2017 ANNUAL DRINKING WATER QUALITY REPORT

TX1290021 **NORTH KAUFMAN WATER SUPPLY CORPORATION**

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.

For more information regarding this report contact: Roy Perkins – General Manager Phone: (972)-962-7614

Este reporte incluye informacion importante sobre el aqua para tomar. Para asistencia en espanol, favor de llamar al telefono (972)-962-7614.

North Kaufman WSC Board Meetings are held the third Monday of each month at 7 pm at 3891 N. Hwy. 34, Kaufman, TX.

North Kaufman WSC is a Purchased Surface Water

Sources of Drinking Water

The sources of drinking water (both tap 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 EPAs 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.

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.

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 Assessments

A Source Water Susceptibility Assessment for your drinking water source(s) is currently being updated by the Texas Commission on Environmental Quality. This information describes the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The information contained in the assessment allows us to focus source water protection strategies.

For more information about your sources of water, please refer to the Source Water Watch at the following URL:
http://gis3.tceq.state.tx.us/swav/Controller/index.jsp?wtrsrc=

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

Source Water Name		Type of Water	Report Status	Location
SW from City of Kaufman	CC from TX1290003 City of	SW	Active	Lake Lavon
SW from City of Terrell	CC from TX1290006 City of	SW	Active	Lake Lavon, Lake Tawakoni

2017 Regulated Contaminants Detected

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. 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.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Like Contamination Source
Copper	2017	1.3	1.3	0.51	1	ppm	N	Erosion of natural deposits; leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2017	0	15	1.7	01	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Water Quality Test Results

Definitions:	**The following tables contain scientific terms and measures, some of which may require explanation.**
Avg:	**Regulatory compliance with some MCLs are based on running annual average of monthly samples.**
Max Containment Level (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:	**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.**
Max Contaminant Level Goal (MCGL):	**The level of a contaminant in drinking water below which there is no known or expected risk to health. MCGLs 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.**

Water Quality Test Results (continued)

Max residual disinfectant level (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.**
Max residual disinfectant level goal (MRDLG):	**The level of a drinking water disinfectant below which there is no know 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 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 pictograms per liter (pg/L).**

Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Contamination Source
Haloacetic Acids (HAA5)	2017	17.4	12.6-22.8	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2017	21.1	16.6-37.5	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	Like Source of Contamination
Nitrate (measured as Nitrogen)	2017	0.29	0.29-.029	10	10	ppm	N	Runoff from fertilizer use; Le3aching from septic tanks, sewage; Erosion of natural deposits.

North Texas Municipal Water District Tawakoni WTP Consumer Confidence Report For Year 2017

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	Cust #	0	Cust #	No	Naturally present in the environment.

NOTE: Reported monthly tests found no fecal coliform bacteria. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present.

Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Total Haloacetic Acids (HAA5)	2017	Cust #	Cust #	No goal for the total	60	ppb	No	By-product of drinking water chlorination.
Total Trihalomethanes (TThm)	2017	Cust #	Cust #	34.7	80	ppb	No	By-product of drinking water chlorination.
Bromate	2017	Levels lower than detect level	0-0	5	10	ppb	No	By-product of drinking water ozanation.

