



Australian Government

MSS024030 Perform sampling and testing of water

Release: 1

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Modification History

Release 1. Unit code changed. Application changed. Performance Criteria changed. Foundation Skills populated. Assessment Requirements changed. Supersedes and is equivalent to MSS024018 Perform sampling and testing of water.

Application

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

This unit applies to environmental technicians, environmental officers and other roles who are required to sample and test water quality, monitor risks and apply safety procedures, select equipment and materials and record data.

This unit applies in a range of industry sectors including but not limited to 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

Environmental monitoring and technology

Unit Sector

Not applicable

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Confirm sampling and testing requirements	1.1 Read the sampling plan to confirm the timing and frequency of sampling and the location, number and type of samples

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
	1.2 Check that all sampling and testing procedures are in accordance with client or workplace requirements, standards and codes
2. Prepare for water sampling	2.1 Identify site and sampling hazards and safety requirements 2.2 Liaise with relevant personnel to arrange site access and obtain required clearances and/or 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/or instruments and check operation and calibration, as applicable, in accordance with procedures and manufacturer instructions 2.6 Assemble and check all sampling equipment, field test equipment, materials, containers and safety equipment and stow for safe transport 2.7 Arrange suitable transport to, from and around site
3. Conduct sampling of water	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 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, traceability and chain of custody requirements
4. Conduct field testing of water	4.1 Obtain sample or sub-sample for designated field test, or locate testing location for in-situ testing 4.2 Check equipment and instrument set-up, reagents and calibration (if

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	<p>required) to ensure safe operation and valid results</p> <p>4.3 Run quality control 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 and 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 management system</p>
5. Maintain a safe work environment	<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, instruments, containers, work area and vehicles according to workplace procedures</p> <p>5.5 Check serviceability of all equipment and instruments 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 but not explicit in the performance criteria.

- Reading skills to interpret sampling plan, test methods and procedures
- Writing skills to record data, environmental conditions and observations
- Oral communication skills to liaise with others to arrange for access
- Numeracy skills to interpret sampling plan and take readings and/or measurements.

Other foundation skills essential to performance are explicit in the performance criteria of this unit.

Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS024018 Perform sampling and testing of water.

Links

Companion Volume Implementation Guides are found in VETNet -

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