

## Annual Drinking Water Quality Report 2012 Kushla Water District

The Kushla Water District 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. We want you to understand the efforts we make continually to improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

The Kushla Water District updated its Source Water Protection Plan to include all of our wells. It provides more information such as potential sources of contamination. There have not been any significant changes in the source water assessment areas. I am pleased to report that our drinking water meets federal and state requirements.

If you have any questions about this report concerning the water utility, Please contact Roy King, Kushla Water District, 251-675-2297. 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 on the last Monday of each month, 4:00 P.M Kushla Water District office.

### Directors

William Silver, Chairman  
Charlotte Lambert, Vice-Chairman  
Earl Hudson, Treasurer  
Tommy Vice

Christopher Williams  
Mattie Smith  
Nathaniel Cotton  
Michael Robitzsch

The Kushla Water District routinely monitors for contaminants in our drinking water according to federal and state laws. The following tables show results of our monitoring from January 1<sup>st</sup> to December 31<sup>st</sup> 2012. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presences of Contaminants do 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 (1-800-426-4701).

## PLAIN LANGUAGE DEFINITIONS

- Non-Detects (ND) - Laboratory analysis indicates that the constituent 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) 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 billions corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- Parts per trillion (ppt) or Nanograms per liter (nanograms/l) - one part per trillion corresponds to one minute in 2,000,000 years. or a single penny in \$10,000,000,000.
- Parts per quadrillion (ppq) or Picograms per liter (picograms/l) - - 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 (pCCL/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) -(mandatory language) a treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
- Maximum Contaminant Level - (mandatory language) 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 - (mandatory language) 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.

## GENERAL INFORMATION

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.

Some people may be more vulnerable to contaminants in drinking water than the general population. People who are immuno-compromised, such as cancer patients undergoing chemotherapy, organ transplant recipients, HIV/Aids positive or individuals with other immune system disorders, some elderly, and infants, can be particularly at risk from infections. Those at risk should seek advice about drinking water from 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 (1-800-426-4791).

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 Hotline (1-800-426-4791).

Based on a study conducted by the ADEM with the approval of the EPA, a statewide waiver for the monitoring of Asbestos and Dioxin was issued. Thus, monitoring for these contaminants was not required.

The Kushla Water District has ground water. Our well draws water from the Miocene Aquifer and adds chlorine to the water to kill bacteria.

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 continually need to make improvements that will benefit all of our customers such as extending our water lines to new customers, replacing old or damaged water lines, cleaning and painting our storage tanks, replacing old or defective water meters, and upgrading our pumping stations. These improvements sometimes require interruptions in service. Thank you for understanding.

As a convenience to you we suggest that you mail your remittance and bill to the office or use the after hours depository box, located at the left of the drive up window. The office hours have been changed to 9:00 A.M.-12:00 Noon and 1:00 - 4:00 P.M. Monday thru Friday.

