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City Of Panama City Beach
110 South Arnold Road
Panama City Beach, FL 32413

CITY OF PANAMA CITY BEACH

2013 WATER QUALITY REPORT

110 SOUTH ARNOLD ROAD
PANAMA CITY BEACH
FLORIDA 32413
MAIN OFFICE (850) 233-5100

2013 WATER QUALITY TABLE

MICROBIOLOGICAL CONTAMINANTS

Contaminant and Unit of Measurement	Dates of Sampling (mo./yr.)	MCL Violation Y/N	The Highest Monthly Percentage/ Number	MCLG	MCL	Likely Source of Contamination
TOTAL COLIFORM BACTERIA *City of Panama City Beach Data*	1/13-12/13	N	1.4%	0	For systems collecting at least 40 samples per month; presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment

Contaminant and Unit of Measurement	Dates of Sampling (mo./yr.)	MCL Violation Y/N	The Highest Single Measurement	The Lowest Monthly % of Samples Meeting Regulatory Limits	MCLG	MCL	Likely Source of Contamination
TURBIDITY (NTU) *Bay County Data*	1/13-12/13	N	0.59	95.2%	N/A	TT	Soil runoff

Turbidity is a measure of cloudiness of the water. Monitoring turbidity is an indication of the effectiveness of the filtration system. High turbidity can hinder the effectiveness of disinfectants. * The Treatment Technique standard is 95% of the turbidity readings must be at 0.3 NTU or less.

RADIOACTIVE CONTAMINANTS

Contaminant and Unit of Measurement	Dates of Sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
RADIUM 226 + 228 OR COMBINED RADIUM (pCi/L) *Bay County Data*	4/11	N	0.8	N/A	0	5	Erosion of natural deposits

INORGANIC CONTAMINANTS

Contaminant and Unit of Measurement	Dates of Sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
BARIUM (ppm) *Bay County Data*	4/13	N	0.008	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
CHROMIUM (ppb) *Bay County Data*	4/13	N	1.2	N/A	100	100	Discharge from steel and pulp mills; erosion of natural deposits
FLUORIDE (ppm) *Bay County Data*	4/13	N	1.31	1.13-1.31	4	4	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum level of 0.7 ppm

INORGANIC CONTAMINANTS							
Contaminant and Unit of Measurement	**Dates of Sampling (mo./yr.)**	**MCL Violation Y/N**	**Level Detected**	**Range of Results**	**MCLG**	**MCL**	**Likely Source of Contamination**
NICKEL (ppb) *Bay County Data*	4/13	N	1.6	N/A	N/A	100	Pollution from mining and refining operations. Natural occurrence in soil
NITRATE (ppm) *Bay County Data*	4/13	N	0.069	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
SODIUM (ppm) *Bay County Data*	4/13	N	4.88	N/A	N/A	160	Salt water intrusion, leaching from soil
LEAD AND COPPER (TAP WATER) - *Sampled by City of Panama City Beach*							
Contaminant and Unit of Measurement	**Dates of Sampling (mo./yr.)**	**AL Exceeded Y/N**	**90th Percentile Result**	**No. of sampling sites exceeding the AL**	**MCLG**	**AL (action Level)**	**Likely Source of Contamination**
COPPER (TAP WATER) (ppm)	6/12-9/12	N	0.28	0 of 30	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
LEAD (TAP WATER) (ppb)	6/12-9/12	N	1.2	0 of 30	0	15	Corrosion of household plumbing systems, erosion of natural deposits
STAGE 2 DISINFECTANTS BY-PRODUCTS – *Sampled by City of Panama City Beach*							
Disinfectant or Contaminant and Unit of Measurement	**Dates of Sampling (mo./yr.)**	**MCL or MRDL Violation Y/N**	**Level Detected**	**Range of Results**	**MCLG or MRDLG**	**MCL or MRDL**	**Likely Source of Contamination**
CHLORINE (ppm)	1/13-12/13	N	0.62	0.2 – 1.43	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes

STAGE 2 DISINFECTANTS BY-PRODUCTS – *Sampled by City of Panama City Beach*

Contaminant and Unit of Measurement	Dates of Sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
HALOACETIC ACIDS (five) (HAA5) (ppb)	1/13-12/13	N/A	50.03	ND – 115.87	N/A	MCL = 60	By-products of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	1/13-12/13	N/A	79.13	19.09 – 166.28	N/A	MCL = 80	By-products of drinking water disinfection

Some people who drink water containing trihalomethanes in excess of the MCL, over many years, may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

Contaminant and Unit of Measurement	Dates of Sampling (mo./yr.)	TT Violation Y/N	Lowest Running Annual Average, Computed Quarterly, of Monthly Removal Ratios	Range of Monthly Removal Ratios	MCLG	MCL	Likely Source of Contamination
TOTAL ORGANIC CARBON *Bay County Data*	1/13-12/13	N	1.63	1.50 – 2.0	N/A	TT	Naturally present in the environment

Bay County monitored for unregulated contaminants (UCs) in 2013 as part of a study to help the U.S. Environmental Protection Agency (EPA) determine the occurrence in drinking water of UCs and whether or not these contaminants need to be regulated. At present, no health standards (for example, maximum contaminant levels) or likely sources have been established for UC's. However, we are required to publish the analytical results of our UC monitoring in our annual water quality report. If you would like more information on the EPA's Unregulated Contaminants Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

UNREGULATED CONTAMINANTS – *Bay County Data*

Contaminant and Unit of Measurement	Detected Levels	Range of Results	Likely Source of Contamination
STRONTIUM (ppb)	54.15	54.0 – 54.3	Unavailable
CHLORATE (ppb)	254.5	235 - 274	Unavailable
CHROMIUM-6 (ppb)	0.031	ND – 0.061	Unavailable

DEFINITIONS:

Maximum Contaminant Level or 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 or 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.

