# Skills Assessment

**Assessment event 3 of 3**

## Criteria

### Unit code, name and release number

MSL974019 - Perform chemical tests and procedures (1)

### Qualification/Course code, name and release number

MSL40118 - Certificate IV in Laboratory Techniques (1)

MSL50118 - Diploma in Laboratory Technology (1)

\*\*Amend the qualification box before distributing to the student. The information here should only contain the qualification the student is enrolled in.\*\*

## Student details

### Student number

### Student name

## Assessment Declaration

* This assessment is my original work and no part of it has been copied from any other source except where due acknowledgement is made.
* No part of this assessment has been written for me by any other person except where such collaboration has been authorised by the assessor concerned.
* I understand that plagiarism is the presentation of the work, idea or creation of another person as though it is my own. Plagiarism occurs when the origin of the material used is not appropriately cited. No part of this assessment is plagiarised.

### Student signature and Date

Version: 1.0

Date created: 07/06/2019

Date modified: 19/11/2019

For queries, please contact:

Innovative Manufacturing, Robotics and Science SkillsPoint:

TAFE Campus Hamilton

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RTO Provider Number 90003 | CRICOS Provider Code: 00591E

This assessment can be found in the: [Learning Bank](https://share.tafensw.edu.au/share/access/searching.do?doc=%3Cxml%2F%3E&in=P7ac4831b-430a-4b8d-8b56-f7b32ed5b9cf&q=&type=standard&sort=rank&dr=AFTER)

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## Assessment instructions

Table 1 Assessment instructions

| Assessment details | Instructions |
| --- | --- |
| **Assessment overview** | The objective of this assessment is to assess your skills as would be required to interpret chemical test requirements, prepare samples, conduct pre-use and calibration checks on equipment and perform routine chemical tests. |
| **Assessment Event number** | 3 of 3 |
| **Instructions for this assessment** | This is a skills based assessment and will be assessing you on your ability to demonstrate skills required in the unit.  This assessment is in 3 parts:   1. Practical 2. Observation checklist 3. Assessment Feedback   In this assessment your assessor will observe you performing each of the three tasks that you researched in your Project Assessment.  The assessment is open book. You will have access to all laboratory systems related to the task. This includes standard methods, SOP’s, SDS, risk assessments and all necessary documentation to meet the laboratory standard. |
| **Submission instructions** | On completion of this assessment, you are required to upload it or hand it to your assessor for marking.  Ensure you have written your name at the bottom of each page of this assessment.  It is important that you keep a copy of all electronic and hardcopy assessments submitted to TAFE and complete the assessment declaration when submitting the assessment. |
| **What do I need to do to achieve a satisfactory result?** | To successfully complete this assessment you will be available at the arranged time to complete all the assessment criteria as outlined in the assessment instructions.  All parts of the observable task must be performed to a satisfactory level as indicated in the criteria section of the Observation Checklist.  Assessors may ask questions to clarify understanding and these will be recorded in the checklist. |
| **What do I need to provide?** | Calculator, pens, PPE as required by the individual laboratory (a minimum would be safety glasses, enclosed shoes, laboratory coat/overalls.  Other depending on laboratory could include face shield, sunglasses, helmet, ear protection |
| **Due date/time allowed/venue** | *Date:* TBA  *Time allowed:* Each of three sessions will be of 3 hours duration  *Venue:* Your normal instrumental laboratory |
| **Assessment feedback, review or appeals** | Appeals are addressed in accordance with Every Student’s Guide to Assessment. |

## Specific task instructions

The instructions and the criteria in the tasks and activities below will be used by the assessor to determine whether the tasks and activities have been satisfactorily completed. Use these instructions and criteria to ensure you demonstrate the required skills and knowledge.

The unit requires you to safely preform 3 different tests. These will be tests that you practiced during training and which you researched in your Project Assessment.

Use the table below to indicate whether you have received training in the tests that your assessor has allocated for this assessment.

|  |  |
| --- | --- |
| Allocated test | I have received training in this test |
|  | Yes / No |
|  | Yes / No |
|  | Yes / No |

## Part 1: Practical

To complete this assessment, you will be required to participate in a practical demonstrations of the tests you have researched. Your Assessor will indicate in each session the test to be observed.

Your responses will be used as part of the overall evidence requirements of the unit.

You should refer to the list of criteria in the Observation Checklist to understand what you need to demonstrate in this section of the assessment. This Checklist outlines the assessment criteria used to assess your performance.

Once completed you will need to submit this assessment to your assessor for marking. You will need to submit the following:

* this Assessment paper
* any calculations additional to the Laboratory Record Form including graphs, Excel Spreadsheets if completed, instrument readouts if available
* the laboratory method (or indicate where it may be found in the laboratory)
* your Project Assessment will also need to be resubmitted.

