

Morehead Utility Plant Board

2013 Water Quality Report

PWSID KY1030292

General Information

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Web Site: www.mupb.com

Monthly Meeting: Last Monday of each month at 12:00 p.m. at the MUPB Main Office

We are pleased to present the 2013 Annual Drinking Water Quality Report to our valued customers. This report is designed to inform the public about the quality of the water MUPB delivers every day. Our goal is to provide you with a safe and reliable supply of drinking water. We want you to be aware of the efforts that are continually made to improve the water treatment process.

Our water source is the Licking River. The Licking River is a surface water source. The intake is located in Rowan County. The Morehead Utility Plant Board is committed to ensuring the highest quality of drinking water. Our water quality meets or exceeds all local, state, and federal regulations.

The Morehead Utility Plant Board routinely monitors for contaminants in your drinking water in compliance with federal and state laws. The following pages include a table that explains the results of our monitoring for the period of January 1 to December 31, 2013

Activities and land uses upstream of the Morehead Utility Plant Board's source water can pose potential risks to your drinking water. Under certain circumstances, contaminants could be released that would pose challenges to water treatment or even get into your drinking water. These activities, and how they are conducted, are of interest to the entire community because they potentially affect your health and the cost of treating your water. Activities immediately upstream of your water supply intake are of special concern because they provide little response time to the water system operators. An analysis of the susceptibility of the Morehead Utility Plant Board's raw water supply to contamination indicates that the susceptibility potential is generally moderate. There are a few areas of high concern near the raw water withdrawal site. Farming sites located in the area present the possibility for the impact from the application of pesticides and fertilizer. Bridges and major road ways used to access the Cave Run Lake recreational area also pose a threat to the intake should an accidental release of a harmful substance be introduced into the water source. Another source of potential concern in the critical protection area is a small wastewater package treatment plant located in the area. What used to be a small commercial airport is now a cattle field. Other sites of medium concern include a marina, a fish hatchery, the presence of an underground storage tank and a small grocery/gas station, and a manufacturing industry. The complete Source Water Assessment is available at the Water Treatment Plant for inspection.

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 dissolves naturally occurring minerals and, in some cases, radioactive material. It can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

- a.) microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- b.) inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, and 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, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water that shall provide the same protect for public health.

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 the water poses a health risk. More information about contaminants and potential health effects may be obtained by calling the Environmental Protection Agency's (EPA) 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 systems disorders, some elderly, and infants can be particularly at risk from infections. These people should seek medical 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).

If present, elevated levels of lead can cause serious problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Morehead Utility Plant Board is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>

[A list of definitions has been provided to assist you with understanding the report.](#)

Este informe contiene información importante sobre su agua potable. Pida que alguien traducir para usted, o hablar con alguien que lo entiende.

Treated Water Quality Summary

PWSID KY1030292

Notice:

Please post where all occupants or employees will see.

PARTICULATE TEST RESULTS

	Allowable Levels	Highest Single Measurement	Lowest Monthly %	Violation Y/N	Likely Source
Turbidity	Never more than 1 NTU. Less than 0.3 NTU 95% of samples (All other filters) (TT).	7.6 NTU	97	Y	Soil Runoff

Turbidity has no health effects. However, turbidity can interfere with disinfections and provide a medium for microbial growth. Turbidity is a measure of treatment performance and is regulated as a treatment technique. Turbidity is measured in Nephelometric turbidity units (NTU), and is a measure of the clarity of the water. Turbidity in the excess of 5 NTU is just noticeable to the average person.

Contaminant [Code] (units)	MCL	MCLG	Highest Detection	Range	Date of Sample	Violation	Likely Source of Contamination
Total Organic Carbon (ppm) Measured as (ppm) reported in Ratio	TT	N/A	1.44 Lowest Average	1.06-2.04 (Monthly Ratios)	N/A	N	Naturally present in environment
Haloacetic Acids (HAA5) (ppb)	60	N/A	47 Annual Average	29-74	N/A	N	Naturally present in environment
TTHM [total trihalomethanes] (ppb)	80	N/A	Average 67	34-122	N/A	N	By-product of drinking water chlorination.
Chlorine (ppm)	MRDL 4	MRDLG 4	.88 (annual avg.)	.35-1.66	3rd Quarter 2013	N	Water additive used to control microbes

* Monthly ratio is %TOC removal achieved to the % TOC removal required. Annual average of the monthly ratios must be 1.00 or greater for compliance.

INORGANIC CONTAMINANTS

Barium [1010] (ppm)	2	2	0.018	0.018-0.018	03-13	N	Discharge of drilling waste, Discharge from metal refineries, Erosion of natural deposits.
Fluoride [1025] (ppm)	4	4	1.08	.63-1.71	10-13	N	Erosion of natural deposits; water additive, which promotes strong teeth; discharge from fertilizer and aluminum factories.
Copper [1022] (ppm) 0 site> al	1.3	1.3	90th Percentile 0.300	0.010-0.416	07-12	N	Corrosion of household plumbing system; erosion of natural deposits; leeching from wood preservatives.
Lead [1030] (ppb) 2 site> al	AL=15	0	4 90th Percentile	2-43	07-12	N	Corrosion of household plumbing systems
Nitrate (as Nitrogen) [1040] (ppm)	10	10	.300	0.300-0.300	03-13	N	Runoff from fertilizer use; leeching from septic tanks, sewage; erosion of natural deposits.
Radium [4030]	5	0	0.70	0.7-0.7	4-08	N	Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta particle and photon radioactivity in excess of the MCL over many years may have an increased risk of getting cancer.

