2008 Annual Drinking Water Quality Report
City Of LeMars, Water Department
CCR (consumer confidence report)

We're pleased to present to you this year's Annual Drinking Quality Water Report. This report is designed to inform you about the quality water and services we deliver to you every day. **Our Mission is to provide Quality water, Service and Consumer Education to you the citizens of LeMars**. 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 safety of your water.

Through the years, we conduct numerous water quality tests for over 80 drinking water contaminants and over 5,000 tests that help us control the water treatment process. This report describes the quality of the water that we provided last year. Included are details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards.

If you have any questions about this report or concerning your water utility, please contact Gayle Sitzmann at 712-546-5555. Please remember this report contains mandatory language. Also if you want to learn more, please attend any of our regularly scheduled City Council meetings. They are held on the first and third Tuesdays of each month at 12:00 noon in the City Hall Council Chambers. We are committed to providing you with information because informed customers are our best allies.

The water you drink comes from six municipal wells about 350 feet deep. These wells are located in close proximity to 1298 18th St. SW in the south part of town. After the water is pumped from the ground it travels up and over aerators that are on top of the treatment plant. From there it drops into the detention tank where potassium permanganate is added. Then threw sluice gates it travels threw weirs in the detention tank and delivered to the filters. After flowing down threw the filter bed it flows to the head box and a blend of Phosphate is added. The water flows out to the clear well and Chlorine is added around mid stream there. From the clear well it is pumped into the system from the pump station. The City of LeMars obtains its water from the Dakota Aquifer. The Dakota aquifer was determined to be not susceptible to contaminants because the characteristics of the aquifer and overlying materials prevent easy access of contaminants to the aquifer The City of LeMars water supply wells open to the Dakota aquifer will not be susceptible to most contaminants sources except through pathways to the aquifer such as abandoned or poorly maintained wells. A detailed evaluation of your source water was completed by the Iowa Department of Natural Resources, and is available from the City of LeMars water department at 712 546-5555.

LeMars Water Department routinely monitors for constituents in your drinking water according to Federal and State laws. The table (**T-1**) shows the results of our monitoring for the period of January 1st to December 31st, 2008**.** All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

DEFINITIONS

- 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 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.
- ppb -- parts per billion.
- ppm -- parts per million.
- pCi/L – picocuries per liter
- N/A – Not applicable
- ND -- Not detected
- Treatment Technique (TT) – A required process intended to reduce the level of a contaminant in drinking water.
- Action Level (AL) – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- 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.

(T-1) Primary Contaminants detected in LeMars Water

TEST RESULTS

Contaminant	*Violation Y / N*	*Level Detected*	*Unit Measurement*	*MCLG*	*MCL*	*Likely Source of Contamination*
DS 950 Distribution System						
Total Coliform Bacteria	***N***	***0***		***0***	***Presence of Coliform bacteria in >5% of monthly samples***	***Naturally present in the environment***
Copper 2006	***N***	***1.05 0.12-1.23***	***PPM***	***1.3***	***AL=1.3***	***Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives***
Lead 2006	***N***	***2 ND-6***	***PPB***	***0***	***AL=15***	***Corrosion of household plumbing systems: erosion of natural deposits***
Chlorine (ppm) MRDL level	N	1.18 0.45 – 1.91	PPM	MRDLG = 4	MRDL = 4	Water additive used to control microbes
Nitrate	N	.8	PPM	10	10	Run off from fertilizer use; Leaching from septic tanks, sewage; erosion of natural deposits
Fluoride 4/19/2004	***N***	***.89***	***PPM***	***N/A***	***4***	***Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer***
Sodium 5/2/2007	***N***	***57***	***PPM***	***N/A***	***N/A***	***Erosion of natural deposits***
Sulfate 4/20/2004	***N***	***360***	***PPM***	***N/A***	***N/A***	***Erosion of natural deposits***
Total Trihalomethanes (TTHM) 7/07/2007	***N***	***20***	***PPB***	***N/A***	***80***	***By-products of drinking water***

Inorganic Contaminants*:*

(2) **Copper**. Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's disease should consult their personal doctor.