NOTE: Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Antimony	2017	Levels lower than detect level	0-0	6	6	ppb	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; and test addition.
Arsenic	2017	Levels lower than detect level	0-0	0	10	ppb	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
Barium	2017	0.07	.070-.070	2	2	ppm	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Beryllium	2017	Levels lower than detect level	0-0	4	4	ppb	No	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries.
Cadmium	2017	Levels lower than detect level	0-0	5	5	ppb	No	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints.
Chromium	2017	Levels lower than detect level	0-0	100	100	ppb	No	Discharge from steel and pulp mills; erosion of natural deposits.
Fluoride	2017	0.246	.246-.246	4	4	ppm	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Mercury	2017	Levels lower than detect level	0-0	2	2	ppb	No	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland.
Nitrate (measured as Nitrogen)	2017	0.219	.219-.219	10	10	ppm	No	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of 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.								
Selenium	2017	Levels lower than detect level	0-0	50	50	ppb	No	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.
Thallium	2017	Levels lower than detect level	0-0	0.5	2	ppb	No	Discharge from electronics, glass, and leaching from ore-processing sites; drug factories.
Radioactive Contaminants	**Collection Date**	**Highest Level Detected**	**Range of Levels Detected**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Beta/photon emitters	12/12/2012	Levels lower than detect level	0 - 0	0	4	mrem/yr	No	Decay of natural and man-made deposits.
Gross alpha excluding radon and uranium	12/12/2012	Levels lower than detect level	0 - 0	0	15	pCi/L	No	Erosion of natural deposits.
Radium-228	12/12/2012	Levels lower than detect level	0 - 0	0	5	pCi/L	No	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**
2, 4, 5 - TP (Silvex)	2015	Levels lower than detect level	0 - 0	50	50	ppb	No	Residue of banned herbicide.
2, 4 - D	2015	Levels lower than detect level	0 - 0	70	70	ppb	No	Runoff from herbicide used on row crops.
Alachlor	2015	Levels lower than detect level	0 - 0	0	2	ppb	No	Runoff from herbicide used on row crops.
Atrazine	2015	Levels lower than detect level	.12-.12	3	3	ppb	No	Runoff from herbicide used on row crops.
Benzo (a) pyrene	2015	Levels lower than detect level	0 - 0	0	200	ppt	No	Leaching from linings of water storage tanks and distribution lines.
Carbofuran	2015	Levels lower than detect level	0 - 0	40	40	ppb	No	Leaching of soil fumigant used on rice and alfalfa.
Chlordane	2015	Levels lower than detect level	0 - 0	0	2	ppb	No	Residue of banned termiticide.
Dalapon	2015	Levels lower than detect level	0 - 0	200	200	ppb	No	Runoff from herbicide used on rights of way.
Di (2-ethylhexyl) adipate	2015	Levels lower than detect level	0 - 0	400	400	ppb	No	Discharge from chemical factories.
Di (2-ethylhexyl) phthalate	2015	Levels lower than detect level	0 - 0	0	6	ppb	No	Discharge from rubber and chemical factories.
Dibromochloropropane (DBCP)	2015	Levels lower than detect level	0 - 0	0	0	ppt	No	Runoff / leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards.
Dinoseb	2015	Levels lower than detect level	0 - 0	7	7	ppb	No	Runoff from herbicide used on soybeans and vegetables.
Endrin	2015	Levels lower than detect level	0 - 0	2	2	ppb	No	Residue of banned insecticide.
Ethylene dibromide	2012	Levels lower than detect level	0 - 0	0	50	ppt	No	Discharge from petroleum refineries.
Heptachlor	2015	Levels lower than detect level	0 - 0	0	400	ppt	No	Residue of banned termiticide.
Heptachlor epoxide	2015	Levels lower than detect level	0 - 0	0	200	ppt	No	Breakdown of heptachlor.
Hexachlorobenzene	2015	Levels lower than detect level	0 - 0	0	1	ppb	No	Discharge from metal refineries and agricultural chemical factories.
Hexachlorocyclopentadiene	2015	Levels lower than detect level	0 - 0	50	50	ppb	No	Discharge from chemical factories.
Lindane	2015	Levels lower than detect level	0 - 0	200	200	ppt	No	Runoff / leaching from insecticide used on cattle, lumber, and gardens.
Methoxychlor	2015	Levels lower than detect level	0 - 0	40	40	ppb	No	Runoff / leaching from insecticide used on fruits, vegetables, alfalfa, and livestock.
Oxamyl [Vydate]	2015	Levels lower than detect level	0 - 0	200	200	ppb	No	Runoff / leaching from insecticide used on apples, potatoes, and tomatoes.
Pentachlorophenol	2015	Levels lower than detect level	0 - 0	0	1	ppb	No	Discharge from wood preserving factories.
Simazine	2015	Levels lower than detect level	0 - 0	4	4	ppb	No	Herbicide runoff.
Toxaphene	2015	Levels lower than detect level	0 - 0	0	3	ppb	No	Runoff / leaching from insecticide used on cotton and cattle.
Volatile Organic Contaminants	**Collection Date**	**Highest Level Detected**	**Range of Levels Detected**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
1, 1, 1 - Trichloroethane	2017	Levels lower than detect level	0 - 0	200	200	ppb	No	Discharge from metal degreasing sites and other factories.
1, 1, 2 - Trichloroethane	2017	Levels lower than detect level	0 - 0	3	5	ppb	No	Discharge from industrial chemical factories.
1, 1 - Dichloroethylene	2017	Levels lower than detect level	0 - 0	7	7	ppb	No	Discharge from industrial chemical factories.
1, 2, 4 - Trichlorobenzene	2017	Levels lower than detect level	0 - 0	70	70	ppb	No	Discharge from textile-finishing factories.
1, 2 - Dichloroethane	2017	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from industrial chemical factories.
1, 2 - Dichloropropane	2017	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from industrial chemical factories.
Benzene	2017	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from factories; leaching from gas storage tanks and landfills.
Carbon Tetrachloride	2017	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from chemical plants and other industrial activities.

organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Maximum Residual Disinfectant Level

Disinfectant Type	Year	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Units	Source of Chemical
Chlorine Residual (Chloramines)	2017	**Cust #**	**Cust #**	4.08	4.0	<4.0	ppm	Disinfectant used to control microbes.
Chlorine Dioxide	2017	0.01	0	0.09	0.8	0.8	ppm	Disinfectant.
Chlorite	2017	0.04	0	0.47	1.0	N/A	ppm	Disinfectant.

Total Organic Carbon

	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Source Water	2017	5.18	4.65-5.18	ppm	Naturally present in the environment.
Drinking Water	2017	3.07	1.97-3.07	ppm	Naturally present in the environment.
Removal Ratio	2017	57.6%	37.0-57.6%	% removal *	N/A

NOTE: Total organic carbon (TOC) has no health effects. The disinfectant can combine with TOC to form disinfection by-products. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens. By-products of disinfection include trihalomethanes (THMs) and haloacetic acids (HAA) which are reported elsewhere in this report.
* Removal ratio is the percent of TOC removed by the treatment process divided by the percent of TOC required by TCEQ to be removed.

Lead and Copper

Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Likely Source of Contamination
Lead	2017	**Cust #**	**Cust #**	0.015	0.015	ppm	Corrosion of customer plumbing. Action Level = .015
Copper	2017	**Cust #**	**Cust #**	1.3	1.3	ppm	By-product of drinking water disinfection. Action Level = 1.3

ADDITIONAL HEALTH INFORMATION FOR LEAD: 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 NTMWD 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.

Unregulated Contaminants

Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Chloroform	2017	**Cust #**	**Cust #**	ppb	By-product of drinking water disinfection.
Bromoform	2017	**Cust #**	**Cust #**	ppb	By-product of drinking water disinfection.
Bromodichloromethane	2017	**Cust #**	**Cust #**	ppb	By-product of drinking water disinfection.
Dibromochloromethane	2017	**Cust #**	**Cust #**	ppb	By-product of drinking water disinfection.

NOTE: Bromoform, chloroform, dichlorobromomethane, and dibromochloromethane are disinfection by-products. There is no maximum contaminant level for these chemicals at the entry point to distribution.

Secondary and Other Constituents Not Regulated

Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Bicarbonate	2017	70.1	70.1-70.1	ppm	Corrosion of carbonate rocks such as limestone.
Calcium	2017	42.0	42.0-42.0	ppm	Abundant naturally occurring element.
Chloride	2017	12.4	12.4-12.4	ppm	Abundant naturally occurring element; used in water purification; by-product of oil field activity.
Hardness as Ca/Mg	2017	67.6	42.1-67.6	ppm	Naturally occurring calcium and magnesium.
Iron	2017	Levels lower than detect level	0-0	ppm	Erosion of natural deposits; iron or steel water delivery equipment or facilities.
Magnesium	2017	2.81	2.81-2.81	ppm	Abundant naturally occurring element.
Manganese	2017	0.093	.093-.093	ppm	Abundant naturally occurring element.
Nickel	2017	0.004	.004-.004	ppm	Erosion of natural deposits.
pH	2017	8.10	8.1-8.1	units	Measure of corrosivity of water.
Sodium	2017	14.0	14.0-14.0	ppm	Erosion of natural deposits; by-product of oil field activity.
Sulfate	2017	55.9	55.9-55.9	ppm	Naturally occurring; common industrial by-product; by-product of oil field activity.
Total Alkalinity as CaCO3	2017	70.1	70.1-70.1	ppm	Naturally occurring soluble mineral salts.
Total Dissolved Solids	2017	174	174-174	ppm	Total dissolved mineral constituents in water.
Total Hardness as CaCO3	2017	116	116-116	ppm	Naturally occurring calcium.
Zinc	2017	Levels lower than detect level	Levels lower than	ppm	Moderately abundant naturally occurring element used in the metal industry.

