

CITY OF ALLIANCE --- Annual Water Quality Report --- For the Period - January 1 to December 31, 2007

QUALITY ON TAP

Alliance Municipal Water Continues to Meet Nebraska State Health Drinking Water Standards and Strives to Insure That Our Water Remains Safe to Drink.

This report is intended to provide you with important information about your drinking water and the efforts made by the City of Alliance Water System to provide safe drinking water. For more information regarding this report, contact:

Mike D. Hulquist
Water / Sewer Superintendent
762-1907

If you would like to observe the decision-making processes that affect drinking water quality, please attend the regularly scheduled meetings of the City Council. If you would like to participate in the process, please contact the City Clerk to arrange to be placed on the agenda of the meeting of the City Council.

Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo o hable con alguien que lo entienda bien.

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 contaminant and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791.

Source Water Assessment Availability

The Nebraska Department of Environmental Quality (NDEQ) has completed the Source Water Assessment. Included in the assessment is a Wellhead Protection Area map, potential contaminant source inventory, vulnerability rating and source water protection information. To view the Source Water Assessment or for more information, please contact the person named above or NDEQ at (402-471-6988).

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.

Source of Drinking Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and groundwater 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.

The source of drinking water used by the City of Alliance water system is groundwater. The water is pumped from wells maintained by the City of Alliance.

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.

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 (800-426-4791).

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791) or the Department of Health and Human Services/Division of Public Health/Office of Drinking Water at 402-471-2541.

CROSS-CONNECTION QUESTION AND ANSWER:

Q: What is a cross connection? **Answer:** A cross connection is a direct arrangement of a piping line which allows the potable water supply to be connected to a line which contains a contaminant. An example is the common garden hose attached to a sill cock with the end of the hose lying in a cesspool. Other examples are a garden hose attached to a service sink with the end of the hose submerged in a tub full of detergent, supply lines connected to bottom-fed tanks, supply lines to boilers. **Alliance Municipal Code requires the installation of hose bib vacuum breakers to protect against these hazards.**

The City of Alliance is required to test for the following Contaminants: Coliform Bacteria, Antimony, Arsenic, Asbestos, Barium, Beryllium, Cadmium, Chromium, Copper, Cyanide, Fluoride, Lead, Mercury, Nickel, Nitrate, Nitrite, Selenium, Sodium, Thallium, Alachlor, Atrazine, Benzo(a)pyrene, Carbofuran, Chlordane, Dalapon, Di(2-ethylhexyl)adipate, Dibromochloropropane, Dinoseb, Di(2-ethylhexyl)phthalate, Diquat, 2,4-D, Endothall, Endrin, Ethylene Dibromide, Glyphosate, Heptachlor, Heptachlor Epoxide, Hexachlorobenzene, Hexachlorocyclopentadiene, Lindane, Methoxychlor, Oxamyl (Vydate), Pentachlorophenol, Picloram, Polychlorinated Biphenyls, Simazine, Toxaphene, Dioxin, Silvex, Benzene, Carbon Tetrachloride, o-Dichlorobenzene, Para-Dichlorobenzene, 1,2-Dichlorethane, 1,1-Dichloroethylene, Cis-1,2-Dichloroethylene, Trans-1,2-Dichloroethylene, Dichloromethane, 1,2-dichloropropane, Ethylbenzene, Monochlorobenzene, 1,2,4-Trichlorobenzene, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, Trichloroethylene, Vinyl Chloride, Styrene, Tetrachloroethylene, Toluene, Xylenes (total), Gross Alpha (Minus Uranium & Radium 226), Radium 226 plus Radium 228, Sulfate, Chloroform, Bromodichloromethane, Chlorodibromomethane, Bromoform, Chlorobenzene, m-dichlorobenzene, 1,1-dichloropropene, 1,1-dichloroethane, 1,1,2,2-tetrachlorethane, 1,2-dichloropropane, Chloromethane, Bromomethane, 1,2,3 trichloropropane, 1,1,1,2-Tetrachlorethane, Chloroethane, 2,2-dichloropropane, o-Chlorotoluene, p-Chlorotoluene, Bromobenzene, 1,3-Dichloropropane, Aldrin, Butachlor, Carbarryl, Dicamba, Dieldrin, 3-Hydroxycarbofuran, Methonyl, Metolachlor, Metribuzin, Propachlor.

