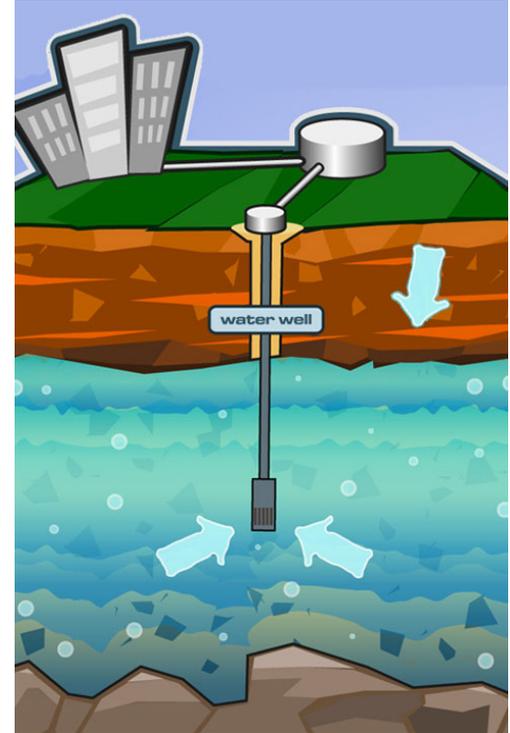


2012 Drinking Water Quality Report

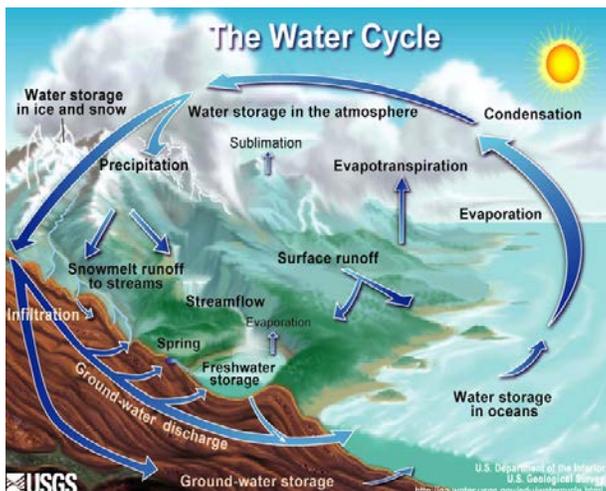
Special points of interest:

- Where our drinking water comes from
- Who ensures our drinking water is safe
- What standards are used for drinking water compliance
- Potential contamination sources
- The Earth's water cycle
- Contact names and numbers for questions or concerns

The 65th Medical Operations Squadron, Bioenvironmental Engineering Flight (BE), informs consumers annually about the quality of their drinking water from the previous year. Lajes Field has seven groundwater wells, one water treatment plant, and multiple storage reservoirs which supply our potable water system. Four wells extract water from the same deep aquifer which meets the demand requirements for the entire installation. The water treatment plants use a filtration system followed by chlorination for disinfection. Treatment plant personnel, along with BEF, ensure compliance with the U.S. Environmental Protection Agency, AFI 48-144, *Drinking Water Surveillance*, and the Final Governing Standards for Portugal. In order to ensure the water is safe to drink, this standard limits the amount of certain contaminants in water. Some people may be more vulnerable to contaminants in drinking water than the general population. The Final Governing Standards for Portugal guidelines are an appropriate means to lessen the risk of infections by *Cryptosporidium* and other microbial contaminants.



The Water Cycle...



Water is constantly being cycled between the atmosphere, the ocean and land. This cycling is a very important process that helps sustain life on Earth. As water evaporates, vapors rise and condense into clouds. The clouds move over the land and precipitation falls in the form of rain, ice or snow. Water fills streams and rivers, and eventually flows back into the oceans where evaporation starts the process again. Water states (solid, liquid or gas) are determined mostly by temperature. Although water continuously changes state from solid to liquid to gas, the amount of water on Earth remains constant. The rise of earth's temperatures will continue to intensify during the 21st century. In places where it's already dry, it's going to get drier, increasing the probability of drought. Good water conservation practices are the key to ensuring we have plenty of water for the future.

