

CITY OF MARTINSBURG  
P.O. BOX 828  
232 NORTH QUEEN STREET  
MARTINSBURG, WV 25401  
PWSID # 3300212  
March 2, 2009

## ANNUAL WATER QUALITY REPORT FOR THE YEAR 2008

We're pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality of our water and services we deliver to you every day. Our constant goal is to provide you with a dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

### Where does my water come from?

Your drinking water is ground water that is drawn from the Kilmer Springs and a well at Big Springs.

### Source Water Assessment

The two (2) sources that supply drinking water to the **City of Martinsburg** facilities have a higher susceptibility to contamination, due to the sensitive nature of the aquifer in which the drinking water wells are located and the existing potential contaminant sources identified within the area. This does not mean that the well fields will become contaminated; only that conditions are such that the ground water could be impacted by a potential contaminant source. Future contamination may be avoided by implementing protective measures. The source water assessment report which contains more information is available for review or a copy will be provided to you at our office during business hours or from the WVBPH 304-558-2981.

If you have any questions about this report or other matters concerning your water utility, please contact **Mr. Steve Knipe, City of Martinsburg Water Department at (304) 264-2116**. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held at **7:00 PM, the second Thursday of each month at Martinsburg City Hall, 232 North Queen Street, Martinsburg, WV.**

**The City of Martinsburg** routinely monitors for contaminants in your drinking water according to Federal and State laws. This report shows the results of our monitoring for the period of January 1, 2008 to December 31, 2008. It's important to remember that the presence of these contaminants do not necessarily pose a health risk.

### Why must water be treated?

All drinking water contains various amounts and kinds of contaminants. Federal and state regulations establish limits, controls, and treatment practices to minimize these contaminants and reduce any subsequent health effects.

### Contaminants in Water

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits of contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these 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 Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

The source of drinking water (both tap and bottled water) includes rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of land or through the ground, it dissolves naturally occurring minerals and in some cases, radioactive material and can pick up substances resulting from presence of animal or 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 be naturally-occurring, or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, farming.

**Pesticides and herbicides**, which may come 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 also 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.

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 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).

### Unregulated Contaminants (UCMR-2)

The City of Martinsburg Water Department has been sampling for a series of unregulated contaminants. These unregulated contaminants do not as of yet have a drinking water standard set by the USEPA. The purpose for monitoring these contaminants is to help the EPA decide whether these contaminants should have a standard. As our customer, you have the right to know this data is available. If you are interested in examining the full results, please contact **Mr. Steve Knipe, City of Martinsburg Water Department at (304) 264-2116**.

Following are definitions and abbreviations used in the tables:

**MCLG** – Maximum Contaminant Level Goal, or the level of contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**MCL** – Maximum Contaminant Level or 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 technique.

**MRDLG** – Maximum Residual Disinfectant Level Goal or the level of drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect benefits of use of disinfectants to control microbial contaminants.

**MRDL** – Maximum Residual Detection Level, or the highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of disinfectant is necessary to control microbial contaminants.

**AL** – Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.

**TT** – Treatment Technique or a required process intended to reduce the level of a contaminant in drinking water.

**ppm** – parts per million or milligrams per liter.

**ppb** – parts per billion or micrograms per liter.

**NTU** – Nephelometric Turbidity Unit, used to measure cloudiness in water.

**ND** – not detected

**NE** – not established

**NA** – not applicable

**MRL** – Minimum Reportable Level

**µg/L** – micrograms per Liter (ppb)

UCMR-2 Assessment Monitoring				
Analyte	Method	MRL	Result	Units
Dimetoate	527	0.7	<0.7	µg/L
2,2',4,4',5,5'-Hexabromobiphenyl (HBB)	527	0.7	<0.7	µg/L
2,2',4,4',5,5'-Hexabromobiphenyl ether (BDE-153)	527	0.8	<0.8	µg/L
2,2',4,4',5-Pentabromobiphenyl ether (BDE-99)	527	0.9	<0.9	µg/L
2,2',4,4',6-Pentabromobiphenyl ether (BDE-100)	527	0.5	<0.5	µg/L
Terbufos-sulfone	527	0.4	<0.4	µg/L
2,2',4,4'-Tetrabromodiphenyl ether (BDE 47)	527	0.3	<0.3	µg/L
1,3-Dinitrobenzene	529	0.8	<0.8	µg/L
RDX (Hexahydro-1,3,5-trinitro-1,3,5-triazine)	529	1.0	<1.0	µg/L
TNT (2,4,6-Trinitrotoluene)	529	0.8	<0.8	µg/L

Contaminant	Violation Y/N	Range of Levels Detected	90th Percentile or Average (Avg.)	Unit of Measure	MCLG	MCL	Likely Source of Contamination
<b>Microbiological Contaminants</b>							
Turbidity	N	0.02 – 0.28	Avg. = 0.07	NTU	0	TT 100%< 0.3	Soil runoff
100% of monthly samples were less than 0.3 NTU's							
<b>Inorganic Contaminants</b>							
Copper	N	30 Sites Sampled	0.179	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
	These figures are from the July 2007 sampling event. No samples were required to be taken in 2008. The next samples will be taken between June 1, 2009 and September 30, 2009 as required.						
Lead	N	30 Sites Sampled	6.0	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
	These figures are from the July 2007 sampling event. No samples were required to be taken in 2008. The next samples will be taken between June 1, 2009 and September 30, 2009 as required.						
Fluoride	N	0.85 – 1.24	Avg. = 1.03	ppm	4	4	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate (as Nitrogen)	N	4.06	NA	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks sewage; erosion of natural deposits
Chlorine	N	0.8 – 2.0	Avg. = 1.26	ppm	4 MRDLG	4 MRDL	Water additive used to control microbes
<b>Volatile Organic Contaminants</b>							
HAA5	N	ND – 17.8	Avg. = 4.20	ppb	NA	60	By-product of drinking water disinfection
TTHM (Total Trihalo-methanes)	N	ND – 10.7	Avg. = 4.3	ppb	NA	100	By-product of drinking water disinfection