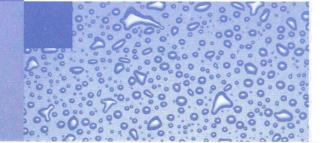
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Jackson County Water 304 N Ranson Road Greenwood, MO 64034

It's What's On Tap!



2008 Annual Water Quality Report Jackson County Public Water Supply District #12 PWS ID #M01024278



Jackson County Public Water Supply District # 12

816-537-6856 PWS ID # MO1024278

Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.

What's the Quality of My Water?

Jackson County Public Water Supply District #12 is pleased to share this water quality report with you. It describes to you, the customer, the quality of your drinking water. This report covers January 1 through December 31, 2008. Jackson County PWSD #12's water supply surpassed the strict regulations of both the State of Missouri and the U.S. Environmental Protection Agency (EPA), which requires all water suppliers to prepare reports like this every year.

Our water source is purchased, pretreated water from Tri-County Water Authority and Kansas City, Missouri Water Services Department. Tri-County relies on groundwater. Their wells are located in the Missouri River Alluvium. Tri-County treats your water using disinfection to reduce harmful bacteria. Kansas City, MO relies on surface water from the Missouri River. Kansas City, MO treats your water through a multi-step process involving coagulation, sedimentation, disinfection and filtration.

As required by the 1996 Safe Drinking Water Act Amendments, the Missouri Department of Natural Resources prepared a source water assessment plan (SWAP) for each of our two purchased water sources. These reports include a delineation of areas providing water for each of their water sources, an inventory of the regulated and unregulated drinking water contaminants within the delineated area, and a determination of the systems' relative susceptibility to contamination. These reports gave a susceptibility rating for the following contaminants: Volatile Organic Compounds, Nutrients, Radio-nuclides, Radon, Pathogens, Pesticides, Disinfection Byproduct Precursors, Inorganic Compounds and Synthetic Organic Compounds. If a system is rated highly susceptible for a contaminant category, it does not mean a customer is or will be consuming contaminated drinking water. The rating reflects the potential for contamination of source water, not the existence of contamination. The full reports can be obtained at the Missouri Department of Natural Resources website.

If you have any questions about this report or concerning your water utility, please contact Vickie J. McLaughlin at 816-537-6856. We want our valued customers to be informed about their water utility. Please call us at 816-537-6856 to inquire about scheduled meeting or contact persons.

The U.S. Environmental Protection Agency (EPA) wants you to know:

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

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 (1-800-426-4791).

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 source water include:

<u>Microbial contaminants</u>, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife. <u>Inorganic contaminants</u>, 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. <u>Pesticides and herbicides</u>, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses. <u>Organic chemical contaminants</u>, 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 runoff, and septic systems. <u>Radioactive contaminants</u>, which can be naturally occurring or be the result of oil and gas production and mining activities.

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. Jackson County Public Water Supply District # 12 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.

Table of Detected Contaminants for Tri-County & Kansas City, MO

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-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 microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Of the many contaminants tested, only these few were at levels of detection. All results shown in this chart are from the monitoring year 2008 unless otherwise noted.¹

| | | | | | Amo | ount | & Range Detected | |
|---------------------------------------|-------------|--|-------------------|--------|---------------------------|----------------------|--|---|
| CONTAMINANT | MCLG | MCL | | Unit | Tri-County | | Kansas City, N | MO Likely Source of Contamination |
| Bacteriological | | | | | WARE SE | | | |
| Total Organic Carbon | NA | 17 | Т | ppm | NA | | 2.28 (finished wa 1.40 - 6.50 | Naturally present in the environment. |
| | | TT/ never i | | | | | 0.29 | |
| Turbidity ² | 0 | NTU and le equal to 0.3 95% of sar | 3NTU in | NTU | NA NA | | Lowest month percentage of sar meeting limits:10 | mples |
| Inorganic Chemicals | | | | | | | | |
| Barium | 2 | | 2 | ppm | 0.042 0.036 - 0 | | 0.015 0.007 - 0.029 | Discharge of drilling wastes. Discharge from me refineries. Erosion of natural deposits. |
| Arsenic | 0 | 1 | 10 | ppb | 1.69 1.06 - 1 | | ND | Erosion of natural deposits. Runoff from orch Runoff from glass and electronics production was |
| Cyanide | 200 | 2 | 00 | ppb | ND | 13.0 ND ND - 13.0 | | Discharge from steel/metal factories. Discharge plastic and fertilizer factories. |
| Nitrate ³ | 10 | 1 | 10 | ppm | 0.08 pm ND - 0.08 | | 4.0 ND - 4.0 | Runoff from fertilizer use. Leaching from septic t sewage. Erosion of natural deposits. |
| Fluoride | 4 | | 4 | ppm | 0.18 0.16 - 0 | | 0.87 (average 0.32 - 1.21 | Erosion of natural deposits. Water additive promotes strong teeth. Discharge from fertilize aluminum factories. |
| Selenium | 50 | | 50 | ppb | ND | | 1.0 ND - 3.0 | Discharge from petroleum and metal refin Erosion of natural deposits. Discharge from mir |
| Synthetic Organic Co | ontamina | ants | | | | | | |
| Atrazine ⁶ | 3 | | 3 | ppb | ND | | 0.44 ND - 7.07 | Runoff from herbicide used on row crops. |
| | | | Table of I | Detect | ed Contami | nants | for Jackson Cour | nty PWSD #12 |
| Contaminant | | MCLG MCL | | | Unit | | ount & Range Detected | Potential Source of Contamination |
| Microbiological Cont | aminant | s | | | | | | |
| Total Coliiform Bacteria ⁵ | | 1 positive monthly san | | | positive/ negative 1 p | | positive in July | Naturally present in the environment. |
| Disinfectants and Di | isinfection | on By-produ | ıcts ⁴ | | | | | |
| Chloramines, Residual (Total) | | MRDLG = 4 MRDL = | | 4 | ppm | | 2.39 0.97 - 3.52 | Water additive used to control microbes. |
| Lead and Copper mo | nitorina | vas compl | eted by Jac | kson (| County PW | SD #1 | 2 at the customer' | 's taps. Results are from 2005 ¹ . |
| Copper | | 1.3 | AL = 1.3 | | ppm | C | 0.0834 0.00208 - 0.14 sites below AL | Corrosion of household plumbing systems. Erosion of natural deposits. Leaching from wood preservatives. |
| | | | | _ | | - | | |

