



Australian Government

Department of Education, Employment and Workplace Relations

RIIUMM303A Conduct hand held mining

Release: 1

RIIUMM303A Conduct hand held mining

Modification History

Not applicable.

Unit Descriptor

This unit covers the conduct of hand held mining in the metalliferous mining industry. It includes planning and preparing for hand held mining, setting up hand held machines, carrying out hand held mining operations, and carrying out end-of-shift procedures. Licensing, legislative, regulatory and certification requirements that apply to this unit can vary between states, territories, and industry sectors. Relevant information must be sourced prior to application of the unit.

Application of the Unit

This unit is appropriate for those working in an operational role at worksites within:

- Metalliferous mining

Licensing/Regulatory Information

Refer to Unit Descriptor.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

<p>Elements describe the essential outcomes of a unit of competency.</p>	<p>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.</p>
--	---

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan and prepare for hand held mining	1.1. Access, interpret and apply compliance documentation relevant to the work activity 1.2. Plan and prepare work 1.3. Receive, interpret and clarify shift change over details 1.4. Identify, manage and/or report risks and hazards 1.5. Select and use appropriate Personal Protective Equipment 1.6. Wash down and visually inspect work area to ensure safe access 1.7. Ensure work area is properly ventilated before entry and ensure area is free of dust and blasting fumes 1.8. Inspect and assess site conditions to determine if scaling is required and take action 1.9. Identify, inspect and clearly mark all exposed butts and misfires 1.10. Ensure that butts or remnants are made safe or report the occurrence 1.11. Inspect hand held drilling machinery and equipment for operational serviceability 1.12. Identify if breakthrough with drill-steel may occur and take appropriate action 1.13. Ensure that appropriate dust suppression and/or extraction equipment is prepared and ready for use 1.14. Adhere to emergency reporting and evacuation procedures
2. Set up hand held machine	2.1. Assemble hand held machine and connect services to machine 2.2. Perform hand held machine operational checks according to recommended operating procedures 2.3. Select location and positions hand held machine for drilling operations according to the drilling plan

3. Carry out hand held mining operations	3.1. Conduct work safely and efficiently 3.2. Select appropriate drill steel and determine hole collar location 3.3. Drill holes in accordance with drilling plan 3.4. Continue to monitor condition of back, walls and floor 3.5. Monitor hand held <i>machine</i> and air-leg for efficient operation
4. Carry out end-of-shift procedures	4.1. Shutdown <i>machine</i> and disconnect services 4.2. Inspect <i>machine</i> for defects and damage, and report to appropriate persons 4.3. Remove <i>equipment</i> , hoses or debris from the work area 4.4. Store machine and associated equipment and plant in a designated or safe location 4.5. Submit end-of-shift report

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

Specific skills are required to achieve the Performance Criteria of this unit, particularly for its application in the various circumstances in which this unit may be used. This includes the ability to carry out the following, as required to conduct hand held mining:

- apply legislative, organisation and site requirements and procedures for the conduct of hand held mining
- identify hazards
- communicate
- monitor operations
- organise work tasks
- assemble machinery
- interpret work plan
- report defects
- perform troubleshooting
- use hand tools

Required knowledge

Specific knowledge is required to achieve the Performance Criteria of this unit, particularly for its application in the various circumstances in which this unit may be used. This includes knowledge of the following, as required to conduct hand held mining:

- controlling atmospheric contaminants
- house keeping
- rock drilling procedures and equipment
- equipment safety requirements
- ground control characteristics and applications
- hand held equipment and equipment faults
- drill steel types and selection
- inspection procedures
- isolation procedures
- operational procedures and checks
- explosives and their associated hazards
- emergency reporting and evacuation procedures

Evidence Guide

<p>The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
<p>Overview of assessment</p>	
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>The evidence required to demonstrate competency in this unit must be relevant to worksite operations and satisfy all of the requirements of the performance criteria, required skills and knowledge and the range statement of this unit and include evidence of the following:</p> <ul style="list-style-type: none"> • knowledge of the requirements, procedures and instructions for the conduct of hand held mining • implementation of requirements, procedures and techniques for the safe, effective and efficient completion of hand held mining • working with others to undertake and complete the conduct of hand held mining that meets all of the required outcomes • consistent timely completion of hand held mining that safely, effectively and efficiently meets the required outcomes
<p>Context of and specific resources for assessment</p>	<ul style="list-style-type: none"> • This unit must be assessed in the context of the work environment. Where personal safety or environmental damage are limiting factors, assessment may occur in a simulated environment provided it is realistic and sufficiently rigorous to cover all aspects of workplace performance, including task skills, task management skills, contingency management skills and job role environment skills. • Assessment of this competency requires typical resources normally used in a resources and infrastructure sector environment. Selection and use of resources for particular worksites may differ due to the site circumstances. • The assessment environment should not disadvantage the participant. For example, language, literacy and numeracy demands of assessment should not be greater than those required on the job. • Customisation of assessment and delivery

