

This document is a snapshot of the quality of the water that the City of Salina provided last year. Included are the details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards. We are committed to providing you with information because informed customers are our best allies. It is important that customers be aware of the efforts that are made continually to improve their water systems.

#### Water Source

Your water comes from 15 groundwater wells located within the City of Salina and surface water from the Smoky Hill River.

Your water is treated to remove several contaminants and a disinfectant is added to protect you against microbial contaminants. The Safe Drinking Water Act (SDWA) required states to develop a Source Water Assessment (SWA) for each public water supply that treats and distributes raw source water in order to identify potential contamination sources. The state has completed an assessment of our source water. For results of the assessment, please contact us or view on-line at: <http://www.kdheks.gov/nps/swap/SWreports.html>.

#### Do I need to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

#### Why are there contaminants in my drinking water?

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 (800-426-4791).

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.

Contaminants that may be present in water sources before we treat it include:  
Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, 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 storm water run-off, agriculture, and residential users.  
Radioactive contaminants, which can be naturally occurring or the result of mining activity.

Organic contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and also come from gas stations, urban storm water run-off, and septic systems.

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. We treat our water according to EPA's regulations. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Our water system tested a minimum of 50 samples per month in accordance with the Total Coliform Rule for microbiological contaminants. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When Coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public.

#### Water Conservation

Again this year, the City of Salina is asking Salina area water users to be good stewards of our natural resources. Continued diligence in conserving raw water resources will help ensure that an adequate water supply is available to meet our customers' needs. The efficient use of water has the beneficial effect of limiting or postponing costly water system expansions.

#### Results of Voluntary Monitoring

Certified laboratories analyze water samples at various points in the treatment process on a daily basis. Samples are also obtained on a regular basis to ensure the water quality standard is maintained throughout the distribution system. In addition to the testing we are required to perform, the Water Division voluntarily tests for many additional substances and microscopic organisms to make certain our drinking water is safe and of high quality. Approximately 80,000 samples are taken and analyzed each year to provide quality assurance.

#### Water Quality Data

The following tables list all of the drinking water contaminants, which were detected during the 2011 calendar year. The presence of these contaminants does not necessarily indicate the water poses a health risk. Unless noted, the data presented in this table is from the testing done January 1- December 31, 2011. The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old. **The bottom line is that the water that is provided to you is safe.**

#### Terms & Abbreviations

**Maximum Contaminant Level Goal (MCLG):** the "Goal" is the level of a contaminant in drinking water below which there is no known or expected risk to human health. MCLGs allow for a margin of safety.

**Maximum Contaminant Level (MCL):** the "Maximum Allowed" MCL is 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.

**Secondary Maximum Contaminant Level (SMCL):** recommended level for a contaminant that is not regulated and has no MCL.

**Action Level (AL):** the concentration of a contaminant that, if exceeded, triggers treatment or other requirements.

**Treatment Technique (TT):** a required process intended to reduce levels of a contaminant in drinking water.

**Maximum 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.

**Non-Detects (ND):** lab analysis indicates that the contaminant is not present.

**Parts per Million (ppm)** or milligrams per liter (mg/l)

**Parts per Billion (ppb)** or micrograms per liter (µg/l)

**Picocuries per Liter (pCi/L):** a measure of the radioactivity in water.

**Millirems per Year (mrem/yr):** measure of radiation absorbed by the body.

**Million Fibers per Liter (MFL):** a measure of the presence of asbestos fibers that is longer than 10 micrometers.

**Nephelometric Turbidity Unit (NTU):** a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person. Turbidity is not regulated for groundwater systems.

**Running Annual Average (RAA):** an average of sample results obtained over the most current 12 months and used to determine compliance with MCLs.

