



CITY OF LAKE JACKSON

2020 Drinking Water Quality Report

Public Water System Name: City of Lake Jackson
Year this report covers: 2020
Public Water System ID Number: TX0200006

PUBLIC PARTICIPATION OPPORTUNITIES

Please contact **Hector Renteria**, Superintendent of Utilities, at **(979) 415-2680** with any questions regarding this water quality report.

EN ESPAÑOL

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al teléfono **(979) 415-2680**.

OUR DRINKING WATER MEETS ALL FEDERAL (EPA) DRINKING WATER REQUIREMENTS

This report 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. 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.

HEALTH INFORMATION

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; those 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 provider. Additional guidelines or appropriate means to lessen the risk of infection by *Cryptosporidium* are available from the **Safe Drinking Water Hotline at (800) 426-4791**.

WATER SOURCE/WATER ASSESSMENT

City of Lake Jackson serves about 27,529 people. The water supply comes from 12 groundwater wells and surface water purchased from Brazosport Water Authority (BWA). Our drinking water is withdrawn from the **Gulf Coast/Chicot Aquifer** and the surface water is obtained from the **Brazos River**. TCEQ completed an assessment of our source water and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for our water system are based on this susceptibility and previous sample data. Any detection of these contaminants may be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system, contact **Hector Renteria** with the City of Lake Jackson **(979) 415-2680**.

Source Water Name	Type of water	Location	Report Status
Well # 4	Ground Water	101 Oyster Creek Drive	Active
Well # 5	Ground Water	6 Oak Drive	Active
Well # 7	Ground Water	103 Beechwood	Active
Well # 8	Ground Water	302 Magnolia	Active
Well # 9	Ground Water	334 Circle Way	Active
Well # 10	Ground Water	709 Yaupon	Active
Well # 11	Ground Water	711 Yaupon	Active
Well # 12	Ground Water	705 Yaupon	Active
Well # 14	Ground Water	101 Cottonwood	Active
Well # 15	Ground Water	319 Balsam	Active
Well # 16	Ground Water	102 Yaupon	Active
Well # 17	Ground Water	889 FM 2004 Hwy	Active
SW From Brazosport Water Authority	Surface Water	103 Beechwood	Active
SW From Brazosport Water Authority	Surface Water	7830 1/2 CR 220B, Angleton, TX 77515	Active
SW From Brazosport Water Authority	Surface Water	6 Oak Drive	Active

For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL: <http://dww2.tceq.texas.gov/DWW/>

ALL DRINKING WATER MAY CONTAIN CONTAMINANTS

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 Environmental Protection Agency's Safe Drinking Water Hotline **(800-426-4791)**.

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 the system's business office.

In order to ensure that tap water is safe to drink, the 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 that must provide the same protection for public health.

ALL DRINKING WATER MAY CONTAIN CONTAMINANTS

The sources of drinking water (both tap water and bottle 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 (water before treatment) include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic system, 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 might have 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 the result of oil and gas production and mining activities.

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ABOUT THE FOLLOWING PAGES

The pages that follow list all the federally regulated or monitored constituents which have been found in your drinking water. U.S. EPA requires water systems to test up to 97 constituents.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and your children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing.

The City of Lake Jackson 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>.

DEFINITIONS/ ABBREVIATIONS

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.

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.

Average (Avg) - Regulatory compliance with some MCLs are based on running annual average of monthly samples.

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.

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

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

na: not applicable

NTU - Nephelometric Turbidity Units

MFL - 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 (ug/l)

ppt - parts per trillion, or nanograms per liter

ppq - parts per quadrillion, or picograms per liter

Groundwater

Coliform Bacteria

MCLG	Total Coliform MCL	Highest No. of Positive	Fecal Coliform/ E. Coli MCL	Total No. of Positive E. Coli/Fecal Coliform Samples	Violation	Likely Source of Contamination
0	1 Positive Monthly sample	1	Present	0	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

Lead and Copper

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90 th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2020	1.3	1.3	1.2	2	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2020	0.015	0.015	2.9	0	ppm	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Regulated Contaminants

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)*	2020	17	5.7-18.7	No goal for the total	60	ppb	N	By-product of drinking water chlorination.
Total Trihalomethanes (TTHM)**	2020	20	7.8-37	No goal for the total	80	ppb	N	By-product of drinking water chlorination.

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

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

Inorganic Contaminants

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2020	2	0-2	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; runoff from glass and electronics production wastes.
Barium	2020	0.206	0.18-0.206	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; erosion of natural deposits.
Cyanide	2020	20	0-20	200	200	ppb		
Selenium	2020	<0.003	<0.003	50	50	ppm	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Fluoride	2020	0.73	0.55-0.73	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate** (measured as Nitrogen)	2020	1	0.26-1.23	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Nitrite (measured as Nitrogen)	2019	0.07	0-0.07	1	1	ppm	N	Runoff from fertilizer use; leaching from septic tanks; sewage; Erosion from natural deposits.

****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.

Radioactive Contaminants

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	2020	7.2	7.2	0	50	pCi/L	N	Erosion of natural deposits.
Gross alpha excluding radon and uranium	2020	4.9	4.9	0	15	pCi/L	N	Erosion of natural deposits.

Synthetic Organic Contaminants including pesticides and herbicides	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Atrazine	2020	0.11	0-0.11	3	3	ppb	N	Runoff from herbicide used on row crops.

