

2017 Annual Drinking Water Quality Report

(Consumer Confidence Report)

PALMER PLANTATION M.U.D. #1

PWS ID 0790199

Phone No: 281-499-5539

Annual Water Quality Report for the period of January 1 to December 31, 2017.

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 source of drinking water used by Palmer Plantation M.U.D. #1 is Ground Water

Information about your 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.

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.

For information regarding this report contact: Palmer Plantation M.U.D. #1 at: 281-499-5539.

Este reporte incluye información importante sobre el agua potable. Para asistencia español, favor de llamar a Palmer Plantation Mud #1 al teléfono 281-499-5539.

Public Participation Opportunities

Date: 3rd Wednesday of every month
Time: 3:00 pm
Location: 3134 Cartwright Road, Missouri City, Texas
Phone No: 281-499-5539

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

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 salts and metals, which can be naturally-occurring or results 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.

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.

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.

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 at (800) 426-4791.

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. We are 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 Safe Drinking Water Hotline or at: <http://www.epa.gov/safewater/lead>.

Information about Source Water

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 is based on this susceptibility and previous sample data. **Any detections 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 Quail Valley Utility District at: 281-499-5539.

Source Water Name: Ground Water **Report Status:** Active

Location: 1 – 4335 Crow Valley
GW from TX0790137, Palmer Plantation MUD 1

Type of Water: Ground Water **Report Status:** Active

Location: 2 – 1603 LK Olympia PKWY
GW from TX0790323, Palmer MUD 2

The following tables contain scientific terms and measures, some of which may require explanation

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.

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.

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.

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.

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.

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.

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

na: not applicable.

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

NTU nephelometric turbidity units (a measure of turbidity)

pCi/L picocuries per liter (a measure of radioactivity)

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

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

Treatment Technique or TT: A required process intended to reduce the level of a contaminant in drinking water.

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

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

PALMER PLANTATION M.U.D. #1
Water Quality Test Results
2017 Regulated Contaminants

The following tables contain scientific terms and measures, some of which may require explanation:

Disinfectant Residual:

Year	Disinfectant Residual	MRDLG	MRDL	Average level	Range of Levels Detected	Unit of Measure	Violation	Source in Drinking Water
2017	Chlorine Residual, Free	< 4.0	4.0	0.96	.40-1.50	ppm	N	Water additive used to control microbes.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2017	1.3	1.3	0.274	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

Total Lead: TESTED IN 2017 –NONE DETECTED

Lead and Copper

Definitions:

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

Additional Lead Information:

PALMER PLANTATION #1, like all public water systems, is required by the Federal Safe Drinking Water Act, to conduct routine Lead and Copper Monitoring from the customer's faucet since 1996. The Source Water as well as the Distribution System and thru the customer's faucet has historically been well below the detectable Levels of less than 0.015 mg/l (milligrams per liter) for **LEAD** and 1.3 mg/l (milligrams per liter) for **COPPER** and meeting all the requirements of the Drinking Water Standards. The most recent round of samples collected and tested for your system was during 2017.

Disinfection By-Products	Collection Date	Highest Level or Average Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Total Trihalomethanes (TTHM)	2017	1	1 - 1	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

*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	Collection Date	Highest Level or Average Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic - While your drinking water meets EPA standards for arsenic, it does 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.	2015	6.6	6.6 - 6.6	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2015	0.19	0.19 - 0.19	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2015	0.33	0.33 - 0.33	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Selenium	2015	3.1	3.1 - 3.1	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Radioactive Contaminants	Collection Date	Highest Level or Average Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228	2015	1.31	1.31 - 1.31	0	5	pCi/L	N	Erosion of natural deposits.
Gross alpha excluding radon and uranium	2015	5.5	5.5 - 5.5	0	15	pCi/L	N	Erosion of natural deposits.

2017 CCR Water Loss Information:

In the water loss audit submitted to the Texas Water Development Board for the time period of Jan-Dec 2017, our system lost an estimated 8,733,201 gallons of water. If you have any questions about the water loss audit, please call Palmer Plantation M.U.D. #1 at 281-499-5539. If you have any other questions about how the amount of water lost should appear on your CCR please call the TCEQ Public Drinking Water Section at 512-239-4691. If you have any questions about the water loss audit, please contact the Texas Water Development Board at 512-463-7847. If you have questions concerning the CCR, please call the Drinking Water Quality Team at 512/239-4691 or email PWSCCR@tceq.texas.gov. When you contact the TCEQ please make sure that you reference the PWS Name and ID number.

**PALMER PLANTATION M.U.D. #2
Water Quality Test Results
2017 Regulated Contaminants**

The following tables contain scientific terms and measures, some of which may require explanation:

Disinfectant Residual:

Year	Disinfectant Residual	MRDLG	MRDL	Average level	Range of Levels Detected	Unit of Measure	Violation	Source in Drinking Water
2017	Chlorine Residual, Free	< 4.0	4.0	0.94	0.30-1.26	ppm	N	Water additive used to control microbes.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2017	1.3	1.3	0.305	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

Total Lead: TESTED IN 2017 –NONE DETECTED

Lead and Copper

Definitions:

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

Additional Lead Information:

PALMER PLANTATION #2, like all public water systems, is required by the Federal Safe Drinking Water Act, to conduct routine Lead and Copper Monitoring from the customer's faucet since 1996. The Source Water as well as the Distribution System and thru the customer's faucet has historically been well below the detectable Levels of less than 0.015 mg/l (milligrams per liter) for **LEAD** and 1.3 mg/l (milligrams per liter) for **COPPER** and meeting all the requirements of the Drinking Water Standards. The most recent round of samples collected and tested for your system was during 2017.

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)	2016	1	1.2 - 1.2	No goal for the total	60	ppb	N	By-product of drinking water disinfection.

*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.

Total Trihalomethanes (TTHM)	2017	5	5 - 5	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
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*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	Collection Date	Highest Level or Average Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2015	3.5	3.5 - 3.5	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2015	0.152	0.152 - 0.152	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2017	0.8	0.8 - 0.8	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Selenium	2015	4.1	4.1 - 4.1	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Radioactive Contaminants	Collection Date	Highest Level or Average Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228	2015	0.73	0.73 - 0.73	0	5	pCi/L	N	Erosion of natural deposits.
Gross alpha excluding radon and uranium	2015	4.4	4.4 - 4.4	0	15	pCi/L	N	Erosion of natural deposits.
Volatile Organic Contaminants	Collection Date	Highest Level or Average Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Ethylbenzene	2017	0.5	0.5 - 0.5	700	700	ppb	N	Discharge from petroleum refineries.
Xylenes	2017	0.0012	0.0012 - 0.0012	<u>10</u>	<u>10</u>	<u>ppm</u>	<u>N</u>	Discharge from petroleum factories; Discharge from chemical factories.

2017 CCR Water Loss Information:

In the water loss audit submitted to the Texas Water Development Board for the time period of Jan-Dec 2017, our system lost an estimated 8,276,799 gallons of water. If you have any questions about the water loss audit, please call Palmer Plantation MUD #2 at 281-499-5539. If you have any other questions about how the amount of water lost should appear on your CCR please call the TCEQ Public Drinking Water Section at 512-239-4691. If you have any questions about the water loss audit, please contact the Texas Water Development Board at 512-463-7847. If you have questions concerning the CCR, please call the Drinking Water Quality Team at 512/239-4691 or email PWSCCR@tceq.texas.gov. When you contact the TCEQ please make sure that you reference the PWS Name and ID number.