

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. The state requires us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES							
SUBSTANCE (UNITS)	YEAR SAMPLED	MCL	MCLG	AMOUNT DETECTED	RANGE (LOW-HIGH)	VIOLATION	TYPICAL SOURCE
Fluoride (ppm)	2003	4	4	1.05	0.99-1.12	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
TTHMs [Total Trihalomethanes] (ppb)	2003	80	NA	15.2	16.3-21.8	No	By-product of drinking water disinfection
Turbidity (NTU) ¹	2003	TT	NA	0.43	0.08-0.43	No	Soil runoff

Tap water samples were collected for lead and copper analyses from 31 homes throughout the service area

SUBSTANCE (UNITS)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH%TILE)	HOMES ABOVE AL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2001	1.3	1.3	0.5615	0	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	2001	15	0	5.6	0	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

¹ Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality and the effectiveness of disinfectants.



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.

MTBE in the News

MTBE (methyl-t-butyl ether) belongs to a group of chemicals commonly known as fuel oxygenates. Oxygenates are added to gasoline to reduce carbon monoxide and ozone levels in the air caused by auto emissions.

MTBE contamination of drinking water sources may result from leaking fuel storage tanks, pipelines, refueling spills, consumer disposal of "old" gasoline, emissions from older marine engines, and to a lesser degree, stormwater runoff and precipitation mixed with MTBE in the air. Currently, the primary concern about MTBE in drinking water is that it causes taste and odor problems. There are no data showing significant health risks of MTBE at low-exposure levels in drinking water; however, it is a potential human carcinogen at high doses. In December 1997, the U.S. EPA issued a drinking water advisory stating that it is unlikely that MTBE in drinking water at concentrations of 20 to 40 ppb will cause adverse health effects. Continuing research by the U.S. EPA and others is expected to help determine more precisely the potential for adverse health effects from MTBE in drinking water.

In an effort to better balance the air-quality benefits and water-quality concerns associated with oxygenates in gasoline, the U.S. EPA now requires reducing or eliminating MTBE as a fuel oxygenate. Also, the Agency is considering setting health standards for MTBE and is currently gathering information from utilities across the country on the occurrence of MTBE. For a more complete discussion, visit the U.S. EPA's MTBE Web site at www.epa.gov/mtbe/faq.htm.

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.



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. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools or garden chemicals. 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) for a discussion on current issues.



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 include:

- Fix leaking faucets, pipes, toilets, etc.
- Replace old fixtures; install water-saving devices in faucets, toilets and appliances.
- Wash only full loads of laundry.
- Do not use the toilet for trash disposal.
- Take shorter showers.
- Do not let the water run while shaving or brushing teeth.
- Soak dishes before washing.
- Run the dishwasher only when full.

You can conserve outdoors as well:

