



## Sampling Instructions

This Esky Contains Some of the Following Sample Bottles

Label Colour	Bottle Type	For Analysis of	Preservative	Storage	Max Holding Period
Light Blue	500mL Clear Plastic	General Chemical	Nil	1-4 °C	Variable
Light Blue	1L/2L/5L Clear Plastic	General Chemical	Nil	1-4 °C	Variable
Tan	250mL Clear Plastic	Nutrients	Nil	Freeze	7 days
Tan	500mL Amber Glass	BOD/Phenols	Nil	1-4 °C	1 day
Red	250mL Amber Glass	COD/TOC/Tannins	Acid H <sub>2</sub> SO <sub>4</sub>	1-4 °C	2-7 days
Yellow	500mL White Plastic	Cyanide	Alkali/CdNO <sub>3</sub>	1-4 °C	24 hours
Red	250mL Clear Plastic	Metals	Acid	1-4 °C	28 days
Purple	250mL Clear Plastic	Mercury	Acid/K <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub>	1-4 °C	3 days
Black	1L Clear Glass Widemouth	Oil & Grease	Nil	1-4 °C	7 days
Black	500mL Amber Glass	Organics/Surfactants	Nil	1-4 °C	2-7 days
Yellow	250mL Clear Plastic	Sulphide	PbOAC	1-4 °C	7 days
Orange	250mL Amber Glass	Trihalomethanes	Ascorbic acid	1-4 °C	21 days
Green	250mL White Plastic	Chlorophyll	Nil	1-4 °C	2 days
Striped Grey	200mL Clear Glass	Bacteria	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	1-4 °C	24 hours
Striped Grey	500mL Amber Glass	Bacteria	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	1-4 °C	24 hours
Green	250mL White Plastic	Algae	Nil	1-4 °C	48 hours
Grey	500mL Amber Glass	Taste & Odour	Nil	1-4 °C	24 hours
Light Blue	4L Amber Glass	Dust	Nil	Room Temp	28 days
Dark Blue	4L Amber Glass	Dust	CuSO <sub>4</sub>	Room Temp	28 days

These bottles are prepared in compliance with AS2031 and Queensland Department of Environment Guidelines and are colour coded accordingly

- Light Blue: Detergent Wash
- Black: Solvent Wash
- Tan: Detergent Wash - Do not aerate
- Orange: Solvent Wash + Preservative
- Dark Blue: Detergent Wash + Preservative
- Grey: Sterile
- Red: Acid Wash
- Striped Grey: Sterile + Preservative
- Purple: Acid Wash + Preservative
- Green: Detergent Wash - Opaque Container
- Yellow: Alkali Wash

### PLEASE ENSURE YOU:

- Fill all provided bottles** for each sample point to ensure sufficient sample is collected for your testing regime. Different analytes require differently prepared sample bottles.
- Do not rinse the bottles.** Some bottles may contain preservative.
- Use ice bricks** to cool the samples to 1-4 deg C. Please freeze the supplied ice bricks overnight before collecting samples.
- Send a Chain of Custody** with all samples sent to our laboratory. In most cases one has been provided for you with sample bottles; please review this document to ensure sample point names are correct and testing is as requested.
- Record date of sample collection** on the Chain of Custody and on each and every sample bottle.
- Record sampler's name, signature, date and any comments** on the Chain of Custody.
- Ensure sample ID is legibly written** on each and every sample bottle.
- Circle "Grab/Composite" and "Chlorinated? Yes/No"** details on all sample bottles.
- Contact us** to confirm the date we should expect samples to arrive. This will assist us to provide results on time.
- Return all eskies** and unused sample bottles to our laboratory in a prompt manner.

If you have any query, please do not hesitate to contact our Client Services Department 1800 620 690 - we will be only too pleased to help!

