



# Ross County Water Company, Inc.

## ANNUAL DRINKING WATER QUALITY REPORT

*Period Covered by Report: January 2013 through December 2013*

**R**oss County Water Company has prepared the following report to provide information to you, the consumer, on the quality of our drinking water. This report is required as part of the Safe Drinking Water Act Re-authorization of 1996 and is to be delivered to our consumers by July 1, 2014. Included within this report is general health information, water quality test results, how to participate in decisions concerning your drinking water, and water system contacts. Quality water is our commitment and our profession. Our constant goal is to provide you with a safe and dependable supply of potable drinking water. We have a current, unconditioned Ohio EPA license to operate our system.

The purpose of this Annual Quality Water Report is to inform you about the excellent water and services we have delivered to you over the past year. The source of raw water for R.C.W.C. is a well field consisting of eight production wells. This well field is part of the "Teays Valley Aquifer," one of three major underground aquifers in the State of Ohio. We use a combination of these eight wells to provide the raw water to two 3.5 mgd (million gallon per day) water treatment plant facilities, which processes the water for delivery to you, the end user.

R.C.W.C.'s only source of raw water is underground water. Our raw water supply is covered by a Well Head Protection Plan (WHPP). This plan was developed by R.C.W.C. to assess the vulnerability of the underground water source to contamination, and to establish a zone of protection around the well field to warn us of potential future contamination so we have time to protect this vital water source. In addition to the WHPP, the Ohio EPA has completed a susceptibility analysis for R.C.W.C. to fulfill requirements of the Source Water Assessment and Protection Program. The results indicated the aquifer that supplies drinking water to R.C.W.C. has high susceptibility to contamination, due to the sensitivity of the aquifer in which the well field is located and the existence of several potential contaminant sources within the protection zone. This does not mean that this well field will become contaminated, only that conditions are such that the ground water could be impacted by potential contaminant sources. Future contamination may be avoided by implementing protective measures, such as those resulting from the WHPP. More information is available by calling our office at 740-774-4117 or Ohio EPA at 1-740-385-8501.

The sources of drinking 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 activities.

Contaminants that may be present in source water include: (A) Microbial contaminants, such as viruses and bacteria, 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 storm water run off, industrial or domestic waste water discharges, oil and gas production, mining or farming; (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water run off 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 storm water run off and septic systems; (E) radio active contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to insure 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 established limits for contaminants in bottled water which must provide the same protection for public health.

R.C.W.C. routinely monitors for contaminants in your drinking water according to Federal and State laws. This report shows the results of our monitoring for the period of January 1st, 2013 thru December 31st, 2013. All drinking water, including bottled drinking water, may be reasonably 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.

The EPA requires sampling to insure drinking water safety. R.C.W.C. conducted sampling for bacteria, inorganic, radiological, synthetic organic and volatile organic contaminants during 2013. Samples were collected for several different contaminants most of which were not detected in the water supply. The Ohio EPA requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of

our data, though accurate, is more than one year old.

We are pleased to report that there were **No reportable contaminate violations** as detailed in the Safe Drinking Water Act and there were **No incidents where our contaminate levels exceeded the MCL's (Maximum Contaminate Levels)** established by the EPA. Listed below is the information on those contaminants that were found in the R.C.W.C.

