

U.S. Army Garrison, Aberdeen Proving Ground (APG) Edgewood Area (PWSID: 0120010)

DRINKING WATER QUALITY REPORT Calendar Year 2009



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Acronyms Used Throughout This Report:

AL	Action Level
APG	Aberdeen Proving Ground
DBP	Disinfection By-Products
DBPP	DBP Precursors
EPA	Environmental Protection Agency
HAA5	Haloacetic Acids
IOC	Inorganic Contaminants
L&C.....	Lead and Copper
M&T.....	Microorganisms & Turbidity
MCL.....	Maximum Contaminant Level
MCLG.....	Maximum Contaminant Level Goal
MDE.....	Maryland Department of the Environment
N/A.....	Not Applicable
ND	None Detected
NTU.....	Nephelometric Turbidity Unit
pCi/L.....	picocuries per liter
ppb.....	parts per billion
ppm.....	parts per million
RAD.....	Radionuclides
SDWA.....	Safe Drinking Water Act
SOC.....	Synthetic Organic Compounds
TT	Treatment Technique
TTHM.....	Total Trihalomethanes
UNREG.....	Unregulated Compounds
VOC.....	Volatile Organic Compounds

Contact Information:

Questions regarding the information contained in this report may be directed to the following:

- Mr. George Mercer – Public Affairs Office – (410) 278-1147
- Mr. Richard Wiggins – Directorate of Public Works – (410) 306-2279

About This Report

Once again, we are proud to present to you our annual drinking water quality report. This annual report concerning the quality of water delivered to the Edgewood Area of U.S. Army Garrison, Aberdeen Proving Ground for the period of January 1, 2009 through December 31, 2009 (except where noted). Under the “Consumer Confidence Reporting Rule” of the Federal Safe Drinking Water Act (SDWA), community water systems are required to report this water quality information to the consuming public. Presented in this report is information regarding the source of our water, its constituents and the health risks associated with any contaminants detected in quantities exceeding a drinking water regulatory maximum contaminant level (MCL), action level (AL), or treatment techniques (TT).

How Can Impurities Get in the Water Supply?

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 can 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, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic contaminants**, such as salts and metals, which can occur naturally or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- **Pesticides and herbicides**, which may occur from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can come from gas stations, urban storm water runoff, and septic systems.
- **Radioactive contaminants**, which can be naturally occurring or the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for bottled water, which must provide the same protection for public health.

Consumers should be aware that drinking water, including bottled water, might 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 EPA's Safe Drinking Water Hotline at (800-426-4791).



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Monitoring of Your Drinking Water

The drinking water being delivered to you is pumped from Winters Run and treated by the Van Bibber Water Treatment Plant located at Building E-6110 on Route 755 (Edgewood Road), Edgewood, MD 21040.

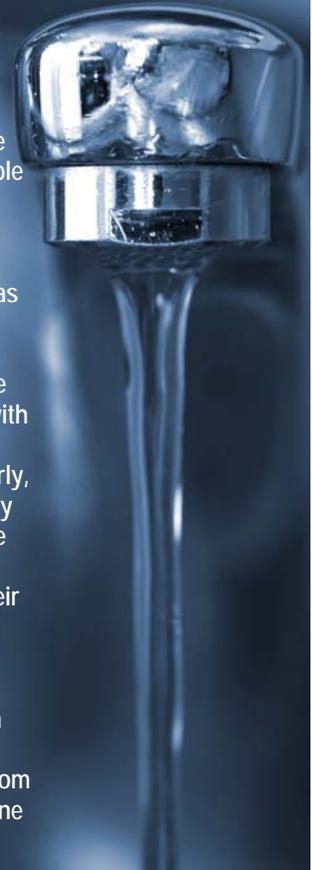
Our water system uses only EPA-approved laboratory methods to analyze your drinking water. Our personnel collect water samples from the distribution system and from the Van Bibber Water Treatment Plant. Samples are then shipped to the accredited laboratory where a full spectrum of water quality analyses is performed. The results are reported to the Maryland Department of the Environment (MDE). In the Edgewood Area, we monitor for the contaminant groups listed in TABLE 1 using EPA-approved methods. TABLE 1 also lists the monitoring frequencies for these contaminant groups.

TABLE 1. Contaminant Groups and Monitoring Frequency

Contaminant Group	Monitoring Frequency
Disinfection By-Products (DBP)	Quarterly
DBP Precursors (DBPP)	Monthly
Inorganic Contaminants (IOC)	Once Per Year
Lead and Copper (L&C)	Once Every 3 Years
Microorganisms & Turbidity (M&T)	Daily
Radionuclides (RAD)	Once Every 3 Years
Synthetic Organic Compounds (SOC)	Twice Per Year
Unregulated Contaminants (UNREG)	Once Every 5 Years
Volatile Organic Compounds (VOC)	Once Per Year

Special Health Information for Immuno-Compromised Persons:

We continually monitor the drinking water for contaminants. Our water is safe to drink. However, 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, persons with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These persons should seek advice about drinking water from their health care providers. EPA 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).



Definitions

- **Action Level (AL)**—The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.
- **Maximum Contaminant Level (MCL)**—The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLG as feasible using the best available treatment technology. Contaminants in drinking water, if detected, must be present in levels below the MCLs in order for the system to be in compliance with state and federal regulations.
- **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. Please note that MCLGs are goals and not regulatory limits. Public drinking water systems are not required to meet MCLGs.
- **Treatment Technique (TT)**—A required process intended to reduce the level of a contaminant in drinking water.

