VOLUME 6

sampling protocol for

Water purification works
The Task Team

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Background information on Trihalomethanes

Trihalomethanes are formed as by-products of chlorination in the water treatment process.

Some of the Trihalomethanes are suspected to be carcinogens.

The amount of Trihalomethanes formed depends on several factors such as the amount of dissolved organic material in the raw water.
## WATER PURIFICATION WORKS

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1.0 THE SAMPLE BOTTLES

Each sampler will receive a cardboard box containing 4 glass bottles and tags.

Three of the sample bottles are empty.

NB!

The fourth bottle contains 0.2 mg L-ascorbic acid crystals.
Plastic sample bottles

The plastic bottles are for chemical water quality. See also sampling procedures in Volume 1, pages 15-16.
2.0 SAMPLES TO BE COLLECTED

2.1 From raw water

- **DOC**
  Dissolved Organic Carbon

- **TOC**
  Total Dissolved Carbon

- **Formation potential**

- **Macro sample**

- **Trace metal sample**
2.2 From final water formation potential

- Formation potential
- Instantaneous
- Macro sample
- Trace metal sample

NB!
3.0 SAMPLING PROCEDURE

Collect water from the raw water source.

Fill 2 bottles with raw water.

Use water flowing slowly and fill bottles until the meniscus is visible. Close lids carefully.

No air bubbles should be present in the sample. Hold bottle upside down to see whether the bottle is leaking. Top up and tighten the lid if necessary.
Fill the other two bottles with final water. Collect sample just after chlorination point.
Make sure not to lose any ascorbic acid from the “final-instantaneous” sample

Make sure that bottles carry the correct tags as supplied by RQS

Place bottles back into original container and proceed to the post office as soon as possible

Samples should be dispatched immediately or as soon as possible. A courier service works best.
Until such time the samples can be stored in the refrigerator at 4°C
Do not store for more than 24 hours