

Scientists' Cliffs Water Association
PWSID 004-0014
Annual Drinking Water Quality Report
for CY 2013 distributed June 2014

This Annual Consumer Confidence Report contains valuable information about the quality of drinking water provided to you by the central water system that serves the Scientists' Cliffs community and is operated by the Scientists' Cliffs Association. Please read this report carefully, as it contains vital information about your community water supply. This report was designed to comply with the requirements of the Safe Drinking Water Act (SDWA) of 1996, which is administered by the United States Environmental Protection Agency and is enforced by the Maryland Department of the Environment.

If you ever have any questions regarding the information supplied in this report, please do not hesitate to contact Stephen Dean, SCA Community Manager at 410-586-0602. Individuals who are interested in the opportunity to discuss in detail the regulations that affect drinking water quality and the operation of the water system may set up a meeting with the Water Operator/Water Superintendent by calling the number above.

All of the water supplied to you as drinking water in Scientists' Cliffs is groundwater. The groundwater was pumped from any one of our three wells until March 5, 2013. On March 5, 2013 Well #3 (supplied from the Aquia Aquifer) was taken out of service and listed as Inactive with Maryland Department of the Environment.

Well #1 pumps water from the Piney Point/Nanjemoy Aquifer, which is generally located in our area at a depth of 275-400 feet. Well #4 pumps water from the Aquia Aquifer, which is generally located in our area at a depth of 500-600 feet. Both of the two aquifers that provide our water supply are confined aquifers, which means, that they are less vulnerable to contamination than a surface water source. Both the Piney Point/Nanjemoy and Aquia aquifers are well known and documented by local geologists, and are commonly used as a water supply by much of the population of Southern Maryland.

We have a source water protection plan available from our office that provides more information such as potential sources of contamination. This plan is also available from Maryland Department of the Environment (MDE) or at the Calvert County Public Library.

We are pleased to report that our drinking water is safe and meets Federal and State requirements. The following report is provided in compliance with Federal and State regulations and is provided annually. This report outlines the quality of our finished drinking water and what that quality means.

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 for 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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Scientists' Cliffs Association routinely monitors for contaminants in your drinking water according to Federal and State laws. The following table shows the results of our monitoring for the period of January 1st to December 31st, 2013. As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It's important to remember that the presence of these contaminants does not necessarily pose a health risk.

In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

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

Parts per million (ppm) or Milligrams per liter (mg/l) - 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 - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

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

Maximum Contaminant Level - The “Maximum Allowed” (MCL) is 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 – The “Goal”(MCLG) is 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.

TEST RESULTS						
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Radioactive Contaminants						
Beta/photon emitters (average) (2011)	N	14.1	pCi/l	0	50	Decay of natural and man-made deposits
Alpha emitters (average) (2011)	N	< 2.0	pCi/l	0	15	Erosion of natural deposits
Combined radium (avg.) (226 & 228)	N	< 0.8	pCi/l	0	5	Erosion of natural deposits
Inorganic Contaminants						
Copper (Distribution) (2011)	N	0.14	ppm	1.3	AL= 1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (Distribution) (2011)	N	0	ppb	0	AL= 15	Corrosion of household plumbing systems, erosion of natural deposits
Fluoride (average) (2013)	N	0.20	ppm	4	4	Erosion of natural deposits: water additive which promotes strong teeth: discharge from fertilizers and aluminum factories
Nitrate (as Nitrogen) (average)	N	< 1.0	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Arsenic (2013) Range Average	N	4.1-10.2 7.5	ppb	n/a	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Volatile Organic Contaminants						
TTHM(distribution) [Total trihalomethanes]	N	1.8	ppb	0	80	By-product of drinking water chlorination
HAA5 [Haloacetic Acids] (distribution)	N	0	ppb	0	60	By-product of drinking water chlorination
Unregulated Contaminants						
Sodium(2013) (average)	N	14.6	ppm	N/A	N/A	Erosion of natural deposits
Chloroform (average)	N	0.8	ppb	N/A	N/A	By-product of drinking water Chlorination
Bromodichloromethane (average) (2012)	N	0.9	ppb	N/A	N/A	By-product of drinking water Chlorination
Dibromochloromethane (average)	N	0.5	ppb	N/A	N/A	By-product of drinking water Chlorination

Note: Test results are for 2013 unless otherwise noted; these are the most recent available results. All contaminants are not required to be tested annually.

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. Scientists' Cliffs Water Association 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 drinking 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 EPA Safe Drinking Water Hotline at 1-800-426-4791 or at <http://www.epa.gov/safewater/lead>

NOTE: As can be seen by results listed in the above tables, lead, which is tested for triennially (every 3 years) in Scientists' Cliff's distribution system, has not been detected in our most recently collected samples in 2011.

While your drinking water meets EPA's standards for arsenic, it does contain low levels of arsenic. The EPA's standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. EPA continues to research the health effects of low level arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems." (40 CFR 141.154(b)) The water system at Scientists' Cliffs Association does blend which lowers the overall levels of arsenic in the water system.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. These substances can be microbes, inorganic or organic chemicals and radioactive substances. All 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 can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.