

CITY OF ST. MARYS
2009 WATER QUALITY REPORT
Georgia Water System ID No.: 0390001

Name of Water System Contact
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911 Dispatcher

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Summary of Water Quality Information

The **City of St. Marys** drinking water system is owned and operated by the **City of St. Marys**. The facility office is located at 418 Osborne Street in St. Marys, Georgia. If there are ever any comments or inquiries to be made, please feel free to contact Wayne Broxton at the number listed above, Monday through Friday, 7:00 AM to 3:30 PM.

Included in this report is information about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. The **City of St. Marys** is committed to providing your community with clean, safe, and reliable drinking water. For more information about your water or this report please call Wayne Broxton. **This report is available upon request at City Hall.**

Your water comes from three (3) community *groundwater* wells which have a combined service capacity of approximately 6.0 million gallons per day. The water source for all wells is 800 to 1100 feet deep into what is commonly called the *Upper Floridian Aquifer*. This water source provides ample volumes of water for your community. These wells are located in the **City of St. Marys** on North Dandy Street, Old Jefferson Road or Douglas Drive and on Colerain Road at Mission Trace. These properties are protected from activities which could potentially cause contamination of this water source. Treatment is performed at the wells to include removal of contaminants, chlorine disinfection, and the addition of fluoride.

A **Wellhead Protection Plan** has been completed for the City. This is a report in which the Georgia Department of Natural Resources Environmental Protection Division identifies any types of pollution to which your water supply could be vulnerable and includes information regarding potential sources of contamination in your watershed. This system is considered to be in the higher susceptibility range for pollution. The current plan indicates no potential pollution sources present in the fifteen (15) foot control zone for either well. Cited potential pollution sources in the 100 foot management zone for the wells include electrical transformers and utility poles as well as access and secondary roads. **This report is available upon request at City Hall.**

The **City of St. Marys** conducts laboratory tests for more than eighty (80) drinking water parameters on samples from each of its wells on a periodic basis determined by the Georgia Department of Natural Resources Environmental Protection Division Drinking Water Program and/or the United States Environmental Protection Agency. Generally, samples are collected for analysis of inorganic compounds, volatile organic compounds, radionuclides, and lead and copper once in every three (3) year period whereas nitrates and synthetic organic compounds are sampled once a year. Thirty-one (31) sites have been designated throughout the community from which fifteen (15) samples are also collected on a monthly basis for bacteriological or microbial content. A waiver may be issued for synthetic organic compounds, cyanide and/or asbestos. The **City of St. Marys** has received drinking water monitoring waivers for

Synthetic Organic Compounds, Cyanide and Asbestos through December 31, 2010, because studies show that the distributed drinking water in this area is not vulnerable to contamination from these chemicals. Daily monitoring of chlorine, fluoride and flow are conducted by City personnel.

During 2009, the parameters for which analyses were conducted included monthly analysis for microbial contaminants, annual analysis for nitrates and nitrites, analysis for Total Trihalomethanes & Haloacetic Acids as well as analysis for the presence of Lead and Copper. **We are proud to inform you that the City of St. Marys did not have any violations of water quality parameters during 2009 except Total Coliform.**

Laboratory analyses indicated the presence of Total Coliform bacteria in two (2) of fifteen (15) water samples tested during the compliance period 8/1/2009 to 8/31/2009. Repeat sampling did not indicate the presence of contamination. The State EPD and Federal Drinking Water standards allow no more than five percent (5%) of the samples to be Coliform positive, if 40 or more samples are submitted each month. If fewer than 40 samples are submitted each month, **no more than one (1) sample may be Coliform positive.**

Federal Regulations require specific language in notification for multiple positive Total Coliform samples. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that the presence of Coliform bacteria is a possible health concern. **Coliform bacteria are common in the environment and are generally NOT HARMFUL.** The presence of Coliform bacteria in drinking water is generally the result of a problem with water treatment or the pipes which distribute water. They indicate the water may be contaminated with organisms that can cause disease. Disease symptoms may include diarrhea, cramps, nausea, possible jaundice & any associated headaches & fatigue. These systems are not just associated with disease causing organisms in drinking water, but may also be caused by a number of factors other than your drinking water. The EPA has set an enforceable drinking water standard for Coliform bacteria to reduce the risk of these adverse health effects. Under this standard, no more than five percent (5%) of the samples collected during the month can contain Coliform bacteria, except the systems collecting fewer than 40 samples per month that have one (1) Coliform positive sample per month are not violating the standard. Drinking water which meets this standard is usually not associated with a health risk from disease causing bacteria and should be considered safe, **All detected contaminants are delineated in the accompanying charts. Any constituents not listed in the accompanying charts had results less than the detection limits and/or maximum contaminant levels.**

Thirty (30) representative locations have been selected throughout your community where Lead and Copper analyses are conducted on a periodic basis. Analysis for the presence of Lead and Copper indicate the presence of service lines containing these materials in some single family residences, multi-family residences and/or commercial locations. Results indicated **NO** residences selected contained these components which exceeded the action levels for these parameters.

Lead and Copper may be found in household plumbing fixtures such as service lines, pipes, solders and fluxes as well as brass fixtures. Lead is found throughout the environment in the air, soil, water and household dust as well as in consumer products such as lead based paint, pottery and pewter. Lead & Copper enter drinking water as a result of the corrosion or wearing away of materials

containing these Metals. Lead can pose a significant risk to your health if too much of it enters your body.

