



Australian Government

Assessment Requirements for MSL974002 Conduct geotechnical site investigations

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MSL974002A Conduct geotechnical site investigations

Performance Evidence

Evidence of competence in this unit must satisfy all of the requirements of the elements and performance criteria, and include demonstration of:

- preparing for, safely conducting and concluding at least two (2) geotechnical site investigations
- interpreting maps, site plans and drawings accurately
- identifying and locating site services at sampling and testing sites
- accurately identifying, interpreting and reporting site features and geotechnical conditions; soil, rock and fill materials
- collecting representative samples and handling and transporting them in accordance with workplace procedures
- performing basic in situ tests and site measurements (e.g. location and depth)
- minimising environmental impacts and generation of waste while conducting site investigations
- identifying and solving common site problems
- seeking timely advice to deal with situations beyond own technical competence
- providing accurate sampling and testing data, site information and work results within the expected timeframe
- preparing test reports and maintaining accurate and complete records
- efficiently setting up, checking, using and cleaning/maintaining tools and equipment
- collecting, storing and disposing of waste in accordance with workplace procedures.

Knowledge Evidence

Must provide evidence that demonstrates knowledge of:

- concepts, purposes and principles of geotechnical site investigations conducted as part of job role
- site safety and management rules, including safety induction, risk assessments, controlled entry/exit to site and required personal protective equipment (PPE)
- common site problems and recommended corrective actions
- identification and classification of soil, rock and fill materials
- uses and engineering properties of soil and rock materials
- principles of representative sampling and testing
- in situ testing methods used in job role
- relevant hazards, work health and safety (WHS) and environment requirements.

Assessment Conditions

- Judgment of competence must be based on holistic assessment of the evidence. Assessment methods must confirm consistency of performance over time, rather than a single assessment event.
- This unit of competency is to be assessed in the workplace or a simulated workplace environment. A simulated workplace environment must reflect realistic operational workplace conditions that cover all aspects of workplace performance, including the environment, task skills, task management skills, contingency management skills and job role environment skills.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept in each case).
- This unit of competency may be assessed with:
 - MSL952002 Handle and transport samples or equipment
 - MSL954001 Obtain representative samples in accordance with sampling plan
 - MSL973001 Perform basic tests
- Holistic assessment methods include:
 - review of the candidate's work outputs, such as plans and reports of investigations conducted; site sampling and test data
 - feedback from peers and supervisors about the candidate's conduct of geotechnical investigations safely, efficiently and in accordance with work instructions
 - examples of workplace documentation completed by the candidate, such as site plans, equipment logs and site investigation reports
 - observation of the candidate performing geotechnical sampling, testing and site reinstatement tasks
 - oral or written questioning about safety procedures, sampling and testing procedures, dealing with common site problems and interpretation of site data.
- Access is required to instruments, equipment, materials, workplace documentation, procedures and specifications associated with this unit, including, but not limited to:
 - access to geotechnical sites and relevant site documentation
 - workplace procedures, sampling plans, test methods and equipment manuals
 - consumables; hand tools; field sampling and test equipment, such as dynamic cone penetration (DCP) testing, standard penetration testing (SPT), shear vane, pocket penetrometer and water level indicator
 - excavation equipment, such as hand and power augers, powered excavators, generators and jack hammers
 - safety clothing and equipment, including helmets, boots, gloves, earmuffs and glasses.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competence and currency.
- Technical competence can be demonstrated through:
 - relevant VET or other qualification/Statement of Attainment AND/OR

- relevant workplace experience.
- Currency can be demonstrated through:
 - performing the competency being assessed as part of current employment OR
 - having consulted with a laboratory about performing the competency being assessed within the last twelve months.

Links

MSA Training Package Implementation Guides - <http://mskills.org.au/training-packages/info/>