	<p>environment to sensitively accommodate cultural diversity.</p> <ul style="list-style-type: none"> • Aboriginal people and other people from a non English speaking background may have second language issues. • Where applicable, physical resources should include equipment modified for people with disabilities. Access must be provided to appropriate learning and/or assessment support when required.
Method of assessment	<p>This unit may be assessed in a holistic way with other units of competency. The assessment strategy for this unit must verify required knowledge and skill and practical application using more than one of the following assessment methods:</p> <ul style="list-style-type: none"> • written and/or oral assessment of the candidate's required knowledge • observed, documented and/or first hand testimonial evidence of the candidate's: <ul style="list-style-type: none"> • implementation of appropriate requirement, procedures and techniques for the safe, effective and efficient achievement of required outcomes • consistent achievement of required outcomes • first hand testimonial evidence of the candidate's: <ul style="list-style-type: none"> • working with others to undertake and complete the conduct of hand held mining
Guidance information for assessment	<p>Consult the SkillsDMC User Guide for further information on assessment including access and equity issues.</p>

Range Statement

<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<p>Relevant compliance documentation may include:</p>	<ul style="list-style-type: none"> • legislative, organisational and site requirements and procedures • manufacturer's guidelines and specifications • Australian standards • Employment and workplace relations legislation • Equal Employment Opportunity and Disability Discrimination legislation
<p>Legislation may include Acts and regulation dealing with:</p>	<ul style="list-style-type: none"> • mining safety and health • mine inspection • OHS • explosives
<p>Machinery and equipment may include:</p>	<ul style="list-style-type: none"> • airleg assembly and accessories • hand held • rising feed • drill steels • bits • raise ladder • water hoses • air hoses • lubrication devices
<p>Hand held machine operational checks may include:</p>	<ul style="list-style-type: none"> • checking and testing machine controls • rockdrill chuck wear • lubricator and lubrication • secure nuts and bolts • water tubes • bridle pins • security of air and water connections • inspection of hoses and connections • oil flow from exhaust outlet
<p>Personal Protective Equipment may include:</p>	<ul style="list-style-type: none"> • lamp • safety helmet • eye protection • hearing protection

	<ul style="list-style-type: none"> • protection from atmospheric contaminants (dust/oil mist) • hand protection • overalls with reflective strip • safety footwear
Rockdrill machine faults may include:	<ul style="list-style-type: none"> • drop in penetration rate • loss of water or water pressure • loss of rotation • loss of air or air pressure • loss of lubrication • loss of gauge on bit • clogged air or water tubes • broken water tube • water in airline • airleg problems (e.g. broken crows foot)
Unusable drill steels may include:	<ul style="list-style-type: none"> • bent • broken • blocked • blunt • without necessary gauge/diameter
Work area inspections may include:	<ul style="list-style-type: none"> • travel ways • footings/access/retreat • fumes or dust • ventilation air flow • ground conditions • breakthrough locations (if accessible) • misfires • services including firing cables • workplace explosive storage
<i>Potential hazards and risks</i> may include:	<ul style="list-style-type: none"> • insufficient illumination • falling rocks • fire/flames/ignition sources • premature explosion • atmospheric contaminants • faulty equipment • debris • insufficient ventilation • unauthorised persons • high air or water pressures • breaking hoses • stuck or broken drill steels

	<ul style="list-style-type: none"> • drilling in butts • drilling into misfires
Site procedures may include:	<ul style="list-style-type: none"> • pre-start check • lock out and tagging procedures • clean up • blasting procedures and re-entry times • permit-to-work systems • safety equipment • use of personal protective equipment • communication and reporting procedures • emergency procedures
Dust suppression and/or extraction equipment may include:	<ul style="list-style-type: none"> • secondary fans (electric or compressed air) and ventilation bags • mobile or fixed sprays • ventilation doors or other vent devices • air movers and ventilation bags • use of water trucks • watering down site • wash down backs and blasted material
Conditions may include:	<ul style="list-style-type: none"> • ground conditions(blocky, faulted, secure) • floor stability (e.g. broken, blocky, flaky, stable, compacted) • slope of working surface • environmental conditions (e.g. hot, noisy, dry, wet) • visibility and illumination conditions

Unit Sector(s)

Metalliferous Mining (Underground)

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.