

METALLIFEROUS MINING TRAINING PACKAGE IMPLEMENTATION GUIDE

MNM05

Western Australian Department of Education and Training

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Foreword

This Implementation Guide has been generated to enable the stakeholders in the Metalliferous Mining Industry in Western Australia to participate in the managed implementation of the National Metalliferous Mining Training Package MNM05.

The Guide has been developed with cooperation from WA Industry, Registered Training Organisations (RTOs) delivering Metalliferous Mining qualifications and key stakeholders in industry sectors where publicly funded training has not been apparent in the past. To achieve maximum advantage from the Guide, its implementation should occur in a planned manner.

Information within this Guide should provide guidance on how competency standards may be selected and applied to achieve suitable outcomes and qualifications, for and within an industry.

The Metalliferous Mining Training Package MNM05 was endorsed by Ministers for Vocational Education and Training on 25th January 2005.

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Introduction

This Guide provides information that will facilitate the implementation of the Metalliferous Mining Training Package MNM05 in Western Australia. This Guide is designed to aid Registered Training Organisations (RTOs) to convert from Training Package qualifications to revised Training Package qualifications within the scope of their training delivery.

The Guide should be read in conjunction with the **endorsed components** of the Metalliferous Mining Training Package MNM05.

The Guide provides information on:

- Transition arrangements
- Licensing requirements
- Assessment
- Funding
- Learning resources and assessment materials
- A mapping of current publicly funded qualifications to Training Package qualifications
- An allocation of nominal hours to units of competency and total hours for qualifications
- A mapping of current Traineeship and Apprenticeship courses to new qualifications
- A set of appropriate sample, or model, training programs at each AQF level
- An indication of availability of supporting materials for delivery of qualifications

Obtaining The Training Package

The Metalliferous Mining Training Package can be purchased from:

Australian Training Products

Level 25, 150 Lonsdale Street
Melbourne Victoria 3000
Telephone: (03) 9655 0600
Facsimile: (03) 9639 4684
Email: sales@atpl.net.au

or

Resources and Infrastructure Industry Skills Council Ltd

P O Box A2616
Sydney South NSW 2000
Telephone: (02) 92993014
Facsimile: (02) 92993015
Email: www.riisc.com.au

Information on National Training Packages is also available through the National Training Information Service (NTIS), which can be located on the Internet at: www.ntis.gov.au

Note: full texts of National Training Packages are not published on the NTIS website, merely the qualifications and the Units of competency

All RTOs who have Training Package qualifications on their Scope of Delivery must obtain a copy of the relevant Training Package.

An Overview of the Metalliferous Mining Industry

The Metalliferous Mining Training Package has been revised to address the needs of all aspects of Metalliferous Mining and replaces the Metalliferous Mining Training Package MNM99

Major Changes to the Training Package

Units of Competency

Although there have been adjustments to all units of competency, the intent of most original units has not changed. Amendments to existing units and the development of new units was undertaken to meet identified skill and sectoral gaps within the Training Package.

Business Services Training Package (BSB01 – V4) units of competency have been imported into the Metalliferous Mining Training Package to replace existing generic management units which were based on the Frontline Management units. A number of other units of competency have been imported from existing endorsed Training Packages to provide portability of skills.

The relationship between the units of competency in the Metalliferous Mining Training Package MNM99 and the units of competency in the Metalliferous Mining Training MNM05 are shown in [Training Package units of competency which replace units of competency from an earlier version of a training package](#) of this Guide.

Qualifications

The rules for packaging of units of competency to achieve qualifications have changed to better reflect the industry needs.

Four new qualifications have been added to the Metalliferous Mining Training Package MNM05. These qualifications are at Certificate II and Certificate III to cover the industry requirements for qualifications in the areas of mining exploration, mine emergency response and rescue, and small mining.

The difference and equivalence between the qualifications in MNM99 and MNM05 are shown in [Training Package qualifications which replace qualifications from an earlier version of a training package](#) of this Guide.