**Testing Results for: City of Salina**

Microbiological	Result		MCL			MCLG	Typical Source
No Detected Results were Found in the Calendar Year of 2011							
Regulated Contaminants	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
ARSENIC	5/16/2011	3.3	3.3	ppb	10	0	Erosion of natural deposits
BARIUM	5/16/2011	0.0094	0.0094	ppm	2	2	Discharge from metal refineries
CHROMIUM	5/16/2011	3.8	3.8	ppb	100	100	Discharge from steel and pulp mills
FLUORIDE	4/12/2011	1.2	0.77 - 1.2	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth
LASSO	6/13/2011	0.43	0.43	ppb	2	0	Runoff from herbicide used on row crops
NITRATE	5/16/2011	1.4	0.55 - 1.4	ppm	10	10	Runoff from fertilizer use
SELENIUM	5/16/2011	13	13	ppb	50	50	Erosion of natural deposits
TURBIDITY	5/16/2011	<0.15	<0.15	NTU	0		Soil runoff
Disinfection Byproducts	Monitoring Period	Highest RAA	Range	Unit	MCL	MCLG	Typical Source
TOTAL HALOACETIC ACIDS (HAA5)	2011	29	6 - 43	ppb	60	0	By-product of drinking water disinfection
TOTAL TRIHALOMETHANES (TTHMs)	2011	66	17 - 83	ppb	80	0	By-product of drinking water chlorination
Lead and Copper	Monitoring Period	90 <sup>th</sup> Percentile	Range	Unit	AL	Sites Over AL	Typical Source
COPPER, FREE	2009 - 2011	0.059	0.0054 - 0.23	ppm	1.3	0	Corrosion of household plumbing
LEAD	2009 - 2011	1.3	1 - 3.6	ppb	15	0	Corrosion of household plumbing
Maximum Disinfection Level		MPA	MPA Units	RAA	RAA Units	Analyte Code	Analyte Name
01/01/2011 - 01/31/2011		3.3	MG/L	3.1	MG/L	1006	CHLORAMINE
Total Organic Carbon		Number of Samples	RAA	Removal Ratio	Required Removal Ratio		
05/01/2011 - 05/31/2011		12	2.31	1.76	1.0 RATIO		
Secondary Contaminants	Collection Date	Highest Value	Range	Unit	SMCL		
ALKALINITY, TOTAL	5/16/2011	70.8	70.8	MG/L	300		
ALUMINUM	5/16/2011	0.02	0.02	MG/L	0.05		
CALCIUM	5/16/2011	17	17	MG/L	200		
CHLORIDE	5/16/2011	170	170	MG/L	250		
CONDUCTIVITY @ 25 C UMHOS/CM	5/16/2011	1200	1200	UMHO/CM	1500		
HARDNESS, TOTAL (AS CAC03)	5/16/2011	120	120	MG/L	400		
MAGNESIUM	5/16/2011	20	20	MG/L	150		
NICKEL	5/16/2011	0.0018	0.0018	MG/L	0.1		
PH	5/16/2011	7.7	7.7	PH	8.5		
PHOSPHORUS, TOTAL	5/16/2011	0.23	0.23	MG/L	5		
POTASSIUM	5/16/2011	9.1	9.1	MG/L	100		
SILICA	5/16/2011	15	15	MG/L	50		
SODIUM	5/16/2011	180	180	MG/L	100		
SULFATE	5/16/2011	200	200	MG/L	250		
TDS	5/16/2011	660	660	MG/L	500		

**Additional Required Health Effects Language**

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches. Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer. 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. Your water system 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>.

**Overview**

In 2011, as in years past, the City of Salina's tap water met all U.S. Environmental Protection Agency (EPA) and State Department of Health and Environment (KDHE) drinking water health standards. The City of Salina, Water Division, vigilantly safeguards its water supplies, and again, we are proud that our system has not violated a maximum contaminant level or other water quality standard.

**Public Participation Opportunities**

The Salina City Commission meets at 4 P.M. on Mondays at the City-County Building, 300 W. Ash. You may present items related to water issues at the commission meeting, or express your concerns to Martha Tasker, Director of Utilities during normal office hours at (785)309-5725 or e-mail at [martha.tasker@salina.org](mailto:martha.tasker@salina.org).