







**Annual Drinking Water Quality Report
January-December 2012**

City of Abbeville Water and Sewer Board

The City of Abbeville is pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. The City of Abbeville has five (5) wells that draw water from the Ripley and Clayton aquifers. The water is treated with chlorine, fluoridation, and iron removal before it is made available to you, our customers. 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.

The City of Abbeville has completed the Source Water Protection Plan. This plan provides more information such as potential sources of contamination. I'm pleased to report that our drinking water is safe and meets federal and state requirements. If you have any questions about this report concerning water utility, please contact Mike Johnson, City of Abbeville, (334) 585-6444. We want our valued customers to be informed about their water utility. If you want to learn more, please attend our regularly scheduled meetings held on the 4th Monday of each month, beginning at 5:00 p.m., in the City of Abbeville City Hall Council Chambers on East Washington Street.

DIRECTORS

	Jim Giganti, <i>Mayor</i>		Billy Helms, <i>Chairman</i>		Lester Killebrew
	Johnny Feggins		Oliver Jones		Pam Ward, <i>Sec/Treasurer</i>

Plain Language Definitions	
Non-Detects (ND)	Laboratory analysis indicates that the contaminant is not present.
Not Required (NR)	Laboratory analysis not required due to waiver granted by the Environmental Protection Agency for the State of Alabama.
Parts per Million (ppm)	one part per million corresponds to one minute in two years or a single penny in \$10,000.
Parts per Billion (ppb)	one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
Parts per Quadrillion (ppq)	one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.
Picocuries per Liter (pCi/L)	picocuries per liter is a measure of the radioactivity in water.
Millirems per Year (mrem/yr)	measure of radiation absorbed by the body.
Nephelometric Turbidity Unit (NTU)	nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
Variances & Exemptions (V&E)	State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
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 treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
Threshold Odor Number (T.O.N.)	The greatest dilution of a sample with odor-free water that still yields a just-detectable odor.
Maximum Contaminant Level (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 (MCLG)	The goal 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.
Maximum Residual Disinfectant Level Goal (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.
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 microbial contaminants.
Contaminants that may be in source water include:	
<i>Microbial contaminants</i> , such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.	
<i>Inorganic contaminants</i> , such as salts and metals, which can be naturally-occurring or result from urban storm water run-off, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.	
<i>Pesticides and herbicides</i> , which may come from a variety of sources such as agriculture, storm water run-off, and residential uses.	
<i>Organic chemical contaminants</i> , 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 run-off, and septic systems.	
<i>Radioactive contaminants</i> , which can be naturally occurring or be the result of oil and gas production and mining activities.	

In addition to the primary drinking water contaminants, the utility monitors regularly for the following unregulated and secondary contaminants as regulated by the Alabama Department of Environmental Management. The requirement of this additional monitoring and reporting will further insure the safety of your drinking water and will keep you, as a utility customer, more informed. The City of Abbeville routinely monitors for contaminants in our drinking water according to federal and state laws. Unless otherwise noted, this table shows the results of our monitoring for the period of January 1st to December 31st, 2012.

Table of Primary Contaminants

At high levels some primary contaminants are known to pose a health risks to humans. This table provides a quick glance of any primary contaminant detections.

