

EPB OF THE CITY OF VANCEBURG

Water Quality Report

January 1 through December 31, 2013

PWSID # KY-0680438



Water - essential for life

We are pleased to present this Annual Water Quality Report. This report is designed to inform the public about the quality of water and services provided on a daily basis. Our commitment is to provide our customers with a safe, clean, and reliable supply of drinking water. We would like the public to be assured that we will continue to monitor, improve, and protect the water system and deliver a high quality water direct from the tap. We know that water is the most indispensable product in every home and we ask everyone to be conservative and help us in our efforts to protect the water source and the water system. Please report any activity that might jeopardize the water supply.

The Electric Plant Board of the City of Vanceburg purchases its water for approximately four water taps on Old Trace Road near the Carter County and Lewis County line from the Rattlesnake Ridge Water District. The Rattlesnake Ridge Water District withdraws water from Grayson Lake which is surface water. They also purchase a small amount from the City of Grayson that withdraws from the Little Sandy River. An analysis of the susceptibility of our water supply to contamination indicates that this susceptibility is generally moderate. The single area of concern is the permitted and monitored sewage treatment facility at Grayson Lake State Park. Agricultural activity in this watershed is negligible and, therefore, the use of pesticides and herbicides and the danger of runoff contamination thereby is greatly reduced. The threat posed by major roadways in the protection area in the event of accidental release of contaminants, though it exists, is moderate. A copy of the Rattlesnake Ridge Water District's water source assessment can be obtained at their office.

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 (800-426-4791).

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, and may pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include: Microbial contaminants, such as viruses and bacteria, (sewage plants, septic systems, livestock operations, or wildlife). Inorganic contaminants, such as salts and metals, (naturally occurring or from stormwater runoff, wastewater discharges, oil and gas production, mining, or farming). Pesticides and herbicides, (stormwater runoff, agriculture or residential uses). Organic Chemical Contaminants, including synthetic and volatile organic chemicals, (by-products of industrial processes and petroleum production, or from gas stations, stormwater runoff, or septic systems). Radioactive contaminants, (naturally occurring or from oil and gas production or 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 to 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).

Some or all of these definitions may be found in this report:

Maximum Contaminant Level (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 (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.

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

Below Detection Levels (BDL) - laboratory analysis indicates that the contaminant is not present.

Not Applicable (N/A) - does not apply.

Parts per million (ppm) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) - or micrograms per liter, (µg/L). One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Parts per trillion (ppt) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

Parts per quadrillion (ppq) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.

Picocuries per liter (pCi/L) - a measure of the radioactivity in water.

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

Million Fibers per Liter (MFL) - a measure of the presence of asbestos fibers that are longer than 10 micrometers.

Nephelometric Turbidity Unit (NTU) - a measure of the clarity of water. Turbidity has no health effects. However, turbidity can provide a medium for microbial growth. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system.

Variations & Exemptions (V&E) - State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

Action Level (AL) - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system shall follow.

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

Questions

?	System Manager DANNY ENIX 606-796-2641 P.O. BOX 489, VANCEBURG, KENTUCKY 41179	CCR Contact DANNY ENIX 606-796-2641
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Wish to attend our meetings? Regular meetings are held: 2ND TUESDAY OF EACH MONTH 6:00 P.M. ELECTRIC PLANT BOARD ADMINISTRATIVE OFFICE
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The data presented in this report are from the most recent testing done in accordance with administrative regulations in 401 KAR Chapter 8. As authorized and approved by EPA, 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. Some of the data in this table, though representative, may be more than one year old. Unless otherwise noted, the report level is the highest level detected.

