

# 2017 Annual Drinking Water Quality Report

(Consumer Confidence Report)

## QUAIL VALLEY UTILITY DISTRICT

PWS ID 0790028

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 Quail Valley Utility District 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: Quail Valley Utility District at: 281-499-5539.

Este reporte incluye información importante sobre el agua potable. Para asistencia español, favor de llamar a Quail Valley Utility District al teléfono 281-499-5539.

#### Public Participation Opportunities

**Date:** 2<sup>nd</sup> Monday of every month  
**Time:** 5pm  
**Location:** 3134 Cartwright Road, Missouri City  
**Phone:** 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 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.

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 bottle 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** 2935 Blue Lakes (Plant 1), 2143 Cartwright (Plant 2), 1930 Rothwell (Plant 3)

**Type of Water:** Ground Water **Report Status:** Active  
Location: 2935 Blue Lakes (Plant 1), 2143 Cartwright (Plant 2), 1930 Rothwell (Plant 3)

#### Definitions and Abbreviations

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)

**Water Quality Test Results  
2017 Regulated Contaminants**

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

**Coliform Bacteria**

| 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                | 1                       |   | 0   | N         | Naturally present in the environment. |

**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  | 0.95          | 0.46–2.20                | 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          | 9/23/2016    | 1.3  | 1.3               | 0.248           | 0               | ppm   | N         | Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems. |
| Lead            | 9/23/2016    | 0    | 15                | 4               | 1               | ppb   | N         | Corrosion of household plumbing systems; Erosion of natural deposits.                                   |

**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:**

Quail Valley Utility District, 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 detectible 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 2016.

| Disinfectants and 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            | 3                                 | 0 – 8.4                     | 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   |
|---|-----------------|-----------------------------------|-----------------------------|------|-----|-------|-----------|--|
| <b>Arsenic</b> - 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. | 2017            | 5.4                               | 3.8 - 5.4                   | 0    | 10  | ppb   | N         | Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.                    |
| <b>Barium</b>   | 2017            | 0.195                             | 0.18 - 0.195                | 2    | 2   | ppm   | N         | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.                                |
| <b>Fluoride</b>   | 2017            | 0.33                              | 0.3 – 0.33                  | 4    | 4.0 | ppm   | N         | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories. |
| Radioactive Contaminants  | Collection Date | Highest Level or Average Detected | Range of Individual Samples | MCLG | MCL | Units | Violation | Likely Source of Contamination   |
| <b>Combined Radium 226/228</b>  | 2017            | 2.54                              | 2.41 - 2.54                 | 0    | 5   | pCi/L | N         | Erosion of natural deposits.   |
| <b>Gross Alpha Excluding Radon and uranium</b>  | 2017            | 11.3                              | 6 – 11.3                    | 0    | 15  | pCi/L |           | Erosion of natural deposits.   |
| <b>Uranium</b>  | 2017            | 1.4                               | 1.2 – 1.4                   | 0    | 30  | ug/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 49,091,263 gallons of water. If you have any questions about the water loss audit please call Quail Valley U. D. 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.