

Board of Municipal Utilities
City of Sikeston
MO4010743
2011 Annual Water-Quality Report

Overview

This report is intended to provide you with important information about your drinking water and the efforts made by the Board of Municipal Utilities to provide safe drinking water.

Atencion!

Este informe contiene información muy importante. Tradúscalo o prequentele a alguien que lo entienda bien.

The Sikeston Board of Municipal Utilities is committed to providing residents with a safe and reliable supply of high-quality drinking water. We test our water using sophisticated equipment and advanced procedures. This annual "Consumer Confidence Report," required by the Safe Drinking Water Act (SDWA), tells you where your water comes from, what our tests show about it, and other things you should know about your drinking water.

We are proud to report that the water provided by the Board of Municipal Utilities meets or exceeds established water-quality standards.

Call us at 573-471-3328 for information about the next opportunity for public participation in decisions about our drinking water. We will be happy to answer any questions about the Board of Municipal Utilities and our water quality. Find out more about the Sikeston Board of Municipal Utilities on the Internet at www.sikestonbmu.org.

Water Source

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 drinking water is supplied by groundwater pumped from 8 wells at various locations in Sikeston.

The Department of Natural Resources conducted an assessment of our source water to determine its susceptibility to contamination. The assessment is a three-step process of identifying an area around our wellheads, inventorying potential sources of contaminants within that area (a one-half mile radius around the wellheads) and a look at the adequacy of well construction. In summary, the assessment determined that some of our wells might be susceptible due to the presence of potential sources of contamination in Sikeston. However, none of our wells have been contaminated and the Board of Municipal Utilities makes every effort to insure our wells are not contaminated. If you want to know more about the source water assessment, please call 573-471-3328, or review the assessment maps and summary information sheets available on the internet at <http://maproom.missouri.edu/swipmaps/pwssid.htm>. To access the maps for our water system, you will need the State-assigned identification code, which is printed at the top of this report.

CONTAMINANTS REPORT

This report is based upon tests conducted in the year 2011 by the Board of Municipal Utilities. Terms used in the Water-Quality Tables and in other parts of this report are defined here.

Maximum Contaminant Level or MCL: 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 or 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.

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

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

90th Percentile: For Lead and Copper testing. 10% of test results are above this level and 90% are below this level.

Detected Level: The average of all test results for a particular contaminant.

Range: Shows the lowest and highest levels found during a testing period. If only one sample was taken, this number equals the Detected Level.

The data presented in this report is from the most recent testing done in accordance with regulations. *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.*

Key To Tables

AL = Action Level

MCL = Maximum Contaminant Level

MCLG = Maximum Contaminant Level Goal

pCi/L = picocuries per liter (a measure of radioactivity) TT = Treatment Technique

ppm = parts per million, or milligrams per liter (mg/l)

ppb = parts per billion, or micrograms per liter (µg/l) n/a = not applicable

nd = not detectable at testing limits

Regulated Contaminants

| <u>Inorganic</u> | <u>Sample Year Or Collection Date</u> | <u>Units</u> | <u>MCL</u> | <u>MCLG</u> | <u>Highest Value</u> | <u>Range</u> | <u>Violation</u> | <u>Major Sources</u> |
|---------------------------------|---------------------------------------|--------------|------------|-------------|----------------------|--------------|------------------|---|
| Arsenic | 9/14/2009 | ppb | 10.000 | | 1.59 | 1.59 | NO | Erosion of natural deposits |
| Barium | 9/14/2009 | ppm | 2 | 2 | 0.335 | 0.17 - 0.335 | NO | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits |
| CIS-1,2-Dichloroethylene | 4/21/2011 | ppb | 70 | 70 | 1.52 | 0.0 – 1.52 | NO | Discharge from Industrial Chemical Factories |
| Dichloromethane | 10/26/2011 | ppb | 5 | 0 | 0.61 | 0.0 – 0.61 | NO | Discharge from pharmaceutical and chemical factories |
| Fluoride | 9/14/2009 | ppm | 4 | 4 | 1.34 | 1.03 – 1.34 | NO | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories |
| Tetrachloroethylene | 10/26/2011 | ppb | 5 | 0 | 4.29 | 0.0 – 4.29 | NO | Discharge from factories and dry cleaners |
| Trichloroethylene | 7/22/2011 | ppb | 5 | 0 | 0.85 | 0.0 – 0.85 | NO | Discharge from metal degreasing sites and other factories |
| <u>Disinfection By-Products</u> | <u>Monitoring Period</u> | <u>Units</u> | <u>MCL</u> | <u>MCLG</u> | <u>RAA</u> | <u>Range</u> | <u>Violation</u> | <u>Major Sources</u> |
| TTHMs [Total Trihalomethanes] | 2011 | ppb | 80 | 0 | 10 | 13.1 | NO | By-product of drinking water chlorination |

