



Australian Government

MSL954004 Obtain representative samples in accordance with sampling plan

Release: 1

MSL954004 Obtain representative samples in accordance with sampling plan

Modification History

Release	Comments
Release 1	This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>. Supersedes and equivalent to MSL954001 Obtain representative samples in accordance with sampling plan. Range of conditions removed. Assessment requirements amended.

Application

This unit of competency describes the skills and knowledge to obtain a range of samples that are representative of the source material and to prepare the samples for testing. All sampling activities are conducted in accordance with a defined sampling plan. This unit does not cover the subsequent testing of the samples.

This unit of competency applies to laboratory technicians in all industry sectors.

No licensing or certification requirements exist at the time of publication. However, regulations and/or external accreditation requirements for laboratory operations exist, so local requirements should be checked. Relevant legislation, industry standards and codes of practice within Australia must also be applied.

Pre-requisite Unit

Nil

Competency Field

Sampling

Elements and Performance Criteria

Elements describe the essential outcomes.

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

1 Prepare for sampling

1.1 Confirm the sampling location, number and type of samples, and timing and frequency of sampling from workplace or client's sampling plan

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	1.2 Liaise with relevant personnel to arrange site access and all necessary clearances and/or permits as required 1.3 Select sampling equipment and conditions to achieve representative samples and preserve sample integrity during collection, storage and transit 1.4 Check that all procedures are in accordance with client or workplace requirements, relevant standards and codes 1.5 Identify site and sampling hazards and review workplace safety procedures 1.6 Assemble and check all sampling equipment, materials, containers and safety equipment 1.7 Arrange suitable transport to, from and around site as required
2 Conduct sampling and log samples	2.1 Locate sampling sites 2.2 Conduct representative sampling in accordance with sampling plan and defined procedures 2.3 Record all information and label samples in accordance with traceability requirements 2.4 Record environment or production conditions and any atypical observations made during sampling that may impact on sample representativeness or integrity 2.5 Transport all samples back to base according to standard operating procedures (SOPs) and relevant codes
3 Prepare samples for testing	3.1 Prepare sub-samples and back-up sub-samples that are representative of the source 3.2 Label all sub-samples to ensure traceability and store in accordance with SOPs 3.3 Follow defined preparation and safety procedures to limit hazard or contamination to samples, self, work area

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	and environment
	3.4 Distribute sub-samples to defined workstations maintaining sample integrity and traceability requirements
4 Address client issues	4.1 Enter approved information into laboratory information management system (LIMS), as required 4.2 Report all relevant aspects of the sampling and preparation phases in accordance with workplace procedures 4.3 Ensure that information provided to client is accurate, relevant and authorised for release 4.4 Maintain security and confidentiality of all client/workplace data and information
5 Maintain a safe work environment	5.1 Clean all equipment, containers, work area and vehicles according to workplace procedures 5.2 Check serviceability of all equipment before storage 5.3 Use defined safe work practices and personal protective equipment (PPE) to ensure personal safety and that of other personnel 5.4 Minimise the generation of wastes and environment impacts 5.5 Ensure the safe collection of all hazardous wastes for appropriate disposal

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

Equivalent to MSL954001 Obtain representative samples in accordance with sampling plan, Release 1.

Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

Assessment Requirements for MSL954004 Obtain representative samples in accordance with sampling plan

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Performance Evidence

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

- obtained samples from at least 3 different sampling points, that are representative of the source material and taken in accordance with a sampling plan.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- principles of representative sampling, including:
 - representative samples
 - preservation of integrity of samples
 - maintaining identification of samples relative to their source, workplace and legal traceability
 - cost-effectiveness of sampling
 - consistency of sampling procedures
- function of key sampling equipment/materials and principles of operation
- sampling principles, including random, systematic and stratified sampling
- characteristics of product/materials sampled as part of job role and likely contaminants
- methods to maintain the integrity of samples
- maps and site plans
- links between quality control, quality assurance, quality management systems and sampling procedures
- site and sampling hazards and the links between following WHS procedures and personal and environmental safety, particularly at high risk sites
- workplace and/or legal traceability requirements

- awareness of environmental sustainability issues as they relate to the work task
- legal, ethical and work health and safety (WHS) requirements specific to the work task.

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 suitable facilities, equipment and resources, including:
 - source material
 - a variety of sample types
 - sampling plans and procedures, sampling containers and sampling equipment, and sample preparation materials and equipment.

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

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