Acronyms and Definitions Used in This Report

Milligrams per Liter (mg/L) – amount of contaminant per liter of water.
Fibers per Liter (fibers/L) – amount of fibers per liter of water.
Micrograms per Liter (µg/L) – amount of contaminant per liter of water.
Max Contaminant Limit (MCL) - the highest level of a contaminant that is allowed in drinking water.
Millisievert per year (mSv/yr) - unit for measuring radiation absorbed by the body.
Becquerel per Liter (Bq/L) –unit for activity of radiation per liter of water

Table 1: Inorganic Chemicals (Including Metals)

Contaminant of Concern	Result	Max Contaminant Limit [MCL]	Below MCL?
Chloride	23 mg/L	250.0 mg/L	✓
Conductivity	914 µS/cm	2500 µS/cm	✓
Enterococci	0 Col./100mL	0 Col.100mL	✓
Oxidizability	0.7 mg/L	5 mg/L	✓
Turbidity	0.7 unit	4 unit	✓
Sodium	53 mg/L	200 mg/L	✓
Sulfates	27 mg/L	200 mg/L	✓
Nitrate {NO ₃ }, as N	12 mg/L	50 mg/L	✓

Inorganic contaminants, such as salts and metals, can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

Table 2: Radiologicals

Contaminant of Concern	Result	Max Contaminant Limit [MCL]	Below MCL?
Total alpha	0.21 Bq/L	0.5 Bq/L	✓
Total beta	0.27 Bq/L	1 Bq/L	✓
Total indicative dose	0.055 mSv/yr	0.10 mSv/yr	✓

Radioactive contaminants can be naturally-occurring or be the result of oil and gas production and mining.

From January 2012 to December 2012, the drinking water for Lajes Field was sampled for all contaminants required within the Federal Governing Standard for Portugal. Due to there not being any detection of the contaminants within the water, they were not listed in this drinking water report. All contaminants that are not detected by lab analysis are not reported.



SrA Devon de Castrique from 65 MDG Bioenvironmental Flight performs testing to measure the chlorine and pH levels within the drinking water.

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

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 materials and can pick up substances resulting from the presence of animals or from human activity.

In order to ensure that tap water is safe to drink, Lajes Field follows the primary guidelines outlined by the Final Governing Standards - Portugal, which limit the amount of certain contaminants in water provided by public water systems.

Lead in Drinking Water...

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. Lajes Field is required per the Final Governing Standards for Portugal to use only lead-free pipe in the installation or repair of water systems and plumbing systems for drinking water.

Minimal traces of lead will always be present in said components; therefore, annual lead samples are taken. Levels have shown to be very minimal and cause no risk to health. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for a few seconds before using water for drinking or cooking.

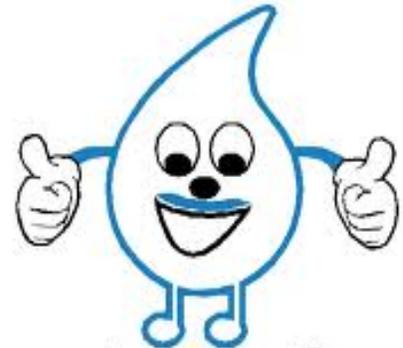


SrA Devon de Castrique and SSgt Valente' Thompson from 65 MDG Bioenvironmental Flight, collect a water sample for bacteriological analysis.

How you can help conserve water

- Turn off the faucet in your bathroom while you brush your teeth.
- Take shorter showers.
- Don't let the water run constantly while you're washing or rinsing dishes.
- Clean sidewalks and driveways with a broom—not the water hose.
- Water your lawn in the early morning to avoid evaporation.
- Repair dripping faucets.
- Run your washer machine and dishwasher only when they are full
- Teach your kids about water conservation to ensure a future generation that uses water wisely.

Make it a family effort to reduce next month's water usage! Visit www.epa.gov/watersense for more information



got water?
Do your part, be water smart!

Contact information:

We are available to answer any questions or concerns you may have. Please contact Bioenvironmental Engineering (**SSgt Valente' Thompson or SrA Devon de Castrique** at DSN 535-6206).

I Informação disponível em língua alemã no departamento ambiental.

Tel: 535-3143 (Sra. Susana Simoes or Sr. Tome Carvalho).

