

Total Organic Carbon (TOC)

Year	Contaminant	Lowest TOC removal ratio %	Average TOC removal	Highest TOC removal ratio %	Treatment Technique TT	MCLG	Unit of Meas	Source of Contaminant
2016	TOC Removal	14.9	45.6	61.7	TT -System provides the alternative compliance criteria removal ratio required	NA	%*	Naturally present in the environment.

*Removal ratio is the percent of TOC removed by the treatment process divided by the percent of TOC required by TCEQ to be removed.

Total organic carbon (TOC) has no health effects. The disinfectant can combine with TOC to form disinfection byproducts. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens. Byproducts of disinfection include trihalomethanes (THMs) and haloacetic acids (HAA) which are reported elsewhere in this report.

Total Coliform

Year	Contaminant	Highest Monthly Number of Positive Samples	MCL	Unit of Measure	Violation	Source of Contaminant
2016	Total Coliform Bacteria	1	1*	Presence	No	Naturally present in the environment.

* 1 positive sample/month

Total coliform bacteria are used as indicators of microbial contamination of drinking water because testing for them is easy. While not disease-causing organisms themselves, they are often found in association with other microbes that are capable of causing disease. Coliform bacteria are harder than many disease-causing organisms; therefore, their absence from water is a good indication that the water is microbiologically safe for human consumption.

Additional Contaminants: In an effort to insure the safest water possible the State has required us to monitor some contaminants not required by Federal regulations. Of those contaminants only the ones listed below were found in your water.

Secondary and Other Constituents Not Regulated: (No associated adverse health effects)

Year	Constituent	Average Level	Minimum Level	Maximum Level	Secondary Limit MPL	Unit of Measure	Source of Constituent
2016	Aluminum	0.0392	NA	NA	0.05-0.2	ppm	Erosion of natural deposits; residue from some surface water treatment processes
2016	Bicarbonate	117	NA	NA	NA	ppm	Corrosion of carbonate rocks such as limestone.
2016	Chloride	194	NA	NA	300	ppm	Abundant naturally occurring element; used in water purification; byproduct of oil field activity
2016	Nickel	0.0024	NA	NA	.100	ppm	Erosion of natural deposits; discharge from metal factories
2016	pH	6.6	NA	NA	>7.0	units	Measure of corrosivity of water.
2016	Sodium	174	NA	NA	NA	ppm	Leaching from natural deposits
2016	Sulfate	367	NA	NA	300	ppm	Runoff/leaching from natural deposits; industrial wastes.
2016	Total Alkalinity as CaCO3	96	NA	NA	NA	ppm	Naturally occurring soluble mineral salts.
2016	Total Dissolved Solids	941	NA	NA	1000	ppm	Total dissolved mineral constituents in water.

The TCEQ violation table (Violations and Events noted in 2016)

Public Notification Rule - The Public Notification Rule helps to ensure that consumers will always know if there is a problem with their drinking water. These notices immediately alert consumers if there is a serious problem with their drinking water (e.g., a boil water emergency).

Violation Type	Violation Begin	Violation End	Violation Explanation
Public Notice Rule linked to Violation	8/31/2016	9/24/2016	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.

Disinfectant Residuals - All public water systems shall properly disinfect water before it is distributed to any customer and shall maintain acceptable disinfectant residuals within the distribution system.

Violation Type	Violation Begin	Violation End	Violation Explanation
TX Residual Disinfect Concentration (SWTR)	07/01/2016	7/31/2016	We failed to meet the minimum treatment technique requirements. Specifically, our water system failed to maintain an acceptable disinfectant residual throughout the distribution system.

2016	Nitrate [measured as Nitrogen]	10	10	0.43	NA	NA	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
2016	Selenium	50	50	3.7	NA	NA	ppb	No	Discharge of petroleum and metal refineries; erosion of natural deposits; discharge from mines.

Nitrate Advisory - 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 advice from your health care provider.

Maximum Residual Disinfectant Level

Year	Disinfectant	MRDLG	MRDL	Your Water RAA	Range		Unit of Measure	Violation	Typical Source
					Low	High			
2016	Chloramines	4	4	3.65	1.23	5	ppm	No	Disinfectant used to control microbes.

Health information for Chloramine (as Cl₂) - Some people who use water containing chloramines well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chloramines well in excess of the MRDL could experience stomach discomfort or anemia.

Disinfection Byproducts - Stage 2

Year	Contaminant	MCLG	MCL	Your Water LRAA*	Range		Unit of Measure	Violation	Typical Source
					Low	High			
2012	Chlorite (ppm)	0.8	1	0.36	0	0.36	ppm	No	By-product of drinking water disinfection.
2016	Total Haloacetic Acids (HAA5)	NA	60	25	17.6	29.3	ppb	No	Byproduct of drinking water disinfection.
2016	Total Trihalomethanes (TTHM)	NA	80	71	54.2	79.1	ppb	No	Byproduct of drinking water disinfection.