| <u>Copper/Lead</u> | Collection Period | Units | Range | AL | 90 th Percentile | Sites exceeding AL | Violation | Major Sources |
|------------------------|---|---|----------------|--------|-----------------------------|--------------------------------------|-----------|--|
| Copper | 2008 - 2010 | ppm | 0.0313 – 0.341 | AL=1.3 | 0.218 | 0 | NO | Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives |
| Lead | 2008 - 2010 | ppb | 1.01 – 22.5 | 15 | 3.36 | 1 | NO | Corrosion of household plumbing systems; Erosion of natural deposits |
| <u>Microbiological</u> | Result | MCL | | | MCLG | Typical Source | | |
| Coliform, Total (TCR) | No Detected Results were found in the Calendar Year of 2011 | MCL: Systems that collect less than 40 samples per month – No more than 1 positive monthly sample | | | 0 | Naturally present in the environment | | |

Violations and Health Effects Information

During the 2011 calendar year, we had the below noted violations of drinking water regulations.

| Type | Category | Analyte | Compliance Period |
|---|----------|---------|-------------------|
| No Violations Occurred in the Calendar Year of 2011 | | | |

Coliforms 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. There are no additional required health effects violation notices.

Unregulated Contaminants

Our water system participated in the Unregulated Contaminant Monitoring required by the Environmental Protection Agency (EPA). This special monitoring helps EPA decide if new contaminants of concern are found in drinking water at levels that need to be controlled. If no contaminants are listed in this section of the report, then we did not detect any of these unregulated contaminants in our water. If you want to review the individual results of the monitoring, please contact the Board of Municipal Utilities at (573)471-3328.

Uncorrected Significant Deficiencies: NONE

Optional Contaminants

EPA does not require monitoring for optional contaminants.

| <u>Inorganic</u> | Sample Year or Date | Units | Highest Value | Range | MCL | MCLG |
|---|---------------------|-------|---------------|-------------------|------|------|
| Alkalinity, CaCO ₃ Stability | 9/14/2009 | ppm | 208 | 155 – 208 | | |
| Alkalinity, Total | 9/12/2006 | ppm | 203 | 181 - 203 | | |
| Calcium | 9/14/2009 | ppm | 57.6 | 39.1 – 57.6 | | |
| Chloride | 9/14/2009 | ppm | 14 | 14 | 250 | |
| Hardness, Carbonate | 9/14/2009 | ppm | 190 | 133 – 190 | | |
| Iron | 9/14/2009 | ppm | 0.0181 | 0.0181 | 0.3 | |
| Magnesium | 9/14/2009 | ppm | 11.1 | 8.56 – 11.1 | | |
| Manganese | 9/14/2009 | ppm | 0.00541 | 0.00541 | 0.05 | |
| PH | 9/14/2009 | PH | 7.47 | 7.26 – 7.47 | 8.5 | |
| Potassium | 9/14/2009 | ppm | 2.23 | 1.75 – 2.23 | | |
| Sodium | 9/14/2009 | ppm | 7.18 | 6.28 – 7.18 | | 20 |
| Sulfate | 9/14/2009 | ppm | 23.6 | 12.7 – 23.6 | 250 | |
| Total Dissolved Solids (TDS) | 9/14/2009 | ppm | 245 | 167 – 245 | 500 | |
| Zinc | 9/14/2009 | ppm | 0.00722 | 0.00531 – 0.00722 | 5 | |



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Additional Health Information

To ensure that tap water is safe to drink, EPA prescribes limits on the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled 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 storm 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, 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.

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). Water Quality Data for community water systems throughout the United States is available at www.waterdata.com.