

Annual Drinking Water Quality Report

2017

TX040029

COPEVILLE SUD

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

For more information regarding this report contact:

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.

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COPEVILLE SUD is a Purchased Surface Water System
Regular Monthly Board Meeting
Second, Thursday of Every Month at 7:00 pm
16120 FM 1778 Nevada, TX 75173

Este reporte incluye información importante sobre el agua para tomar. Para Asistencia en español, favor de llamar al telefono (972) 853-4630

Sources of Drinking Water

The sources of drinking water (both tap water and bottled) include rivers, lakes, streams, ponds, reservoirs, spring, 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 effect 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.

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 of Environmental Quality. This information describes the susceptibility and types of constituents that may come in contact with your drinking water source based on human activities and natural conditions. The information contained in the assessment will allow 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://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://dww.tceq.texas.gov/DWW>

Source Water Name	Type of Water	Report Status	Location	
FARMERSVILLE	CC FROM TX0430004 CITY OF	SW	Yes	Lake Lavon
SW FROM NORTH TEXAS MWD	CC FROM TX0430044 NORTH	SW	Yes	Lake Lavon

Water Quality Test Results

- Definitions:** The following tables contain scientific terms and measures, some of which may require explanations.
- AVG:** Regulatory compliance with some MCL's 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.
- Maximum Contaminant Level Goal or MCLG:** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- Maximum residual disinfectant level or MRDL:** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- Maximum residual disinfectant level goal or MRDLG:** The level of 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

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.
ppt:	parts per trillion, or nanograms per liter (ng/L)
ppq:	parts per quadrillion, or pictograms per liter (pg/L)

Coliform Bacteria

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest # of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total # of Positive E. Coli or Fecal Coliform Samples	Likely Source of Contamination
0	1 positive monthly sample	0	0	0	Naturally present in the environment

NOTE: Reported monthly test 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	MCGL	MCL	Units	Violation	Likely source of Contamination
Total Haloacetic	2017	36.0	21.7-36.0	No goal for the total	60	ppb	No	By-Product of drinking water chlorination
Total Trihalomethanes	2017	46.1	30.4-46.1	No goal for the total	80	ppb	No	By-Product of drinking water chlorination
Bromate	2017	Levels lower than detect level	0.0-0.0	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
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Barium	2017	0.060	0.059-0.060	2	2	ppm	No	Discharge of drilling waste, discharge from metal refineries, erosion of natural deposits
Fluoride	2017	0.38	0.26-0.38	4	4	ppm	No	Erosion of natural deposits, which promotes strong teeth; discharge from fertilizer and aluminum factories
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

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
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Beta/Photon emitters	2017	6.2	6.2-6.2	0	50	pCi/l	No	Decay of natural and man-made 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
Atrazine	2017	0.20	0.20-0.20	3	3	ppb	No	Runoff from herbicide used on row crops

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 a Single Sample	Highest Result of Single Sample	MRDL	MRDLG	Units	Source of Chemical
Chlorine Residual (Chloramines)	2017	1.95	0.51	3.2	4	<4.0	ppm	Disinfectant used to control microbes
Chlorine Dioxide	2017	0	0	0	0.8	0.08	ppm	Disinfectant
Chlorite	2017	0	0	0.072	1	N/A	ppm	Disinfectant

Total Organic Carbon

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 the TCEQ to be removed.

Lead and Copper	Sampled Date	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely source of Contamination
Copper	8/24/2017	1.3	0.6300	0	ppm	No	Erosion of natural deposits, leaching from wood preservatives, corrosion of household plumbing systems

Lead 8/24/2018 15 0.00202 0 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. Copeville SUD 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 a <http://www.epa.gov/safedinkingwater/lead>

Unregulated Contaminants

Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely source of Contamination
Chloroform	2017	14.3	7.37-14.3	ppb	By-product of drinking water disinfectant
Bromoform	2017	5.33	2.47-5.33	ppb	By-product of drinking water disinfectant
Bromodichloromethane	2017	15.7	10.7-15.7	ppb	By-product of drinking water disinfectant
Dibromochloromethane	2017	13.8	9.30-13.8	ppb	By-product of drinking water disinfectant

Note Chloroform, Bromoform, Bromodichloromethane, and Dibromochloromethane are disinfection by-products. There is no maximum contaminant level or these chemicals at the entry point of 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	164	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	Naturally occurring; common industrial by-product, by-product of oil field activity
Total Alkalinity as CaCO ₃	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	124-236	ppm	Naturally occurring calcium
Zinc	2017	0.020	0.0025-0.020	ppm	Moderately abundant naturally occurring element used in the metal industry

Violations

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)	4/1/2017	4/30/2017	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 bromate samples is a violation of the monitoring requirements and we are required to notify you of this violation.