Crypto/Giardia

Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Crytosporidia	2017	0	0	(Oo)cysts/L	Naturally occurring in the environment
Giardia	2017	0	0	(Oo)cysts/L	Naturally occurring in the environment

NOTE: Crypto/Giardia measured in the raw water.

City of Kaufman Consumer Confidence Report For Year 2017

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	2	0	0	No	Naturally present in the environment.

NOTE: Reported monthly tests found no fecal coliform bacteria. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present.

Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Total Haloacetic Acids (HAA5)	2017	12	0-16.9	No goal for the total	60	ppb	No	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2017	31	17-41.2	No goal for the total	80	ppb	No	By-product of drinking water disinfection.
Bromate	2017	Levels lower than detect level	0.0 - 6.0	5	10	ppb	No	By-product of drinking water ozonation.

NOTE: Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Antimony	2017	Levels lower than detect level	0 - 0	6	6	ppb	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; and test addition.
Arsenic	2017	Levels lower than detect level	0 - 0	0	10	ppb	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
Barium	2017	0.060	0.059 - 0.060	2	2	ppm	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Beryllium	2017	Levels lower than detect level	0 - 0	4	4	ppb	No	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries.
Cadmium	2017	Levels lower than detect level	0 - 0	5	5	ppb	No	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints.
Chromium	2017	Levels lower than detect level	0 - 0	100	100	ppb	No	Discharge from steel and pulp mills; erosion of natural deposits.
Fluoride	2017	0.38	0.26- 0.38	4	4	ppm	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Mercury	2017	Levels lower than detect level	0 - 0	2	2	ppb	No	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland.
Nitrate (measured as Nitrogen)	2017	0.97	0.09 - 0.97	10	10	ppm	No	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits.
Selenium	2017	Levels lower than detect level	0 - 0	50	50	ppb	No	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.
Thallium	2017	Levels lower than detect level	0 - 0	0.5	2	ppb	No	Discharge from electronics, glass, and leaching from ore-processing sites; drug factories.

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	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	2017	6.2	6.2 - 6.2	0	50	pCi/L	No	Decay of natural and man-made deposits.
Gross alpha excluding radon and uranium	2017	Levels lower than detect level	0 - 0	0	15	pCi/L	No	Erosion of natural deposits.
Radium	2017	1.27	1.27 - 1.27	0	5	pCi/L	No	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
2, 4, 5 - TP (Silvex)	2017	Levels lower than detect level	0 - 0	50	50	ppb	No	Residue of banned herbicide.
2, 4 - D	2017	Levels lower than detect level	0 - 0	70	70	ppb	No	Runoff from herbicide used on row crops.
Alachlor	2017	Levels lower than detect level	0 - 0	0	2	ppb	No	Runoff from herbicide used on row crops.
Atrazine	2017	0.20	0.20 - 0.20	3	3	ppb	No	Runoff from herbicide used on row crops.
Benzo (a) pyrene	2017	Levels lower than detect level	0 - 0	0	200	ppt	No	Leaching from linings of water storage tanks and distribution lines.
Carbofuran	2017	Levels lower than detect level	0 - 0	40	40	ppb	No	Leaching of soil fumigant used on rice and alfalfa.
Chlordane	2017	Levels lower than detect level	0 - 0	0	2	ppb	No	Residue of banned termiticide.
Dalapon	2017	Levels lower than detect level	0 - 0	200	200	ppb	No	Runoff from herbicide used on rights of way.
Di (2-ethylhexyl) adipate	2017	Levels lower than detect level	0 - 0	400	400	ppb	No	Discharge from chemical factories.
Di (2-ethylhexyl) phthalate	2017	Levels lower than detect level	0 - 0	0	6	ppb	No	Discharge from rubber and chemical factories.
Dibromochloropropane (DBCP)	2017	Levels lower than detect level	0 - 0	0	0	ppt	No	Runoff / leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards.
Dinoseb	2017	Levels lower than detect level	0 - 0	7	7	ppb	No	Runoff from herbicide used on soybeans and vegetables.
Endrin	2017	Levels lower than detect level	0 - 0	2	2	ppb	No	Residue of banned insecticide.
Ethylene dibromide	2017	Levels lower than detect level	0 - 0	0	50	ppt	No	Discharge from petroleum refineries.
Heptachlor	2017	Levels lower than detect level	0 - 0	0	400	ppt	No	Residue of banned termiticide.
Heptachlor epoxide	2017	Levels lower than detect level	0 - 0	0	200	ppt	No	Breakdown of heptachlor.
Hexachlorobenzene	2017	Levels lower than detect level	0 - 0	0	1	ppb	No	Discharge from metal refineries and agricultural chemical factories.
Hexachlorocyclopentadiene	2017	Levels lower than detect level	0 - 0	50	50	ppb	No	Discharge from chemical factories.
Lindane	2017	Levels lower than detect level	0 - 0	200	200	ppt	No	Runoff / leaching from insecticide used on cattle, lumber, and gardens.
Methoxychlor	2017	Levels lower than detect level	0 - 0	40	40	ppb	No	Runoff / leaching from insecticide used on fruits, vegetables, alfalfa, and livestock.
Oxamyl [Vydate]	2016	Levels lower than detect level	0 - 0	200	200	ppb	No	Runoff / leaching from insecticide used on apples, potatoes, and tomatoes.
Pentachlorophenol	2016	Levels lower than detect level	0 - 0	0	1	ppb	No	Discharge from wood preserving factories.
Simazine	2017	Levels lower than detect level	0 - 0	4	4	ppb	No	Herbicide runoff.
Toxaphene	2017	Levels lower than detect level	0 - 0	0	3	ppb	No	Runoff / leaching from insecticide used on cotton and cattle.

