



ANNUAL WATER QUALITY REPORT



Water testing performed in 2004

PWS ID#: KY0930333

## Continuing Our Commitment

Once again we proudly present our annual water quality report. This edition covers all testing completed from January through December 2004. We are pleased to tell you that our compliance with all state and federal drinking water laws remains exemplary. As in the past, we are committed to delivering the best quality drinking water. To that end, we remain vigilant in meeting the challenges of source water protection, water conservation, and community education while continuing to serve the needs of all of our water users.



For more information about this report, or for any questions relating to your drinking water, please call Phillip Ward, Superintendent, at (502) 222-1690, or visit the Web site at <http://www.oldhamcountywater.com/>.

## Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. We meet the first Tuesday of each month beginning at 7:00 p.m. at the Buckner Office, 3707 W. Hwy. 146, LaGrange, Kentucky.



## Important Health Information

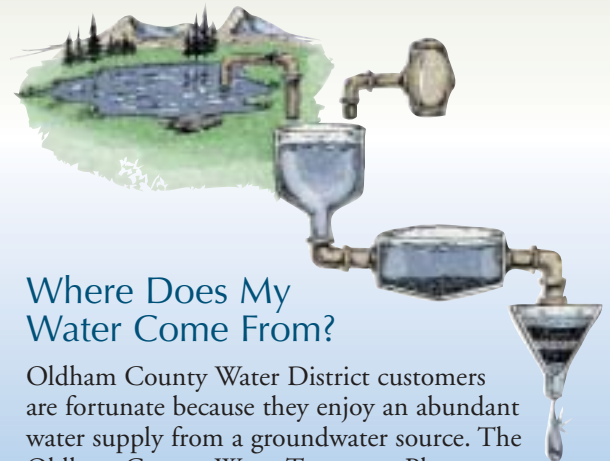
Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791.

## Working Hard For You

Under the Safe Drinking Water Act (SDWA), the U.S. Environmental Protection Agency (U.S. EPA) is responsible for setting national limits for hundreds of substances in drinking water and also specifies various treatments that water systems must use to remove these substances. Each system continually monitors for these substances and reports to the U.S. EPA if they were detected in the drinking water. The U.S. EPA uses these data to ensure that consumers are receiving clean water.



This publication conforms to the regulation under SDWA requiring water utilities to annually provide detailed water quality information to each of their customers. We are committed to providing you with this information about your water supply because customers who are well informed are our best allies in supporting improvements necessary to maintain the highest drinking water standards.



## Where Does My Water Come From?

Oldham County Water District customers are fortunate because they enjoy an abundant water supply from a groundwater source. The Oldham County Water Treatment Plant draws water from the Ohio River alluvium, which holds several billion gallons of water. The Oldham County Water Treatment Plant was constructed in 1981 to draw from this underground water supply. This groundwater supply is constantly being replenished with water from the Ohio River along with natural trans-evaporation. The treatment facility provides roughly 1.5 billion gallons of clean drinking water every year.

## Water Conservation Tips

Water conservation measures are an important first step in protecting our water supply. Such measures not only save the supply of our source water, but can also save you money by reducing your water bill. Here are a few suggestions:

Conservation measures you can use inside your home:	You can conserve outdoors as well:
<ul style="list-style-type: none"><li>• Fix leaking faucets, pipes, toilets, etc.</li><li>• Replace old fixtures; install water-saving devices in faucets, toilets and appliances.</li><li>• Wash only full loads of laundry.</li><li>• Do not use the toilet for trash disposal.</li><li>• Take shorter showers.</li><li>• Do not let the water run while shaving or brushing teeth.</li><li>• Soak dishes before washing.</li><li>• Run the dishwasher only when full.</li></ul>	<ul style="list-style-type: none"><li>• Water the lawn and garden in the early morning or evening.</li><li>• Use mulch around plants and shrubs.</li><li>• Repair leaks in faucets and hoses.</li><li>• Use water-saving nozzles.</li><li>• Use water from a bucket to wash your car, and save the hose for rinsing.</li></ul>

Information on other ways that you can help conserve water can be found at [www.epa.gov/safewater/publicoutreach/index.html](http://www.epa.gov/safewater/publicoutreach/index.html).



### What Makes Water "Hard"?

If substantial amounts of either calcium or magnesium, both nontoxic minerals, are present in drinking water, the water is said to be "hard". Hard water does not dissolve soap readily, so making a lather for washing and cleaning is difficult. Conversely, water containing little calcium or magnesium is called "soft" water.

### Well Head Protection Plan

The purpose of managing a well head protection area is to minimize the impact of land uses that threaten the quality and quantity of the public's drinking water supply. The underlying theme is simply to prevent pollution. Preventing pollution is the key to keeping groundwater supplies safe and protecting health. Once a drinking water supply becomes contaminated, the community is faced with the difficult and costly task of installing additional treatment facilities or locating an alternate source.

The Water District's Well Head Protection Plan's Phase 1 and Phase 2 are complete. A copy can be picked up at our office at 3707 W. Hwy. 146, LaGrange, Kentucky, 40031. Or contact us by phone at (502) 222-1690.



