

# 2005 Water Quality Report

*Jackson County Public Water Supply District #12*

## No Contaminant Violations of Federal or State Regulation



### ATTENCION!

Este informe contiene informacion muy importante. Traduscalo o pre-  
quntele a alguien que lo entienda bien.



This Water Quality Report is required by the Safe Drinking Water Act and intended to inform you about the excellent water and services we have delivered to you over the past year. Our goal is and has always been, to provide you a safe and dependable supply of drinking water.

In this report you will find information about the district and the water we supply to you. It is designed to identify for you and explain any detection of contaminants found in the water supply. It is important to keep in mind that the

presence of contaminants does not necessarily indicate that water poses a health risk. The test results offered in this publication reflect only the detected contaminants although over 100 different compounds are tested for each month.

If you have questions about this report or concerning your water utility, please contact Vickie J. McLaughlin at (816-537-6856).



## Contaminants and Drinking 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 (800-246-4791)

The sources of drinking water, (including bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of land or through the ground, it dissolves naturally-occurring material, and in some cases, radioactive material, and can pick up substances resulting from the presence of animals and human activity.

Contaminants that may be present in source water include:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants, such as salt 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, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential use.

Organic chemical contaminants, including synthetic and volatile organic chemicals, which are products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.



# Water Quality Data Tables

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 with a sample year more than one year old are still considered representative.

## Regulated Contaminants

| <u>Inorganic</u>                                                                                                                          | Units | MCL | MCLG | Level Found | Range of Detections | Violation | Sample Year |
|-------------------------------------------------------------------------------------------------------------------------------------------|-------|-----|------|-------------|---------------------|-----------|-------------|
| <b>BARIUM</b>                                                                                                                             | ppm   | 2   | 2    | 0.0419      | 0.0419              | No        | 2005        |
| <i>Sources:</i> Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits                                |       |     |      |             |                     |           |             |
| <b>FLUORIDE</b>                                                                                                                           | ppm   | 4   | 4    | 0.1800      | 0.1800              | No        | 2005        |
| <i>Sources:</i> Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories |       |     |      |             |                     |           |             |
| <b>NITRATE+NITRITE (AS N)</b>                                                                                                             | ppm   | 10  | 10   | 0.0800      | 0.08                | No        | 2005        |
| <i>Sources:</i> Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits                               |       |     |      |             |                     |           |             |
| <b>ARSENIC</b>                                                                                                                            | ppm   | 50  | n/a  | 1.6900      | 1.69                | No        | 2005        |
| <i>Sources:</i> Erosion from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits                              |       |     |      |             |                     |           |             |

| <u>Volatile Organic</u>                                   | Units | MCL | MCLG | Level Found | Range of Detections | Violation | Sample Year |
|-----------------------------------------------------------|-------|-----|------|-------------|---------------------|-----------|-------------|
| <b>TOTAL TRIHALOMETHANES (TTHM)</b>                       | ppb   | 80  | n/a  | 19.4000     | 19.4                | No        | 2005        |
| <i>Sources:</i> By-product of drinking water chlorination |       |     |      |             |                     |           |             |

## Copper

| Collection Period    | Units | Action Level | 90th Percentile | Sites exceeding AL |
|----------------------|-------|--------------|-----------------|--------------------|
| 1/1/2004- 12/31/2004 | ppm   | AL=1.3       | 0.078           | 0                  |

*Sources:* Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

## Lead

| Collection Period    | Units | Action Level | 90th Percentile | Sites exceeding AL |
|----------------------|-------|--------------|-----------------|--------------------|
| 1/1/2004- 12/31/2004 | ppb   | AL=15        | 4.22            | 0                  |

*Sources:* Corrosion of household plumbing systems; Erosion of natural deposits

## Definition of Terms

In this table you will find many terms and abbreviations of which you might not be familiar. To help you better understand these terms we have provided the following definitions.

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

**Treatment technique (TT)-** A required process intended to reduce the level of a contaminant.

**Maximum Contaminate 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 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.

