



Australian Government

MSL935005 Authorise the issue of test results

Release: 1

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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 <i>MSL935003 Authorise the issue of test results</i>. Conditional/optional prerequisite removed. Foundation skills information added. Range of conditions removed. Assessment requirements amended.

Application

This unit of competency describes the skills and knowledge to critically assess the accuracy of data and validity of test results prior to formally authorising their release to the client. It involves the statistical analysis of data and information generated during calibration, sampling and testing to determine whether quality and/or process parameters have been achieved. Personnel are required to investigate and, if necessary, rectify results that are not consistent with expected values.

This unit applies to laboratory personnel working in all industry sectors who are approved by their organisation to authorise the results obtained for specific test methods. In many instances, these personnel are known as ‘signatories’ or ‘delegates’ for the tests involved. The scope of tests authorised in each case will be determined by the specialised knowledge, technical competence and experience of the personnel involved.

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

MSL925004 Analyse data and report results

Competency Field

Quality

Elements and Performance Criteria

Elements describe the essential outcomes.

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

- | | |
|---|--|
| 1 Verify the accuracy of data and technical records | <ul style="list-style-type: none">1.1 Access relevant job instructions, data and technical records in laboratory information management system (LIMS)1.2 Confirm that technical records provide sufficient information to ensure traceability for the tests involved1.3 Compare data with expected values and identify any outliers1.4 Inspect data records to check the integrity of data entry, alterations, transfers and calculations1.5 Correct and initial any incorrect data records1.6 Sign off data records as correct |
| 2 Determine if results are acceptable and within expectation | <ul style="list-style-type: none">2.1 Compare results with expected values and identify any significant differences2.2 Check the reliability of results by examining data, statistical analysis of data and results from repeat tests or duplicate samples2.3 Assess the significance of any documented observations of atypical test conditions or environment and/or sample appearance2.4 Check that all calculations are free from error2.5 Check that estimates of uncertainty are reasonable and consistent with the test method, client and/or product specification requirements2.6 Authorise the issue of results that meet the organisation's quality standards and are consistent with expectations |
| 3 Investigate unexpected or unacceptable | <ul style="list-style-type: none">3.1 Examine records of pre-use checks and calibration performance to ensure that the equipment and/or instruments used meet test specifications and workplace |

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results	requirements
	3.2 Establish whether human and/or environmental factors could have affected the reliability of results
	3.3 Check for obvious sources of interferences that may have occurred during measurements
	3.4 Retrieve stored samples (if available) and assess whether they are atypical or contaminated
	3.5 Perform control tests using the same, or new, samples to check unexpected results
	3.6 Authorise the issue of unexpected results that meet the organisation's quality standards
	3.7 Identify possible root causes of unacceptable results and appropriate preventative/corrective actions
	3.8 Report investigation outcomes and recommendations for improvements in accordance with workplace procedures
4 Liaise with clients about results	4.1 Establish whether sampling procedures used by the client could contribute to unexpected/unacceptable results
	4.2 Arrange for new samples and/or re-testing as necessary
	4.3 Explain investigation outcomes and confidence level for unexpected test results

Foundation Skills

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

- Oral communication skills to recommend appropriate preventative/corrective actions to control potential/actual non-conforming work
- Numeracy skills to:
 - use statistical tests to estimate uncertainties and determine data acceptability
 - recognise unexpected or unacceptable data and results and then

- rectifying results that are not consistent with expected values
- Problem-solving skills to use effective strategies to investigate unexpected occurrences in a logical and efficient manner.

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

Unit Mapping Information

Equivalent to MSL935003 Authorise the issue of test results, 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 MSL935005 Authorise the issue of test results

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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:

- verified the accuracy and completeness of at least 1 set of data, results and technical records for specified tests
- issued at least 1 set of specified test results in accordance with authorisation and workplace procedures
- reviewed at least 1 set of records of sampling, sample preparation, testing and/or calibration activities to identify potential causes of unacceptable data/results.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- workplace procedures for authorising the issue of specified test results
- relevant reporting requirements, such as the ISO Guide to the Expression of Uncertainty in Measurement, National Association of Testing Authorities (NATA) and/or test methods
- the confidence level required according to the National Measurement Act 1960 (e.g. 95% for most applications, but it may be higher)
- scientific and technical knowledge of the samples, procedures, equipment, materials and instrumentation used to generate the specified test results and data
- statistical tests used to estimate uncertainties and determine data acceptability
- estimates of uncertainty
- expected values for data and results and the uncertainty components for specified test methods

- common sources of interference, human and environmental factors, sample preparation problems and relevant preventative/corrective actions associated with specified test result
- 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:
 - sampling and test methods, description of test set-up, data sets, results and technical records
 - calculator
 - spreadsheets and databases
 - computer, relevant software or laboratory information system
 - workplace quality procedures.

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

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