

# 2014

## Annual Drinking Water Quality Report

### Rural Water District #5 Wagoner County

We're very pleased to provide you with this year's Annual Quality Water Report. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is and always has been, to provide to you a safe and dependable supply of drinking water. Our water source is surface water drawn from the Verdigris River located 4½ miles east of Coweta. We also purchased water from Wagoner County Rural Water #4. This report shows our water quality and what it means.

If you have any questions about this report or concerning your water utility, please contact Denette Hughes at 918-486-5458. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our monthly Board Meetings. They are held on the first Tuesday night of each month at 7:00 p.m. in our office building located at 15078 South 305<sup>TH</sup> East Avenue in Coweta.

Rural Water District #5 routinely monitors for constituents in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2014. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It is important to remember that the presence of these constituents does not necessarily pose a health risk. Some of our data may be more than one year old because the state allows us to monitor for some contaminants less often than once per year. In the table below you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions.

We have a source water protection plan available from our office that provides more information such as potential sources of contamination.

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 including: Microbial Contaminants-viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife. Inorganic Contaminants-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-comes from a variety of sources such as agriculture, urban storm water runoff, and residential uses. Organic Chemical Contaminants-includes 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-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 that limit the amount of certain contaminants in the water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

The table below lists all of the drinking water contaminants we detected for the calendar year report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the date presented in the table is from the testing done in the calendar year of the report.

## Rural Water District #5 Wagoner County

### Annual Water Quality Data Table 2014

The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

Inorganic Contaminants							
Contaminant	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Violation Y/N	Likely Source of Contamination
Barium (ppm)	2013	0.0457	0.0457 - 0.0457	2	2	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride (ppm)	2013	0.2	0.2 – 0.2	4	4.0	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.

### Disinfectants and Disinfection By-Products

Contaminant	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Violation Y/N	Likely Source of Contamination
Chlorite (ppm)	2014	0.653	0.197 – 0.653	0.8	1	N	By-product of drinking water disinfection.
Haloacetic Acids (HAA5) (ppb)	2014	31	22.7 – 43.1	No goal for the total	60	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM) (ppb)	2014	46	22.1 – 75.1	No goal for the total	80	N	By-product of drinking water disinfection.

**Rural Water District #5 Wagoner County**  
**(continued)**

<b>Radioactive Contaminants</b>							
Contaminant	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Violation Y/N	Likely Source of Contamination
Beta/photon emitters (mrem/yr)	8/23/2011	4.554	4.554 – 4.554	0	4	N	Decay of natural and Man-made deposits.
Combined Radium 226/228 (pCi/L)	8/23/2011	0.493	0.493 – 0.493	0	5	N	Erosion of natural deposits.

<b>Lead and Copper</b>						
Contaminant	Date Sampled	MCLG	Action Level (AL)	90 <sup>th</sup> Percentile	Violation Y/N	Likely Source of Contamination
Copper (ppm)	2014	1.3	1.3	0.244	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

<b>Turbidity</b>				
	Limit (Treatment Technique)	Level Detected	Violation Y/N	Like Source of Contamination
Highest Single measurement (NTU)	1 NTU	0.1 NTU	N	Soil runoff
Lowest monthly % meeting limit (NTU)	0.3 NTU	100%	N	Soil runoff

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

**Total Organic Carbon** – The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set, unless a TOC violation is noted in the violations section.

