

2010 WATER QUALITY REPORT FOR City of De Soto, Iowa

This report contains important information regarding the water quality in our water system. The source of our water is groundwater. Our groundwater is drawn from the alluvial aquifer(s). Our water quality testing shows the following results:

CONTAMINANT	MCLG	MCLAL	DETECTED LEVEL	DATE SAMPLED	RANGE OF DETECTION	VIOLATION	SOURCE
Barium (ppm)	2	2	.19	7/26/2004		NO	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Copper (ppm)	1.3	AL=1.3	.73	7/01/2009	.10-1.48	NO	Corrosion of household plumbing systems; Erosion of natural deposits
THM (ppb) [Total trihalomethanes]	N/A	80	18	8/27/2007		NO	By-products of drinking water disinfection
Fluoride (ppm)	4	4	.727	1-09/12-09	.21-1.31	NO	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Nitrate [as N] (ppm)	10	10	3.1	1-01/12-31 2009		NO	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium (ppm)	N/A	N/A	110	8/27/2007		NO	Erosion of natural deposits; Added to water during treatment process
Lead (ppb)	0	AL=15	20ppb	7/01/2009	ND-57	YES	Corrosion of household plumbing systems; erosion of natural deposits
Chlorine (ppm)	MRDLG=4.0	MRDL=4.0	.780833	1-01/12-31	0.8-1.075	NO	Water additive used to control microbes
Di(2-ethylhexyl)adipate (ppm)	400	400	1.4	2/7/06	N/A	NO	Discharge from chemical factors
Di(2-ethylhexyl)phthalate	0	6	2.9	2/7/06	N/A	NO	Discharge from rubber and chemical factories

Note: Contaminants with dates indicate results from the most recent testing done in accordance with regulations.

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.

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).

ADDITIONAL HEALTH INFORMATION

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).

SOURCE WATER ASSESSMENT INFORMATION

The DeSoto water supply obtains its water from the alluvial aquifer. The alluvial aquifer was determined to be highly susceptible to contamination because the characteristics of the aquifer and overlying materials allow contaminants to move through the aquifer fairly quickly. The wells will be most susceptible to activities such as dry cleaners, gas stations and industrial sites. A detailed evaluation of your source water was completed by the IDNR, and is available from City of De Soto, Iowa at (515) 834- 2233.

CONTAMINANT VIOLATIONS

LEAD EXCEEDANCE:

Please see the attached information regarding the effects of lead in your drinking water.

OTHER VIOLATIONS

Failure to monitor in accordance with the law:

In March 2009 the city failed to sample for Di(2-Ethylhexyl) Adipate & Phthalate within the time period allowed. The city re-tested and test results were in compliance with IDNR regulations.

CONTACT INFORMATION

For questions regarding this information, please contact Dan Van Langen at City Hall during the following hours: (9:00am through 3:00 pm).

Decisions regarding the water system are made at the City Council meetings held on third Tuesday at 7 p.m. at City Hall and are open to the public.

ADDITIONAL INFORMATION REGARDING CONTAMINANT VIOLATIONS:



**PUBLIC EDUCATION for LEAD EXCEEDANCE
For City of DeSoto Public Water Supply**

The United States Environmental Protection Agency (EPA) and the City of DeSoto are concerned about lead in our drinking water. Although most homes have very low levels of lead in their drinking water, some homes in the community have lead levels above the EPA action level of 15 parts per billion (ppb), or 0.015 milligrams of lead per liter of water (mg/L). Under federal law we are required to have a program in place to minimize lead in your drinking water by 2011. This program includes corrosion control treatment, source water treatment, and public education. We are also required to replace each lead main water line that we control if the line contributes lead concentrations of 15 ppb or more after we have completed the comprehensive treatment program. If you have any questions about how we are carrying out the requirements for the lead regulation please give the City of DeSoto, Public Works Director a call at 515.834.2502. More information is also available in a brochure that you may pick up at DeSoto City Hall.

Lead is a common metal found throughout the environment in lead-based paints, air, soil, household dust, food, certain types of pottery porcelain and pewter, and water. Lead can pose a significant risk to your health if too much enters your body. Lead builds up in the body over many years and can cause damage to the brain, red blood cells and kidneys. The greatest risk is to young children and pregnant women. Amounts of lead that won't hurt adults can slow down normal mental and physical development of growing bodies. In addition, a child at play often comes into contact with sources of lead contamination – like dirt and dust – that rarely affect an adult. It is important to wash children's hands and toys often, and try to make sure they only put food in their mouths.

Lead in drinking water, although rarely the sole cause of lead poisoning can significantly increase a person's total exposure to lead.

Lead is unusual among drinking water contaminants in that it seldom occurs naturally in water supplies like rivers and lakes. Lead enters drinking water primarily as a result of the corrosion, or wearing away, of materials containing lead in the water distribution system and household plumbing. These materials include lead-based solder used to join copper pipe, brass and chrome plated brass faucets, and in some cases, pipes – made of lead that connect your house to the water main (service lines). In 1986, Congress passed the use of lead solder containing greater than 0.2% lead, and restricted the lead content of faucets, pipes and other plumbing materials to 8.0%

When water stands in lead pipes or plumbing systems containing lead for several hours or more, the lead may dissolve into your drinking water. This means the first water drawn from the tap in the morning, or later in the afternoon after returning from work or school, can contain fairly high levels of lead.

