

2009
City of Del City Annual Drinking Water Report
Quality Water on Tap

We're pleased to present to you, our customers, this year's Annual Quality Water Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to insuring the quality of your water. Our primary water source is surface water supplemented with groundwater. Our surface water is pumped from Lake Thunderbird, often affectionately called Lake "Dirtybird" by area residents, because of the red color imparted to the water from red clays in the surrounding soils. Fortunately, this color is not "true" color, and may be readily treated and removed. The resulting mud is settled during the treatment process, dried and then recycled as fill dirt.

The lake water is further treated by filtration utilizing mixed media filters, comprised of multiple layers of sand and gravel, topped by 3 feet of Granulated Activated Carbon (GAC). The GAC eliminates objectionable taste and odor components that are commonly found in surface water. Half of this media is replaced every year. The filtered water is disinfected with chlorine gas and pH stabilized with caustic soda. The Water Treatment Plant treated 500.668 *million gallons* of water during 2009.

Our groundwater is drawn from the Garber – Wellington Shale/Sandstone formations at depths ranging from 100 to 750 feet. The high quality well water is used to augment the more expensive surface water. Currently, there are eleven wells located in the city limits that are in continual use, and another one that may be rehabilitated. Four of the wells pump directly into the one million gallon Ground Storage Tank located at the 4700 block of Reno Avenue where chlorine is added. Wells produced approximately 250.445 *million gallons* of water during 2009.

Del City is continuing our work on our plan to upgrade the entire treatment system in order to remain in compliance with existing and future EPA regulations.

Del City is pleased to report that our drinking water is safe and meets Federal and State requirements.

If you have any questions about this report or concerning your water utility, please contact Alan Coffin, Water Supervisor, at (405) 671-2871. We want our valued customers to be informed about their water utility.

The Del City Water Treatment Plant 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 1st to December 31st, 2009. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

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:

There are seventy-six regulated contaminants that community water systems are required to test for including microbiological, radioactive, inorganic, synthetic organic including pesticides and herbicides, and volatile organic contaminants. We are exempt from testing for synthetic organic contaminants based upon a vulnerability assessment conducted by the Oklahoma Department of Environmental Quality. The table below shows only those contaminants that were detected.

Non-Detects (ND) – laboratory analysis indicates that the constituent is not present.

Parts per million (ppm) or Milligrams per liter (mg/l) – one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter (UG/L) – one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Pico curie per liter (pick/L) – *picocuries per litter* is a measure of the radioactivity in water.

Millirems per year (mrem/yr) – measure of radiation absorbed by the body.

Nephelometric Turbidity Unit (NTU) – nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of .3 NTU is just noticeable to the average person.

Action Level (AL) – the concentration of a contaminant, which if exceeded, triggers treatment or other requirements, which a water system must follow.

Treatment Technique (TT) – (mandatory language) A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

Maximum Contaminant Level - (mandatory language) 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.

Maximum Contaminant Level Goal - (mandatory language) The Goal (MCLG) is 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.

Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

Violation defined:

You will notice that we had one violation in the year 2009 dealing with the samples taken to check for Coliform Bacteria. In the month of October we had one sample come back as positive. We were notified the day after the sample was taken and immediately took action by submitting a new sample from the same site, results showed negative for Coliform. We were notified in December that we were required to take “3” three retakes instead of “1” one. We revised our Standard Operational Procedure to eliminate future mistakes like this. There is no action needed by you, the consumers. We are required to inform you; during the time from the 1st sample to the 2nd sample taken we could not guarantee the quality of the water. However, since a “negative” for Coliform sample was attained, we are confident now, as always to the safety and quality of the water we produce.

2009 Lab Information for Consumer Confidence Report

MICROBIAL CONTAMINANTS

<u>PARAMETER</u>	<u>COMPLIANCE PERIOD</u>	<u>LEVEL DETECTED</u>
COLIFORM (TCR)	OCT 2009	

TURBIDITY

<u>PARAMETER</u>	<u>DATE</u>	<u>HIGHEST AVERAGE MONTHLY VALUE</u>
TURBIDITY	Jul 2009	0%

<u>PARAMETER</u>	<u>DATE</u>	<u>HIGHEST SINGLE MEASUREMENT</u>
TURBIDITY	Aug 2009	.30 NTU

TURBIDITY	Aug 2009	.30 NTU
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TOTAL ORGANIC CARBON

<u>PARAMETER</u>	<u>DATE</u>	<u>AVG. OF REQ'D % REMOVAL</u>	<u>RANGE OF ACTUAL % REMOVAL</u>
TOTAL ORGANIC CARBON	2009	25%	25% - 80%

NITRATE / NITRITE AND RADIOACTIVE CONTAMINANTS

<u>PARAMETER</u>	<u>DATE</u>	<u>LEVEL DETECTED</u>	<u>RANGE DETECTED</u>
NITRATE-NITRITE as NITROGEN	2009	.41 MG/L	.3 MG/L - .41 MG/L
NITRATE	2004	.47 MG/L	.44 MG/L - .5 MG/L
GROSS BETA PARTICLE ACTIVITY	2002	3.2685 PCI/L	3.093 PCI/L - 3.611 PCI/L

