Annual Drinking Water Quality Report 2023

Harris County Municipal Utility District 230
TX1012740

ABOUT THIS REPORT

Our Drinking Water meets or exceeds all Federal and State Drinking Water Requirements. This report is a summary of the quality of the water we provide our customers. The analysis was made by using the data from the most recent U.S. Environmental Protection Agency (EPA) required testing. We hope this information helps you become more knowledgeable about what is in your drinking water.

SPECIAL NOTICE FOR THE ELDERLY, INFANTS, CANCER PATIENTS, PEOPLE WITH IMMUNE PROBLEMS

You 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).

En Espanol

Este reporte incluye información importante sore el Agua para tomar. Para asistencia en español, favor de llamar al telefono (281) 897-9100.

WHERE DO WE GET OUR WATER?

Harris County Municipal Utility District (MUD) 230 receives:

- **Groundwater from a well within the Chicot aquifer located in Harris County.**
- **Surface water purchased from North Harris County Regional Water Authority (NHCRWA).**

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.

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 EPAs Safe Drinking Water Hotline at (800) 426-4791.

The Texas Commission on Environmental Quality (TCEQ) completed an assessment of your source water, and results indicate that our sources have a low susceptibility to contaminants. The sampling requirements for your water system are based on this susceptibility and previous sample data. Any detections of these contaminants will be found in this Consumer Confidence Report (CCR). For more information on source water assessments and protection efforts at our system, contact us at 281-897-9100.

DRINKING WATER CONTAMINANTS

Contaminants that may be present in source water include:

- **Microbial contaminants**, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic contaminants**, such as salts and metals, 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.
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, 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.

ARSENIC

Harris County Municipal Utility District 230's drinking water may contain low levels of arsenic, which is below the state and federal action levels. EPA's standard balances arsenic's possible health effects against the cost of removing it from the 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.

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. Harris County MUD 230 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 2 minutes before using 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 1-800-426-4791 or at http://www.epa.gov/safewater/lead.

SECONDARY CONSTITUENTS

Many constituents (such as calcium, sodium, or iron) which are often found in drinking water, can cause taste, color and odor issues. Taste and color constituents, called secondary constituents, are regulated by the state of Texas, not the EPA. These constituents are not causes for health concern. Therefore, secondary constituents are not required to be reported in this document, but they may affect the appearance and taste of your water. For more information on taste, odor, or color of drinking water, please contact us (281) 897-9100.

PUBLIC PARTICIPATION OPPORTUNITIES

Date: First Monday of each month
Time: 12:00 P.M.
Location: 3200 Southwest Freeway, Suite 2600, Houston, Texas 77027
Phone Number: 281-897-9100

To learn about future public meetings (concerning your drinking water), or to request to schedule one, please call us at (281) 897-9100.

WATER QUALITY DATA

The state of Texas allows for some contaminants to be monitored less than once per year because the concentrations do not change frequently. The year that each result was detected is indicated in the tables below. Definitions, abbreviations, and sources of detected contaminants can be found on pages 8 and 9 of this report.

HARRIS COUNTY MUNICIPAL UTILITY DISTRICT 230

IINORGANIC CONTAMINANTS

Year	Contaminant	Highest Level Detected	Range of Detected Levels	MCL	MCLG	Units	Violation
2022	Barium	0.0663	0.0663 – 0.0663	2	2	ppm	No
2022	Cyanide	80	80 – 80	200	200	ppb	No
2021	Fluoride	0.13	0.13 – 0.13	4	4	ppm	No
2023	Nitrate (measured as Nitrogen)	0.26	0.26 – 0.26	10	10	ppm	No

RADIOACTIVE CONTAMINANTS

Year	Contaminant	Highest Level Detected	Range of Detected Levels	MCL	MCLG	Units	Violation
2018	Gross alpha excluding radon and uranium	4	4 – 4	15	0	pCi/L	No
2018	Uranium	2.8	2.8 – 2.8	30	0	ppb	No

DISINFECTANT RESIDUAL

Year	Average Level	Range of Levels Detected	MRDL	MRDLG	Units	Does Constituent Exceed MCRDL?
2023	2.3	0.7 – 4.0	4.0	4.0	ppm	No

