

Annual Drinking Water Quality Report

CITY OF KEMP TX1290004

Annual Water Quality Report for the period of January 1 to December 31, 2016

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. For more information regarding this report contact: Luis Valentin (903) 603-6306

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (903) 603-6306.

The City of Kemp, City Council meets the 2nd Tuesday of each month at 7 p.m.. These meetings are open to the public and are held at the Kemp City Hall Council Chamber, at 304 S. Main St. Kemp, TX..To participate or be heard at these meetings, contact Kemp City Hall at (903) 498-3191, between Monday through Friday, 8 a.m. until 4:30 p.m..

Sources of 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.

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 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

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>

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 (800-426-4791).

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 detection's 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: Luis Valentin at (903) 603-6306.

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/>

| Source Water Name | Type of Water | Report Status | Location |
|---|---------------|---------------|------------------|
| 1,2 RAW WATER PUMPS | Surface water | A | Cedar Creek Lake |
| WEST CEDAR CREEK MUNICIPAL UTILITY DISTRICT | Surface water | | Cedar Creek Lake |

Our system is operating under a variance from TCEQ of the Safe Drinking Water Act. The variance is for an Alternative Pump Capacity of .46 gpm per connection with the largest pump out of service from the required .6 gpm per connection with the largest pump out of service. 3 years of the systems maximum daily demand (MDD) data was collected, reviewed, and TCEQ determined that this variance would be acceptable. This variance was granted on August 12, 2016 and is subject to periodic review.

The City of Kemp is currently undertaking the necessary steps to upgrade our Water Treatment Plant. This upgrade will include larger capacity transfer pumps, therefore eliminating the need for an Alternative Pump Capacity Requirement variance when completed.

Our system received water from WCCMUD from January 1, 2016- December.20, 20165. This was used as an interconnection between the two systems. For information pertaining to water quality from their system please contact: WCCMUD Main office (903) 432-3704

In the water loss audit submitted to the Texas Water Development Board for the time period of Jan-Dec 2016, our system lost an estimated 17,294,250 gallons of water. If you have any questions about the water loss audit please call (903) 603-6306.

2016 REGULATED CONTAMINANTS DETECTED

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 | 0 | N | Naturally present in the environment |

Lead and Copper

Definitions:

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALG's 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.

| Lead and Copper | Date Sampled | MCLG | Action Level (AL) | 90th Percentile | # Sites Over AL | Units | Violation | Likely Source of Contamination |
|-----------------|--------------|------|-------------------|-----------------|-----------------|-------|-----------|---|
| Copper | 09/12/2013 | 1.3 | 1.3 | 0.311 | 0 | ppm | N | Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems. |
| Lead | 09/12/2013 | 0 | 15 | 5.18 | 1 | ppb | N | Corrosion of household plumbing systems; Erosion of natural deposits. |

Water Quality Test Results

Definitions:

Avg:

Level 1 assessment:

Level 2 assessment:

Maximum Contaminant Level or MCL:

Maximum Contaminant Level Goal or MCLG:

Maximum Residual Disinfectant Level or MRDL:

Maximum Residual Disinfectant Level Goal or MRDLG:

na:

NTU:

pCi/L:

ppb:

ppm:

ppt:

ppq:

Treatment Technique:

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

Regulatory compliance with some MCL's are based on running annual average of monthly sample

A study of the water system to identify potential problems and determine (if possible) why Total Coliform bacteria were found.

A very detailed study of the water system to identify potential problems and determine (if possible) why an Escherichia coli (E.coli) maximum contaminant level violation has occurred and./or why Total Coliform bacteria were found on multiple occasions.

The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG as feasible using the best available treatment technology.

The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

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.

The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

not applicable

Nephelometric turbidity units (a measure of turbidity)

picocuries per liter (a measure of radioactivity)

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

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

parts per trillion, or Nano grams per liter (ng/L)

parts per quadrillion, or pictograms per liter (pg/L)

A required process intended to reduce the level of a contaminant in drinking water.

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)* | 2016 | 50 | 33.4 - 68.8 | No goal for the total | 60 | ppb | N | By-product of drinking water disinfection. |
| Total Trihalomethanes (TTHM) | 2016 | 48 | 28.7 - 60.2 | No goal for the total | 80 | ppb | N | 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 |
| Barium | 2015 | 0.044 | 0.044 - 0.044 | 2 | 2 | ppm | N | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits. |
| Nitrate [measured as Nitrogen] | 2016 | 0.344 | 0.344 - 0.344 | 10 | 10 | ppm | N | 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 | 06/25/2015 | 4.6 | 4.6-4.6 | 0 | 50 | pCi/L* | N | 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 herbicides & pesticides | Collection Date | Highest Level Detected | Range of Levels Detected | MCLG | MCL | Units | Violation | Likely Source of Contamination |
|---|------------------------------------|-------------------------------|---------------------------------|---------------------------------------|------------|--------------|------------------|--|
| Atrazine | 2016 | .22 | 0 - 0.22 | 3 | 3 | ppb | N | Runoff from herbicide used on row crops. |
| Turbidity | Limit (Treatment Technique) | Level Detected | Violation | Likely Source of Contamination | | | | |
| Highest single measurement | 1 NTU | 1.4 NTU | Y | Soil runoff. | | | | |
| Lowest monthly % meeting limit | 0.3 NTU | 96% | N | Soil runoff. | | | | |