Use the observation guide as a way of checking the scope of the observations required to be made by the Assessor.

At the conclusion of the test your assessor will complete the documentation and provide feedback.

1. **Identify the test procedure and the correct sample for analysis**

* identify the sample, the test identification, the procedure for the allocated test
* check the SDS and note the PPE required, spill control and waste disposal
* note the hazards and controls identified for sample preparation, test procedure (including the reagents)
* record all information on the Laboratory Record form

1. **Prepare for testing of the sample**

* Locate the SOP for any equipment/instruments
* Conduct any safety checks required prior to operation of equipment
* Optimise the equipment (including calibration if required).
* Check reagents for deterioration and note outcomes on Laboratory Record

1. **Test the sample**

* Ensure all reagents, instruments/equipment have been located
* Follow the laboratory test procedure (including standards as necessary) recording all observations and test results
* Minimise use of reagents
* Shutdown equipment/instruments according to SOP at conclusion
* Clean up and dispose of wastes

1. **Process the data**

* Construct or determine using computer any calibration graph required (this may not be required for all tests)
* Determine the actual test result and record all required information including instrument logs.

**Note:** Do not leave blank spaces on the Laboratory Report sheet. Record N/A (not applicable) where there is nothing to record as it does not apply to this particular test.

| Test 1 LABORATORY RECORD | | | | | |
| --- | --- | --- | --- | --- | --- |
| 1. Date: | 1. Analyst | | 1. a. Sample Description   b. Sample No. | | |
| 1. Test requested | | | 1. a. Standard Method ID   b. SOP ID | | |
| **6. SDS information and test procedure safety:** | | | **7. Equipment and reagents required for the test** | | |
| 1. PPE | | |  | | |
| 1. Spill Control | | |
| 1. Disposal | | |
| 1. Hazards | | |
| 1. Other | | |
| **8. Safety and calibration checks** | | | **9. Reagent checks** | | |
|  | | |  | | |
| **10. Raw data/ Calculations:** |  | | | Calibration standards if required:  Observations noted: | |
| **11. a. Final result** |  | 11. b. Sample No verified | | | Yes/No |
| **12. Result typical/atypical** |  | 13. Action for atypical | | |  |
| **14.Waste disposal and collection arranged (if required)** |  | 15. Workplace logs completed | | | Yes/No |
| **16. Analyst signature** |  | **17. Supervisor Signature:** | | |  |
| **18. Comments** |  | | | | |

| Test 2 LABORATORY RECORD | | | | | |
| --- | --- | --- | --- | --- | --- |
| 1. Date: | 1. Analyst | | 1. a. Sample Description   b. Sample No. | | |
| 1. Test requested | | | 1. a. Standard Method ID   b. SOP ID | | |
| **6. SDS information:** | | | **7. Equipment and reagents required for the test** | | |
| 1. PPE | | |  | | |
| 1. Spill Control | | |
| 1. Disposal | | |
| 1. Hazards | | |
| 1. Other | | |
| **8. Safety and calibration checks** | | | **9. Reagent checks** | | |
|  | | |  | | |
| **10. Raw data/Calculations:** |  | | | Calibration standards if required:  Observations noted: | |
| **11. a. Final result** |  | 11. b. Sample No Verified | | | Yes/No |
| **12. Result typical/atypical** |  | 13. Action for atypical | | |  |
| **14.Waste disposal and collection arranged (if required)** |  | 15. Laboratory logs completed | | | Yes/No |
| **16. Analyst signature** |  | **17. Supervisor Signature:** | | |  |
| **18. Comments** |  | | | | |

| Test 3 LABORATORY RECORD | | | | | |
| --- | --- | --- | --- | --- | --- |
| 1. Date: | 1. Analyst | | 1. a. Sample Description   b. Sample Reference No. | | |
| 1. Test requested | | | 1. a. Standard Method ID   b. SOP ID | | |
| **6. SDS information:** | | | **7. Equipment and reagents required for the test** | | |
| 1. PPE | | |  | | |
| 1. Spill Control | | |
| 1. Disposal | | |
| 1. Hazards | | |
| 1. Other | | |
| **8. Safety and calibration checks** | | | **9. Reagent checks** | | |
|  | | |  | | |
| **10. Raw data/Calculations:** |  | | | Calibration standards if required:  Observations noted: | |
| **11. a.Final result** |  | 11. b. Sample No verified | | | Yes/No |
| **12. Result typical/atypical** |  | 13. Action for atypical | | |  |
| **14.Waste disposal and collection arranged (if required)** |  | 15. Laboratory logs completed | | | Yes/No |
| **16. Analyst signature** |  | **17. Supervisor Signature:** | | |  |
| **17. Comments** |  | | | | |