Transition Arrangements

Registered Training Organisations (RTOs) are required to deliver Training Package qualifications within 12 months of endorsement of the Training Package by the National Training Quality Council (NTQC). A current accredited course, however, may be used until its accreditation expires.

Transition to New Qualifications

Students currently enrolled in a Training Package qualification in Metalliferous Mining should be permitted to complete the program they enrolled in initially, unless the move to the related qualification from a new/revised Training Package can be made without disadvantage to a student.

Funding

Some learners may only achieve a Statement of Attainment during their enrolment period with the RTO. Separate funding is not provided to assess the learner who has left his/her studies and then, at a later date, wants to complete an integrated assessment to achieve a certificate qualification. The RTO will be required to make special arrangements to issue the final qualification. This process may involve an invitation to the employer (if applicable) to participate in the assessment in the workplace.

Nominal Duration of Qualifications

The maximum nominal hours are identified for each Training Package qualification. Nominal hours may vary within a qualification depending on the units of competency selected and the delivery strategies used; however, training delivery will not be funded beyond the maximum nominal hours indicated. Nominal hours are for structured training only and include both delivery and assessment.

Definition of nominal hours (supervised)

The hours of supervised learning or training deemed necessary to cover the educational material in a training program when undertaken in standard classroom delivery mode. (Source: *A Glossary of Australian Vocational Education and Training Terms*).

Licensing Requirements

Shot Firing

To be designated/appointed under any statutory requirements as a shot firer, units of competency should be demonstrated to meet the State/Territory licensing requirements. State licensing requirements need to be confirmed by the Registered Training Organisation delivering and/or assessing the competency.

As there is no single national requirement for a shot firer, a statement has been added to each relevant qualification which emphasises that units of competency need to be chosen to meet the State/Territory licensing requirements. The qualifications where shot firing statements have been added are:

- Certificate II in Metalliferous Mining Operations (Open Cut) MNM20105
- Certificate III in Metalliferous Mining Operations (Open Cut) MNM30105
- Certificate II in Metalliferous Mining Operations (Underground) MNM20205
- Certificate III in Metalliferous Mining Operations (Underground) MNM30205

In addition to the licensing requirements the *Mines Safety and Inspection ACT 1994* and *Regulation 1995* must be adhered to within the competency.

Assessment Guidelines

Assessment Guidelines are one of the endorsed components of the Metalliferous Mining Training Package. See Volume 1 of the Training Package.

Learning Resources and Assessment Materials

Learning resources and/or assessment materials make up the non-endorsed components of the Training Package. There is a range of learning resources for the Metalliferous Mining Training Package currently available and under development.

A number of assessment related resources are also available from:

- The VET Teaching and Learning Branch of the Department of Education and Training;
- The Australian National Training Authority;
- Australian Training Products.

Trainers should consider the use of existing resources and/or resources sourced from a third party carefully, as some may need to be modified to suit the learning and assessment strategy developed by the RTO. In particular, resources previously used for training and assessment against accredited modules may not be suitable for the units of competency without modification.

For further details contact *Australian Training Products*. Contact details appear under [Obtaining the Training Package](#) on page 5 of this Guide.

Qualifications and Nominal Hours

The following table provides a summary of the qualifications and nominal hours in the Metalliferous Mining Training Package MNM05.

National ID	Qualification Title	Hrs
MNM20105	Certificate II in Metalliferous Mining Operations (Open Cut)	320
MNM20205	Certificate II in Metalliferous Mining Operations (Underground)	360
MNM20305	Certificate II in Metalliferous Mining Operations (Processing)	340
MNM20405	Certificate II in Mining Field/Exploration Operations	700
MNM30105	Certificate III in Metalliferous Mining Operations (Open Cut)	530
MNM30205	Certificate III in Metalliferous Mining Operations (Underground)	805
MNM30305	Certificate III in Metalliferous Mining Operations (Processing)	590
MNM30405	Certificate III in Mining Exploration	880
MNM30505	Certificate III in Small Mining Operations	800
MNM30605	Certificate III in Mine Emergency Response and Rescue	540
MNM40105	Certificate IV in Metalliferous Mining Operations (Open Cut)	720*
MNM40205	Certificate IV in Metalliferous Mining Operations (Underground)	720
MNM40305	Certificate IV in Metalliferous Mining Operations (Processing)	650
MNM50105	Diploma of Metalliferous Mining (Open Cut) and (Underground)	1100
MNM50205	Diploma of Metalliferous Mining (Processing)	920
MNM60105	Advanced Diploma of Metalliferous Mining	1240

