



**Australian Government**

# **MSS024018 Perform sampling and testing of water**

**Release: 1**

# MSS024018 Perform sampling and testing of water

## Modification History

Release 1. Updated unit code. Changes to performance criteria. Range of conditions removed. Assessment requirements amended. Equivalent outcome.

## Application

This unit describes the skills and knowledge to sample natural, polluted and process water for both chemical and microbiological parameters and perform field measurements on them.

This unit applies to environmental technicians working in a range of industry sectors, including environmental services; clean water; natural resource management; water treatment, storm and wastewater management; environmental compliance, auditing and inspection; solid and hazardous waste management; site remediation; management of contaminated sites; geotechnical services and civil engineering.

No licensing or certification requirements exist at the time of publication. Relevant legislation, industry standards and codes of practice within Australia must be applied.

## Pre-requisite Unit

Nil

## Competency Field

Sampling and testing

## Unit Sector

Environmental

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

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|--|--|
| <b>1 Confirm sampling and testing requirements</b> | <b>1.1</b> Read the sampling plan to confirm the timing and frequency of sampling and the location, number and type of samples         |
|  | <b>1.2</b> Check that all sampling and testing procedures are in accordance with client or workplace requirements, standards and codes |

Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
<b>2 Prepare for water sampling</b>	2.1 Identify site and sampling hazards and safety requirements
	2.2 Liaise with personnel to arrange site access, clearances and permits
	2.3 Select sampling equipment and conditions to achieve representative samples and preserve sample integrity during collection, storage and transit
	2.4 Ensure all reagents, solutions, standards and blanks are obtained and prepared ready for field use
	2.5 Select field test equipment and instruments and check operation and calibration in accordance with procedures and manufacturer instructions
	2.6 Assemble and check all sampling equipment, field test equipment, materials, containers and safety equipment
	2.7 Arrange suitable transport to, from and around site
<b>3 Conduct sampling of water</b>	3.1 Locate sampling sites and services at the site
	3.2 Conduct representative sampling in accordance with sampling plan and defined procedures for field and laboratory testing
	3.3 Ensure all controls, blanks and replicate samples are correctly integrated into the sampling process
	3.4 Record all information and label samples in accordance with traceability requirements
	3.5 Record environmental conditions and any atypical observations made during sampling that may impact on sample representativeness or integrity
	3.6 Transport all samples back to base according to workplace procedures and codes
	3.7 Distribute samples or sub-samples to required destinations for testing, maintaining sample integrity,

Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element. traceability and chain of custody requirements
<b>4 Conduct field testing of water</b>	<p>4.1 Obtain sample or sub-sample for designated field test, or locate testing location for in-situ testing</p> <p>4.2 Check equipment and instrument set-up and reagents and calibrate to ensure safe operation and valid results</p> <p>4.3 Run quality control (QC) samples to check method validity</p> <p>4.4 Operate equipment and instruments in accordance with test method requirements</p> <p>4.5 Perform tests, procedures, observations on all samples, and standards in accordance with specified methods</p> <p>4.6 Record all field observations and results and ensure that they are accurately transferred to workplace information database</p>
<b>5 Maintain a safe work environment</b>	<p>5.1 Use defined safe work practices and personal protective equipment to ensure personal safety and that of others</p> <p>5.2 Minimise the generation of waste</p> <p>5.3 Rehabilitate sampling site to render it safe and minimise environmental impacts</p> <p>5.4 Clean all equipment, containers, work area and vehicles according to workplace procedures</p> <p>5.5 Check serviceability of all equipment before storage</p> <p>5.6 Safely collect all hazardous wastes for disposal</p>

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS024006 Perform sampling and testing of water.

## Links

The MSS Sustainability Companion Volume implementation Guides are available from VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>