Annual Drinking Water Quality Report

TX1260001 CITY OF ALVARADO

Annual Water Quality Report for the period of January 1 to December 31, 2013

This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.

For more information regarding this report contact:

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CITY OF ALVARADO is Ground Water

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (___) ___-____.

Public Participation Opportunities: 7/21/14, 7:00 p.m. at City Hall, 104 W. College Street, Alvarado

Sources of Drinking Water

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 pickup substances resulting from the presence of animals or from human activity.

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 EPAs Safe Drinking Water Hotline at (800) 426-4791.

Contaminants that may be present in source water include:

- 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 water 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. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily causes for health concerns. For more information on taste, odor, or color of drinking water, please contact the system's business office.

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly, or immunocompromised persons such as those undergoing chemotherapy for cancer; persons who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorders, can be particularly at risk from infections. You should seek advice about drinking water from your physician or health care providers Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline (800-426-4791).

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. We are responsible for providing high quality drinking water, but we 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.

Information about Source Water Assessments

A Source Water Susceptibility Assessment for your drinking water source(s) is currently being updated by the Texas Commission on Environmental Quality. This information describes the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The information contained in the assessment allows us to focus source water protection strategies.

For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL: http://gis3.tceq.state.tx.us/swav/Controller/index.jsp?wtrsrc=

Further details about sources and source-water assessments are available in Drinking Water Watch at the following URL: http://dww.tceq.texas.gov/DWW

Source Water Name		Type of Water	Report Status	Location
1 - 110 W SHELTON	110 W SHELTON	GW	Y	
2 - 312 E SHELTON	312 E SHELTON	GW	Y	
4 - 801 ELWOOD COURT	801 ELWOOD COURT	GW	Y	
6 - 805 RUSK	805 RUSK	GW	Y	
9 - 12110 GLENWOOD DR	12110 GLENWOOD DR	GW	Y	

Lead and Copper

Definitions:
Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.
Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2013	1.3	1.3	0.0919	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2013	0	15	1.07	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Water Quality Test Results

Definitions:	The following tables contain scientific terms and measures, some of which may require explanation.
Avg:	Regulatory compliance with some MCLs are based on running annual average of monthly samples.
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.
Maximum residual disinfectant level or 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.
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.
MFL	million fibers per liter (a measure of asbestos)
na:	not applicable.
NTU	nephelometric turbidity units (a measure of turbidity)
pCi/L	picocuries per liter (a measure of radioactivity)

Water Quality Test Results

ppb:	micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.
ppm:	milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.
ppt	parts per trillion, or nanograms per liter (ng/L)
ppq	parts per quadrillion, or picograms per liter (pg/L)

Chemical Used: Chlorine

Average Level of Quarterly Data: 1.57 mg/l

Lowest Result of a Single Sample: .20 mg/l

Highest Result of a Single Sample: 5.0 mg/l

Source of the Chemical: Chlorine gas

The TCEQ completed an assessment of your source water and results indicate that some of your sources are susceptible to certain contaminants. The sampling requirements for your water system are based on this susceptibility and previous sample data. Any detections of these contaminants may be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system, contact Michael Dwiggins.

Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Total Trihalomethanes (TTHM)	2013	7	7.05 - 7.32	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
Inorganic Contaminants	**Collection Date**	**Highest Level Detected**	**Range of Levels Detected**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Arsenic	08/08/2011	1.35	0 - 1.35	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	08/08/2011	0.0603	0.0188 - 0.0603	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	08/08/2011	6.68	0 - 6.68	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.
Cyanide	08/08/2011	13	13 - 13	200	200	ppb	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
Fluoride	2013	1.28	1.28 - 1.28	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	2013	0.342	0.046 - 0.342	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium	08/08/2011	0.563	0 - 0.563	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Thallium	08/08/2011	0.592	0 - 0.592	0.5	2	ppb	N	Discharge from electronics, glass, and Leaching from ore-processing sites; drug factories.
Radioactive Contaminants	**Collection Date**	**Highest Level Detected**	**Range of Levels Detected**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Combined Radium 226/228	06/14/2012	1	1 - 1	0	5	pCi/L	N	Erosion of natural deposits.

Synthetic organic contaminants including pesticides and herbicides	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Di (2-ethylhexyl) phthalate	11/12/2009	1.63	0 - 1.63	0	6	ppb	N	Discharge from rubber and chemical factories.

TCCCONT.NAME0	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG
Total Trihalomethanes (TTHM)	2013	7	7.05 - 7.32	No goal for the total

Violations Table

Chlorine			
Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.			
Violation Type	Violation Begin	Violation End	Violation Explanation
Disinfectant Level Quarterly Operating Report (DLQOR).	01/01/2013	03/31/2013	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.
Disinfectant Level Quarterly Operating Report (DLQOR).	04/01/2013	06/30/2013	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

The required paperwork was done and filed with TCEQ; however, it was not done in a timely manner.

