



CITY OF GALENA PARK

2015 ANNUAL DRINKING WATER QUALITY REPORT

*Este reporte incluye información importante sobre el agua para tomar.
Para asistencia en español, favor de llamar al telefono (713)672-2556.*

The City of Galena Park (City) provides this annual water quality report for the period of January 1, 2015 through December 31, 2015. The purpose of this report is to provide you with important information about your drinking water and the efforts made by the City to provide safe drinking water.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. This report provides data on the levels of any contaminants that were detected and likely sources of those contaminants. The state allows us to monitor for some contaminants less than once per year; therefore, some data provided in this report, although representative, is more than one year old. For more information regarding this report, please contact Mayra Gonzales at 713-672-2556.

Last year, we conducted hundreds of water quality tests on your drinking water. Only one of the contaminants that we tested for exceeded the maximum level EPA allows. As we told you at that time, our water temporarily exceeded drinking water standards for microbial contaminants during a sampling event. When a second set of samples from the same locations and from additional locations within the same area were tested, no microbial contaminants were found.

Public Participation Opportunities

The City of Galena Park encourages public interest and participation in our community's decisions that may affect the quality of drinking water. Regular City Council meetings occur on the 1st and 3rd Tuesday of each month at 6:00 p.m. The meetings are held at City Hall; 2000 Clinton Dr.; Galena Park, TX 77547. Additional information about public meetings concerning your drinking water may be obtained by calling 713-672-2556.

Special Notice for the Elderly, Infants, Cancer Patients, people with HIV/AIDS or other 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; persons 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 on appropriate means to lessen the risk of infection by Cryptosporidium are available from the U.S. Environmental Protection Agency, Safe Drinking Water Hotline at (800) 426-4791.

Sources of Drinking Water

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. The sources of drinking water that the City of Galena Park provides to its customers are listed below.

Source Water Name	Source Water Location	Type of Water	Status	Source Water Supply
Water Well No. 3	304 Stewart St. / Water Plant 1	Groundwater	Seasonal	Gulf Coast Aquifer
Water Well No. 5	1900 Keene St. /Water Plant 2	Groundwater	Seasonal	Gulf Coast Aquifer
City of Houston	2300 Federal Rd. (PWS 1010013)	Surface Water	Active	East Water Purification Plant (EP001)
City of Houston	12401 Strick Ln. (PWS 1010013)	Surface Water	Seasonal (*emergency supply)	East Water Purification Plant

*The emergency water supply was activated October 27, 2015 through October 28, 2015 to deliver a total of 56,000 gallons of water during repairs to a leaking 8-inch water distribution line that services the Woodland Acres community. For water quality information, contact Mayra Gonzales at 713-672-2556.

Regulation of Possible Contaminants in Drinking Water

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 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 (800) 426-4791.

Possible Contaminants in Source Water

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, 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.
- 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 in drinking water, please contact Mayra Gonzales at 713-672-2556.

Educational Information on Lead in Drinking Water

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 City of Galena Park is responsible for providing high quality drinking water, but we 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 EPA's Safe Drinking Water Hotline (800-426-4791) or at <http://www.epa.gov/safewater/lead>.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at the homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to two minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline at (800) 426-4791.

Educational Information on Arsenic in Drinking Water

While your drinking water meets EPA's standard for arsenic, it does **not** contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's 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.

TCEQ's Assessment of Source Water

The TCEQ completed an assessment of your source water and results indicate that some of your sources are susceptible to certain contaminants. The sampling requirements for your water system are based on this susceptibility and previous sample data. Any detections of these contaminants may be found in this Consumer Confident Report. For more information on source water assessments and protection efforts at our system, contact Mayra Gonzales at 713-672-2556.

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

Further details about sources and source-water assessments are available in Drinking Water Watch at the following URL: <http://dww2.tceq.texas.gov/DWW/>

Water Loss

The City of Galena Park submitted a Water Loss Audit to Texas Water Development Board (TWDB) for the period of January 1, 2015 through December 31, 2015. Based on results of the audit, our system lost an estimated 44,998,185 gallons of water (a total of 17.83% of the system's input – combined well water and purchased water volumes). The general age of our underground water lines (predominantly 60 to 80 years old) suggest the likelihood that much of the City's water loss is due to undetected water line leaks as a result of piping having remained in service beyond its "Estimated Effective Life". All infrastructure eventually reaches the limits of its useful service life and must be renewed or replaced. A leakage control program would be an effective tool for evaluating water loss and prioritizing water line replacement. Additionally, a Capital Improvement Plan is needed to identify, prioritize, schedule, and plan for funding major infrastructure rehabilitation and replacement. If you have questions about the Water Loss Audit, please contact Mayra Gonzales at 713-672-2556.

