

Collection and submission of water samples for chemical analysis

General client information

The quality of results obtained from testing performed on water samples can depend upon the way samples are taken and presented to the laboratory.

Below is a guide for how water samples should be submitted to the laboratory in order to minimize sample deterioration and contamination prior to the sample reaching the laboratory.

Some analysis require special precautions to be taken for samples, particularly those containing organic compounds and trace metals. Constituents of water samples may be totally or partially lost if appropriate sampling and preservation procedures are not followed.

Water Sample Bottles for Chemical Analysis

Agrifood Technology can supply (sterile) sampling bottles for the collection of water samples. These bottles are always available upon request.

NOTE: Please only take enough bottles for your immediate sampling requirements.

Transport your samples in a clean cooler that is only used for the purpose of transporting water samples. Cool the samples with ice bricks and pack the samples securely so they will not be damaged during transport.

NOTE: Never use loose ice to cool water samples. If the samples are submerged in thawed ice they may become contaminated and the results may be unreliable.

NOTE: Do not freeze water samples.

Water sample collection point/s identification

The minimum requirements to identify a sample are:

- Client Name
- Sampling Point
- Date
- Time of collection
- Tests required

Refer to the "Sample Submission Form" which is to be submitted along with the water sample and sent to the lab. It is essential that the water sample collection point is clearly identified. If samples are to be collected from a set sampling point on an ongoing basis please provide a consistent description of the sampling point.

Sample submission

Samples are required to be submitted within specific holding timeframes for the required analysis, allowing time for the laboratory to complete testing. Please refer to Table 1 below, for the specific requirements and holding times for each individual analysis.

It is best if samples are sent so that they arrive at Agrifood laboratory ideally no later than 15:30h from Monday to Thursday and no later than 13:30h on Friday.

Samples must be received to the laboratory within 24hrs from time of collection.

Water Sample General Collection Instructions

- Collect an appropriate water sampling bottle for each site to be sampled and the required submission form from the laboratory. Ensure that the container will not provide cross contamination (separate samples may be required for different analysis).
- Prior to collecting the sample, label the sample bottles and complete the sample submission form. For each site record the sample bottle number on the sample submission form and record sample site details.
- Do not rinse the bottle
- Collect the water sample into the bottle ensuring enough sample is collected for the analysis required. For groundwater (bore water) samples it is essential for the bottle to be filled to the top so that no air remains in the bottle.
- Carefully screw the lid on the bottle and tighten firmly.
- Transport the samples to the laboratory without delay with completed paperwork. Ensure samples are suitably packaged in a cooler and the courier is aware of the delivery requirements. Samples should be received refrigerated (2°C to 8°C) and within 24hrs from collection.
- Do not use loose ice to cool samples. Do not freeze samples. A cooler with ice brick/s is the most suitable vessel for transportation.
- **Samples must be received by the laboratory within 24hrs from time of collection.**

If you have any questions, please contact the laboratory for current requirements.

Phone: (08) 9418 0233

Email: lab.wa@agrifood.com.au

Table 1: Preservation procedures and recommended holding times for water samples.

Analysis	Recommended Container Type	Agrifood Technology method number	Recommended minimum sample size	Preservation procedure	Holding time (max. time from collection until analyzed)
Alkalinity/acidity	Plastic	TP_WA/007	50mL	Cooled to <4°C	14 days
Conductivity	Plastic	TP_WA/009	50mL	Cooled to <4°C	28 days
Hardness	Plastic	TP_WA/008	50mL	Cooled to <4°C or pH <2*	7 days or 6 months
Metals	Plastic	TP_WA/015	100mL	pH <2 *	6 months
pH	Plastic	TP_WA/010	50mL	Cooled to <4°C	3 days
TDS	Plastic	TP_WA/006	50mL	Cooled to <4°C	7 days

* Samples are treated in the lab with HNO₃ upon receipt to decrease the pH

Reference: APHA Standard Methods for the examination of Water and Wastewater, 19th Edition, 1995