# Sampling Instructions

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## MICROBIOLOGY SAMPLING INSTRUCTIONS

1. Keep the sample bottle closed until it is required to be filled.
2. Loosen the cap or stopper. Hold the bottle by the base in one hand and remove the cap with the other hand.
3. Retain the cap in the hand (do not place on the ground).
4. **Do not rinse** the bottle before sampling. The bottle contains sodium thiosulphate.
5. Plunge the bottle below the surface for a distance of about 30 cm.
6. The bottle should then be tilted till the neck points slightly upwards and into any current which may be present.
7. As the bottle fills, move the container in an arc in such a manner as to avoid sampling water contaminated by the hand.
8. Do not completely fill the container as a small air space is required at the top of the bottle. An exception to this is when sampling for anaerobic bacteria.
9. Bring the bottle rapidly to the surface and immediately recap and label.
10. Place the sample bottle in a sealed plastic bag and place in an esky of ice. Return sample to the laboratory as soon as possible.

## SAMPLING INSTRUCTIONS FOR CHEMICAL ANALYSIS

The procedure for chemical sampling varies somewhat depending on the analyses to be performed and the location of the sample site. Sample bottles have been supplied according to your needs.

1. Keep sample bottle closed until required.
2. Loosen cap or stopper. Hold the bottle by the base in one hand and remove the cap with the other.
3. Retain the cap in hand.
4. Do not rinse the sample containers. Our laboratory supplied bottles have been specially prepared and may contain a preservative.
5. Plunge the bottle neck downwards below the surface, for approximately 30 cm (or as deep as possible).
6. Tilt the bottle until the neck is slightly

upwards, and facing into any current which may be present.

7. Move the container in an arc with neck in front of your hand, until completely filled.

**Air should not remain in the container.**

8. Recap bottle immediately, label and place in a container with ice. Return sample to laboratory as soon as possible.

## SAMPLING INSTRUCTIONS FOR SPECIALISED TESTING

Samples for specialised testing include samples for oil and grease, phenols, sulphides, mercury, heavy metals and cyanides etc.

These sample containers contain various preservatives and should not be reused or overfilled as the preservative reagent will be lost. The container should always be held in an upright position to avoid loss of preservative.

## OTHER SAMPLING INFORMATION

### Sampling from Taps

1. Remove all external fittings such as anti-splash devices, hoses or filters.
2. Remove grease and slime from the tap with a clean swab or cloth.
3. Run the water to waste for 2-3 minutes (longer if necessary, depending on the pipe length).
4. Fill the sample container with a gentle stream and avoid excessive splashing.

**Note 1:** No sample should be taken from a leaking tap.

### Note 2: Microbiological Samples

- Provided care is taken with the choice of taps for sampling, and the correct procedure for the collection of samples is followed, it is not generally necessary to flame the tap. If however, there is any doubt as to the effectiveness of this approach, then flaming or disinfection of the tap before sampling should be undertaken. A solution of 10% sodium hypochlorite can be used to disinfect the outside of the tap. Run the tap for a further two minutes before collecting the sample.

## Collection of Borewater Samples

1. Attach a length of flexible tube to the pump tap.
2. Start the pump and allow to run for approximately 10 minutes.
3. Place the tube in the bottom of a glass sample container which in turn is placed in a 10 litre bucket and allow the bottle to fill and overflow the bucket. It is desirable to eliminate unnecessary turbulence while collecting the sample.
4. Cap the container under water without any air space, label and store at  $\pm 5^{\circ}\text{C}$  of the collection temperature.
5. If sulphide is to be determined, place the tube into another container containing preservative and fill without overflowing. Cap with no air space, label and place in ice.

## Algae Identification & Enumeration

The routine, "low frequency" monitoring programme recommended for surface raw water storages requires the collection of a single surface water sample, from each dam, once every month. These samples should be:

- Collected from a point as close as possible to raw water intake points and at least 2 to 3 metre from the store.
- Collected from the same location for each sampling event.
- Collected from 15 to 20 cm below the surface (by slightly submerging sample bottle).
- Collected in white plastic 250mL bottles supplied by the testing laboratory and clearly labelled in waterproof marking pen to show sample location, date and time.
- Collected so that 3 to 5 cm of air space remains in the sample bottle.
- Despatched so that they arrive at the testing laboratory within 48 hours of sample collection. They should be stored in a cool dark place during transit, (eg inside an esky provided by the testing laboratory).

In the event that an increasing trend in blue-green algae populations is observed, it will be necessary to increase the frequency of the sampling described above to two times per week. This will allow a more rapid response to changes in algae population.



# Simmonds & Bristow

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