NOTICE: The City of Alliance has been granted a 3 year exemption from the revised arsenic contaminant level of 10 micrograms per liter that went into effect January 23, 2006 issued on April 13, 2007. The purpose of the exemption is to allow the public water system to study, plan and construct facilities to remove arsenic. A preliminary engineering report has been completed. Pilot treatment tests have been completed. The City will construct treatment facilities to remove arsenic beginning in January 2009. The public may provide input in the review or extension of the exemption at the City Utility Facility at 1313 W 1st in Alliance, NE.

TEST RESULTS (COLLECTED IN 2007 UNLESS NOTED)

Coliform Bacteria

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive Total Coliform Samples in any Month	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples in all of 2006	Violation?	Likely Source of Contamination
0	1 Positive Monthly Sample	4	Fecal Coliform or E. Coli MCL: A routine sample and a repeat sample are total coliform positive, and one is also fecal coliform or E. Coli positive.	1	Yes	Naturally present in the environment.

Lead and Copper

Date Sampled: May 25, 2004

Lead MCLG	Lead Action Level (AL)	Lead 90 th Percentile	# Sites Over Lead AL	Copper MCLG	Copper Action Level (AL)	Copper 90 th	# Sites Over Copper AL	Likely Source of Contamination
0 ppb	15 ppb	2.1 ppb	0	1.3 ppb	1.3 ppm	0.0877 ppm		Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems

Regulated Contaminants

Inorganic Contaminants	Highest Level Detected	Range of Levels Detected	Unit of Measurement	MCLG	MCL	Violation?	Likely Source of Contaminant
Arsenic	11.2	8.93-11.2	ppb	0	10	No	Erosion of natural deposits; Runoff from orchards; Runoff from electronics production wastes
Barium 4/15/2003	0.0591	0.0243-0.0591	ppm	2	2	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chromium 5/1/2006	7.94	3.21-7.94	ppb	100	100	No	Discharge from steel and pulp mills; Erosion of natural deposits
Fluoride 5/1/2006	0.85	0.59 - 0.85	ppm	4	4	No	Erosion of natural deposits; Water additive which promotes strong teeth; Fertilizer discharge
Nickel	2.13	1.15-2.13	ppb	N/A	100	No	Erosion of natural deposits; Leaching
Nitrate-Nitrite	6.3	2.5-6.3	ppm	10	10	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium 5/1/2006	5.75	5.05 - 5.75	ppb	50	50	No	Discharge from petroleum and metal refineries, Erosion of natural deposits

Radioactive Contaminants

Alpha Emitters 2/17/2004	15.3	0.2 - 15.3	pCi/l	0	15	No	Erosion of natural deposits
Uranium Mass 8/16/2004	32.2	8.9-32.2	ug/L	0	30	No	Erosion of natural deposits

Unregulated Water Quality Data

Contaminant	Highest Level Detected	Range of Levels Detected	Unit of Measurement
Radium - 226 9/16/2002	0.1	N/A	pCi/l
Radium - 228 9/16/2002	1.8	0.2 - 1.8	pCi/l
Sulfate	99	51-99	ppm

Note: The State requires monitoring of certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some of our data may be more than one year old.

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

ppm = parts per million - ppb = parts per billion - pCi/l = pico curies per liter

Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system and may have increased risk of getting cancer.

Information about Violations/Exemptions of the Nebraska Safe Drinking Water Act for 2007:

Rule or Contaminant	Violation Type	Date Issued	Violation Duration
Total Coliform	Non-Acute Total Coliform Rule Monthly Violation	10/15/2007	10/1/2007 To 10/31/2007
Health Effects:	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.		
Total Coliform	Non-Acute Total Coliform Rule Monthly Violation	4/4/2007	3/1/2007 To 3/31/2007
Health Effects:	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.		
Total Coliform	Acute Total Coliform Rule Monthly Violation	4/4/2007	3/1/2007 To 3/31/2007
Health Effects:	Fecal Coliforms and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly and people with severely compromised immune systems.		

The City of Alliance has taken the following actions to return to compliance with the Nebraska Safe Drinking Water Act:

The water Department re-sampled all sites that tested positive, additional sites were sampled near all original sites. Additional sample results were negative, thus returning the system to compliance.

This report will not be mailed to Alliance Water Customers; a copy of this report may be obtained at the Utilities Facilities Building at 1313 West First Street in Alliance, Nebraska. It can also be viewed on the City of Alliance Web Site - cityofalliance.net