## Part 2: Observation Checklist

The Observation Checklist will be used by your assessor to mark your performance in the safe performance of each of the three allocated tests. Use this Checklist to understand what skills you need to demonstrate in the demonstration. The Checklist lists the assessment criteria used to determine whether you have successfully completed this assessment event. All the criteria must be met. Your demonstration will be used as part of the overall evidence requirements of the unit. The assessor may ask questions while the demonstration is taking place or if appropriate directly after the task/activity has been completed.

| TEST | 1. | | | 2. | | | 3. | | | Comments and questions |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| DATE |  | | |  | | |  | | | Assessors are to record their observations in sufficient detail to demonstrate their judgement of the student’s performance against the criteria required |
|  | S | US | NA | S | US | NA | S | US | NA |
| 1. **Interpret test requirements** |  |  |  |  |  |  |  |  |  | The task will be stopped immediately for any breach of safety. |
| 1. Obtains and notes the correct procedure for the sample to be tested and the analysis required, identifying any equipment and test reagents required. |  |  |  |  |  |  |  |  |  |  |
| 1. Checks the Safety Data Sheet and notes information related to use, clean-up, disposal of any chemicals required. |  |  |  |  |  |  |  |  |  |  |
| 1. Identifies and notes the workplace hazards and the appropriate control methods that are in place for this analysis (including the sample preparation, test methods and reagents). |  |  |  |  |  |  |  |  |  |  |
| 1. **Prepare for test** |  |  |  |  |  |  |  |  |  | The task will be stopped immediately for any breach of safety. |
| 1. Ensures safe work practices are followed by all in the area. |  |  |  |  |  |  |  |  |  |  |
| 1. Locates the SOP for equipment/instrument required for the test and notes identified hazard and controls |  |  |  |  |  |  |  |  |  |  |
| 1. Conducts any safety inspections required according to operational guidelines, noting outcome |  |  |  |  |  |  |  |  |  |  |
| 1. Optimises the equipment/instrument using workplace SOP’s |  |  |  |  |  |  |  |  |  |  |
| 1. Checks reagents to ensure they are all able to be used (visual and expiry dates), and notes findings |  |  |  |  |  |  |  |  |  |  |
| 1. **Test samples to determine chemical species or properties** |  |  |  |  |  |  |  |  |  | The task will be stopped immediately for any breach of safety. |
| 1. Ensures all equipment and reagents required for the test are available and operational |  |  |  |  |  |  |  |  |  |  |
| 1. Prepares and tests the samples (and standards if necessary) following the appropriate method. |  |  |  |  |  |  |  |  |  |  |
| 1. Uses a minimum of reagent(s) to reduce waste and associated disposal issues |  |  |  |  |  |  |  |  |  |  |
| 1. Disposes of laboratory and hazardous waste according to workplace protocols |  |  |  |  |  |  |  |  |  |  |
| 1. Records all test data (noting any atypical results or observations for samples and standards). |  |  |  |  |  |  |  |  |  |  |
| 1. Follows the SOP for the shutdown of equipment and instruments |  |  |  |  |  |  |  |  |  |  |
| 1. Clean up and store equipment and reagents |  |  |  |  |  |  |  |  |  |  |
| 1. **Process and Interpret Data** |  |  |  |  |  |  |  |  |  | The task will be stopped immediately for any breach of safety. |
| 1. Constructs calibration graphs (either manually or electronically) for the sample (if required). |  |  |  |  |  |  |  |  |  |  |
| 1. Determines and records the actual test result for the sample. |  |  |  |  |  |  |  |  |  |  |
| 1. Records all required information about the sample, equipment and the test result in the workplace system (manual or LIMS) according to workplace protocols. |  |  |  |  |  |  |  |  |  | . |

## Assessment Feedback

*NOTE: This section* ***must*** *have the assessor signature and student signature to complete the feedback.*

### Assessment outcome

Satisfactory

Unsatisfactory

### Assessor Feedback

Was the assessment event successfully completed?

If no, was the resubmission/re-assessment successfully completed?

Was reasonable adjustment in place for this assessment event?  
*If yes, ensure it is detailed on the assessment document.*

Comments:

### Assessor name, signature and date:

### Student acknowledgement of assessment outcome

Would you like to make any comments about this assessment?

### Student name, signature and date

***NOTE: Make sure you have written your name at the bottom of each page of your submission before attaching the cover sheet and submitting to your assessor for marking.***