### Table of Primary Contaminants

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

CONTAMINANT	AMOUNT		CONTAMINANT	AMOUNT	
	MCL	DETECTED		MCL	DETECTED
Bacteriological			Endothall	100	ND
Total Coliform Bacteria	<5%	0	Endrin	2	ND
Turbidity	TT	2-1.6	Epichlorohydrin	TT	ND
Radiological			Glyphosate	700	ND
Beta/alpha emitters					
(mrem/yr)	4	ND	Heptachlor	400	ND
Alpha emitters (pci/1)	15	2.9+1.4	Heptachlor epoxide	200	ND
Combined radium (pci/1)			Hexachlorobenzene	1	ND
Radium 228(pci) l	5	5+7			
Inorganic			Hexachloropentadiene	1	ND
Antimony (ppb)	6	ND	Lindane	200	ND
Arsenic (ppb)	50	ND	Methoxychlor	40	ND
Asbestos (MFL)	7	ND	Oxamyl (Vydate)	200	ND
Barium (ppm)	2	0.011	PCBs	500	ND
Beryllium (ppb)	4	ND	Pentachlorophenol	1	ND
Cadmium (ppb)	5	ND	Picloram	500	ND
Chromium (ppb)	100	ND	Simazine	4	ND
Copper (ppm)	AL=1.3	ND	Toxaphene	3	ND
Cyanide (ppb)	200	ND	Benzene	5	ND
Fluoride (ppm)	4	0.32	Carbon Tetrachloride	5	ND
Lead (ppb)	AL=15	ND	Chlorobenzene	100	ND
Mercury (ppb)	2	ND	Dibromochloropropane	200	ND
Nitrate (ppm)	1	ND	O-Dichlorobenzene	600	ND
Nitrite (ppm)	10	ND	P-Dichlorobenzene	75	ND
Selenium ND	50	ND	1,2-Dichloroethane	5	ND
Thallium ND	2	ND	1,2-Dichloroethylene	7	ND
Organic Chemicals			Cis-1,2-Dichloroethylene	70	ND
2,4-D	70	ND	Trans-1,2-Dichloroethylene	100	ND
2,4,5-TP (Silvex)	50	ND	Dichloromethane	5	ND
Acrylamide	TT	ND	1,2-Dichloropropane	5	ND
Alachlor ND	2	ND	Ethylbenzene	700	ND
Atrazine ND	3	ND	Ethylene dibromide	50	ND
Benzo(a)pyrene(PHAs)	200	ND	Styrene	100	ND
Carbofuran ND	40	ND	Tetrachloroethylene	5	ND
Chlordane ND	2	ND	1,2,4-Trichlorobenzene	70	ND
Dalapon	200	ND	1,1,1-Trichloroethane	200	ND
Di-(2-ethylhexyl)adipate	400	ND	1,1,2-Trichloroethane	5	ND
Di(2-ethylhexyl)phthalates	6	ND	Trichloroethylene	5	ND
Dinoseb ND	7	ND	TTHM	80	49.4
Diquat	20	ND	Toluene	1	ND
Dioxin(2,3,7,8-TCDD)	30	ND	Vinyl Chloride	2	ND
HAA5's	60	21	Xylenes	10	ND

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 ADEM has proposed regulations under consideration at the time of this publication to require any detects of these contaminants to be reported in all subsequent water quality reports. 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.

**Table of Detected Contaminants**

Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Turbidity	N	2-1.6	ntu	n/a	TT	Soil runoff
Alpha emitters	N	2.9+1.4	pci/1	0	15	Erosion of natural Deposits
TTHM (Total trihalomethanes)	N	49.4	ppb	0	80	By-product of drinking water chlorination
HAA5:s	N	21	ppb	0	60	By-product of drinking water chlorination

**SECONDARY CONTAMINANTS TABLE**

Contaminant	MCL	Amount Detected	Contaminant	MCL	Amount Detected
Aluminum	0.02	ND	Manganese	0.0013	ND
Chloride	250	120	Odor	3	ND
Color	15	5	Sulfate	ND	6.2
Copper	1	0.059	Dissolved Solids	500	360
Iron	0.3	0.08	Zinc	0.0045	ND
			Silver	0.1	ND

**DETECTED SECONDARY CONTAMINANTS TABLE**

Contaminant	MCL	Amount Detected	Contaminant	MCL	Amount Detected
Chloride	250	120	Odor	3	nd
Color	15	5	Total Dissolved Solids	500	360

**SPECIAL TABLE & DETECTS**

Contaminant	Amount of Detects	Contaminant	Amount of Detects
Calcium	1.4	Hardness	5.4
Magnesium	0.54	Carbon Dioxide	5.4
Sodium	140	PH	7.6
Alkalinity	140		

**TABLE OF DETECTED SECONDARY CONTAMINANTS**

Contaminant	Average	Range	Contaminant	Average	Range
Bromodichloromethane	10.2ppb	3.3-17ppb	Dibromochloromethane	11.1ppb	3.5-18.7ppb