## Unregulated Contaminants

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 that were monitored for, whether regulated or unregulated, can be obtained from this water system or the Department of Natural Resources.

### Optional Contaminants—Monitoring is not required for optional contaminants.

| <b>Inorganic</b>                        | <b>Units</b> | <b>Level Found</b> | <b>Range of Detections</b> | <b>Sample Year</b> |
|-----------------------------------------|--------------|--------------------|----------------------------|--------------------|
| ALKALINITY, CaCO <sub>3</sub> STABILITY | ppm          | 106.0000           | 106                        | 2002               |
| ALKALINITY, TOTAL                       | ppm          | 73.0000            | 73                         | 2005               |
| CALCIUM                                 | ppm          | 12.4000            | 12.4                       | 2005               |
| CHLORIDE                                | ppm          | 24.5000            | 24.5                       | 2005               |
| HARDNESS, CARBONATE                     | ppm          | 96.9000            | 96.9                       | 2005               |
| HARDNESS, TOTAL (AS CaCO <sub>3</sub> ) | ppm          | 130.0000           | 130                        | 2002               |
| IRON, DISSOLVED                         | ppb          | 34.1000            | 34.1                       | 2002               |
| MAGNESIUM                               | ppm          | 16.0000            | 16                         | 2005               |
| PH                                      |              | 7.9900             | 7.99                       | 2005               |
| POTASSIUM                               | ppm          | 5.6700             | 5.67                       | 2005               |
| SODIUM                                  | ppm          | 39.1000            | 39.1                       | 2005               |
| SOLIDS, TOTAL DISSOLVED (TDS)           | ppm          | 227.0000           | 227                        | 2005               |
| SULFATE                                 | ppm          | 64.7000            | 64.7                       | 2005               |
| <b>Volatile Organic</b>                 | <b>Units</b> | <b>Level Found</b> | <b>Range of Detections</b> | <b>Sample Year</b> |
| BROMODICHLOROMETHANE                    | ppb          | 5.4050             | 4.19—6.62                  | 2005               |
| BROMOCHLOROACETIC, ACID                 | ppb          | 4.78000            | 4.78                       | 2005               |
| BROMOFORM                               | ppb          | 1.0150             | 0.74—1.29                  | 2005               |
| CHLORODIBROMOMETHANE                    | ppb          | 3.6750             | 3.11—4.24                  | 2005               |
| CHLOROFORM                              | ppb          | 5.4100             | 3.52—7.3                   | 2005               |
| DIBROMOACETIC                           | ppb          | 2.8100             | 2.81                       | 2005               |
| DICHLOROACETIC                          | ppb          | 5.8600             | 5.86                       | 2005               |

#### Table Key

|      |                                   |       |                                                     |
|------|-----------------------------------|-------|-----------------------------------------------------|
| AL   | = Action Level                    | rad/l | = picocuries per liter (a measure of radioactivity) |
| MCL  | = Maximum Contaminant Level       | ppm   | = parts per million, or milligrams per liter (mg/l) |
| MCLD | = Maximum Contaminant Level Daily | ppb   | = parts per billion, or micrograms per liter (ug/l) |
| MU   | = Maximum Feasible Treatment Unit | nd    | = No Detection                                      |







## Health Information

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)

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 the advice about drinking water from their healthcare providers. Environmental Protection Agency/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline. EPA website: [www.epa.gov/safewater/hfacts.html](http://www.epa.gov/safewater/hfacts.html)

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### Where does my water come from?

The district purchases water from the City of Lee's Summit and Tri-County Water Authority. All water supplied by district #12 is a blend of these sources. The City of Lee's Summit purchases water from the City's of Independence and Kansas City, Missouri. Water from the City of Independence is treated well water supplied from the Missouri River Alluvial Aquifer.

Kansas City water is treated surface water supplied from the Missouri

River in addition to wells supplied by the Missouri River Alluvial Aquifer. Tri-County Water Authority's water is treated well water supplied from the Missouri River Alluvial Aquifer.

### How is my water utility regulated?

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 the 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.