Non-Detects (ND) - Not detected and indicates that the substance was not found by laboratory analysis.

Parts per million (ppm) or Milligrams per liter (mg/l) - One part by weight of analyte to 1 million parts by weight of the water sample.

Parts per billion (ppb) or Micrograms per liter (µg/l) - One part by weight of analyte to 1 billion parts by weight of the water sample.

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

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

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

Maximum Residual Disinfectant Level or MRDL - The highest level of a disinfectant that is 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 or 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.

Nephelometric Turbidity Unit (NTU) - measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Initial Distribution System Evaluation (IDSE) - An important part of the Stage 2 Disinfection Byproducts Rule (DBPR). The IDSE is a one-time study conducted by water systems to identify distribution system locations with high concentrations of trihalomethanes (THMs) and haloacetic acids (HAAs). Water systems will use results from the IDSE, in conjunction with their Stage 1 DBPR compliance monitoring data, to select compliance monitoring locations for the Stage 2 DBPR.

(N/A) - Not applicable.

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. The Food and Drug Administration (FDA) regulations establish limits for 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 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 at 1-800-426-4791.*** MCLs are set at very stringent levels. To understand the possible health effects described for many regulated constituents, 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.

SPECIAL INFO AVAILABLE

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

The sources of drinking water (both tap 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:

(A) MICROBIOLOGICAL CONTAMINANTS, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

(B) 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 or farming.

(C) PESTICIDES AND HERBICIDES, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

(D) 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.

(E) RADIOACTIVE CONTAMINANTS, which can be naturally occurring or be the result of oil and gas production and mining activities

SURFACE WATER SOURCE

Deer Point Reservoir was created in 1961 to provide a freshwater source for Bay County. The water is pumped several miles to the Bay County Water Treatment Plant. The Bay County Treatment Plant uses a conventional treatment process consisting of coagulation, flocculation, sedimentation, filtration pH adjustment, disinfection, fluoridation and corrosion control. The treatment process includes adding lime occasionally to provide additional alkalinity to the raw water so that it can react with the primary coagulating chemical, ferric sulfate, which is added to remove particles and organics. Polymer is also added to assist in the coagulation process. Sodium Hypochlorite is added to maintain disinfection in the distribution system. The addition of zinc orthophosphate reduces the corrosiveness of the water. Fluoride, in the form of hydrofluosilicic acid, is added as a supplement to prevent tooth decay. Lime is also added at the end of the process to increase the pH. These processes are needed to meet drinking water standards as set by the United States Environmental Protection Agency (EPA) and the Florida Department of Environmental Protection (FDEP).

Bay County supplies water to both Panama City Beach Ground Storage and Pumping Facilities. Panama City Beach is a wholesale customer of the Bay County system and purchases 100% of its water from the County. The City then provides that water to its customers via our own storage, pumping and transmission system. We do not perform any treatment to the water other than some additional chlorine disinfectant when the levels provided by the County have dropped below the levels needed for the City to maintain chlorination residual requirements set by the EPA and FDEP.

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. Panama City Beach 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.**

CUSTOMER VIEWS WELCOME

If you have any questions about this report or concerning your water utility, please contact Mr. Gary Hunter, Water Treatment Superintendent at (850-236-3215). We encourage our valued customers to be informed about their water utility. For those citizens who wish to discuss the water system in person, City Council meetings are held twice a month on the second (at 6:00 p.m.) and fourth (at 2:00 p.m.) Thursday of each month. Public notices, including the agenda of the City Council meetings, are published in the News Herald the Wednesday prior to each meeting.

In 2013 the Department of Environmental Protection performed a Source Water Assessment on the Bay County water system. The assessment was conducted to provide information about any potential sources of contamination in the vicinity of the Bay County water system surface water intakes. The surface water system is considered to be at high risk because of many potential sources of contamination present in the assessment area. The assessment results are available on the FDEP Source Water Assessment and Protection Program web site at: **www.dep.state.fl.us/swapp** or they can be obtained from Bay County Utility Services by calling (850)248-5010.

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PLANNING TODAY FOR YOUR TOMORROW

We're pleased to provide you with this year's Annual Water Quality Report. We want to keep you informed about the water and services we have delivered to you over the past year. Our goal is and always has been, to provide you a safe and 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. The City of Panama City Beach currently purchases all water used in its utility franchise service area from Bay County

The City of Panama City Beach routinely monitors for contaminants in your drinking water according to Federal and State laws, rules and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1st to December 31st 2013. Data obtained before January 1st 2013, and presented in this report are from the most recent testing done in accordance with the laws, rules and regulations. For those contaminants that were not required to sample this year, the most recent sampling results are listed. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. It's important to remember that the presence of contaminants does not pose a health risk when the concentration is below applicable standard.