(17**) Lead**. Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

In the past few years the LeMars water department has reduced the levels of copper corrosion by adding an ortho- phosphate as a corrosion inhibitor. The City of LeMars has been put on what is call reduced monitoring going from 80 Lead & Copper tests a year, down to 20 tests every three. We took our last tests in July of 2006 and we were under the action levels on both Lead and Copper.

The presence of contaminants does not necessarily indicate that the 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.

MCL's 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.

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

SECONDARY DRINKING WATER REGULATIONS

The secondary drinking water regulations cover contaminants that affect the taste, odor or appearance of drinking water. Unlike the Primary drinking water contaminants regulations the secondary are only guidelines; they are not federally enforceable. The table below shows the standards set by the EPA and what is in LeMars water.

Secondary Drinking Water Regulations				
Contaminant	Level Detected LeMars	Unit Measurement	Limit	Effect
1. Chloride	7. 5	MG/L	250	Taste and Corrosion of pipe
2.Total Dissolved solids (TDS)	1000	MG/L	50	Taste and possible relation between low hardness and cardiovascular disease, also an indicator of corrosivity(related to lead levels in water), can damage plumbing and limit effectiveness of soaps and detergents
4. Iron	.7	MG/L	0.3	Taste and red staining of clothes and plumbing fixtures
5. Manganese	.2	MG/L	0.05	Taste and black staining in clothes and fixtures

After the Water Treatment Plant the Iron is averaging .03 MG/L or less and Manganese is averaging .01 MG/L or less before going out to the distribution system.

GENERAL INFORMATION

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 posed a health risk. More information about contaminants or potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

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).

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. [City of LeMars Water] 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.

CONTAMINANT VIOLATIONS

none

OTHER VIOLATIONS

none

SOURCE WATER ASSESSMENT INFORMATION

The City of LeMars Water Department water supply obtains its water from the Dakota aquifer. The Dakota aquifer was determined to be free to contamination because the characteristics of the aquifer and overlying materials and formation. The wells will deliver to activities such as a treatment plant. A detailed evaluation of your source water was completed by the IDNR, and is available from 7:00 AM to 3:30 PM at the water department at 1298 18th St. SW. Or phone 712-546-5555.

Capital Projects

- **Changed 4 Fire Hydrants and valves**
- **Installed 12" water main from the intersection of Holton dr. and Airport rd. SW approx. 2500 ft. to 18th St. on west side of Business 75**
- **Installed 2" water main 2000 ft. on 195th west of Business 75**

CONTACT INFORMATION

Decisions regarding the water system are made at the Council meetings held on the 1st and 3rd Tuesdays of each month at 12:00 p.m. at City Hall 40 Central Ave SE and are open to the public.

The LeMars Water Department is happy to provide information and assistance on any question concerning the operation and quality of our water and services. We strive to provide quality water to every tap and every customer. Water is an important natural resource that we use in so many wonderful ways: Drinking, bathing, cooking, food processing, and gardens. That's why at the water department we take seriously our responsibility to ensure that we provide you the best water and services possible.

Since we have no violations the DNR does not require us to mail each customer a copy of the CCR (consumer confidence report). We are putting the report in the paper and it will also be on the agenda at the City council meeting to help inform all our customers that the information is available at the water department at the address below. We will also bring flyers to retirement homes, hospital and large employers to mention a few to help reach citizens, visitors and workers from out of town.

This report will be on the agenda for City Council 4/7/2009

Thank you
Water Superintendent
Gayle Sitzmann

LeMars Water Department
1298 18th St. SW
PO Box 1130
LeMars, Iowa, 51031
712- 546- 5555
gsitzman@lemarscomm.net

Terms and abbreviations

In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:
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 billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.
Picocuries per liter (pCi/L) - Picocuries per liter is a measure of the radioactivity in water.
Action Level - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
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.
Maximum Residual Disinfectant Level Goal (MRDLG) – The level of 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.