CONTAMINANT	MCL	AMOUNT DETECTED	CONTAMINANT	MCL	AMOUNT DETECTED	CONTAMINANT	MCL	AMOUNT DETECTED
Bacteriological								
Total Coliform Bacteria	< 5%	ND	Selenium(ppb)	50	ND	Epichlorohydrin	TT	ND
Turbidity	TT	ND	Thallium(ppb)	2	ND	Ethylbenzene(ppb)	700	ND
Fecal Coliform & E. coli	0	ND	Organic Chemicals			Ethylene dibromide(ppt)	50	ND
Radiological								
Beta/ photon emitters (mrem/yr)	4	ND	Acrylamide	TT	ND	Glyphosate(ppb)	700	ND
Alpha emitters (pci/l)	15	1.9+0.8	Alachlor(ppb)	2	ND	Haloacetic Acids(ppb)	60	2.01
Combined radium (pci/l)	5	ND	Atrazine(ppb)	3	ND	Heptachlor(ppt)	400	ND
Uranium(pci/l)	30	ND	Benzene(ppb)	5	ND	Heptachlor epoxide(ppt)	200	ND
Inorganic								
Antimony (ppb)	6	ND	Benzo(a)pyrene[PHAs](ppt)	200	ND	Hexachlorobenzene(ppb)	1	ND
Arsenic (ppb)	10	ND	Carbofuran(ppb)	40	ND	Hexachlorocyclopentadiene(ppb)	50	ND
Asbestos (MFL)	7	ND	Carbon Tetrachloride(ppb)	5	ND	Lindane(ppt)	200	ND
Barium (ppm)	2	ND	Chlordane(ppb)	2	ND	Methoxychlor(ppb)	40	ND
Beryllium (ppb)	4	ND	Chlorobenzene(ppb)	100	ND	Oxamyl [Vydate](ppb)	200	ND
Bromate(ppb)	10	ND	2,4-D	70	ND	Pentachlorophenol(ppb)	1	ND
Cadmium (ppb)	5	ND	Dalapon(ppb)	200	ND	Picloram(ppb)	500	ND
Chloramines(ppm)	4	ND	Dibromochloropropane(ppt)	200	ND	PCBs(ppt)	500	ND
Chlorine (ppm)	4	ND	0-Dichlorobenzene(ppb)	600	ND	Simazine(ppb)	4	ND
Chlorine dioxide(ppb)	800	ND	p-Dichlorobenzene(ppb)	75	ND	Styrene(ppb)	100	ND
Chlorite(ppm)	1	ND	1,2-Dichloroethane(ppb)	5	ND	Tetrachloroethylene(ppb)	5	ND
Chromium (ppb)	100	ND	1,1-Dichloroethylene(ppb)	7	ND	Toluene(ppm)	1	ND
Copper (ppm)	AL=1.3	0.15	Cis-1,2-Dichloroethylene(ppb)	70	ND	TOC	TT	ND
Cyanide (ppb)	200	ND	trans-1,2-Dichloroethylene(ppb)	100	ND	TTHM(ppb)	80	9.72
Fluoride (ppm)	4	1.24	Dichloromethane(ppb)	5	ND	Toxaphene(ppb)	3	ND
Lead (ppb)	AL=15	ND	1,2-Dichloropropane(ppb)	5	ND	2,4,5-TP (Silvex)(ppb)	50	ND
Mercury (ppb)	2	ND	Di-(2-ethylhexyl)adipate(ppb)	400	ND	1,2,4-Trichlorobenzene(ppb)	70	ND
Nitrate (ppm)	10	ND	Di(2-ethylhexyl)phthalates(ppb)	6	ND	1,1,1-Trichloroethane(ppb)	200	ND
Nitrite (ppm)	1	ND	Dinoseb(ppb)	7	ND	1,1,2-Trichloroethane(ppb)	5	ND
Total Nitrate & Nitrite	10	ND	Dioxin[2,3,7,8-TCDD](ppq)	30	ND	Trichloroethylene(ppb)	5	ND
			Diquat(ppb)	20	ND	Vinyl Chloride(ppb)	2	ND
			Endothall(ppb)	100	ND	Xylenes(ppm)	10	ND
			Endrin(ppb)	2	ND			

Table of Secondary and Unregulated Contaminants

Secondary Drinking Water Standards are guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. ADEM has Secondary Drinking Water Standards established in state regulations applicable to water systems required to monitor for the various components. **Unregulated contaminants** are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

CONTAMINANT	MCL	DETECT	CONTAMINANT	MCL	DETECT	CONTAMINANT	MCL	DETECT
Secondary								
Aluminum	0.2	ND	Foaming Agents	0.5	ND	Silver	7	ND
Chloride	250	5.88	Iron	0.3	1.20	Sulfate	70	20.2
Color (PCU)	15	ND	Magnesium	75	ND	Total Dissolved Solids	500	272
Copper	1	ND	Odor (T.O.N.)	5	ND	Zinc	5	ND
Special								
Calcium	N/A	ND	pH (SU)	N/A	8.06	Temperature (*C)	N/A	ND
Carbon Dioxide	N/A	ND	Sodium	N/A	ND	Total Alkalinity	N/A	ND
Manganese	0.05	8.06	Specific Conductance (umhos)	<500	ND	Total Hardness (as CaCO3)	N/A	223
Unregulated								
1,1 - Dichloropropene	N/A	ND	Bromobenzene	N/A	ND	Hexachlorobutadiene	N/A	ND
1,1,2,2-Tetrachloroethane	N/A	ND	Bromochloromethane	N/A	ND	Isopropylbenzene	N/A	ND
1,1-Dichloroethane	N/A	ND	Bromodichloromethane	N/A	2.72	M-Dichlorobenzene	N/A	ND
1,2,3 - Trichlorobenzene	N/A	ND	Bromoforn	N/A	ND	Methomyl	N/A	ND
1,2,3 - Trichloropropane	N/A	ND	Bromomethane	N/A	ND	Metolachlor	N/A	ND
1,2,4 - Trimethylbenzene	N/A	ND	Butachlor	N/A	ND	Metribuzin	N/A	ND
1,2,4-Trichlorobenzene	N/A	ND	Carbaryl	N/A	ND	MTBE	N/A	ND
1,3 - Dichloropropane	N/A	ND	Chloroethane	N/A	ND	N - Butylbenzene	N/A	ND
1,3 - Dichloropropene	N/A	ND	Chlorodibromomethane	N/A	1.29	Naphthalene	N/A	ND
1,3,5 - Trimethylbenzene	N/A	ND	Chloroform	N/A	2.71	N-Propylbenzene	N/A	ND
2,2 - Dichloropropane	N/A	ND	Chloromethane	N/A	ND	O-Chlorotoluene	N/A	ND
3-Hydroxycarbofuran	N/A	ND	Dibromochloromethane	N/A	ND	P-Chlorotoluene	N/A	ND
Aldicarb	N/A	ND	Dibromomethane	N/A	ND	P-Isopropyltoluene	N/A	ND
Aldicarb Sulfone	N/A	ND	Dichlorodifluoromethane	N/A	ND	Propachlor	N/A	ND
Aldicarb Sulfoxide	N/A	ND	Dieldrin	N/A	ND	Sec - Butylbenzene	N/A	ND
Aldrin	N/A	ND	Fluorotrichloromethan	N/A	ND	Tert - Butylbenzene	N/A	ND