Definitions

Non-Detect (ND) – Laboratory analysis indicates that the contaminant is not present.

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

Maximum Contaminant Level (MCL) - MCL is the highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG as feasible using the best available treatment technologies.

Maximum Contaminant Level Goal (MCLG) - The "goal" (MCLG) is the level of a contaminant in drinking water below which there is known or expected risk to health. MCLG's allow for a margin of safety.

Nephelometric Turbidity Unit (NTU) - A unit of measurement used to measure the amount of turbidity in water.

Parts Per Million (ppm) – One part per million corresponds with one minute in two years or a single penny in \$10,000.

Parts Per Billion (ppb) – One part per billion corresponds with one minute in 2,000 years or one penny in \$10,000,000.

Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Goal (MRDLG) - The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of use of disinfectants to control microbial contaminants.

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

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER
MOREHEAD UTILITY PLANT BOARD
Monitoring Requirements Not Met**

On February of 2013 we became aware that our system recently failed to collect the correct number of drinking water samples. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we are doing to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During February 2013 we did not complete all monitoring or testing for chlorine and therefore cannot be sure of the quality of our drinking water during that time.

What Happened?

The chlorine sample were taken daily but 2 of the samples were not recorded on the Monthly Operators Report

What should I do?

There is nothing you need to do. You do not need to boil your water or take other corrective actions. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

What is being done?

There is nothing that needs to be done at this time. It was only a monitoring error.

For more information, please contact: Mike Nickell
135 SOUTH WILSON AVE.
MOREHEAD KY 40351
783-5538

ddavis @ mupb.com

www.mupb.com

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by: MOREHEAD UTILITY PLANT BOARD
Public Water System ID #: KY1030292

Date 3/24/2014

Spanish - Este informe contiene información muy importante sobre la calidad de su agua beber. Tradúzcalo o hable con alguien que lo entienda bien.

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER
MOREHEAD UTILITY PLANT BOARD
Monitoring Requirements Not Met**

Our water system violated one or more drinking water standards over the past year. Even though these were not emergencies, as our customers, you have a right to know what happened and what we did to correct these situations.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the 4th Quarter of 2013 we did not complete all monitoring or testing for TTHM and HAA5 and therefore cannot be sure of the quality of our drinking water during that time.

What should I do?

There is nothing you need to do at this time.

The table below lists the contaminant(s) we did not properly test for during the last year, how often we are supposed to sample for [this contaminant/these contaminants] and how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date on which follow-up samples were (or will be) taken.

Contaminant	Required sampling frequency	Number of samples taken	Samples should have been taken	When samples were or will be taken
TTHM & HAA5	Quarterly	3	4th Quarter 2013	Feb-14

What happened? Who is at risk? What is being done?

All 4 sites were sampled, and all 4 sites passed testing, but one site had an incorrect site code on it. Site sample was resubmitted, but we still received a monitoring violation. There is nothing else to be done at this time

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**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER
MOREHEAD UTILITY PLANT BOARD
Did Not Meet Treatment Requirements**

Our water system recently violated a drinking water standard. Although this was not an emergency, as our customers, you have a right to know what happened, what you should do, and what we did to correct this situation.

We routinely monitor your water for turbidity (cloudiness). This tells us whether we are effectively filtering the water supply.

A water sample taken 12/6/2013 showed turbidity levels of 7.6 turbidity units.

This is above the standard of 0.3 turbidity units. Our normal level is 0.075 turbidity units.

Because of these high levels of turbidity, there is an increased chance that the water may contain disease-causing organisms.

What should I do?

You do not need to boil your water or take other actions. We do not know of any contamination, and none of our testing has shown disease-causing organisms in the drinking water.

People with severely compromised immune systems, infants, and some elderly may be at increased risk. These people should seek advice about drinking water from their health care providers. General guidelines on ways to lessen the risk of infection by microbes are available from EPA's Safe Drinking Water Hotline at 1 (800) 426-4791.

What does this mean?

This is not an emergency. If it had been, you would have been notified immediately. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease causing organisms. These organisms include bacteria, viruses, and parasites which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. These symptoms are not caused only by organisms in drinking water. If you experience any of these symptoms and they persist, you may want to seek medical advice.

What happened? What is being done? When will the system return to compliance?

Late evening, December 6, 2013, the water plant was out of compliance for finished water turbidity due to a mechanical failure which was quickly identified and repaired. The water plant is back in compliance as of early afternoon December 7, 2013. The entire water system was flushed, sampling completed and was back in full compliance. The boil water advisory was lifted early morning December 11, 2013 after lab testing was completed.

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