

CONSTITUENTS HAVING SECONDARY MCL'S

Unregulated Parameters are monitored in the interest of the customer, and to assist regulators in developing future regulations.

Parameter	Federal Level Recommended (SMCL)	WaterOne Result (Avg.)	Range (Low - High)
Aluminum*	200 ppb	10 ppb	2.5 ppb - 24 ppb
Chloride	250 ppm	55 ppm	28 ppm - 101 ppm
Copper	1000 ppb	2 ppb	ND(1) ppb - 3 ppb
Corrosivity**	0 S.I.	1.18 S.I.	0.74 S.I. - 1.57 S.I.
Fluoride	2.0 ppm	0.70 ppm	0.44 ppm - 0.92 ppm
Odor-Threshold (T.O.N.)	3 T.O.N.	1 T.O.N.	1 T.O.N. - 4 T.O.N.
Sulfate	250 ppm	124 ppm	56 ppm - 205 ppm
Total Dissolved Solids (TDS)	500 ppm	329 ppm	235 ppm - 508 ppm
Zinc	5.0 ppm	0.01 ppm	0.003 ppm - 0.03 ppm

*Aluminum also has a SMCLG of 50 ppb.

**Positive Values indicate tendency of water to be non-corrosive. Non-corrosive water reduces the likelihood of lead or copper leaching into the water from plumbing.

UNREGULATED PARAMETERS

WaterOne conducted testing according to the EPA guidelines for the following Unregulated Parameters.

Parameter	Federal Level Recommended	Goal	WaterOne Result (Avg.)	Range
Alkalinity, Total (as CaCO ₃)	300 ppm	> 40 ppm	60 ppm	46 ppm - 80 ppm
Bromodichloromethane	n/a	0 ppb	4.4 ppb	2.3 ppb - 8.7 ppb
Carbon, Total Organic (TOC)	10,000 ppm	n/a	2.7 ppm	1.9 ppm - 5.9 ppm
Chlorate	n/a	n/a	131 ppb	100 ppb - 160 ppb
Chlorodibromomethane	n/a	60 ppb	2 ppb	ND(0.6) - 3.9 ppb
Chloroform	n/a	70 ppb	18 ppb	7.2 ppb - 35 ppb
Conductivity	1,500 μ hos/cm	n/a	549 μ hos/cm	391 - 847 μ hos/cm
Dichloroacetic acid*	n/a	zero ppm	16 ppb	7.1 ppb - 27 ppb
Hardness, Calcium (as CaCO ₃)	200 ppm	> 60 ppm	73 ppm	46 ppm - 141 ppm
Hardness, Magnesium (as CaCO ₃)	150 ppm	50 ppm	60 ppm	29 ppm - 88 ppm
Hardness, Total (as CaCO ₃)	400 ppm	200 ppm	134 ppm	90 ppm - 179 ppm
Nickel	100 ppb	100 ppb	1.7 ppb	1.1 ppb - 2.6 ppb
pH	8.5 pH units	> 9.0 pH units	9.6 pH units	9.4 pH units - 9.9 pH units
Phosphorus, Total	5 ppm	n/a	0.07 ppm	ND(0.05) - 0.13 ppm
Potassium	100 ppm	20 ppm	7.3 ppm	5.4 ppm - 9.0 ppm
Silica	50 ppm	n/a	11.1 ppm	6.9 ppm - 18.4 ppm
Sodium	100 ppm	20 ppm	52 ppm	32 ppm - 71 ppm
Trichloroacetic acid	n/a	20 ppb	2.7 ppb	1.6 ppb - 6.5 ppb

*The MCLG for Dichloroacetic acid is listed as zero (in ppm) in the Regulatory Statutes.

UNREGULATED CONTAMINANT MONITORING RULE

Second cycle (UCMR2)

Parameter	Federal Level Recommended	Goal	WaterOne Result (Avg.)	Range
N-nitroso-dimethylamine (NDMA)	n/a	n/a	0.006 ppb	ND(0.002) ppb - 0.011 ppb

Governing Board



Bob Reese
Chairman

Rob Olson
Vice Chairman



Brenda Cherpitel
Board Member

Terry Frederick
Board Member



Dick Noon
Board Member

Jim Vader
Board Member

Attend and participate in monthly WaterOne Board meetings, held the second Tuesday of each month at 7:00 p.m. at the Byron N. Johnson Administrative Headquarters and Service Center, 10747 Renner Boulevard, Lenexa, Kansas.

Water quality fact sheets, answers to frequently asked questions, and additional information is available on our website at www.waterone.org.

You are always welcome to call a WaterOne Customer Service Representative at **913-895-1800**.

If you would like extra copies of this report, visit our website, www.waterone.org to download your free report.

WaterOne
Water District No. 1 of Johnson County

WaterOne Times

2010 WATER QUALITY REPORT | PUBLISHED ANNUALLY
THIRD EDITION • FREE

1 Your Drinking Water Quality is Our Number One Priority

Sources of Drinking Water

Producing safe drinking water is our top priority at WaterOne. WaterOne's water quality consistently meets or exceeds all Federal and State standards for safe drinking water.