| CONTAMINANTS UNITS  | MCLG     | MCL     | LEVEL FOUND | RANGE OF DETECTION | VIOLATIONS | SAMPLE DATE | TYPICAL SOURCE OF CONTAMINANTS             |
|---|----------|---------|-------------|--------------------|------------|-------------|--|
| <b>BACTERIOLOGICAL</b>  |          |         |             |                    |            |             |  |
| Total Coliform  | 0        | 5%>     | <5%         | 0-5%               | NO         | 2013        | Naturally Present in Environment           |
| <b>Radioactive Contaminants</b>   |          |         |             |                    |            |             |  |
| Alpha Total pCi/L   | 0        | 15      | <3          | N/A                | NO         | 2013        | Erosion of Natural Deposits                |
| <b>Inorganic Contaminants</b>   |          |         |             |                    |            |             |  |
| *Lead - ppb   | 0        | AL=15   | <5.0*       | N/A                | NO         | 2013        | Corrosion of Household Plumbing Systems    |
| 30 SAMPLES - ONE OUT OF 30 SAMPLES EXCEEDED 15 PPB                        |          |         |             |                    |            |             |  |
| *Copper - ppm   | 1.3      | AL=1.3  | .762        | <.05-1.340         | NO         | 2013        | Corrosion of Household Plumbing Systems    |
| 30 SAMPLES - ZERO OUT OF 30 SAMPLES EXCEEDED 1.30 PPM                     |          |         |             |                    |            |             |  |
| Fluoride - ppm  | 4        | 4       | 1.04        | 0.91-1.09          | NO         | 2013        | Water Additive which Promotes Strong Teeth |
| Nitrate - ppm   | 10       | 10      | .82         | 0.21-0.82          | NO         | 2013        | Runoff from Fertilizer                     |
| Barium - ppm  | 2        | 2       | .04         | 0.037-0.039        | NO         | 2013        | Erosion of Natural Deposits                |
| <b>Synthetic Organic Contaminants Including Pesticides and Herbicides</b> |          |         |             |                    |            |             |  |
| NONE DETECTED   |          |         |             |                    |            | 2012        | (Most Recent Year)                         |
| <b>Volatile Organic Contaminants</b>                                      |          |         |             |                    |            |             |  |
| TTHMS - ppb<br>(total trihalomethanes)                                    | N/A      | 80      | 25.9        | 9.1-37.2           | NO         | 2013        | By-Product of Drinking Water Chlorination  |
| HAAS - ppb<br>(total haloacetic acids)                                    | N/A      | 60      | 8.9         | <6.0-9.9           | NO         | 2013        | By-Product of Drinking Water Chlorination  |
| <b>Residual Disinfectants</b>   |          |         |             |                    |            |             |  |
| TOTAL CHLORINE - ppm  | MRDL = 4 | MRDLG=4 | 1.7         | 0.8-2.2            | NO         | 2013        | Water Additive Used to Control Microbes    |

Ross County Water Company also monitors for specific unregulated contaminants as defined and required by EPA's Unregulated Contaminant Monitoring Regulations. Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. The listing of unregulated contaminants that were detected by Ross County Water Company in 2013 is noted in this chart.

| Unregulated Contaminant      | UG/L<br>4/4/2013 | UG/L<br>10/9/2013 |
|------------------------------|------------------|-------------------|
| <b>Distribution System</b>   |                  |                   |
| Molybdenum                   | 5.6              | 4.7               |
| Strontium                    | 307.5            | 260.6             |
| Chlorite                     | 106.1            | 178.2             |
| <b>North Treatment Plant</b> |                  |                   |
| Molybdenum                   | 4.6              | 4.2               |
| Strontium                    | 288.9            | 280.8             |
| Chlorate                     | 368.2            | 565.5             |
| <b>South Treatment Plant</b> |                  |                   |
| Molybdenum                   | 5.9              | 5.1               |
| Strontium                    | 344.8            | 249.8             |



**To help you better understand these terms, we've provided the following definitions:**

**Maximum Contaminant Level Total Coliform**  
 The maximum contaminant level for total coliform-  
 Presence of coliform bacteria in >5% of the monthly  
 samples taken.

**Maximum Contaminant Level Goal (MCLG)**  
 The level of a contaminant in drinking water below  
 which there is no known or expected risk to health.  
 MCLG's allow for a margin of safety.

**Maximum Contaminant Level (MCL)**  
 The highest level of a contaminant that is allowed in  
 drinking water. MCL's are set as close to the MCLG's as  
 feasible using the best available treatment technology.

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

**\*Lead & Copper**  
 90<sup>th</sup> percentile of 30 samples - 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. Ross County Water Company 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 at <http://www.epa.gov/safewater/lead>.

**TTHM**  
 Trihalomethanes – Chloroform –  
 Bromodichloromethane – Bromoform –  
 Dibromochloromethane

**HAA5**  
 Monochloroacetic – Dichloroacetic – Trichloroacetic –  
 Monobromoacetic – Dibromoacetic

**Parts per billion (ppb) or Micrograms per liter (ug/l)**  
 Units of measure for the concentration of  
 contaminants. One part per billion corresponds to one  
 second in 31.7 years, or a single penny in \$10,000,000.

**Parts per million (ppm) or Milligrams per liter(mg/l)**  
 Units of measure for the concentration of  
 contaminants. One part per million corresponds to one  
 second in 11.5 days or a single penny in \$10,000.