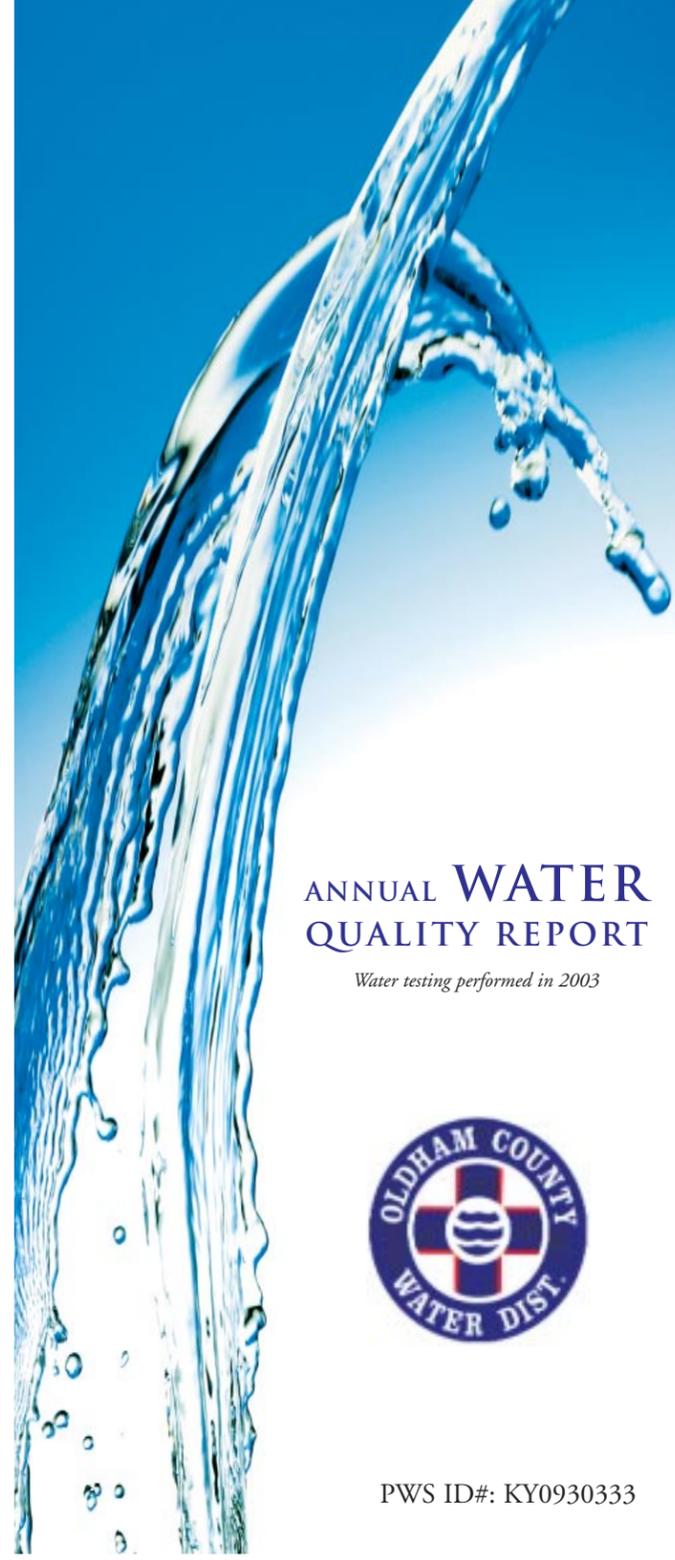
- Water the lawn and garden in the early morning or evening.
- Use mulch around plants and shrubs.
- Repair leaks in faucets and hoses.
- Use water-saving nozzles.
- Use water from a bucket to wash your car, and save the hose for rinsing.

Information on other ways that you can help conserve water can be found at www.epa.gov/safewater/publicoutreach/index.html.



Oldham County Water District
3707 West Hwy 146
LaGrange, KY 40031

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ANNUAL WATER QUALITY REPORT

Water testing performed in 2003



PWS ID#: KY0930333

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 (U.S. Environmental Protection Agency)/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.

Where Does My Water Come From?

The Oldham County Water District customers are fortunate because we 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 1983 to draw from this underground water supply. This groundwater supply is constantly being replenished from the Ohio River along with natural trans- evaporation. The treatment facility provides roughly 1.2 billion gallons of clean drinking water every year.

Additional information can be obtained at www.uky.edu/KGS/water/library/webintro.html (select Oldham County).

Wellhead Protection Plan

The Water District's Wellhead Protection Plan Phase 1 and Phase 2 are complete. A copy can be picked up at our office at 3707 West Hwy 146, LaGrange, KY 40031; or call (502) 222-1690.

The purpose behind managing a wellhead 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 to protect 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.

A total of 201 potential sources of contamination have been located within the wellhead protection areas. The majority of potential contaminant sources are classified as medium risk.

The high risk associated with this aquifer includes 12 above ground storage tanks and tobacco crop areas, which cross into WHPA 1.

The rest of the potential contaminant sources were ranked as medium risk, most of which are septic systems. There are no low risk sources. Therefore, since the majority of potential contaminant sources possess a medium risk, the aquifer has been determined to have a medium risk. This risk ranking is influenced by the nature of the aquifer that has a medium sensitivity value, the nature of the potential contaminant sources, and water quality results.

Continuing Our Commitment

Once again we proudly present our annual water quality report. This edition covers all testing completed from January through December 2003. 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.

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 p.m. at the Water District Office, 3707 West Hwy 146, LaGrange, KY.