How You Can Help

Source Water Protection

Protection of source water is everyone's responsibility. You can help protect your community's drinking water source in the following ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides – they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- Dispose of chemicals properly (refer to container labels for proper disposal methods).

Conserve Water and Be Aware of the Rising Cost to Provide Water Service

During the reporting period, ninety-eight percent (98%) of the City of Galena Park's water was purchased from the City of Houston and two percent (2%) was supplied by our water wells. We use our water wells to reduce the amount of water we purchase from the City of Houston (primarily during peak water use periods). However, there are limitations, set by Harris-Galveston Subsidence District, on the amount of water we can pump from the wells. The City of Galena Park is a contract customer of the City of Houston. There is a contractual minimum monthly amount of water we must purchase from the City of Houston; and their water rates for contract customers increase annually. You can help by conserving water in an effort to offset those increasing costs.

The City of Galena Park (City) must set water rates at amounts that pay the costs we incur to provide water utility services. During 2013, the City hired a consultant to conduct a study of the cost of service and water utility rates. Based on recommendations resulting from the study, City Council determined that future rate increases are required to assure our water utility systems are operated on a sound financial bases, as required by state law. Consequently, City Council adopted an Ordinance establishing a rate plan that provides for fair and equitable annual rate increases through year 2018 (effective August 1st, annually). The adopted rate plan provides for conservative expenses associated with water utility operations, with a few exceptions (primarily related to the wastewater system). The adopted rate plan does not take into consideration the need to evaluate and replace/rehabilitate a large amount of the City's significantly aged water utility infrastructure. The City intends to develop a Capital Improvement Plan that addresses aging infrastructure. Costs associated with implementing a Capital Improvement Plan will ultimately increase the City's costs to provide water service.

Detected Contaminants

Tables in this report contain scientific terms and measures that are explained below.

Abbreviations:

AL	Action Level
EPA	United States Environmental Protection Agency
MCLG	Maximum contaminant level goal
MCL	Maximum contaminant level
MRDL	Maximum residual disinfectant level
MRDLG	Maximum residual disinfectant level goal
pCi/L	Picocuries per Liter (a measure of radioactivity)
ppb (or µg/L)	Parts per Billion (or micrograms per liter, µg/L) (or one ounce in 7,350,000 gallons of water)
ppm (or mg/L)	Parts per Million (or milligrams per liter, mg/L) (or one ounce in 7,350 gallons of water)
PWS	Public Water System
TCEQ	Texas Commission on Environmental Quality

Definitions:

Action Level of AL:	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
Average or AVG:	Regulatory compliance with some MCLs is based on running annual average of monthly samples.
Entry Point	The point at which freshly treated water enters the water distribution system.
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 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 a margin of safety.
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.
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.
Secondary Drinking Water Standards or SDWS	Standards for contaminants that affect taste, odor or appearance of drinking water. MCLs for Secondary
Unregulated contaminants	Contaminants for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulations are warranted.

Regulated Contaminants Detected – City of Galena Park (PWS 1010009)

Coliform Bacteria (Microbial Contaminant)

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	1 positive monthly sample.	3	0	1	Yes	Naturally present in the environment.
Health Effects: Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems. When a second set of samples from the same locations and from additional locations within the same area were tested, no microbial contaminants were found.						

Lead and Copper (Inorganic Contaminants) (Data presented in the table below is from the most recent testing done in accordance with TCEQ requirements.)

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	08/06/2013	1.3	1.3	0.0427	0	ppm	No	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	08/06/2013	0	15	3.87	1	ppb	No	Corrosion of household plumbing systems; Erosion of natural deposits.

Residual Disinfectant Levels (Inorganic Contaminant)

Disinfectant Type	Year	Average Level of Quarterly Data	Minimum Level Detected	Maximum Level Detected	MRDL	MRDLG	Unit	Violation	Likely Source
Chloramines	2015	2.19	.05	4.0	4	4	ppm	No	Disinfectant used to control microbes.