LEAD AND COPPER

Year	Contaminant	The 90th Percentile	No. of Sites Exceeding AL	AL	MCLG	Units	Does Constituent Exceed AL?
2021	Lead	0	0	15	0	ppb	No
2021	Copper	0.0525	0	1.3	1.3	ppm	No

WATER QUALITY DATA, CONT'D

DISINFECTION BY-PRODUCTS

Year	Contaminant	Highest Level Detected	Range of Detected Levels	MCL	MCLG	Units	Violation
2023	Trihalomethanes (TTHM)	16.6	16.6 – 16.6	80	No goal*	ppb	No
2023	Haloacetic Acids (HAA5)	22	22 - 22	60	No goal*	ppb	No

*No goal = No goal for the total

MONITORING RESULTS FROM UPSTREAM SUPPLIES (NHCRWA)

Throughout 2023, Harris County MUD 230 received purchased surface water from NHCRWA. The following tables contain water quality information from NHCRWA.

INORGANIC CONTAMINANTS - NHCRWA

Year	Contaminant	Highest Level Detected	Range of Detected Levels	MCL	MCLG	Units	Violation
2023	Nitrate (measured as nitrogen)	0.21	0.21 – 0.21	10	10	ppm	No

DISINFECTION BY-PRODUCTS - NHCRWA

Year	Contaminant	Highest Level Detected	Range of Detected Levels	MCL	MCLG	Units	Violation
2023	Trihalomethanes (TTHM)	16	15.5 – 15.5	80	No goal*	ppb	No
2023	Haloacetic Acids (HAA5)	18	17.7 – 17.7	60	No goal*	ppb	No

*No goal = No goal for the total

TURBIDITY - NHCRWA

Highest single measure of NTUs	0.27
Lowest monthly % samples meeting NTU limits	100%

The Fifth Unregulated Contaminant Monitoring Rule (UCMR 5)

The Safe Drinking Water Act requires that once every five years, EPA issues a list of priority unregulated contaminants to be monitored by certain public water systems across the States, Tribes and Territories. The contaminants may be present in drinking water but are not yet subject to EPA drinking water standards. The five-year UCMR 5 cycle spans 2022 – 2026. UCMR 5 includes 30 contaminants, 29 Per- and Polyfluoralkyl Substances (PFAS) and one (1) metal/pharmaceutical, lithium (Li). The data collected under UCMR 5 will help the EPA understand the frequency that these contaminants are found in the nation's drinking water systems and at what levels. This data will help inform EPA regulatory determinations and risk-management decisions and ensure science-based decision-making.

The following table includes any unregulated contaminant detected during analyses and the amount detected.

UCMR 5 CONTAMINANTS – HARRIS COUNTY MUD 230

Date Collected	Analyte	Highest Level Detected	Range of Levels Detected	Units
7/19/2023	PFPeA	0.0056	0.0056 – 0.0056	ppb
7/19/2023	PFHxA	0.0042	0.0042 – 0.0042	ppb
11/15/2023	PFPeA	0.0150	0.0150 – 0.0150	ppb
11/15/2023	PFHxA	0.0085	0.0085 – 0.0085	ppb
11/15/2023	PFBS	0.0043	0.0043 – 0.0043	ppb

The data is also publicly available here: https://www.epa.gov/dwucmr/fifth-unregulated-contaminant-monitoring-rule-data-finder

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Availability of Monitoring Data for Unregulated Contaminants for Harris County MUD 230

Our water system has sampled for a series of unregulated contaminants. Unregulated contaminants are those that don't yet have a drinking water standard set by the EPA. The purpose of monitoring for these contaminants is to help the EPA decide whether the contaminants should have a standard. As our customers, you have a right to know that this data is available. If you are interested in examining the results, please contact Dawn Olivo at (281) 897-9100 or at 12841 Jones Road, Houston, Texas 77070.

The data is also publicly available here: https://www.epa.gov/dwucmr/fifth-unregulated-contaminant-monitoring-rule-data-finder#data-finder

This notice is being sent to you by Harris County MUD 230, State Water System ID# 1012740.