Yearly Disinfectant Level

Average of all chlorine Residuals for the year 2020	Lowest of all chlorine Residuals for the year 2020	Highest of all chlorine Residuals for the year 2020
mg/L	mg/L	mg/L
2.44	0.50	4.00

Type of Disinfectant Used in Distribution System: Chloramines (Total Chlorine)

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

Violations Table

Important Information about your Drinking Water

City of Lake Jackson has violated the monitoring and reporting requirements set by Texas Commission on Environmental Quality (TCEQ) in Chapter 30, Section 290, Subchapter F. Even though these were not emergencies, as our customers you have the right to know what happened and what we are doing (or did) to correct these situations.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether our drinking water meets health standards. During the 3rd quarter of 2020 we did not sample one of the required sites for water quality parameters and therefore cannot be sure of your drinking water during that time. That sample location has since been added to our sampling paperwork.

Public water systems are required to properly disinfect water before distribution, maintain acceptable residuals within the distribution system, monitor the disinfectant residual at various locations throughout the distribution system, and report the results of that monitoring to the TCEQ on a quarterly basis. In the fourth quarter of 2020 we did not submit the results of this testing online as required in the correct time frame. The results were submitted after the due date. We have added an additional person who reviews and checks submittal to ensure that the report is submitted online by the due date

Results of regular monitoring are an indicator of whether or not your drinking water is safe from microbial contamination. Please share this information with all people who drink this water, especially those who may not have received this notice directly (i.e., people in apartments, nursing homes, schools, and businesses.) You can do this by posting this notice in a public place or distributing copies by hand or mail.

If you have questions regarding this matter, you may contact Hector Renteria at 979-415-2680.
 Posted 05-06-2021.

Contaminant	Required Sampling Frequency	Number of Samples Taken	When samples should have been taken	When samples Were or will be taken
Water Quality Parameter Distribution system M/R (LCR)	<u>16</u> Samples Quarterly	16	This was completed on time.	This was completed on time.
Water Quality parameters Entry Point)	<u>05</u> Samples Quarterly	4	Third Quarter Water Quality Parameters were incomplete for EP006. This site was not included on our chain of custody.	All samples were taken in the fourth quarter of 2020.

Type of Violation	Time Period(s) of Violations	Specifics	Explanation
Chlorine monitoring	4 th Quarter of 2020	Timeline for results to be submitted was exceeded.	DLQOR was submitted late

Water Loss

Water Loss in Million Gallons (MG)	Explanation of Water Loss
68.071 MG	Water loss in a water distribution system is due to a number a reason, including Fire Fighting, water system flushing, hydrant flushing, system leaks including water main breaks.

SURFACEWATER

Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorite	2020	0.63	0.18-0.63	0.8	1	ppm	N	By-product of drinking water disinfection.
Haloacetic Acids (HAA5)	2020	14.3	14.3	No goal	60	ppb	N	By-product of drinking water chlorination.

				for the total				
Total Trihalomethanes (TTHM)	2020	9.8	9.8	No goal for the total	80	ppb	N	By-product of drinking water chlorination.

Inorganic Contaminants

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2020	0.121	0.121	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; erosion of natural deposits.
Cyanide	2020	<0.01	<0.01	2	2	ppm	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
Fluoride	2020	0.22	0.22	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate (measured as Nitrogen)	2020	1.09	1.09	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Radioactive Contaminants

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	01/21/2015	4.6	4.6-4.6	0	50	pCi/L	N	Decay of natural and man-made deposits.
Combined Radium 226/228	01/21/2015	1.5	1.5-1.5	0	5	pCi/L	N	Erosion of natural deposits.

*EPA considers 50 pCi/L to be the level of concern for beta particles.

Synthetic Organic Contaminants

Synthetic Organic Contaminants including pesticides and herbicides	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Atrazine	2020	0.26	0.26	3	3	ppb	N	Runoff from herbicide used on row crops.

Turbidity

Turbidity	Limit (Treatment Technique)	Level Detected	Violation	Likely Source of Contamination
Highest single measurement	1 NTU	0.24	N	Soil runoff.
Lowest monthly % meeting limit	0.3 NTU	100%	N	Soil runoff.

Total Organic Carbon

The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set, unless a TOC violation is noted in the violations section.

Total Hardness

The total hardness throughout the City of Lake Jackson has an average total hardness of 230-250 mg/L. This is measured as Calcium Carbonate (CaCO₃).

Water Conservation Tips

In the Bathroom:

1. Take a five-minute shower instead of a bath.
Amount saved: 15 gallons per shower

2. Don't use toilets as a wastebasket, flush only when you need to.
Amount saved: 12 or more gallons per day
3. When brushing teeth, use a glassful of water instead of running the tap.
Amount saved: 3 or more gallons per brushing.
4. When taking a bath, don't run the water without closing the drain first. The warm water that comes after running the tap for a while will take care of that first cold burst of water.

In the Kitchen:

1. When washing dishes by hand, fill up the sink with soap and water instead of running the water the whole time. *Amount saved: 25 gallons per load*
2. Keep a pitcher of water in the refrigerator when you want a drink instead of running the tap until the water cools. *Amount saved: 2 gallons per drink*
3. Thaw frozen foods in the refrigerator, not under running tap water. Amount saved: 5 or more gallons per meal
4. Start a compost pile as an alternative to using a kitchen sink garbage disposal.

Outside around your home:

1. Water your lawn during the early morning hours when there are low temperatures and low winds. This reduces the amount of water you lose from evaporation.
2. Position your sprinklers to water only the lawn, not the sidewalk or street.
3. Don't waste water hosing down your driveway or sidewalk.
Amount saved: 25 gallons every five minutes not using hose
4. Drive your car over your lawn when washing to save on watering it, or use a commercial car wash that recycles water.
5. Don't over water your lawn during the summer, as a general rule it only needs to be watered every 5-7 days during this time.

Check out our website at www.lakejacksontx.gov for more information