Table of Detected Drinking Water Contaminants								
CONTAMINANT	MCLG	MCL	Range			Amount Detected		Likely Source of Contamination
Radiological Contaminants January - December 2010								
Alpha emitters	0	15				1.9+0.8	pCi/L	Erosion of natural deposits
Inorganic Contaminants January - December 2012								
Copper (2011)	1.3	10 Sites AL=1.3	No. of Sites above action level			0.15	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
			0					
Fluoride	4	4	ND	-	1.24	1.24	ppm	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
Organic Contaminants January - December 2012								
Haloacetic Acids (HAA5)	0	60	ND	-	2.01	2.01	ppb	By-product of drinking water chlorination
Total trihalomethanes (TTHM)	0	80	2.59	-	9.72	9.72	ppb	By-product of drinking water chlorination
Secondary Contaminants January - December 2010								
Chloride	N/A	250	2.79	-	5.88	5.88	ppm	Naturally occurring in the environment or as a result of agricultural runoff
Iron	N/A	0.3	ND	-	1.20	1.20	ppm	Erosion of natural deposits
Sulfate	N/A	250	9.17	-	20.20	20.20	ppm	Naturally occurring in the environment
Total Dissolved Solids	N/A	500	184.00	-	272.00	272.00	ppm	Erosion of natural deposits
Special Contaminants January - December 2010								
Manganese	N/A	N/A	ND	-	8.06	8.06	ppm	Erosion of natural deposits
pH	N/A	N/A	7.93	-	8.06	8.06	SU	Naturally occurring in the environment or as a result of treatment with water additives
Total Hardness (as CaCO ₃)	N/A	N/A	86.90	-	223.00	223.00	ppm	Naturally occurring in the environment or as a result of treatment with water additives
Unregulated Contaminants January - December 2012								
Bromodichloromethane	N/A	N/A	ND	-	5.44	2.72	ppb	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff; by-product of chlorination
Chlorodibromomethane	N/A	N/A	ND	-	2.57	1.29	ppb	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff; by-product of chlorination
Chloroform	N/A	N/A	ND	-	5.42	2.71	ppb	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff; by-product of chlorination

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.

GENERAL INFORMATION

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 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 (1-800-426-4791).

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 radioactive material, and it can pick up substances resulting from the presence of animals or from human activities.

As you can see by the tables, our system had no monitoring violations of allowable limits of contaminants in drinking water. We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some contaminants have been detected. The EPA has determined that your water IS SAFE at these levels.

Total Coliform: The Total Coliform Rule requires water systems to meet a stricter limit for coliform bacteria. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public by newspaper, television or radio. To comply with the stricter regulation, we have increased the average amount of chlorine in the distribution system.

Some people may be more vulnerable to contaminants in drinking water than the general population. People who are immunocompromised such as cancer patients undergoing chemotherapy, organ transplant recipients, HIV/AIDS positive or other immune system disorders, some elderly, and infants can be particularly at risk from infections. People at risk should seek advice about drinking water from their health care providers. EPA (Environmental Protection Agency)/CDC (Center of Disease Control) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline. All Drinking water, including bottled drinking water, may reasonably be expected to contain at least small amounts of some contaminants. 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).

Lead: 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 Abbeville 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>.

In our continuing efforts to maintain a safe and dependable water supply it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements.

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding.

We at The City of Abbeville work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

For More Information Please Contact:

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