APG – Edgewood Area Water Quality Data (Van Bibber Water Treatment Plant)

TABLE 2 lists the only contaminants detected in the Edgewood Area drinking water distribution system during calendar year 2009 or, in some cases, during the most recent sampling period. We routinely monitor for a number of contaminants in the water supply to meet regulatory drinking water compliance requirements. TABLE 2 lists only those contaminants that had some level of detection. Your drinking water has been analyzed for many other contaminants as well, but they were not detected in the Edgewood Area drinking water distribution system during 2009 or the most recent sampling period.



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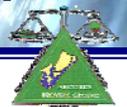


TABLE 2. Contaminants Detected in Edgewood Area Drinking Water During Calendar Year 2009

Substances We Detected (units)	Group	Level Detected	What's Allowed? (MCL)	Did We Exceed the Limit?	Range Detected	What's the Goal? (MCLG)	Typical Source of Contaminant
TTHM (ppb) ¹	DBP	76.0	80	NO	42 - 140	N/A	By-product of drinking water chlorination
HAA5 (ppb) ¹	DBP	35.6	60	NO	0 - 48.0	N/A	By-product of water chlorination
TOC (removal ratio) ²	DBPP	1.30	TT	NO	1.0-2.15	TT	Naturally present in the environment
Barium (ppm) ³	IOC	0.035	2	NO	N/A	2	Erosion of natural deposits
Nickel (ppm) ³	IOC	0.001	0.1	NO	N/A	N/A	Erosion of natural deposits
Fluoride (ppm) ³	IOC	0.60	4	NO	N/A	4	Water additive to promote strong teeth
Nitrate (ppm) ³	IOC	2.6	10	NO	N/A	10	Runoff from fertilizer use
Lead (ppb) ⁴	L&C	12	15 (AL)	NO	0	0	Corrosion of household plumbing systems
Copper (ppm) ⁴	L&C	0.21	1.3 (AL)	NO	0	1.3	Corrosion of household plumbing systems
Total Coliform (presence) ⁵	M&T	0	1	NO	0	0	Naturally present in the environment
Turbidity (NTU) ⁶	M&T	100%	TT	NO	0.01 -0.20	TT	Soil runoff
Gross Alpha (pCi/L) ⁷	RAD	0.43	15	NO	N/A	0	Erosion of natural deposits
Gross Beta (pCi/L) ⁷	RAD	3	50	NO	N/A	0	Decay of natural and manmade deposits
Radium-228 (pCi/L) ⁷	RAD	0.42	5	NO	N/A	0	Decay of natural and manmade deposits
Chlorine (ppm) ⁸	VOC	0.78	4	NO	ND-0.82	4	Water additive to control microbes

- ¹ The highest running annual average detected during 2009 is reported in the "Level Detected" column and the range of individual results is presented in the "Range Detected" column.
- ² Removal of DBPP is monitored by measuring Total Organic Carbon (TOC) before and after treatment and computing a removal ratio. A ratio > 1 indicates compliance with TOC removal requirements. The running annual average ratio for the Edgewood Area system is presented in the "Level Detected" column with the range of monthly running annual average ratios presented in the "Range Detected" column.
- ³ The detected level of these contaminants is presented in the "Level Detected" column. Because IOCs are monitored once per year, the range of detections is not applicable (N/A).
- ⁴ Compliance for these parameters is demonstrated by comparing the 90th percentile of results to the regulatory Action Level for each parameter. This 90th percentile value is reported to you in the "Level Detected" column. This value represents the concentration that ninety percent of the sites (not values) were below and the total number of individual sites that exceeded the Action Level are presented in the "Range Detected" column.
- ⁵ Total Coliform is monitored to ensure that the treatment system is performing properly and that the drinking water we supply is free of microbial contamination. For our water system, the MCL is one (1) positive coliform sample per month; during 2009 not a single sample tested positive.
- ⁶ Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. One hundred percent of the samples analyzed were below required levels; therefore this percentage is reported to you in the "Level Detected" column. The range of detected levels is presented in the "Range Detected" column.
- ⁷ The level of these contaminants that was detected during the last scheduled monitoring event (2007) is presented in the "Level Detected" column. Because these contaminants are monitored once every three years, the range of detections is not applicable.
- ⁸ Chlorine is added to our drinking water to control the presence of microorganisms. The standard by which compliance with chlorine levels is determined is called the maximum residual disinfectant level (MRDL). The MRDL is the level of a drinking water disinfectant below which there is no known or expected risk to health. The annual average chlorine level is presented in the "Level Detected" column with the range of detected concentrations presented in the "Range Detected" column.

Important Note regarding Lead in Your Drinking Water:

- 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. APG is responsible for providing high quality drinking water, but cannot control the variety of material 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 drinking water, testing methods, and steps you can take to minimize exposure to information is available from the **EPA Safe Drinking Water Hotline at (1-800-426-4791)** or at <http://www.epa.gov/safewater/lead>.

YOUR WATER IS SAFE TO DRINK

As you can see by the information in this report, the water provided to you by APG in Calendar Year 2009 had some contaminants that were detected through our monitoring, but the EPA has determined that **YOUR WATER IS SAFE AT THESE LEVELS.**



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