Our sources of drinking water are rivers 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. At different times of the year, the content of the water varies. We treat it accordingly to produce high quality water that is safe to drink.

The Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. 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.

Contaminants that may be present in source water include:

A. Microbial contaminants, such as viruses, bacteria, and protozoa which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

B. Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

C. Pesticides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

D. 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 stormwater runoff, and septic systems.

E. Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

(continued inside)



Currently, thousands of customers receive their water bills electronically. Now, all customers have the added option of receiving their bills electronically AND paying them electronically through their bank *at no additional cost*. Unlike credit card payments that carry a processing fee, the new payment option has no fee and makes paying online extremely easy.

For complete information about enrolling in this convenient, free method of receiving bills and paying electronically, please go to www.waterone.org and click on **Electronic Bill Presentment and Payment**. Customers already receiving their bills electronically will not have to re-enroll to take advantage of this new online payment option.

WaterOne hopes many customers will utilize the electronic bill presentation and payment program as it provides cost savings to both the utility and the customer. Because this program is completely paperless and does not require any postage, it is a truly "green" alternative to paper billing and payment methods!

Wolcott Treatment Plant and Pipeline Completed



WaterOne Board Members propose a toast and raise a glass of fresh clean water at the official opening of the new Wolcott Treatment Plant on March 4, 2010. Board Members left to right: Jim Vader; Joe H. Vaughan; Brenda Cherpitel; and Terry Frederick.

WaterOne has completed a new treatment plant and pipeline project as part of its Phase V Master Plan. The new Wolcott Treatment Plant in Wyandotte County is operational after 2 1/2 years of construction. Also constructed was a 60-inch transmission main to bring treated water from the new plant to a reservoir and pumping station in Johnson County 17 miles away. These projects assure WaterOne customers of having a reliable water supply well into the future. The new treatment plant



The new Wolcott Treatment Plant

adds 20 million gallons per day (mgd) capacity to the current treatment and pumping capacity of 180 mgd.

(continued from front page)

To understand the possible health effects described for most customers, consider the following example. A person would have to drink two liters of water every day at the maximum drinking water standard for a lifetime to have a one-in-a-million chance of having the described health effect.

More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791) or go online at www.epa.gov/safewater.

Special Health Requirements

Some people may be more vulnerable to contaminants found in drinking water than the general population. Immunocompromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, persons with HIV/AIDS or other immune system disorders, some elderly, and infants, can be particularly at risk from infections. These people should seek advice from their health care providers about drinking water.



Water Treatment

In 2009 we treated approximately 8.0 billion gallons of Missouri River water, 11 billion gallons of Kansas River water, and a little less than 0.4 billion gallons of well water from wells south of the Kansas River.



The Value of H₂O "Go ahead, call me cheap..."

In the world of rising prices, tap water remains one of the best bargains around.

Your water bill pays for a lot more than simply water. You get sophisticated water treatment, testing and monitoring, and a vast underground infrastructure that delivers safe, plentiful water right to your tap.



Did you know:

- On average, less than 1% of a person's total personal income is spent on water services.
- One 8-oz. glass can be filled with water approximately 15,000 times for the same price as a six-pack of soda.
- Studies show that bottled water is not purer than tap water, yet bottled water costs almost 2,000% more.

Source: American Water Works Association (AWWA)

New WaterOne Lab Underway



WaterOne is constructing a new water quality laboratory at its Hansen Treatment Plant. The new lab will enable WaterOne to enhance its emergency

response planning, implement a more rigorous taste and odor testing program, and optimize treatment processes to help trim chemical costs and improve water quality. Additionally, the new lab will expand in-house testing capabilities to improve timeliness of test results and reduce costs associated with expensive out-sourcing of water quality testing.

The new laboratory is part of WaterOne's long-range Master Plan. It will encompass 20,050 square feet of space and is scheduled for completion in the summer of 2010.

Definitions

MCL—Maximum Contaminant Level

Goal: 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.

MCL—Maximum Contaminant Level: The highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MLS—Milliliters

MRDL—Maximum Residual Disinfectant Level

Level: 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.

MRDLG—Maximum Residual Disinfectant Level Goal: 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.

SMCL—Secondary Maximum Contaminant Level

Contaminant Level: Secondary MCLs for various water quality indicators are established to protect public welfare.

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

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

ND—Not Detected

NTU—Nephelometric Turbidity Units: A measure of the clarity of water.

pCi/L—Picocuries per liter

A measure of radioactivity.

ppm—Parts per million, or milligrams per liter.

ppb—Parts per billion, or micrograms per liter.

pH units—A unit of measurement: A measure of acidity or basicity of the water.

µmhos/cm—(Or micromhos/cm): A measure of the ability of a solution to carry an electric current.

SUMMARY OF WATER QUALITY

The USEPA requires monitoring of over 100 drinking water contaminants. Listed below are the only contaminants detected in your drinking water. None of the contaminants detected exceed state or federal standards. The summary shows monitoring results for January 1 to December 31, 2009.