Health information for TTHMs (Total Trihalomethanes) - Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.

* For Stage 2 Haloacetic Acids or TTHM, the level detected is the highest locational running annual average (LRAA). The locational running average is the average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

Lead and Copper

Year	Contaminant	MCLG	AL	Your Water 90 th Percentile	# Samples Exceeding AL	Unit of Measure	Exceeds AL	Typical Source
2014	Lead - action level at consumer taps	0	15	4.3	1	ppb	No	Corrosion of household plumbing systems; erosion of natural deposits.
2014	Copper - action level at consumer taps	1.3	1.3	0.34	1	ppm	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.

Additional Health Information for 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. This water supply 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 or at <http://www.epa.gov/safewater/lead>.

Turbidity

Year	Contaminant	Limit (Treatment Technique)	Level detected	Violation	Source of Contaminant
2016	Highest single measurement (NTU)	1.0	0.76	No	Soil runoff
2016	Lowest monthly % meeting limit	0.3	96%*	No	Soil runoff

*96% of the samples were below the TT value of 0.3. A value less than 95% constitutes a TT violation. The highest single measurement was 0.76. Any measurement in excess of 1 is a violation unless otherwise approved by the state.

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

Radioactive Contaminants

Year	Contaminant	MCLG	MCL	Your Water	Range		Unit of Measure	Violation	Typical Source
					Low	High			
2011	Gross Alpha, Excluding Radon and Uranium	0	15	4.2	NA	NA	pCi/L	No	Erosion of natural deposits
2011	Beta/photon emitters	0	50	5.2	NA	NA	pCi/L	No	Decay of natural and man-made deposits
2011	Combined Radium 226 / 228	0	5	1	NA	NA	pCi/L	No	Erosion of natural deposits

2016 Annual Drinking Water Quality Report

(Consumer Confidence Report)

CITY OF MERCEDES

PWS ID # 1080007

Phone # 956-565-2372

SPECIAL NOTICE

Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, 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 their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Public Participation Opportunities

Phone Number: 956 - 565 - 2372

For any questions regarding your drinking water or any of the information provided in the following pages please call the Mercedes Water Treatment Plant at (956) - 565 -2372. To learn about future public meetings (concerning your drinking water), or to request to schedule one, please call us at the phone number listed above.

Our Drinking Water Currently Meets or Exceeds All Federal (EPA)

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 tests and is presented in the attached pages. We hope this information helps you become more knowledgeable about what's in your drinking water.

INFORMATION ON SOURCES OF 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.
- 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, 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

En Español! Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre éste informe en español, favor de llamar al tel. (956) 565 - 2372 - para hablar con una persona bilingüe en español.

Where do we get our drinking water? Our drinking water is obtained from a combination of surface water that originates from the Rio Grande River and groundwater. A Source Water Susceptibility Assessment for your drinking water sources(s) is currently being updated by the Texas Commission on Environmental Quality. This information describes the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The information contained in the assessment allows us to focus our source water protection strategies. Some of this source water assessment information will be available later this year on Texas Drinking Water Watch at <http://dww.tceq.state.tx.us/DWWW/>. For more information on source water assessments and protection efforts at our system, please contact us.

ALL drinking water may contain contaminants. When drinking water meets federal standards there may not be any health based benefits to purchasing bottled water or point of use devices. 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 (1-800-426-4791).

Secondary Constituents: 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.

About The Following Pages: The pages that follow list all of the federally regulated or monitored contaminants which have been found in your drinking water. The U.S. EPA requires water systems to test for up to 97 contaminants.

DEFINITIONS:

Maximum Contaminant Level (MCL) - The highest permissible level of a contaminant 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 health risk. MCLGs allow for a margin of safety. **MPL** - State Assigned Maximum Permissible Level. **Maximum Residual Disinfectant Level (MRDL)** - The highest level of disinfectant 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 contamination. **Treatment Technique (TT)** - A required process intended to reduce the level of a contaminant in drinking water. **Action Level (AL)** - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

ABREVIATIONS

LRAA - Locational Running Annual Average. **MPL** - Maximum Permissible Level. **NTU** - Nephelometric Turbidity Units million fibers per liter (a measure of asbestos). **pCi/L** - picocuries per liter (a measure of radioactivity). **ppm** - parts per million, or milligrams per liter (mg/L). **ppb** - parts per billion, or micrograms per liter (µg/L). **NA** - not applicable. **ND** - not detected. **RAA** -Running Annual Average.

Organic Contaminants

Sample Date	Contaminants	MCLG	MCL	Your Water	Range		Unit of Measure	Violation	Typical Source of Contaminant
					Low	High			
2016	Barium	2	2	0.095	NA	NA	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
2016	Cyanide	200	200	50	NA	NA	ppb	No	Discharge from drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
2016	Fluoride	4	4	0.36	NA	NA	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.