Volatile Organic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
1, 1, 1 - Trichloroethane	2017	Levels lower than detect level	0 - 0	200	200	ppb	No	Discharge from metal degreasing sites and other factories.
1, 1, 2 - Trichloroethane	2017	Levels lower than detect level	0 - 0	3	5	ppb	No	Discharge from industrial chemical factories.
1, 1 - Dichloroethylene	2017	Levels lower than detect level	0 - 0	7	7	ppb	No	Discharge from industrial chemical factories.
1, 2, 4 - Trichlorobenzene	2017	Levels lower than detect level	0 - 0	70	70	ppb	No	Discharge from textile-finishing factories.
1, 2 - Dichloroethane	2017	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from industrial chemical factories.
1, 2 - Dichloropropane	2017	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from industrial chemical factories.
Benzene	2017	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from factories; leaching from gas storage tanks and landfills.
Carbon Tetrachloride	2017	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from chemical plants and other industrial activities.
Chlorobenzene	2017	Levels lower than detect level	0 - 0	100	100	ppb	No	Discharge from chemical and agricultural chemical factories.
Dichloromethane	2017	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from pharmaceutical and chemical factories.
Ethylbenzene	2017	Levels lower than detect level	0 - 0	0	700	ppb	No	Discharge from petroleum refineries.
Styrene	2017	Levels lower than detect level	0 - 0	100	100	ppb	No	Discharge from rubber and plastic factories; leaching from landfills.
Tetrachloroethylene	2017	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from factories and dry cleaners.
Toluene	2017	Levels lower than detect level	0 - 0	1	1	ppm	No	Discharge from petroleum factories.
Trichloroethylene	2017	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from metal degreasing sites and other factories.
Vinyl Chloride	2017	Levels lower than detect level	0 - 0	0	2	ppb	No	Leaching from PVC piping; discharge from plastics factories.
Xylenes	2017	Levels lower than detect level	0 - 0	10	10	ppm	No	Discharge from petroleum factories; discharge from chemical factories.
cis - 1, 2 - Dichloroethylene	2017	Levels lower than detect level	0 - 0	70	70	ppb	No	Discharge from industrial chemical factories.
o - Dichlorobenzene	2017	Levels lower than detect level	0 - 0	600	600	ppb	No	Discharge from industrial chemical factories.
p - Dichlorobenzene	2017	Levels lower than detect level	0 - 0	75	75	ppb	No	Discharge from industrial chemical factories.
trans - 1, 2 - Dicholoroethylene	2017	Levels lower than detect level	0 - 0	100	100	ppb	No	Discharge from industrial chemical factories.

Turbidity

	Limit (Treatment Technique)	Level Detected	Violation	Likely Source of Contamination
Highest single measurement	1 NTU	0.74	No	Soil runoff.
Lowest monthly percentage (%) meeting limit	0.3 NTU	99.30%	No	Soil runoff.

NOTE: 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.

