
CONSUMER CONFIDENCE REPORT FOR 2014

Fort Leonard Wood, Missouri



"Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.

Translation: This report contains important information about your drinking water. Have someone translate it for you, or speak with someone who understands it."

April 2015

2014 Consumer Confidence Report

Fort Leonard Wood, Missouri

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EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

2014 Consumer Confidence Report Fort Leonard Wood, Missouri

In 1998, the U.S. Environmental Protection Agency (EPA) published a Safe Drinking Water Act rule requiring community water systems to annually provide information on the quality of drinking water they provide to the consuming public. This information is contained in the Consumer Confidence Report (CCR). Fort Leonard Wood's CCR is titled, Annual Drinking Water Quality Report for 2014.

The quality of drinking water at this installation continues to be excellent. In 2014, over 11,000 tests were performed to assess the presence or absence of 115 distinct substances or physical characteristics of Fort Leonard Wood's drinking water. In the past 16 years of reporting, water quality has met or surpassed all required standards of quality established by the EPA and the Missouri Department of Natural Resources.

This report represents the fifteenth annual CCR for Fort Leonard Wood. It includes the following elements:

- Supplier name and contact information
- Sources of water
- Table showing detected contaminants, their concentration, prescribed safe levels, and potential contaminant sources
- Health information using specified language contained in the rule

The regulatory deadline for distributing the 2014 CCR to consumers is July 1, 2015. Prior to this deadline, the CCR will be disseminated to consumers by emailing the complete report to all installation occupants at Fort Leonard Wood and by posting a copy of it on the Fort Leonard Wood Environmental Page at:

http://www.wood.army.mil/newweb/garrison/dpw_env/sdwa/2014.pdf

A statement certifying distribution of the 2014 CCR to consumers will be sent to the Missouri Department of Natural Resources.

**ANNUAL DRINKING WATER QUALITY REPORT FOR 2014
FORT LEONARD WOOD, MISSOURI**

Annual Drinking Water Quality Report for 2014

Fort Leonard Wood, Missouri

Introduction

Under the Consumer Confidence Reporting Rule of the Safe Drinking Water Act, community water systems are required to annually report water quality information to the public. This report provides information on the sources of drinking water and presents results of water quality monitoring performed in 2014.

Information about Drinking Water

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. It can also pick up substances resulting from animal or human activity. Classes of contaminants that could be present include:

- Microbial: such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic: such as salts and metals that can be naturally-occurring or the result of stormwater runoff, industrial or domestic wastewater discharges, oil or gas production, mining, or farming. Some naturally occurring salts and metals could be radioactive.
- Organic: includes volatile and synthetic chemicals that are by-products of industrial processes or petroleum production. They can also come from gas stations, urban stormwater runoff, and septic systems.

Health 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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the United States Environmental Protection Agency's (U.S. EPA's), Safe Drinking Water Hotline at 1-800-426-4791.

- ***Haloacetic Acids (HAA)***
Some people, who drink water containing haloacetic acids in excess of the Maximum Contaminant Level (MCL) over many years, may have an increased risk of getting cancer.
- ***Total Trihalomethanes (TTHM)***
Some people who drink water containing trihalomethanes in excess of the MCL over many years, may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

- **Lead**

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. Fort Leonard Wood 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 drinking 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>

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. Guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbiological contaminants in drinking water are available from the EPA's Safe Drinking Water Hotline and the Center for Disease Control (CDC).

For more information on Fort Leonard Wood's drinking water, contact the Environmental Division Chief at (573) 596-0882 or visit the Division's website at:

http://www.wood.army.mil/newweb/garrison/dpw_environmental.html

Source and Treatment

Fort Leonard Wood's drinking water sources are from both river and well water. Over 97% of the water is from the Big Piney River. Before being distributed, this water is treated to comply with drinking water quality standards at the Fort Leonard Wood Water Treatment Plant. At the plant, the river water is first treated by chemical coagulation and sedimentation to lower the concentration of suspended solids and naturally occurring metals. The water is then filtered and fluoridated to help prevent tooth decay and disinfected with chlorine. The remaining water is pumped from over 1,000 feet underground from the Potosi Dolomite aquifer. Due to its purity, this water is not treated to remove suspended solids, as with the river water.

In addition, Fort Leonard Wood currently has 9 active permitted wells that serve individual remote areas: Building 1420, Ammunition Supply Point; Building 5259, Babb Airfield; Building 12800, Military Operations and Urban Terrain (MOUT) Training Facility; Building 10221, Golf Course; Building 10321, Rock Quarry; Building 10380, TA-61; Building 10224, Golf Course Maintenance, and Building 5247; TA-224; and TA-250. The monitoring results for all sources of drinking water at Fort Leonard Wood are included in this report.