Regulated Contaminants (Data presented in the tables below is from the most recent testing done in accordance to TCEQ requirements.)								
Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2015	32	19.3-47.9	No goal for the total	60	ppb	No	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2015	37	26.7 – 53.4	No goal for the total	80	ppb	No	By-product of drinking water disinfection.
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	01/13/2011	7	2.3 - 7	0	10	ppb	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
	Arsenic - While your drinking water meets EPA standards for arsenic, it does not contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's 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	01/13/2011	0.248	0.079 - 0.248	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Cyanide	2015	160	0 - 160	200	200	ppb	No	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
Fluoride	5/1/2014	0.33	0.31 - 0.33	4	4.0	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate (measured as Nitrogen)	1/23/2015	0.43	0.40 - 0.43	10	10	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	05/12/2010	5	0 - 5	0	50	pCi/L*	No	Decay of natural and man-made deposits.

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

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	2015	0.13	0.12 - 0.13	3	3	ppb	No	Runoff from herbicide used on row crops.
Simazine	1/23/2015	0.09	0.07 – 0.09	4	4	ppb	No	Herbicide runoff.

Secondary Drinking Water Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Aluminum	1/13/2011	0.0334	0 - 0.0334	NA	0.2	ppm	No	Erosion of natural deposits; residual from some surface water treatment processes.
Chloride	5/1/2014	45	44 - 45	NA	300	ppm	No	Chlorides are leached from various rocks into soil and water.
Iron	1/13/11	0.069	0.049 - 0.069	NA	0.3	ppm	No	Common metallic elements found in the earth's crust; iron pipes.
Manganese	1/13/2011	0.0221	0.004 – 0.0221	NA	0.05	ppm	No	Common metallic elements found in the earth's crust; iron pipes.
Sulfate	5/1/2014	51	50 - 51	NA	300	ppm	No	Some soils and rocks contain sulfate minerals that leach into water.
TDS (Total Dissolved Solids)	5/01/14	253	249 - 253	NA	1000	ppm	No	Erosion of natural deposits; residual from some surface water treatment processes.
Zinc	1/13/11	0.273	0.0306 – 0.273	NA	5	ppm	No	Erosion of minerals from rocks and soil.

Violations Table - Total Coliform			
Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed by EPA. That was a warning of potential problems.			
Violation Type	Violation Begin	Violation End	Violation Explanation
MCL (TCR), MONTHLY	04/01/2015	04/30/2015	Total coliform bacteria were found in our drinking water during the period indicated in enough samples to violate a standard. When a second set of samples from the same locations and from additional locations within the same area were tested, no Total Coliform bacteria (microbial contaminants) were found.

Unregulated Contaminants Detected – City of Galena Park (PWS 1010009)

Type Contaminant	Contaminant	Collection Date	Average Level	Range of Levels	Units
Inorganics	Molybdenum, Total	2015	1.46	1.01 – 1.68	µg/L
Inorganics	Strontium, Total	2015	258.6	227 – 334	µg/L
Inorganics	Vanadium, Total	2015	0.7862	0.336 – 1.63	µg/L

Additional Information Provided by City of Houston
Information provided by East Water Purification Plant (PWS 1010013)

The City of Houston has several Entry Points. According to City of Houston's hydraulic model, only Entry Point 001 provided water to the City of Galena Park in 2015. The Regulated Contaminants Table below contains results of analysis from Entry Point 001. However, due to the amount of sampling performed on City of Galena Park water in year 2015, the following City of Houston data is not a required component of this CCR.

Regulated Contaminants – City of Houston (Entry Point 001)

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2015	0.0545	0.0545	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2015	0.023	0.023	4	4	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate	2015	0.41	0.41	10	10	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Regulated Contaminants – City of Houston (Entry Point 001)

Secondary Drinking Water Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation
Chloride	2015	28	28	NA	250	ppm	No
Iron	2015	33	33	NA	300	ppb	No
Manganese	2015	0.0294	0.05	NA	0.05	ppm	No
pH	2015	7.3	7.3	NA	6.5 – 8.5	SU	No
Sulfate	2015	43	43	NA	250	ppm	No
Total Dissolved Solids	2015	223	223	NA	500	ppm	No
Zinc	2015	0.0101	0.0101	NA	5	ppm	No