Lead and Copper Rule			
The Lead and Copper Rule protects public health by minimizing lead and copper levels in drinking water, primarily by reducing water corrosivity. Lead and copper enter drinking water mainly from corrosion of lead and copper containing plumbing materials.			
Violation Type	Violation Begin	Violation End	Violation Explanation
LEAD CONSUMER NOTICE (LCR)	12/30/2013	2013	We failed to provide the results of lead tap water monitoring to the consumers at the location water was tested. These were supposed to be provided no later than 30 days after learning the results.

Results were provided to the consumers at a later date.

Public Notification Rule			
The Public Notification Rule helps to ensure that consumers will always know if there is a problem with their drinking water. These notices immediately alert consumers if there is a serious problem with their drinking water (e.g., a boil water emergency).			
Violation Type	Violation Begin	Violation End	Violation Explanation
PUBLIC NOTICE RULE LINKED TO VIOLATION	06/10/2012	2013	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.

In February, 2013, TCEQ notified us that 5 bac-t samples were now required instead of the previously required 4 samples. An additional sample was obtained and provided to TCEQ.

LCRA Environmental Laboratory Services

Date: *27-Jun-11*

CLIENT: Johnson Co Rural WSC
Lab ID: 1106049-028
Project: WS 1260018
Matrix: DRINKING WATER
Collection Date: 5/31/2011 10:51:00 AM

Facility: EP013
Sample Point: TRT-TAP
Sample Location:
TCEQ Sample ID: 1144620

Analyses	Result	Qual	MCL	LOD	PQL	Units	DF	BatchID	Date Analyzed
VOLATILES BY GCMS				E524.2					Analyst: BC
REGULATED COMPOUNDS									
Benzene	< 0.50		5	0.50	0.50	µg/L	1	82347	6/2/2011 4:05:00 PM
Carbon Tetrachloride	< 0.50		5	0.50	0.50	µg/L	1	82347	6/2/2011 4:05:00 PM
Monochlorobenzene	< 0.50		100	0.50	0.50	µg/L	1	82347	6/2/2011 4:05:00 PM
o-Dichlorobenzene	< 0.50		600	0.50	0.50	µg/L	1	82347	6/2/2011 4:05:00 PM
para-Dichlorobenzene	< 0.50		75	0.50	0.50	µg/L	1	82347	6/2/2011 4:05:00 PM
1,2-Dichloroethane	< 0.50		5	0.50	0.50	µg/L	1	82347	6/2/2011 4:05:00 PM
1,1-Dichloroethylene	< 0.50		7	0.50	0.50	µg/L	1	82347	6/2/2011 4:05:00 PM
cis-1,2-Dichloroethylene	< 0.50		70	0.50	0.50	µg/L	1	82347	6/2/2011 4:05:00 PM
trans-1,2-Dichloroethylene	< 0.50		100	0.50	0.50	µg/L	1	82347	6/2/2011 4:05:00 PM
1,2-Dichloropropane	< 0.50		5	0.50	0.50	µg/L	1	82347	6/2/2011 4:05:00 PM
Ethylbenzene	< 0.50		700	0.50	0.50	µg/L	1	82347	6/2/2011 4:05:00 PM
Dichloromethane	< 0.50		5	0.50	0.50	µg/L	1	82347	6/2/2011 4:05:00 PM
Styrene	< 0.50		100	0.50	0.50	µg/L	1	82347	6/2/2011 4:05:00 PM
Tetrachloroethylene	< 0.50		5	0.50	0.50	µg/L	1	82347	6/2/2011 4:05:00 PM
Toluene	< 0.50		1000	0.50	0.50	µg/L	1	82347	6/2/2011 4:05:00 PM
1,2,4-Trichlorobenzene	< 0.50		70	0.50	0.50	µg/L	1	82347	6/2/2011 4:05:00 PM
1,1,1-Trichloroethane	< 0.50		200	0.50	0.50	µg/L	1	82347	6/2/2011 4:05:00 PM
1,1,2-Trichloroethane	< 0.50		5	0.50	0.50	µg/L	1	82347	6/2/2011 4:05:00 PM
Trichloroethylene	< 0.50		5	0.50	0.50	µg/L	1	82347	6/2/2011 4:05:00 PM
Vinyl chloride	< 0.50		2	0.50	0.50	µg/L	1	82347	6/2/2011 4:05:00 PM
m,p-Xylene	< 0.50			0.50	0.50	µg/L	1	82347	6/2/2011 4:05:00 PM
o-Xylene	< 0.50			0.50	0.50	µg/L	1	82347	6/2/2011 4:05:00 PM
Xylenes, Total	< 0.50		10000	0.50	0.50	µg/L	1	82347	6/2/2011 4:05:00 PM

The City of Alvarado has an emergency connection with Johnson County Special Utility District. Their current CCR year's Regulated Contaminants Detected table is found above.

The connection was opened and used from October 29, 2013 through November 5, 2013 and again December 26, 2013 through April 29, 2014. It was opened and used due to the fact that the City's Well #2 became inoperable, and at the same time, the City's Well #6 was being repaired, thus leaving the City with two wells down at the same time.