For more information contact  
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## Wagoner County Rural Water District #4

### Annual Water Quality Data Table 2014

Disinfectants and Disinfectant By-Products							
Contaminant	MCLG or MRDLG	MCL, TT or MRDL	Your Water	Range Low/High	Sample Date	Violation	Typical Source
Haloacetic Acids (HAA5) (ppb)	NA	60	30	10.2 - 40.8	2014	N	By-product of drinking water chlorination
Chlorine (as Cl2) (ppm)	4	4	1	1 – 1	2014	N	Water additive used to control microbes
TTHMs (Total Trihalomethanes) (ppb)	NA	80	62	36.9 – 99	2014	N	By-product of drinking water disinfection

Inorganic Contaminants							
Contaminant	MCLG or MRDLG	MCL, TT or MRDL	Your Water	Range Low/High	Sample Date	Violation	Typical Source
Barium (ppm)	2	2	0.0481	0.048 - 0.048 1 1	2013	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)	4	4	0.25	0.25 - 0.25	2013	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate (measured as Nitrogen) (ppm)	10	10	0.49	0.49 – 0.49	2014	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Microbiological Contaminants							
Contaminant	MCLG or MRDLG	MCL, TT or MRDL	Your Water	Range Low/high	Sample Date	Violation	Typical Source
Turbidity (NTU)	NA	1	100	NA	2014	N	Soil Runoff

100% of the samples were below the TT value of 1. A value less than 95% constitutes a TT violation. The highest single measurement was 0.8. Any measurement in excess of 5 is a violation unless otherwise approved by the state.

Total Coliform (positive Samples/month)	0	1	1	NA	2014	N	Naturally present in the environment
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Radioactive Contaminants							
Contaminant	MCLG or MRDLG	MCL, TT or MRDL	Your Water	Range Low/High	Sample Date	Violation	Typical Source
Beta/photon Emitters (pCi/L)	0	50	50	NA	2011	N	Decay of natural and manmade deposits

## Wagoner County Rural Water District #4 (continued)

Inorganic Contaminants							
Contaminant	MCLG	AL	Your Water	Sample Date	# Samples Exceeding AL	Exceeds AL	Typical Source
Copper-action level at consumer taps (ppm)	1.3	1.3	0.661	2012	1	N	Corrosion of household plumbing systems; Erosion of natural deposits
Lead-action level at consumer taps (ppb)	0	15	6.8	2012	0	N	Corrosion of household plumbing systems; Erosion of natural deposits

### Additional Monitoring

As part of an on-going evaluation program the EPA has required us to monitor some additional contaminants/chemicals. Information collected through the monitoring of these contaminants/chemicals will help to ensure that future decisions on drinking water standards are based on sound science.

<u>Name</u>	<u>Reported Level</u>	<u>Range Low</u>	<u>Range High</u>	
Chromium-6 (hexavalent chromium) (ppb)	0.397	NA	0.397	
Chromium (total chromium) (ppb)	0.493	NA	0.493	
Molybdenum (ppb)	1.52	NA	1.52	
Strontium (ppb)	251	NA	251	

## **Abbreviations and Definitions**

### **AL (Action Level)**

The concentration of a contaminant that, if exceeded triggers treatment or other requirements that a system must follow.

### **MCL (Maximum Contaminant Level)**

The highest level of a contaminant in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

### **MCLG (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.

### **MRDL (Maximum Residual Disinfectant Level)**

The highest level of a disinfectant allowed in the 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 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 contaminants.

**NA** (Not applicable)

**ND** (Not detected)

**NR** (Monitoring not required, but recommended)

### **NTU (Nephelometric Turbidity Units)**

Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

### **Parts per million (ppm) or milligrams per liter (mgpl)**

One part substance per million parts water.

### **Parts per billion (ppb) or micrograms per liter (UG/L)**

One part substance per billion parts water.

### **pCi/L (pico curies per liter)**

A measure of radioactivity.

### **TT (Treatment technique)**

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

### **Mrem/yr (Milligrams per year)**

A measure of radiation absorbed by the body

### **SU (Standard Units)**

### **LRAA (Locational Running Annual Average)**

Average

### **LT2ESWTR**

Long Term 2 Enhanced Surface Water Treatment Rule

### **Stage 2 DBPR**

Stage 2 Disinfection By-Product Rule

### **UCMR2**

Unregulated Contaminants Monitoring Rule 2

**MNR** (Monitored not regulated)

**MPL** (State assigned Maximum Permissible Level)