## Substances That Might Be in Drinking Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems.

U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

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 can acquire naturally occurring minerals, in some cases, radioactive material; and substances resulting from the presence of animals or from human activity. Substances 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, or wildlife;

**Inorganic Contaminants**, such as salts and metals, which can be naturally occurring or may result from urban stormwater 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 stormwater runoff, and residential uses;

**Organic Chemical Contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and may also come from gas stations, urban stormwater runoff, and septic systems;

**Radioactive Contaminants**, which can be naturally occurring or may be the result of oil and gas production and mining activities.

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 may be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at (800) 426-4791.



## Is it Safe to Drink Water From a Garden Hose?

**No.** Substances used in vinyl garden hoses to keep them flexible can get into the water as it passes through the hose. These chemicals are not good for you nor are they good for your pets. Allow the water to run for a short time in order to flush the hose before drinking or filling your pets' drinking containers. There are hoses made with food-grade plastic that will not contaminate the water. Check your local hardware store for this type of hose.

## Contamination from Cross-Connections

Cross-connections that could contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air conditioning systems, fire sprinkler systems, irrigation systems), or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand) causing contaminants to be sucked out from the equipment and into the drinking water line (backsiphonage).



Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or when attached to a chemical sprayer for weed killing. Fertilizers, cesspools, or garden chemicals may contaminate garden hoses that are left lying on the ground. Improperly installed valves in your toilet could also be a source of cross-connection contamination.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. We have surveyed all industrial, commercial, and institutional facilities in the service area to make sure that all potential cross-connections are identified and eliminated or protected by a backflow preventer. We also inspect and test each backflow preventer to make sure that it is providing maximum protection.

For more information, visit the Web site of the American Backflow Prevention Association ([www.abpa.org](http://www.abpa.org)) for a discussion of current issues.

### Information on the Internet

The U.S. EPA Office of Water ([www.epa.gov/watrhome](http://www.epa.gov/watrhome)) and the Centers for Disease Control and Prevention ([www.cdc.gov](http://www.cdc.gov)) Web sites provide a substantial amount of information on many issues relating to water resources, water conservation and public health. Also, the Kentucky Division of Water Drinking Water Branch has a Web site ([www.water.ky.gov/dw](http://www.water.ky.gov/dw)) that provides complete and current information on water issues in our own state.

## Sampling Results

During the past year we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. Although all of the substances listed here are under the Maximum Contaminant Level (MCL), we feel it is important that you know exactly what was detected and how much of the substance was present in the water.

### REGULATED SUBSTANCES

SUBSTANCE (UNITS)	YEAR SAMPLED	MCL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Fluoride (ppm)	2004	4	4	1.03	0.94-1.11	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
TTHMs [Total Trihalomethanes] (ppb)	2004	80	0	18.3	10.5-20.2	No	By-product of drinking water disinfection
Turbidity (NTU)	2004	TT	NA	1.08	0.05-1.08	No	Soil runoff

### Tap water samples were collected for lead and copper analyses from homes throughout the service area

SUBSTANCE (UNITS)	YEAR SAMPLED	ACTION LEVEL	MCLG	AMOUNT DETECTED (90th%TILE)	HOMES ABOVE ACTION LEVEL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2004	1.3	1.3	0.717	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2004	15	0	6.3	0	No	Corrosion of household plumbing systems; Erosion of natural deposits

## Table Definitions

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

**MCL (Maximum Contaminant Level):** 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.

**MCLG (Maximum Contaminant Level Goal):** 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.

**NA:** Not applicable

**NTU (Nephelometric Turbidity Units):** Measurement of the clarity, or turbidity, of water.

**ppb (parts per billion):** One part substance per billion parts water (or micrograms per liter).

**ppm (parts per million):** One part substance per million parts water (or milligrams per liter).

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



## Lead in Drinking Water

Lead is a naturally occurring element in our environment. Consequently, our water supply is expected to contain small, undetectable amounts of lead. However, most of the lead in household water usually comes from the plumbing in your own home, not from the local water supply. The U.S. EPA estimates that more than 40 million U.S. residents use water that can contain lead in excess of EPA's Action Level of 15 ppb.

Lead in drinking water is a concern because young children, infants and fetuses appear to be particularly vulnerable to lead poisoning. A dose that would have little effect on an adult can have a big effect on a small body. On average, it is estimated that lead in drinking water contributes between 10 and 20 percent of total lead exposure in young children.

All kinds of water, however, may have high levels of lead. We maintain our drinking water supply at an optimum pH and mineral content level to help prevent corrosion in your home's pipes. To reduce lead levels in your drinking water you should flush your cold-water pipes by running the water until it becomes as cold as it will get (anywhere from 5 seconds to 2 minutes or longer) and use only water from the cold-water tap for drinking, cooking, and especially for making baby formula. Hot water is likely to contain higher levels of lead.

For more information, please contact National Lead Information Center (800-LEAD-FYI) and the Safe Drinking Water Hotline (800-426-4791).