NITRATE-NITRITE as NITROGEN	2009	.41 MG/L	.3 MG/L - .41 MG/L
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NITRATE	2004	.47 MG/L	.44 MG/L - .5 MG/L
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GROSS BETA PARTICLE ACTIVITY	2002	3.2685 PCI/L	3.093 PCI/L - 3.611 PCI/L
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INORGANIC CONTAMINANTS

<u>PARAMETER</u>	<u>DATE</u>	<u>LEVEL DETECTED</u>	<u>RANGE DETECTED</u>
BARIUM	2009	412 UG/L	0.364UG/L - 0.412 UG/L
FLUORIDE	2009	.22 MG/L	.22 MG/L - 1.02 MG/L

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FLUORIDE	2009	.22 MG/L	.22 MG/L - 1.02 MG/L
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LEAD OR COPPER 90% VALUE OR SAMPLES ABOVE THE ACTION LEVEL

<u>PARAMETER</u>	<u>DATE</u>	<u>LEVEL DETECTED</u>
COPPER 90 TH PERCENTILE	3Y2008	0.359 MG/L
LEAD	2008	0

COPPER 90 TH PERCENTILE	3Y2008	0.359 MG/L
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LEAD	2008	0
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DISINFECTION BY PRODUCT CONTAMINANTS

<u>PARAMETER</u>	<u>DATE</u>	<u>MAX. LEVEL DETECTED</u>	<u>RANGE DETECTED</u>
TOTAL TRIHALOMETHANES (TTHM)	2009	75.9 UG/L	0.0 UG/L - 75.9 UG/L
TOTAL HALOCETIC ACIDS (HAAS)	2009	17.7 UG/L	0.0 UG/L - 17.7 UG/L

TOTAL TRIHALOMETHANES (TTHM)	2009	75.9 UG/L	0.0 UG/L - 75.9 UG/L
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TOTAL HALOCETIC ACIDS (HAAS)	2009	17.7 UG/L	0.0 UG/L - 17.7 UG/L
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DISINFECTION BY PRODUCT CONTAMINANTS "STAGE 2"

<u>PARAMETER</u>	<u>DATE</u>	<u>MAX. LEVEL DETECTED</u>	<u>RANGE DETECTED</u>
TOTAL TRIHALOMETHANES (TTHM)	2009	111.0 UG/L	0.0 UG/L - 111.0 UG/L
TOTAL HALOCETIC ACIDS (HAAS)	2009	15.0 UG/L	0.0 UG/L - 15.0 UG/L

TOTAL TRIHALOMETHANES (TTHM)	2009	111.0 UG/L	0.0 UG/L - 111.0 UG/L
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TOTAL HALOCETIC ACIDS (HAAS)	2009	15.0 UG/L	0.0 UG/L - 15.0 UG/L
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RADIOCHEMICAL CONTAMINANTS

<u>PARAMETER</u>	<u>DATE</u>	<u>LEVEL DETECTED</u>	<u>RANGE DETECTED</u>
GROSS ALPHA, EXCL. RADON & U	2007	4.15 PCI/L	2.877 PCI - 4.15 PCI
COMBINED URANIUM	2007	1.9 UG/L	1.3 UG/L - 1.9 UG/L
COMBINED RADIUM (-226 & -228)	2007	1.66 PCI/L	1.55 PCI/L - 1.66 PCI/L
Arsenic Total	2009	< 2.00 UG/L	
Cryptosporidium/Giardia	2008	0 present	0 - 0 present

GROSS ALPHA, EXCL. RADON & U	2007	4.15 PCI/L	2.877 PCI - 4.15 PCI
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COMBINED URANIUM	2007	1.9 UG/L	1.3 UG/L - 1.9 UG/L
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COMBINED RADIUM (-226 & -228)	2007	1.66 PCI/L	1.55 PCI/L - 1.66 PCI/L
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Arsenic Total	2009	< 2.00 UG/L	
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Cryptosporidium/Giardia	2008	0 present	0 - 0 present
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This report contains all information from DEQ's database concerning the following areas of water quality: Microbial Contaminants, Turbidity, Total Organic Carbon, Nitrate/Nitrite and Radioactive Contaminants, Inorganic Contaminants, Lead and Copper, Volatile Organic Contaminants, and Disinfection Byproduct Contaminants sampling as well as Violations. If any of these sections are not included above, it is because DEQ has no record of detects or violations.

2009 CCR Report

City of Del City
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Del City, Ok. 73115

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What does this mean?

As you can see by the table, our system had one violation, which we previously explained. We are proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water IS SAFE at these levels.

All sources of drinking water are subject to potential contamination by constituents that are naturally occurring or are man made. Those constituents can be microbes, organic or inorganic chemicals, or radioactive materials. All 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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised persons such as persons 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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).