Water Sources For Fort Leonard Wood		
Source Name	Building	Type
Big Piney River		Surface water
Ammunition Supply Point	1420	Ground water
Babb Airfield	5259	Ground water
MOUT Training Facility	12800	Ground water
Golf Course	10221	Ground water
Rock Quarry	10321	Ground water
TA-61	10380	Ground water
Golf Course Maintenance	10224	Ground water
TA-224	5247	Ground water
TA-250	4976B	Ground water

Monitoring Results

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations that limit the amount of certain contaminants. Fort Leonard Wood routinely monitors for these potential contaminants to demonstrate drinking water safety. Over the past year, more than 11,000 tests were completed to assess water quality. Testing included the monitoring of both regulated and unregulated contaminants and physical characteristics.

Regulated contaminants are those which have safe levels assigned to them by the U.S. EPA or Missouri Department of Natural Resources. Unregulated contaminants do not have prescribed safety levels, but are monitored to ensure that treatment is effective and responds to ever changing environmental conditions. Testing targeted:

- Two types of microbes
- Thirty-one metals
- Eight pesticides and herbicides
- Fifty-nine volatile organic compounds
- Turbidity
- Total Organic Carbon

Fort Leonard Wood has not had a drinking water violation during the past 16 years of publishing this report, including 2014. Fort Leonard Wood's drinking water meets or surpasses all standards of safety and quality established by the U.S. EPA and the Missouri Department of Natural Resources.

A summary of the highest positive results from contaminant testing is included in the following table.

Fort Leonard Wood Detected Contaminants- 2014

Regulated Contaminants

Compound	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
Barium	1/21/2014	0.153	0.0274 – 0.153	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chromium	1/21/2014	6.47	1.54 – 6.47	ppb	100	100	Discharge from steel and pulp mills
Fluoride	1/21/2014	1.24	0 – 1.24	ppm	4	4	Natural deposits; Water additive which promotes strong teeth
Nitrate-Nitrite	4/15/2014	2.79	0 – 2.79	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Toluene	1/28/2014	0.00093	0 – 0.00093	ppm	1	1	Discharge from petroleum factories

Disinfection Byproducts

Byproduct / Sample Point	Monitoring Period	Highest LRAA	Range	Unit	MCL	MCLG	Typical Source
(HAA5) / DBPDUAL-01	2014	31	20.7 – 50.7	ppb	60	0	Byproduct of drinking water disinfection
(HAA5) / DBPDUAL-02	2014	26	21.9 – 33.8	ppb	60	0	Byproduct of drinking water disinfection
(HAA5) / DBPDUAL-03	2014	13	0 – 25.5	ppb	60	0	Byproduct of drinking water disinfection
(HAA5) / DBPDUAL-04	2014	10	0 – 24.4	ppb	60	0	Byproduct of drinking water disinfection
TTHM / DBPDUAL-01	2014	71	71.3 – 83.7	ppb	80	0	Byproduct of drinking water disinfection
TTHM / DBPDUAL-02	2014	45	41.6 – 75	ppb	80	0	Byproduct of drinking water disinfection
TTHM / DBPDUAL-03	2014	34	34 – 46	ppb	80	0	Byproduct of drinking water disinfection
TTHM / DBPDUAL-04	2014	19	7.44 – 30.9	ppb	80	0	Byproduct of drinking water disinfection

TOC

Total Organic Carbon	Collection Date	Highest Value	Range	Unit	TT	MCLG	Typical Source
Carbon, Total	10/20/2014	1.22	0.67 – 1.22	mg/L	0	0	Naturally present in the environment

Lead and Copper

Lead and Copper	Date	Highest Value	Range	Unit	AL	Sites over AL	Typical Source
Copper	2010 - 2012	0.0657	0.00142 – 0.257	ppm	1.3	0	Corrosion of household plumbing systems

Microbiological

Microbiological organisms	Result	MCL	MCLG	Typical Source
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No detected results were found in calendar year of 2014

Turbidity

Turbidity is a measure of cloudiness of water. We monitor turbidity because it is a good indicator of the effectiveness of the filtration system.