Maximum Residual Disinfectant Level

Chemical Used	Year	Average Level of Quarterly Data	Lowest Result of Single Sample	Highest Result of Single Sample	MRDL	MRDLG	Units	Source of Chemical
Chlorine Residual (Chloramines)	2017	2.44	1.4	2.58	4.0	<4.0	ppm	Disinfectant used to control microbes.
Chlorine Dioxide	2017	0	0	0	0.8	0.8	ppm	Disinfectant.
Chlorite	2017	0	0	0.072	1.0	N/A	ppm	Disinfectant.

Total Organic Carbon

	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Source Water	2017	4.38	3.93 - 4.38	ppm	Naturally present in the environment.
Drinking Water	2017	3.24	2.20 - 3.24	ppm	Naturally present in the environment.
Removal Ratio	2017	47.2%	22.5 - 47.2	% removal *	N/A

NOTE: Total organic carbon (TOC) has no health effects. The disinfectant can combine with TOC to form disinfection by-products. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens. By-products of disinfection include trihalomethanes (THMs) and haloacetic acids (HAA) which are reported elsewhere in this report.
* Removal ratio is the percent of TOC removed by the treatment process divided by the percent of TOC required by TCEQ to be removed.

Lead and Copper

Lead and Copper	Date Sampled	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2017	1.3	0.2208	0.2208	ppm	No	Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems.
Lead	2017	15	1.62	1.62	ppb	No	Corrosion of household plumbing systems; erosion of natural deposits.

ADDITIONAL HEALTH INFORMATION FOR LEAD: 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. City of Kaufman 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.

Cryptosporidium And Giardia

Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Cryptosporidium	2017	0	0 - 0	(Oo) Cysts/L	Human and animal fecal waste.
Giardia	2017	0	0 - 0	(Oo) Cysts/L	Human and animal fecal waste.

Unregulated Contaminants

Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Chloroform	2017	24.80	8.8-47.7	ppb	By-product of drinking water disinfection.
Bromoform	2017	<1.00	<1.0-1.2	ppb	By-product of drinking water disinfection.
Bromodichloromethane	2017	10.2	11-17.5	ppb	By-product of drinking water disinfection.
Dibromochloromethane	2017	4.94	5.7-10.1	ppb	By-product of drinking water disinfection.

NOTE: Bromoform, chloroform, dichlorobromomethane, and dibromochloromethane are disinfection by-products. There is no maximum contaminant level for these chemicals at the entry point to distribution.

Secondary and Other Constituents Not Regulated

Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Calcium	2017	78.5	47.0 - 78.5	ppm	Abundant naturally occurring element.
Chloride	2017	108	14 - 108	ppm	Abundant naturally occurring element; used in water purification; by-product of oil field activity.
Hardness as Ca/Mg	2017	236	159 - 164	ppm	Naturally occurring calcium and magnesium.
Iron	2017	0.30	0.00 - 0.30	ppm	Erosion of natural deposits; iron or steel water delivery equipment or facilities.
Magnesium	2017	11.6	4.41 - 11.6	ppm	Abundant naturally occurring element.
Manganese	2017	0.025	0.0019 - 0.025	ppm	Abundant naturally occurring element.
Nickel	2017	0.0071	0.0047 - 0.0071	ppm	Erosion of natural deposits.
pH	2017	8.52	7.85 - 8.52	units	Measure of corrosivity of water.
Sodium	2017	123	46.1 - 123	ppm	Erosion of natural deposits; by-product of oil field activity.
Sulfate	2017	266	47.1 - 266	ppm	Naturally occurring; common industrial by-product; by-product of oil field activity.
Total Alkalinity as CaCO3	2017	110	61 - 110	ppm	Naturally occurring soluble mineral salts.
Total Dissolved Solids	2017	562	292 - 562	ppm	Total dissolved mineral constituents in water.
Total Hardness as CaCO3	2017	236	124 - 199	ppm	Naturally occurring calcium.
Zinc	2017	0.020	0.0025 - 0.020	ppm	Moderately abundant naturally occurring element used in the metal industry.

Violations Table

Bromate

Some people who drink water containing bromate in excess of the MCL over many years may have an increased risk of getting cancer

Violation Type	Violation Begin	Violation End	Violation Explanation
Monitoring, Routine (DBP)	April 1, 2017	April 30, 2017	NTMWD failed to collect the required monthly samples for bromate of the water entering the distribution system during April 2017. This monitoring is required by the Texas Commission on Environmental Quality's "Drinking Water Standards" and the federal "Safe Drinking Water Act," Public Law 95-523. Failure to monitor or monitoring inadequately makes it impossible to know if there is bromate in excess of the maximum contaminant level (MCL) requirement of 0.010 mg/l (ppm). Our water system is required to take one bromate sample once each month. Failure to collect all required bromate samples is a violation of the monitoring requirements and we are required to notify you of this violation.

