

Australian Water Quality Centre BORE WATER TESTING - FOR PRIVATE USE Information Sheet

Bore water does not have the same level of security as that provided to households connected to reticulated supplies. Public water supplies are tested frequently but it is not feasible for private owners to constantly test their bore water. Although water quality may be good on the day of testing, bore water quality may change over time. After the initial analysis it should be checked periodically and monitored by the owner (shallow bores will need more frequent testing). If at any stage there are changes in appearance or odour of the water, additional water quality testing is advised.

Microbiological tests

Water in bores can sometimes be contaminated by micro-organisms from human, bird or animal faeces. Common sources include leaking septic tanks; waste water drainage and bird/possum droppings. The micro-organism tested (*E.coli*) will provide you with an indication if your borewater has been contaminated in this way.

Due to the strict sampling requirements for microbiological sampling, it is **recommended** these water samples be collected by **AWQC sampling staff only**. This process typically involves flaming the source tap, taking the sample in a sterile bottle leaving an air gap, chilling the sample, and importantly, ensuring the sample arrives at the laboratory within 24 hours of collection. **Samples not meeting these requirements may deem the sample unsuitable and therefore accuracy of results cannot be guaranteed.**

Chemical tests

The quality of bore water can vary widely depending on the quality of the groundwater that is its source. Common water quality problems include high salinity and high levels of nitrate/nitrite which can cause "blue baby" syndrome. High levels of iron in the water can cause iron bacteria to build up in agricultural dripper systems. Other heavy metals as well as volatile organic compounds can also be present due to industrial contamination.

What to test for?

The AWQC offers a package of microbiological and chemical testing **designed for private bores only**; please refer to application form for further details on requesting the services of AWQC.

For your information, analyses included in the test packages are as follows:

Analysis	Bottle Type
E.coli	1 x Sterile 600mL PET, air gap, keep chilled
Fluoride, Oxidised Nitrogen, Nitrate, Nitrite	1 x 350mL PET no air gap, keep chilled
Volatile Organic Compounds	1 x 500mL Glass, no air gap, keep chilled
pH, Conductivity and Total Dissolved Solids	1 x 600mL PET no air gap, keep chilled
Antimony, Arsenic, Barium, Beryllium, Soluble Boron, Cadmium, Chromium, Cobalt, Copper, Iron, Lead, Manganese, Mercury, Molybdenum, Nickel, Selenium, Sulphur, Uranium, Vanadium and Zinc	1 x 355mL Acid Washed PET no air gap, keep chilled

If you have a bore that is used for commercial or public purposes the testing requirements may be different. Please contact the South Australian Department of Health on 08 8226 7100 to obtain further information.

To proceed with testing

Return the attached application form by mail to AWQC, Attn Customer Service Unit, PO Box 1751, Adelaide SA 5001, fax 1300 883 171 or email awqccsu@sawater.com.au and we will send you a formal contract with a proposed sample date. Unfortunately we cannot provide an accurate time of collection. **The 2nd Page (work acceptance form) of the contract must be completed and returned before testing can commence.**

Important disclaimer

While all advice and recommendations are made in good faith, the AWQC does not accept any liability or responsibility for the actions taken by an individual as a result of information provided. You should satisfy yourself that any information you rely on from any source is appropriate for your own particular circumstances.

Result Interpretation

For result interpretation, please contact the SA Department of Health on 08 8226 7100.

Further information

For further information, please refer to the Department of Health Bore Water testing fact sheet at the following web site or telephone 08 8226 7100;

<http://www.dh.sa.gov.au/pehs/PDF-files/0808-bore-water-testing.pdf>

For further information on using bore water safely please refer to the following web site:

<http://www.dh.sa.gov.au/pehs/PDF-files/0808-bore-water-safety.pdf>

For health and aesthetic guideline values relating to specific analysis please refer to the Australian Drinking Water Guidelines 2004 (chapter 10 page 22);

http://www.nhmrc.gov.au/publications/synopses/_files/adwg_11_06_chapter_10.pdf