Percentage of samples in compliance with standard	Months Occurred	Violations	Highest Single Measurement
100	12	No	0.23

Violations and Health Effects Information

No violations occurred in the calendar year 2014

Unregulated Contaminant Monitoring Rule

Unregulated Contaminant	Collection Date	Highest Value	Range	Unit
Chromium, Hex	12/11/2013	0.13	0.088 – 0.13	ug/L
Strontium	10/1/2013	36.9	25 – 36.9	ug/L
Vanadium, Total	6/24/2013	0.29	0 – 0.29	ug/L

Optional Monitoring (not required by EPA)

Secondary Contaminants	Collection	Highest	Range	Units	SMCL	MCLG
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HAA: Haloacetic acids, chlorinated and/or brominated organic compounds resulting as by-products of disinfecting treatment.

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 below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

ppb: Part per billion (ug/L)

ppm: Part per Million (mg/L)

RAA: Running Annual Average, or the average of sample analytical results for samples taken during the previous four calendar quarters

SMCL: Secondary Maximum Contaminant Level, non-enforceable guidelines for contaminants that may cause cosmetic or aesthetic effects in drinking water.

TTHM: Total Trihalomethanes, chlorinated methane (organic) compounds resulting as by-products of disinfecting treatment.

	Date	value				
1,2,4-Trimethylbenzene	1/28/2014	5.15	0 – 5.15	ug/L		
1,3,5-Trimethylbenzene	1/28/2014	0.97	0 – 0.97	ug/L		
Alkalinity, CaCO ₃ Stability	4/21/2014	168	168	mg/L		
Alkalinity , Total	11/12/2014	184	150 - 184	mg/L		
Aluminum	1/21/2014	0.0236	0 – 0.0236	mg/L	0.05	
Calcium	1/21/2014	50.1	25.7 – 50.1	mg/L		
Chloride	4/21/2014	8.43	8.43	mg/L	250	
Chromium, Hex	12/11/2013	0.13	0.088 – 0.13	ug/L		
Hardness, Carbonate	1/21/2014	245	119 – 245	mg/L		
Iron	1/21/2014	0.186	0.00548 – 0.186	mg/L	0.3	
Magnesium	1/21/2014	29.2	13.3 – 29.2	mg/L		
Manganese	1/21/2014	0.00419	0 – 0.00419	mg/L	0.05	
Nickel	1/21/2014	0.00226	0 – 0.00226	mg/L	0.1	
pH	4/21/2014	7.92	6.72 – 7.92	pH	8.5	
Potassium	1/21/2014	2.36	0.63 – 2.36	mg/L		
Sodium	1/21/2014	18.8	2.02 – 18.8	mg/L		
Strontium	10/1/2013	36.9	25 – 36.9	ug/L		
Sulfate	4/21/2014	8.17	8.17	mg/L	250	
TDS	4/21/2014	188	188	mg/L	500	
Vanadium, Total	6/24/2013	0.29	0 – 0.29	ug/L		
Zinc	1/21/2014	1.14	0.00304 – 1.14	mg/L	5	

Appendix A
CCR Certification

Consumer Confidence Report Certification

PWS Name: Fort Leonard Wood

PWS I.D. Number: MO3079500

The community public water system (PWS) indicated above confirms their 2014 Consumer Confidence Report has been distributed to their customers and the appropriate notices of availability have been given. Further, this system certifies that the information contained in their Report is correct and consistent with the compliance monitoring data previously submitted to the Missouri Department of Natural Resources.

Certified by:

Name: Carl Stenger **Signature:** _____
Title: Physical Scientist
Phone: (573) 596-0131 ext. 63723 **Date:** _____

You are not required by EPA rules to report the following information, but you may want to provide it to Missouri Department of Natural Resources. Check all items that apply:

- CCR distributed by mail or other direct delivery. Specify other direct delivery methods:
- "Good faith" efforts were used to reach non-billing consumers. Those efforts included the following as recommended by the primacy agency.
 - Posting on the Internet at:
http://www.wood.army.mil/newweb/garrison/dpw_env/sdwa/2014.pdf
 - Mailing the CCR to postal patrons within the service area. (Attach zip codes used)
 - Advertising the availability of the CCR in news media (attach copy of announcement)
 - Publication of CCR in local newspaper (attach copy)
 - Posting the CCR in public places (attach list of locations)
 - E-mailed direct URL internet address and notice of paper copy availability.
 - Delivery to community organizations (attach list)
- (For systems serving at least 10,000 persons) Posted CCR on a publicly-accessible Internet site at the address:
http://www.wood.army.mil/newweb/garrison/dpw_env/cwa/2014.pdf
- Delivered the CCR to other agencies as required by the primacy agency (attach list):
**Missouri Department of Natural Resources
Public Drinking Water Program
P.O. Box 176
Jefferson City, MO 65102**