	Allowable Levels	Highest Single Measurement	Lowest Monthly %	Violation	Likely Source		
Turbidity (NTU) TT * Representative samples of filtered water	No more than 1 NTU* Less than 0.3 NTU in 95% of monthly samples	0.05	100	N	Soil runoff		
Regulated Contaminant Test Results							
Contaminant [code] (units)	MCL	MCLG	Report Level	Range of Detection	Date of Sample	Violation	Likely Source of Contamination
Total Coliform Bacteria # or % positive samples	5%	0	3	N/A	Sep-13	YES	Naturally present in the environment
Radioactive Contaminants							
Alpha emitters [4000] (pCi/L)	15	0	0.70	0.7 to 0.7	Jan-08	No	Erosion of natural deposits
Uranium (µg/L)	30	0	1.00	1 to 1	Mar-10	No	Erosion of natural deposits
Inorganic Contaminants							
Copper [1022] (ppm) sites exceeding action level 0	AL = 1.3	1.3	0.06 (90 th percentile)	0 to 0.14	Aug-13	No	Corrosion of household plumbing systems
Fluoride [1025] (ppm)	4	4	0.88	0.88 to 0.88	Apr-13	No	Water additive which promotes strong teeth
Nitrate [1040] (ppm)	10	10	0.200	0.2 to 0.2	Apr-13	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Disinfectants/Disinfection Byproducts and Precursors							
Total Organic Carbon (ppm) (measured as ppm, but reported as a ratio)	TT*	N/A	1.13 (lowest average)	1.00 to 1.53 (monthly ratios)	1stQrt2013	No	Naturally present in environment.
*Monthly ratio is the % TOC removal achieved to the % TOC removal required. Annual average of the monthly ratios must be 1.00 or greater for compliance.							
Chlorine (ppm)	MRDL = 4	MRDLG = 4	1.23 (highest average)	0.5 to 1.76	4thQrt2013	No	Water additive used to control microbes.
HAA (ppb) (all sites) [Haloacetic acids]	60	N/A	32 (system average)	4 to 59 (range of system sites)	1stQrt2013	No	Byproduct of drinking water disinfection
HAA (ppb) [Haloacetic acids] (Individual Sites)	60	N/A	41 4thQrt 2013	37 to 52 (range of individual sites)	4thQrt2013	No	Byproduct of drinking water disinfection
TTHM (ppb) (all sites) [total trihalomethanes]	80	N/A	33 (system average)	7 to 44 (range of system sites)	1stQrt2013	No	Byproduct of drinking water disinfection.
TTHM (ppb) [total trihalomethanes] (Individual Sites)	80	N/A	46 4thQrt 2013	32 to 52 (range of individual sites)	4th Qrt2013	No	Byproduct of drinking water disinfection.

The Electric Plant Board of the City of Vanceburg received notification that Rattlesnake Ridge Water District violated one or more drinking water standards over the past year. Even though these events were not emergencies, as our customers, you have a right to know what happened and what Rattlesnake Ridge Water District 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 in indicator of whether or not our drinking water meets health standards. During 6/01/2013 to 06/30/2013 (Chlorine and Carbon, Total), 11/01/2013 to 11/30/2013 (Chlorine) Rattlesnake Ridge Water District not complete all monitoring or testing for Chlorine and Carbon Total and therefore cannot be sure of the quality of the drinking water purchased from Rattlesnake Ridge Water District during that time.

There is nothing you need to do at this time. You do not need to use an alternative (e.g., bottled) water supply.

The table below lists the contaminants that Rattlesnake Ridge Water district did not properly test for during the last year, how often they are supposed to sample for Chlorine and Carbon Total and how many samples they are supposed to take, how many samples they took, when the samples should have been taken, and the date on which follow-up samples were/will be taken.

Contaminant	Required Sampling Frequency	Number of Samples Taken	Samples Should have Been Taken	When Samples Were or Will Be Taken
Chlorine	Daily	30	30	They Are All Taken
Carbon Total	Once a Month	Once a Month	Once a Month	They Are All Taken
Chlorine	Daily	30	30	They Are All Taken

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

On both dates of the Chlorine violations and when the Carbon Total was taken, data was not entered correctly, but all samples were taken by the operator. The operator failed to enter the data correctly on the MOR's. Nobody is at risk of all three violations. The operator has been properly trained to enter the data correctly in the future.

Please share this information with all the people who drink this water, especially those who may or 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.

The Electric Plant Board of the City of Vanceburg received a notice that Rattlesnake Ridge Water District received a violation for Coliform for the compliance period of 09/01/2013 to 09/30/2013. After further testing of these sites, all showed absence of coliform bacteria (clean samples). All the samples were taken from outside faucets. **Total Coliform:** Coliforms 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 warning of potential harmful bacteria.

Information About Lead:

If present, elevated levels of lead can cause serious health 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. Your local public water system 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 your tap 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>.