



Australian Government

Assessment Requirements for 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.

Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and demonstrated the ability to:

- collect, preserve and label a representative sample from natural, polluted or process water for at least one each of chemical and microbiological parameters
- conduct field tests of at least 2 water samples.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- scientific terminology used in job role covering water chemistry, biology and microbiology
- hydrologic cycle
- fundamentals of aquatic chemistry, including:
 - physical and chemical properties of water
 - chemical equilibria in natural, polluted and process waters
 - biogeochemical processes in freshwater and marine systems
 - water analytical environmental chemistry
 - environmental contaminants in water (fate, transport and bioaccumulation)
- fundamentals of hydrobiology, including:
 - aquatic and benthic flora and fauna
 - aquatic microorganisms
 - marine, estuarine and freshwater ecosystems
 - stratification and eutrophication in water bodies
 - aquatic microbiology
- principles of representative sampling
- principles and procedures for random, systematic and stratified sampling, including consistency of sampling procedures
- types of laboratory and field test parameters and measurements typical to the work context
- preservation of the integrity of samples
- maintaining identification of samples relative to their source
- workplace and legal traceability requirements

- cost-effectiveness of sampling
- principles of water sampling and analysis, methods and standards
- common characteristics of water to be sampled and likely contaminants
- links between quality control, quality assurance, quality management systems and sampling procedures
- workplace procedures dealing with legislative requirements for the handling, labelling and transport of hazardous goods
- relevant hazards and health, safety and environmental requirements, including field safety principles
- functions and operating principles of field test equipment typical to the work context.

Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of facilities, equipment and resources, including:
 - survey or test equipment, water sampling and monitoring equipment, camera, consumables
 - documentation, including work program, maps and field protocols, codes of practice, user manuals, workplace safety procedures and sampling, test or survey methods.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

Companion Volume Implementation Guides are found in VETNet -

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