

# JACKSON COUNTY PWSD #13 MO1024279

## 2004 Annual Water Quality Report

*We are very pleased to provide you with this year's Annual Quality 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.*

### ***What is the source of my water?***

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and groundwater 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.

**Our water comes from the following source(s):** **TRI-COUNTY WATER AUTHORITY: MO1071079**  
Groundwater-wells located in the Missouri River Alluvium.  
We have an award winning Groundwater Protection Plan  
which controls activity around the wells

### ***Why are there contaminants in my 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 Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

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 stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming.
  - C. Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, 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 stormwater runoff, and septic systems.
  - E. Radioactive contaminants which 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, the Department of Natural Resources prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Department of Health regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

### ***Is our water system meeting other rules that govern our operations?***

The Missouri Department of Natural Resources regulates our water system and requires us to test our water on a regular basis to ensure its safety. Our system has been assigned the identification number MO1024279 for the purposes of tracking our test results. Last year, we tested for a variety of contaminants. The detectable results of these tests are on the following pages of this report. Any violations of state requirements or standards will be further explained later in this report.

**We at PWSD #13 are proud of the fact we have had no violations.**

### ***How might I become actively involved?***

If you would like to observe the decision-making process that affects drinking water quality, or if you have any further questions about your drinking water report, please contact David Shroul at 816-524-0880. If you would like to learn more, please attend any of our regularly scheduled meetings which are held at 6:00 P.M. on the first Wednesday of each month at our office located at: 99 Lake Lotawana Dr., Lake Lotawana, MO.

### ***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 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 (800-426-4791).

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### Contaminants Report

**Definitions:**

- MCLG: Maximum Contaminant Level Goal, or 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.
- MCL: Maximum Contaminant Level, or 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.
- AL: Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.
- TT: Treatment Technique, or a required process intended to reduce the level of a contaminant in drinking water.

**Abbreviations**

PPB: parts per billion or micrograms per liter PPM: parts per million or milligrams per liter N/A: not applicable  
 NTU: Nephelometric Turbidity Unit, used to measure cloudiness in drinking water MPL: million fibers per liter, used to measure asbestos concentration. ND: not detectable at testing limits.

*The state has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Records marked with \*, though representative, are more than one year old.*

### Regulated

<u>Inorganic</u>	<u>Units</u>	<u>MCL</u>	<u>MCLG</u>	<u>Level Found</u>	<u>Range of Detection</u>	<u>Violation</u>	<u>Sources</u>
Barium, Dissolved	ppb	2000	2000	52.4*	34.3-52.4	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Nitrate + Nitrite as N	ppm	10	10	<0.05	0.07-0.08	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Chromium, Dissolved	ppm	0.1	...	<0.002*	0.002	No	Discharge from steel and pulp mills. Erosion of natural deposits.
<u>Disinfection Byproducts</u>							
Total Trihalomethanes	ppb	80	...	24.6	17.2-24.6	No	By-product of drinking water chlorination.
Total Haloacetic Acids	ppb	60	...	15.3	4.76-15.3	No	By-product of drinking water disinfection.

**Copper**

<u>Collection Period</u>	<u>Units</u>	<u>Action Level</u>	<u>90th Percentile</u>	<u>Sites exceeding AL</u>	<u>Sources</u>
1/1/2004 - 12/31/2004	ppm	AL=1.3	0.161	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.

**Lead**

1/1/2004-12/31/2004	ppb	AL=15	3.02	0	Corrosion of household plumbing systems; Erosion of natural deposits.
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### Unregulated

*Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. Information on all the contaminants which were monitored for, whether regulated or unregulated, can be obtained from this water system or the Department of Natural Resources.*

<u>Inorganic</u>	<u>Units</u>	<u>Secondary Standard</u>	<u>Level Found</u>	<u>Range of Detection</u>
Chlorate	ppm	250	27.8	27.8
Nickel	ppm		4.8	4.8
<u>Volatile Organic</u>				
	<u>Units</u>	<u>Level Found</u>	<u>Range of Detections</u>	<u>Sample Year</u>
Bromodichloromethane	ppb	7.91	4.4-7.91	2004
Chloroform	ppb	6.25	4.4-14.0	2004
Dibromochloromethane	ppb	2.8	1.3 - 2.8	
Bromoform	ppb	3.46	0.8-3.46	2004

**Radon:** Radon is a naturally occurring gas present in soil and most ground waters in Missouri. Radon in home indoor air comes mainly from infiltration from soil in contact with foundations, slabs, and basement walls. EPA recommends that indoor air levels not exceed 4 pCi/L (picocuries per liter). EPA uses a conversion factor of 10,000 to 1 to determine indoor air contribution from water (see figured below). Radon poses a risk for lung cancer (estimated at 160 deaths/year nationally from drinking water, 85% of these in smokers), and stomach cancer (5 deaths annually). However, experts are not sure exactly what the cancer risk is from a given level of radon in drinking water. If you are concerned about radon in your home, tests are available to determine the exact levels. Call your local health department for details.

<u>Units</u>	<u>Level Found</u>	<u>Range of detections</u>	<u>Indoor Air Contribution</u>
PCi/L	13.92*	13.92*	0.001

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### Gross Beta Particles

Units	Collection Date	Result
PCi/	7-29-98	4.2

### Gross Alpha Particles

Units	Collection Date	Result
PCi/L	8-12-2003	<1.0

### *Optional Monitoring (not required by EPA)*

Monitoring is not required for optional contaminants.

<u>Inorganic</u>	Units	Level Found	Range of Detections	Sample Year
Aluminum, Dissolved	ppb	16.2*	16.2	2002
Calcium, Dissolved	ppm	14.8*	12.0-14.8	2002
Chloride	ppm	27.8*	21.7-27.8	2002
Hardness as CaCO3	ppm	130*	120-130	2002
Iron, Dissolved	ppb	34.1*	34.1	2002
Magnesium, Dissolved	ppm	21.6*	21.6	2002
PH		7.96*	7.96	2002
Potassium, Dissolved	ppm	4.6*	4.6-5.3	2002
Sodium, Dissolved	ppm	33.5*	31.4-33.5	2002
Sulfate	ppm	74.2*	74.2	2002
Total Alkalinity as CaCO3	ppm	106*	105-106	2002
Total Dissolved Solids	ppm	255*	219-255	2001

<u>Volatile Organic</u>	Units	Level Found	Range of Detections	Sample Year
Bromochloroacetic Acid	ppb	7.73	7.73	2004
Bromodichloroacetic Acid	ppb	3.26	3.26	2004
Chlorodibromomethane	ppb	6.98	6.98	2004
Dibromoacetic Acid	ppb	4.66	4.66	2004
Dichloroacetic Acid	ppb	8.06	8.06	2004
Trichloroacetic Acid	ppb	2.61	2.61	2004