**MRDL**  
 Maximum Residual Disinfectant Level: The highest  
 residual disinfectant level allowed.

**MRDLG**  
 Maximum Residual Disinfectant Level Goal: The level of  
 residual disinfectant below which there is no known or  
 expected risk to health.

**Symbol < Designation (<)**  
 This symbol means less than... A result of <5 means  
 that the lowest level that could be detected was 5 and  
 the contaminant in that sample was not detected.

**Symbol > Designation (>)**  
 This symbol means greater than.

**Not Applicable (N/A)**  
 This symbol means "Not Applicable" This means that  
 the sample was not required or that the contaminant  
 does not have MCL's, MCLG's or detection ranges  
 established as of this report.

**pCi/L**  
 Picocuries per Liter: a measure of radioactivity.

|   |                           |
|---|---------------------------|
| Listing of other water quality parameters after treatment by Ross County Water Company. Items listed cause no known health concerns in concentrations normally found in drinking water. |                           |
| Total Hardness . . .  | 120-140 mg/L (7-8 grains) |
| Alkalinity . . . . .  | 240-280 mg/L              |
| pH . . . . .  | 7.0 - 7.8                 |
| Iron . . . . .  | < 0.10 mg/L               |
| Manganese. . . . .  | < 0.03 mg/L               |



Ross County Water Company Inc.  
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Chillicothe, OH 45601-5690

Community Water Supply PWS ID: 7101412  
Web Site: [www.rosscowater.org](http://www.rosscowater.org)  
Phone #: (740)774-4117 or 1-800-837-7525  
Fax #: 1-740-772-6867  
e-mail address: [bneal@rosscowater.org](mailto:bneal@rosscowater.org)

If you have any questions about this report or concerning your water quality, please contact Ed Adams, Plant Superintendent or Bill Neal, General Manager at 1-740-774-4117 weekdays from 8:00 AM to 4:30 PM. We want our valued customers to be informed about their water utility. Public participation and comment are encouraged at any of our regularly scheduled Board of Trustees meetings. They are held on the second and fourth Wednesday of each Month at 4:30 PM at the Water Company offices, 663 Fairgrounds Road, Chillicothe, OH.

**What does this mean to you as a consumer of our water?**

Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. The above is provided to you for informational purposes and to assure you that there is no risk involved in the consumption of water from the R.C.W.C. utility service. We're proud to inform you that your drinking water meets or exceeds all Federal and State EPA requirements. MCL's are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a life time to have a one-in-a-million chance of having the described health effect. We have learned through our monitoring and testing that some contaminants have been detected in our water. They however are below the MCL levels set by EPA.

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 on kidney dialysis machines, 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).

The Ross County Water Company Inc. is a Non-Profit, Member Owned organization serving the water needs to rural areas of Ross County and portions of Pike, Pickaway, Jackson, Hocking and Vinton Counties. We are an organization totally dedicated to improving the quality of life for the rural areas served by our distribution system. We are very aware of the need for good quality drinking water in the rural areas of Ohio and are constantly striving to grow and serve those needs in our immediate rural communities. The five Trustees and 33 employees are very proud of our accomplishments and the fact we can issue this report to inform you of the high quality of the water you drink. It is our desire to inform and educate our user about water and issuing this report is one way of accomplishing our goal. Please feel free to call our office if you have questions concerning any of the items in the above report. We at R.C.W.C. proudly work around the clock to provide top quality water to every water user.

We ask that all our customers help us protect Ohio's water resources, which are at the heart of our community, our way of life and our children's future.

Thank you.

The Management & Staff  
Ross County Water Company Inc.

**R.C.W.C. KEY PERSONNEL**

|  |   |   |  |
|--|---|---|--|
| <p><b>President</b><br/>Mike Riffle, (740)775-3104</p> <p><b>Vice President</b><br/>Clyde Hawkins, (740)998-6062</p> | <p><b>Trustee</b><br/>Joe Fisher, (740)887-3220</p> <p><b>Trustee</b><br/>Dan Baxter, (740)286-4303</p> | <p><b>Trustee</b><br/>Brian Wisecup, (740)477-3095</p> <p><b>Secretary/Treasurer</b><br/>William F. Neal, (740)774-4117</p> | <p><b>General Manager</b><br/>William F. Neal, (740)774-4117</p> <p><b>Plant Superintendent</b><br/>G. Edward Adams, (740)774-4117</p> |
|--|---|---|--|