Date distributed: _____

CONTAMINANTS AND SOURCES

CONTAMINANT	SOURCE
Arsenic	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	Discharge of drilling wastes; Discharge from metal refineries. Erosion of natural deposits.
Beta/photon emitters	Decay of natural and man-made deposits.
Chorine residual	Water additive used to control microbes.
Copper	Corrosion of household plumbing systems erosion of natural deposits.
Fluoride	Erosion of natural deposits; Discharge from fertilizer and aluminum factories; Water additive which promotes strong teeth.
Gross alpha emitters	Erosion of natural deposits.
Lead	Corrosion of household plumbing systems; erosion of natural deposits.
Lithium	Naturally occurring metal that may concentrate in brine waters; lithium salts are used as pharmaceuticals, used in electrochemical cells, batteries and in organic syntheses.
Nitrate	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Per- and polyfluoroalkyl substances (PFAS)	Soil and water at or near landfills, disposal sites and hazardous waste sites; fire extinguisher foam used at training and emergency response facilities; stain or water repellant or non-stick products, grease resistant paper; chrome plating electronics, and certain textile and paper manufacturers that produce or use PFAS; fertilizer from wastewater treatment plants used on agricultural lands; fish caught from water contaminated with PFAS and dairy products from livestock exposed to PFAS.
Perfluorobutane sulfonate (PFBS)	Non-stick and stain- resistant consumer products, food packaging, fire-fighting foam, and industrial processes.
Perfluorohexanoic acid (PFHxA)	A group of surfactants which are used as wetting, dispersing, emulsifying, and foaming agents.
Perfluorooctanoic acid (PFOA)	Chemical used in a wide range of consumer products and industrial applications including non-stick cookware, water-repellent clothing, stain resistant fabrics and carpets, cosmetics, fire-fighting foams, electroplating and products that resist grease, water and oil.
Perfluoro-n-pentanoic acid (PFPeA)	Breakdown product of stain- and grease-proof coatings on food packaging, couches, and carpets.
Total Trihalomethanes (TTHM)	By-product of drinking water disinfection.
Total Haloacetic Acids (HAA5)	By-product of drinking water disinfection.
Uranium	Erosion of natural deposits.

*Harris County Municipal Utility District 230 does not treat source water with fluoride.

DEFINTITIONS AND ABBREVIATIONS

Action Level (AL)	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Analyte	A substance whose chemical constituents are being identified and measured.
Avg	Regulatory compliance with some MCLs is based on running annual average of monthly samples.
Level 1 Assessment	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 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.
Maximum Contaminant Level (MCL)	The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
Maximum Contaminant Level Goal (MCLG)	The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
Maximum residual disinfectant level (MRDL)	The highest level of disinfectant is allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
Maximum residual disinfectant level goal (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.
MFL	Million fibers per liter (a measure of asbestos)
mrem	Millirems per year (a measure of radiation absorbed by the body)
NA	MCL not regulated or not applicable
ND	Non-detect. Indicates a contaminant was not detected in the sample. If contaminant was present, it was below the detection limit for the laboratory test.
pCi/L	Picocuries per liter (a measure of radioactivity); One pCI/L is equivalent to two atoms disintegrating per minute per liter.
ppb	parts per billion or micrograms per liter (µg/L); one ounce in 7,350,000 gallons of water. In other words, if an Olympic sized swimming pool were filled with ping-pong balls, a ppb would be equivalent to one ping-pong ball in that pool.
ppm	parts per million or milligrams per liter (mg/L); one ounce in 7,350 gallons of water. In other words, if you were to fill a 10-gallon aquarium using an eyedropper, it would take 1 million individual drops to do so. So, one (1) drop in 10 (ten) gallons is 1 ppm.
Treatment Technique (TT)	Required process intended to reduce the level of a contaminant in drinking water.
Turbidity	Turbidity is a measure of how clear the water looks. This is measured at the surface water production plant in NTUs and is caused by soil runoff. 95% of samples tested each month must be less than or equal to the limit of 0.3 NTUs.