Information Statement: Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration

| Disinfectant | Collection Date | Average Level | Minimum Level | Maximum Level | MRLD | MRLDG | Units | Violation | Likely Source of Contamination |
|-------------------------|------------------------|----------------------|----------------------|----------------------|-------------|--------------|--------------|------------------|--|
| Chlorine - Free | 2016 | 1.54 | 0.5 | 3.8 | 4 | 4 | mg/L | No | Water additive used to control microbes. |
| Chlorine - Total | 2016 | 2.21 | 0.5 | 4.2 | 4 | 4 | mg/L | No | Water additive used to control microbes |

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.

Non-Regulated Contaminants

| Contaminant | Collection Date | Average Level | Minimum Level | Maximum Level | Units | Violation |
|-----------------------------|------------------------|----------------------|----------------------|----------------------|--------------|------------------|
| Chloroform | 2016 | 36.04 | 24.1 | 50.2 | UG/L | No |
| Bromodichloromethane | 2016 | 8.30 | 4.59 | 11.5 | UG/L | No |

VIOLATIONS TABLE

| Consumer Confidence Rule | | | |
|--|-----------------|---------------|---|
| The Consumer Confidence Rule requires community water systems to prepare and provide to their customers annual consumer confidence reports on the quality of the water delivered by the systems. | | | |
| Violation Type | Violation Begin | Violation End | Explanation: We failed to provide to you, our drinking water customers, an annual report that informs you about the quality of our drinking water and characterizes the risks from exposure to contaminants detected in our drinking water. |
| CONSUMER CONFIDENCE RULE | 07/01/2016 | 2016 | Correction: We completed & delivered the 2016 to you our drinking water customers. |

| Filter Backwash Rule | | | |
|---|-----------------|---------------|---|
| The Filter Backwash Recycling Rule requires public water systems to review their backwash water recycling practices to ensure they do not compromise microbial control. | | | |
| Violation Type | Violation Begin | Violation End | Explanation: We failed to submit to our regulator a plant schematic showing the origin of all flows which are recycled, the hydraulic conveyance used to transport them, and the location where they are re-introduced back into the treatment plant. |
| FAILURE TO SUBMIT PLANT SCHEMATIC | 07/06/2011 | 2016 | Correction: We are currently affecting repairs to this system in order to submit accurate plant schematic documentation. |

| Interim Enhanced SWTR | | | |
|--|-----------------|---------------|---|
| The Interim Enhanced Surface Water Treatment Rule improves control of microbial contaminants, particularly Cryptosporidium, in systems using surface water, or ground water under the influence of surface water. The rule builds upon the treatment technique requirements of the Surface Water Treatment Rule. | | | |
| Violation Type | Violation Begin | Violation End | Explanation: One turbidity measurement exceeded a standard for the month indicated. Turbidity (cloudiness) levels are used to measure effective filtration of drinking water. |
| SINGLE COMBINED FLTR EFFLUENT (IESWTR/LT1) | 07/01/2016 | 07/31/2016 | Correction: Processes were implemented and employee training conducted to prevent reoccurrences of this violation.. |

| Lead and Copper Rule | | | |
|---|-----------------|---------------|--|
| The Lead and Copper Rule protects public health by minimizing lead and copper levels in drinking water, primarily by reducing water corrosivity. Lead and Copper enter drinking water mainly from corrosion of lead and copper containing plumbing materials. | | | |
| Violation Type | Violation Begin | Violation End | Violation Explanation: We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated. |
| FOLLOW-UP OR ROUTINE TAP M/R (LCR) | 10/01/2011 | 2016 | Correction: This violation has been resolved, but must be noted on the violations table for 5 years from violation begin date. |
| FOLLOW-UP OR ROUTINE TAP M/R (LCR) | 10/01/2016 | 2016 | Correction: This will be brought into compliance when Lead & Copper Samples are collected and submitted to TCEQ during the June-September 2017 cycle collection period. |

| 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: We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations |
| PUBLIC NOTICE RULE LINKED TO VIOLATION | 03/03/2013 | 03/13/2017 | Correction: We delivered to our customers and the TCEQ the appropriate documentation. |
| PUBLIC NOTICE RULE LINKED TO VIOLATION | 08/29/2016 | 12/27/2016 | Correction: We delivered to our customers and the TCEQ the appropriate documentation. |