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. The City of St. Marys 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>.

To minimize exposure to Lead and/or Copper, the following measures may be taken.

- When your water has been sitting for several hours, minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking.
- Use cold water for drinking or cooking.
- Do not cook with or consume water from the hot water faucet.
- Do not use hot water for making baby formula.
- Use only "lead-free" solder, fluxes and materials in new household plumbing.

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. The EPA has established Maximum Contaminant Levels (MCL's) and Maximum Contaminant Level Goals (MCLG's) for potential contaminants. MCL's are the highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology. MCLG's are the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety. **More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 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 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 at 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 can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include the following:

- **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 runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or 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 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 which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

The City of St. Marys strives to maintain the highest standards of performance and quality possible. In order to maintain a safe and dependable water supply, improvements that benefit the community must be made. Please help keep these costs as low as possible by utilizing good water conservation practices.

DEFINITION OF TERMS AND ABBREVIATIONS USED IN THIS REPORT

Maximum Contaminant Level (MCL): "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 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. MCLG's allow for a margin of safety."

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

Secondary Maximum Contaminant Level (SMCL): reasonable goals for drinking water quality. Exceeding SMCL's may adversely affect odor or appearance, but there is no known risk to human health.

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

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 microbiological 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. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants."

Not Detected (ND): By regulation, this substance or group of substances was tested for in our finished tap water; however, none was detected at the testing limit.

TTHMs (Total Trihalomethanes): One or more of the organic compounds Chloroform, Bromodichloromethane, Chlorodibromomethane, and/or Bromoform.

n/a: Not applicable to this contaminant.

ppb or ug/l: parts per billion or micrograms per liter.

ppm or mg/l: parts per million or milligrams per liter.

pCi/l: picocuries per liter, a measurement of radiation.

**CITY OF ST. MARYS WATER SYSTEM
2009 WATER QUALITY DATA**

The table below lists all the drinking water contaminants that have been detected in your drinking water. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The data presented in this table is from testing done during the year noted. The Federal Environmental Protection Agency (EPA) and the Georgia Department of Natural Resources Environmental Protection Division (EPD) requires monitoring for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year.

DETECTED INORGANIC CONTAMINANTS TABLE						
PARAMETER	UNITS	MCL (SMCL)	MCLG	St. Marys Water System Results	Range of Detections	Sample Date
Chlorine	ppm	4	n/a	2.06	0 to 3.8 M	2008
Iron	ppb	[300]	n/a	88	0 to 88	2008
Fluoride	ppm	4 [2]	4	0.74	0.26 to 1.23 M	2008

DETECTED ORGANIC CONTAMINANTS TABLE						
PARAMETER	UNITS	MCL (SMCL)	MCLG	St. Marys Water System Results	Range of Detections	Sample Date
HAA5	ug/l	80	n/a	14.9	0 to 16.5	2009
TTHMs	ug/l	80	n/a	70.7	12.5 to 74	2009

OTHER DETECTED UNREGULATED CONTAMINANTS TABLE						
PARAMETER	UNITS	MCL (SMCL)	MCLG	St. Marys Water System Results	Range of Detections	Sample Date
Sodium	ppm	**	**	31	25 to 31	2008

LEAD AND COPPER MONITORING RESULTS						
PARAMETER	UNITS	Action Level	MCLG	St. Marys 90th Percentile	# of sample sites above Action Level	Sample Date
Lead	ppb	15	0	2.5	0	2009
Copper	ppm	1.3	1.3	0.087	0	2009

MICROBIOLOGICAL MONITORING RESULTS						
BIOLOGICAL PARAMETER (Presence or Absence of bacteria in sample)	UNITS	MCL (SMCL)	MCLG	St. Marys Water System Results (Number of detections)	Sample Date (Month/Year)	Violation No/Yes
Total Coliform		0	0	2	August 2009	Yes
Fecal Coliform		0	0	0	15/month	No

RADIONUCLIDES TABLE						
PARAMETER	UNITS	MCL (SMCL)	MCLG	St. Marys Water System Results	Range of Detections	Sample Date
Alpha emitters	pCi/L	15*	0	5	3 to 5	2006
Radium 226	pCi/L	5*	0	<1	n/a	2006
Radium 228	pCi/L	5*	0	<1	n/a	2006

* The MCL for alpha emitters is 4 mrems/year. EPA considers 15 pCi/L to be the level of concern for alpha emitters including Radium 226 and/or 5 pCi/L for a combined Radium 226 and Radium 228. FTM = Failure to Monitor
 ** No established MCL M = Monitored through State analysis and facility daily *** Parameters, values and/or sources vary
 R = Resampled, results below action level or not detected

Typical Source of Contaminant: Water additive used for the control of microbes; Erosion of natural deposits

Typical Source of Contaminant: Erosion of natural deposits; promotes strong teeth

Typical Source of Contaminant: By product of drinking water chlorination; By product of drinking water chlorination

Typical Source of Contaminant: Erosion of natural deposits

Typical Source of Contaminant: Naturally present in the environment; Warm blooded animals

Typical Source of Contaminant: Erosion of natural deposits; Erosion of natural deposits; Erosion of natural deposits