Parameter	MCL	MCLG	WaterOne Result	WaterOne Range	Sample Date	Met Standard	Source
Inorganic Contaminants							
Antimony	6 ppb	6 ppb	0.6 ppb	ND(0.5) - 0.6 ppb	Quarterly	✓	Discharge from petroleum refineries; Fire retardants; Ceramics; Electronics; Solder
Arsenic	10 ppb	0 ppb	1.4 ppb	ND(1.0) - 1.4 ppb	Quarterly	✓	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium	2 ppm	2 ppm	0.04 ppm	0.02 ppm- 0.04 ppm	Quarterly	✓	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chloramines	MRDL = 4 ppm	MRDLG = 4 ppm	2.9 ppm ¹	1.3 ppm - 4.5 ppm ¹	Daily	✓	Water additive used to control microbes.
Chlorine Dioxide	MRDL = 800 ppb	MRDLG = 800 ppb	70 ppb	ND(50) ppb - 70 ppb	Monthly	✓	Water additive used to control microbes.
Chlorite	1 ppm	0.8 ppm	0.4 ppm	0.1 ppm - 0.8 ppm	Monthly	✓	By-product of drinking water disinfection
Chromium	100 ppb	100 ppb	3 ppb	ND(1) ppb - 3 ppb	Quarterly	✓	Discharge from steel and pulp mills; Erosion of natural deposits
Copper	AL = 1.3 ppm	1.3 ppm	0.062 ppm ²	0 samples exceeding	Annually	✓	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Fluoride	4 ppm	4 ppm	0.92 ppm	0.44 ppm - 0.92 ppm	Monthly	✓	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Lead	AL = 15 ppb	0 ppb	4.9 ppb ²	1 sample exceeding	Annually	✓	Corrosion of household plumbing systems; Erosion of natural deposits
Nitrate	10 ppm	10 ppm	2.6 ppm	0.39 ppm - 2.6 ppm	Quarterly	✓	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium	50 ppb	50 ppb	3.8 ppb	1.4 ppb - 3.8 ppb	Quarterly	✓	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Synthetic Organic Contaminants							
Atrazine	3 ppb	3 ppb	0.24 ppb	ND(0.2) ppb - 1.0 ppb	Monthly	✓	Runoff from herbicide used on row crops
Volatile Organic Contaminants							
Haloacetic Acids (HAA)	60 ppb	n/a	23 ppb	9.5 ppb - 40 ppb	Monthly	✓	By-product of drinking water disinfection
Total Trihalomethanes (THM's)	80 ppb	n/a	30 ppb	12 ppb - 47 ppb	Monthly	✓	By-product of drinking water disinfection
Microbiological Contaminants							
Total Coliforms	presence of Coliform bacteria in \geq 5% of monthly samples	0 (< 1/100 mls)	0.4%	0 - 0.4% positive samples per month	Daily	✓	Naturally present in the environment
Total Organic Carbon	removal ratio ³ (25% required)	TT	46%	40% - 54% removed	Monthly	✓	Naturally present in the environment
Turbidity	TT NTU	TT NTU	0.4 NTU ⁴	99.994% lowest monthly % meeting 0.3 NTU	Daily	✓	Soil runoff
Radiological Contaminants							
Beta Particle & Photon Radioactivity	50 pCi/L	0 pCi/L	7.2 pCi/L ⁵	4.0 pCi/L - 7.2 pCi/L	Annually	✓	Decay of natural and man-made deposits
Gross Alpha Particles	15 pCi/L	0 pCi/L	3.3 pCi/L	ND(1.2) pCi/L - 3.3 pCi/L	Annually	✓	Erosion of natural deposits
Radium-226	5 pCi/L	0 pCi/L	0.5 pCi/L	ND(0.1) pCi/L - 0.5 pCi/L	Annually	✓	Erosion of natural deposits
Radium-228	5 pCi/L	0 pCi/L	1 pCi/L	ND(0.6) pCi/L - 1 pCi/L	Annually	✓	Erosion of natural deposits

- WaterOne is required to maintain a minimum residual of 1.0 ppm throughout our distribution system by the Kansas Dept. of Health & Environment as a means to provide some measure of protection against microbiological contamination. Maximum residual compliance is based on monthly averages. WaterOne's highest value, 4.5 ppm, was an instantaneous reading.
- The monthly TOC removal ratio is calculated as the ratio between the actual TOC removal and the TOC rule removal requirements.
- This is the highest turbidity measurement for 2009. Compliance is based on 95% of monthly samples being less than 0.3 NTU. The average turbidity was less than 0.10 NTU. Turbidity is measured as an indicator of the effectiveness of the water treatment process. The lower the turbidity, the more effective the treatment process.
- Data from 2009 when we conducted sampling according to the required "reduced monitoring schedule". This value is the 90th percentile result. The 95th percentile value for lead is 7.7 ppb & the 95th percentile value for copper is 0.023 ppm.
- EPA considers 50 pCi/L to be the level of concern for beta particles.