2.4 (90th percentile)

1.1 - 10.7

All sites below AL

AL = 15

Lead

Corrosion of household plumbing systems. Erosion of

natural deposits

| Secondary and | Physical Characteristics testing completed | n |
|---------------|--|---|
| 2008 | | 1 |

| 2000 | | | | | | |
|------------------------|-------|----------------------------------|--------------------|--|--|--|
| | | Average Level Detected & (Range) | | | | |
| Substance | Unit | Tri-County | Kansas City, MO | | | |
| Alkalinity | ppm | 73 | 37 (21 - 78) | | | |
| Ammonia | ppm | ND | 0.22 (0.09 - 9.0) | | | |
| Calcium | ppm | 11.4 - 12.4 | 31.3 (21.9 - 46.3) | | | |
| Magnesium | ppm | 16 - 16.9 | 4.48 (2.05 - 9.56) | | | |
| Potassium | ppm | 5.67 - 6.53 | 6.46 (5.46 - 7.69) | | | |
| Sodium | ppm | 33.4 - 39.1 | 40.4 (16.9 - 58.6 | | | |
| Chloride | ppm | 22.4 - 24.5 | 22 (10.0 - 32.0) | | | |
| рН | units | 7.99 - 8.45 | 9.7 (8.4 - 10.3) | | | |
| Total Dissolved Solids | ppm | 227 | NA | | | |
| Sulfate | ppm | 64.7 - 69.8 | 124 (46 - 193) | | | |
| Hardness | ppm | 98.1 - 130 | 99 (74 - 132) | | | |
| Unregulated Contamina | ants | | | | | |
| Bromoform | ppb | ND - 1.29 | ND | | | |
| Bromodichloromethane | ppb | ND - 6.62 | ND | | | |
| Chloroform | ppb | 0.89 - 7.3 | 8.13 (0.61 - 48.7) | | | |
| | | | | | | |

Definitions:

<u>Maximum Contaminant Level (MCL)</u>: 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 (MCLG): 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. Maximum Residual Disinfectant Level Goal (MRDLG): 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. 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.

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

<u>Treatment Technique (TT):</u> A required process intended to reduce the level of a contaminant in drinking water. <u>90th Percentile:</u> 90% of samples are equal to or less than the number in the chart.

NTU (Nephelometric Turbidity Units): A measure of clarity.

NA: Not applicable.

ND: Not detectable at testing limits.

PPB (parts per billion): micrograms per liter (ug/l).

PPM (parts per million): milligrams per liter (mg/l).

CDC: Centers for Disease Control.

EPA: Environmental Protection Agency.

Notes:

¹The state allows 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, are more than one year old.

²Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

³Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

⁴The disinfection by-products, Total Trihalomethanes and Haloacetic Acids, were tested in 2008 and found to be at non-detectable levels.

⁵Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

⁶KCMO Water Services experienced a spike in atrazine on May 31, 2008. The treatment process was adjusted and the atrazine level fell to 1.75 ppb on June 1, 2008. Some people who drink water containing atrazine well in excess of the MCL over many years could experience problems with their cardiovascular system or reproductive difficulties.

Cryptosporidium and Giardia are microscopic organisms that are relatively widespread in the environment. Surface waters, such as lakes and rivers that contain a high amount of sewage contamination or animal wastes are more susceptible to increased numbers of these parasites. The Kansas City, MO Water Services Department is taking steps to make sure these organisms do not pose a problem in your drinking water. Current protection measures taken include chlorination, filtration and monitoring turbidity levels and particle sizes. Additionally, routine backwashing of the filters helps to eliminate the chances of finding these organisms in treated water. Occasionally, these organisms have been found in the raw (untreated) water, but neither Cryptosporidium nor Giardia has ever been detected in the finished (treated) water. The Kansas City, MO Water Services Department continues to monitor for these and other contaminants, taking all necessary precautions to ensure that your water is safe.