion of natural
Cyanide	2018	10	10-10	200	200	ppb	Ν	5	om plastic and fertilizer facto- ge from steel/metal factories.
Fluoride	2018	0.6	0.6	4	4.0	ppm	Ν	which promo	itural deposits; Water additive otes strong teeth; Discharge r and aluminum factories.
Selenium	2018	20	20	50	50	ppb	Ν	5	om petroleum and metal refin- n of natural deposits; Dis- mines.
Radioactiv Contamina		Collection Date	Highest Level or Average Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Gross alpha cluding rad uranium		2018	10	10 - 10	0	15	pCi/I	L N	Erosion of natural deposits.
Uranium		2018	12	11.1 - 12	0	30	ug/l	Ν	Erosion of natural deposits.
Synthetic o contaminar including p cides and h cides	nts Jesti-	Collection Date	Highest Level or Average Detected	Range of Individual Samples	MCLG	MCL	Units	S Violation	Likely Source of Contamination
Di (2-ethlhe phthalate	xyl)	2018	1	0-1	0	6	ppb	N	Discharge from rubber and chemical factories.

#### **Source Water Continued**

The Texas Commission on Environmental Quality (TCEQ) completed an assessment of your source water, and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for your water system is based on this susceptibility and previous sample data. Any detections of these contaminants will be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system contact Albert Guajardo at (361) 516-6102.

**Chloramine Disinfection:** Naval Air Station Kingsville Public Water System uses chloramines as a disinfectant. They have been used in municipal water supply treatment since the 1930s. Chloramines are produced when a small amount of ammonia is added to chlorine. Chloramines are a weaker disinfectant than chlorine, but are more stable, thus extending the disinfecting benefits throughout the distribution system.

#### **Benefits of chloramines:**

- It is not as reactive as chlorine with organic material in water which produces a lower concentration of disinfection byproducts.
- Chloramine residual is more stable and longer lasting than free chlorine, and therefore offers better protection against bacterial regrowth in systems with large storage tanks and dead-end mains.

Chloramines do not tend to react with organic compounds, so many systems experience fewer incidences of taste and odor control.



#### **Disinfectant Residual Table**

Year	Disinfectant	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Source of chemical
2018	Chloramines (Total)	1.2	0.50	3.90	4.0	4.0	ppm	Water additive (Disinfectant) used to control microbes.

## **Summary of Water Quality Data**

This is a summary of water quality data for the Naval Air Station Kingsville Public Water System. The list includes parameters which NASK currently tests for, in accordance with Federal and State Water Quality Regulations. The frequency of testing varies depending on the parameters and are in compliance with established standards.

Some specific chemical contaminants such as Beta/photon emitters or Gross alpha excluding radon and uranium are unlikely to change significantly with time. Such contaminants are tested within fairly long intervals and are listed below with the most current information.

#### Lead and Copper

**90th Percentile Level**– This is the value obtained after disregarding 10% of the samples taken that had the highest levels. (For example, in a situation in which 10 samples were taken, the 90th percentile level is determined by disregarding the highest result which represents 10% of the samples.) Note: In situations in which only 5 samples are taken, the average of the two with the highest levels is taken to determine the 90th percentile level.

Year	Contaminant	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
8/12/2016	Copper	1.3	1.3	0.32	0 out of 10	ppm	Ν	Erosion of natural deposits; Leaching from wood preserva- tives; Corrosion of household plumbing systems.
8/12/2016	Lead	0	15	1.1	0 out of 10	ppb	Ν	Corrosion of household plumb- ing systems; Erosion of natural deposits.

NAS Kingsville currently has a required lead and copper tap sampling frequency of every 3 years.

#### Lead in Drinking Water

If present, elevated levels of <u>lead</u> 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. 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 2 minutes before using water for drinking or cooking. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <u>http://www.epa.gov/safewater/lead</u>.

#### Coliforms

Coliform bacteria are used as indicators of microbial contamination of drinking water because they are easily detected and found in the digestive tract of warm-blooded animals. While not disease producers, they are often found in association with other microbes that are capable of causing disease. Coliform bacteria are hardier than many disease -causing organisms; therefore their absence from water is a good indication that the water is bacteriologically safe for human consumption. Fecal coliform (mostly E-coli) is a portion of the coliform bacteria originating in the intestinal tract of warm-blooded animals that passes into the environment as feces. Fecal coliform is often used as an indicator of the fecal contamination of domestic water supply.

#### **Total Coliform**

The Total Coliform Rule requires water systems to meet a stricter limit for coliform bacteria. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public by newspaper, television or radio. Our water supply complies with all regulations.

#### **Coliform Bacteria**

Maximum Contaminant Level Goal		-	Fecal Coliform or E. Coli MCL	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	l Positive Monthly Sample	1	0	0	Ν	Naturally present in the environment.

## **2018 WATER QUALITY TEST RESULTS**

Disinfectants and Disinfection By-products	Collection Date	Highest Level or Average Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)*	2018	20	0 - 24.3	No goal for the total	60	ppb	Ν	By-product of drinking water disin- fection.
Total Trihalomethanes (TTHM) *	2018	65	0 - 34.8	No goal for the total	80	ppb	Ν	By-product of drinking water disin- fection.

\*The value in the Highest Level or Average Detected column is the highest average of all TTHM and HAA5 sample results collected at a location over a year.

# 2018 WATER QUALITY TEST RESULTS CONTINUED

Inorganic Contaminants	Collection Date	Highest Level or Average Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Nitrate [measured as Nitrogen]	2018	3	3.05 - 3.05	10	10	ppm	N	Runoff from fertilizer use; Leach- ing from septic tanks, sewage; Erosion of natural deposits.

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, seek advice from your health care provider.

Radioactive Con- taminants	Collection Date	Highest Level or Average Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	8/8/2013	8.5**	8.5 - 8.5	0	50*	pCi/L	Ν	Decay of natural man-made deposits.

\*The MCL for beta particles is 4 mrem/year. EPA considers 50 pCi/L to be the level of concern for beta particles.

\*\*Because the beta particle results were below 50 pCi/L, no testing for individual beta particle constituents was required.

### **Violations Table**

Violation Type	Violation Begin	Violation End	Violation Explanation
0	2018	2018	No violations.

# Do your part to Keep Your Drinking Water Safe

For more information regarding this report, contact: Albert Guajardo Sr. Environmental Protection Specialist Phone: (361) 516-6102 DSN: 876-6102 Fax: (361) 516-6950 E-mail: albert.guajardol@navy.mil