Steps You Can Take in the Home to Reduce Exposure to Lead in Drinking Water

Despite our best efforts mentioned earlier to control the water corrosiveness and remove lead from the water supply, lead levels in some homes and buildings can be high. To find out whether you need to take action in your home, have your drinking water tested to determine if it contains excessive concentrations of lead. Testing the water is essential because you cannot see, taste or smell lead in drinking water. Some local laboratories that can provide this service are listed at the end of this letter. For more information on having your water tested, please call DeSoto Public Works at 515.834.2502.

If a water test indicates that the drinking water drawn from a tap in your home contains lead above 15 ppb, then you should take the following precautions:

- A. Let the water run from the tap before using it for drinking or cooking any time the water in the faucet has gone unused for more than six hours. The longer water resides in your home's plumbing the more lead it may contain. Flushing the tap means running the cold water until the water gets noticeably colder, usually about 15-30 seconds. If your house has a lead service line to the water main, you may have to flush the water for a longer time, perhaps one minute, before drinking. Although toilet flushing or showering flushes water through a portion of your home's plumbing system, you still need to flush the water in each faucet before using it for drinking or cooking. Flushing tap water is a simple and inexpensive measure you can take to protect your family's health. It usually uses less than one or two gallons of water and cost less than \$1.48 per month. To conserve water, fill a couple of bottles for drinking water after flushing the tap, and whenever possible use the first flush water to wash the dishes or water plants. If you live in a rise building, letting the water flow before using it may not work to lessen your risk from lead. The plumbing systems have more and sometimes larger pipes than smaller buildings. Ask your landlord for help in locating the source of the lead and for advice on reducing the lead level.
- B. Try not to cook with or drink water from the hot water tap. Hot water can dissolve more lead more quickly than cold water. If you need hot water, draw water from the cold tap and heat it on the stove.
- C. Remove loose lead solder and debris from the plumbing materials installed in newly constructed homes or homes in which the plumbing has recently been replaced by removing the faucet strainers from all taps and running the water from 3 to 5 minutes. Thereafter, periodically remove the strainers and flush any debris that has accumulated over time.
- D. If your copper pipes are joined with lead solder that has been installed illegally since it was banned in 1986 notify the plumber who did the work and request that he or she replace the lead solder with lead-free solder. Lead solder looks dull gray, and when scratched with a key looks shiny. In addition, notify your State of Iowa Department of Natural Resources about the violation.
- E. Determine whether or not the service line that connects your home or apartment to the water main is made of lead. The best way to determine if your service line is made of lead is by either hiring a licensed plumber to inspect the line or by contacting the plumbing contractor who installed the line. You can identify the plumbing contractor by checking with the city's record of building permits which should be maintained in files at City Hall. A licensed plumber can at the same time check to see if your home's plumbing contains lead solder, lead pipes or pipe fittings that contain lead. The public water system that delivers water to your home should also maintain records of the materials located in the distribution system. If the service line that connects your dwelling to the water main contributes more than 15 ppb to drinking water, after our comprehensive treatment program is in place, we will provide you with options on how to replace the line. It is the responsibility of the property owner to replace, maintain and keep records of their service line. If you choose to replace your service line the city will take a follow-up tap water sample within 14 days of the replacement. Acceptable replacement alternatives include copper, steel, iron and plastic pipes.

- F. Have an electrician check your wiring. If ground wires from the electrical system are attached to your pipes, corrosion may be greater. Check with a licensed electrician or your local electrical code to determine if your wiring can be grounded elsewhere. DO NOT attempt to change the wiring yourself because improper grounding can cause electrical shock and fire hazards.

The Steps described above will reduce the lead concentrations in your drinking water. However, if a water test indicates that the drinking water coming from your tap contains lead concentrations in excess of 15 ppb after flushing, or after we have completed our actions to minimize lead levels, then you may want to take the following additional measures:

- A. Purchase or lease a home treatment device. Home treatment devices are limited in that each unit treats only water that flows from the faucet to which it is connected and all of the devices require periodic maintenance and replacement. Devices such as reverse osmosis systems or distillers can effectively remove lead from your drinking water. Some activated carbon filters may reduce lead levels at the tap, however all lead reduction claims should be investigated. Be sure to check the actual performance of a specific home treatment before installing the unit.
- B. Purchase bottled water for drinking and cooking.

You can consult a variety of sources for additional information. Your family doctor or pediatrician can perform a blood test for lead and provide you with information about the health effects of lead. State and local government agencies that can be contacted include:

- A. The City of DeSoto can provide you with Information about your community's water supply and a list of local laboratories that have been certified by EPA for testing as well as provide you with information about building permit records that should contain the names of plumbing contractors that plumbed your home.
- B. The Iowa Department of Public Health at 1-800-972-2026 can provide you with information about health effects of lead and how you can have your child's blood tested.

The following is a list of some state approved laboratories in your area that you can call to have your water tested for lead:

- 1) University of Iowa Hygienic Lab, 2220 S. Ankeny Blvd., Ankeny, Iowa 50023 * Phone: 515-725-1600
- 2) LGI, 1532 DeWitt Street, Ellsworth, Iowa 50075 * Phone: 515-836-4444

Also visit any of the following websites for more information:

Dallas County: www.co.dallas.ia.us

Iowa Department of Natural Resources: www.iowadnr.gov

Environmental Protection Agency: www.epa.gov/lead/index.html

Any further questions please call the City of DeSoto
Public Works Department at #515.834.2502