CITY OF KAUFMAN

2017 Annual Drinking Water Quality Report (Consumer Confidence Report)

Annual Water Quality Report for the period of January 1 to December 31, 2017 PWS ID Number TX 1290003.

This report is intended to provide you with important information about your drinking water and the efforts made the water system to provide safe drinking water.

CITY OF KAUFMAN is Purchased Surface Water for more information regarding this report contact:

Director of Public Works
Richard Underwood
Office Phone Number:
(972)-962-8007

Public Participation Opportunities

Date: Wednesday, April 4th, 2018

Time: 10:00 a.m.

Location: Public Works Office
1003 W. Grove

Phone Number: 972-962-8007

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

Source 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 pickup 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 **EPAs Safe Drinking Water Hotline at (800)-426-4791.**

Addition Health and Lead Information below:

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 case taste, color or odor problems. These types of problems are not necessarily caused 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 (800)-426-4791).**

Lead in Home Plumbing: 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 minutes to 2 minutes before using water for drinking or cooking. If you are concerned about lead in our 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 Hot line or at http://www.epa.gov/safewater/lead.**

En Español

Este informe incluye information important sobre el agua potable. Si tiene preguntas o comentarios sobre éste informe en español, favor de llamar al tel. **(972) 962-8007-** para hablar con una persona bilingüe en español.

Information about Source Water Assessments

1. Source Water Susceptibility Assessment for your drinking water sources(s) is currently being updated by the Texas Commission on Environmental Quality. This information describes the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The information contained in the assessment allows us to focus source water protection strategies. For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following **URL:** http://gis3.tceq.state.tx.us/swav/Controller/index.jsp?wtrsrc=
2. Further details about sources and source-water assessments are available in Drinking Water Watch at the following **URL:** http://dww.tceq.texas.gov./DWW

Source Water Name: SW FROM NORTH TEXAS MWD I/C WITH TX0430044

Type of Water: SW

Report Status: Active **Location:** Lake Lavon

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 salt and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic waste water discharge, oil and gas production, mining, and farming.

Pesticides and herbicides, which can 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.

Water Conservation

Our usable water supply is finite (we do not have an endless supply) so its up to each and every one of us to save water. Residents can do their part in conserving water and saving money in the process by becoming conscious of the amount of water your household is using. And by looking for ways to use less whenever possible. Here are a few tips:

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So make sure to load it to capacity.
- Turn off the tap when brushing your teeth.
- Check the faucets in the house for leaks. A slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toiles for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water-using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.

Water Main Flushing

Distribution mains (pipes) convey water to homes, business, and hydrants in your neighborhood. The water entering distribution mains is of very high quality; however, water quality can deteriorate in areas of the distribution mains over time. Water mains flushing is the process of cleaning the interior of water distribution mains by sending a rapid flow of water through the mains. Flushing maintains water quality in several ways. For example, flushing removes sediments like iron and manganese. Although iron and manganese do not themselves pose a health concerns, they can effect the taste, clarity, and color of the water. Additionally, sediments can shield microorganisms from the disinfecting power of the chlorine, contributing to the growth of microorganisms within the distribution mains. Flushing helps remove stale water and ensures the presence of fresh water with sufficient dissolved oxygen and disinfectant levels, and an acceptable taste and smell. During flushing operations in your neighborhood, some short-term deterioration of water quality, through uncommon, is possible. You should avoid tap water for household use as such times. If you do use the tap., allow your cold water to run for a few minutes at full velocity before use, and avoid using hot water, to prevent sediment accumulation in your hot water tank. Please contact us if you have any questions or if you would like more information on our water main flushing schedule.

Water Quality Test Results:

Definitions: the following tables contain scientific terms and measures, some of which may require explanation.

Avg: Regulatory compliance with some MCLs are based on running annual average of monthly samples.

Maximum Contaminant Level (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 (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.

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 (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.

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 pars per million-or one ounce in 7,350 gallons of water.

TT (Treatment Technique): 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 pictograms per liter (pg/L)