**Unregulated Contaminants Table**

<b>Contaminant</b>	<b>Average</b>	<b>Range</b>	<b>Contaminant</b>	<b>Average</b>	<b>Range</b>
1,1-Dichloropropene	ND	0.0-0.0	Chloroform	18.3ppb	14.6-22.0
1,1,1,2-Tetrachloroethane	ND	0.0-0.0	Chloromethane	ND	ND
1,1,2,2.-Tetrachloroethane	ND	0.0-0.0	Dibromochloromethane	11.ppb	3.5-18.7ppb
1,1-Dichloroethane	ND	0.0-0.0	Chlorodibromethene	ND	0.0-0.0
1,2,3-Trichlorobenzene	ND	0.0-0.0	Dicamba	ND	0.0-0.0
1,2,3-Trichloropropane	ND	0.0-0.0	Dichlorodifluoromathane	ND	0.0-0.0
1,2,4-Trimethylbenzene	ND	0.0-0.0	Dieldrin	ND	0.0-0.0
1/3-Dichloropropane	ND	0.0-0.0	Hexachlorobutadiene	ND	0.0-0.0
1/3-Dichloropropene	ND	0.0-0.0	Isoprpylbenzene	ND	0.0-0.0
1,3,5-Trimethylbenzene	ND	0.0-0.0	M-Dichlorobenzene	ND	0.0-0.0
2,2-Dichloropropane	ND	0.0-0.0	Methomyl	ND	0.0-0.0
3-Hydrozycarbofuran	ND	0.0-0.0	MTBE	ND	0.0-0.0
Aldicarb	ND	0.0-0.0	Metolachlor	ND	0.0-0.0
Aldicab Sulfoned	ND	0.0-0.0	Metribuzin	ND	0.0-0.0
Aldicarb Sulfoxide	ND	0.0-0.0	N-Butylbenzene	ND	0.0-0.0
Aldin	ND	0.0-0.0	Naphthalene	ND	0.0-0.0
Bromobenzene	ND	0.0-0.0	N-Propyibenzene	ND	0.0-0.0
Bromochloromethane	ND	0.0-0.0	O-Chlorotoluene	ND	0.0-0.0
Bromodichloromethane	10.2ppb	3.3-17ppb	P-Chlorotoluene	ND	0.0-0.0
Bromoform	2.8ppb	1.9-3.6ppb	Plsopropyltoluene	ND	0.0-0.0
Bromomethane	ND	0.0-0.0	Propachlor	ND	0.0-0.0
Butachlor	ND	0.0-0.0	Sec-Butylbenzene	ND	0.0-0.0
Carbaryl	ND	0.0-0.0	Tert-Butylbenzene	ND	0.0-0.0
Chloroethane	ND	0.0-0.0	Trichlorfluoromethane	ND	0.0-0.0

## Notice

There have been changes to the lead and copper rule. The Kushla Water District collects 20 required samples from different sites. The new rule requires us to notify the customer at the tested site of the results.

If any of the test exceed the action level we are required to notify all of the Water District customers. There will also be notification to Public Facilities.

ushla Water District  
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## Lead in Drinking Water

Lead, a metal found in natural deposits is commonly used in household plumbing materials and water service lines. The greatest exposure to lead is swallowing or breathing in of lead paint chips and dust.

But lead in drinking water can also cause a variety of adverse health effects. In babies and children, exposure to lead in drinking water above the action level can result in delays in physical and mental development, with slight deficits in attention span and learning abilities. In adults, it can cause increases in blood pressure. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Lead is rarely found in source water, but enters tap water through corrosion of plumbing materials. Homes built before 1986 are more likely to have lead pipes, fixtures and solder. However, new homes are also at risk: even legally "lead free" plumbing may contain up to 8 per cent lead. The most common problem is with brass or chrome plated faucets and fixtures which can leach significant amounts of lead into the water, especially hot water.

Source Environmental Protection Agency

Consumer Information may be found at 1-800-424-LEAD