* Entry to Certificate IV requires a Certificate III in Metalliferous Mining. The mandatory units of competency for Certificate II and III are the same as the mandatory units for Certificate IV. This duplicates 70 hours of funding.

Units of Competency and Nominal Hours

The following table provides a summary of the units of competency and nominal hours in the Metalliferous Mining Training Package MNM05.

National ID	Unit of Competency Title	Nominal Hours
MNMC201A	Work safely	20
MNMC202A	Communicate in the workplace	20
MNMC203A	Contribute to quality work outcomes	20
MNMC205A	Conduct local risk assessment	20
MNMEGS203A	Conduct fieldwork	160
MNMEGS204A	Collect and prepare samples	80
MNMEGS301A	Operate and maintain instruments and field equipment	120
MNMEGS302A	Plan and undertake field trip	120
MNMEGS306A	Process data and maintain accurate records	80
MNMEGS307A	Provide geological field assistance	100
MNMEGS308A	Mobilise equipment and materials	60
MNMEGS309A	Carry out operational maintenance	40
MNMEGS311A	Navigate in remote or trackless areas	20
MNMEGS312A	Drive and recover a four wheel drive vehicle	40
MNMEGS313A	Prepare drill site	40
MNMEGS314A	Rehabilitate exploration site	50
MNMG1000A	Conduct mine surveying operations	20 *
MNMG203A	Plan and organise individual work	20
MNMG204A	Perform initial response First Aid	20
MNMG205A	Maintain magazine	20
MNMG207A	Conduct dogging operations	35
MNMG208A	Conduct basic rigging operations	40
MNMG209A	Conduct intermediate rigging operations	40
MNMG210A	Store, handle and transport explosives	36
MNMG215A	Apply operational maintenance skills	40
MNMG216A	Service mine plant and equipment	40
MNMG217A	Transport plant, equipment and personnel	30
MNMG224A	Identify and rectify mine operating problems	30
MNMG228A	Conduct conveyor operations	30
MNMG229A	Break oversize rock	30
MNMG232A	Operate vehicle loading crane	20
MNMG234A	Conduct non-slewing crane operations	20
MNMG236A	Operate overhead crane	20
MNMG237A	Work safely at heights	16
MNMG238A	Conduct forklift operations	30
MNMG240A	Operate personnel cage/platform	20
MNMG241A	Conduct mobile mixing of explosives	40
MNMG311A	Conduct secondary blasting	20
MNMG313A	Charge blast holes	60
MNMG318A	Recover equipment	20
MNMG319A	Operate mine services vehicle	30
MNMG320A	Conduct diamond drilling	60
MNMG321A	Charge production blast holes	50
MNMG322A	Initiate blasts by remote control	40
MNMG323A	Charge development blast holes	40
MNMG325A	Apply risk management processes	30
MNMG326A	Conduct safety and health investigations	30
MNMG327A	Communicate information	20
MNMG330A	Respond to local emergencies and incidents	20
MNMG335A	Conduct slewing crane operations	20
MNMG339A	Carry out lifts using multiple cranes	40
MNMG342A	Conduct reclaim operations	40

National ID	Unit of Competency Title	Nominal Hours
MNMG343A	Control and monitor automated plant/machinery	20
MNMG344A	Assess ground conditions	20
MNMG345A	Maintain stockpiles	20
MNMG346A	Blend stockpile materials	20
MNMG347A	Conduct integrated tool carrier operations	20
MNMG348A	Move and position materials to form stockpiles	20
MNMG349A	Conduct accretion firing	40
MNMG350A	Carry out plant isolation and tagging	10
MNMG351A	Monitor mine production activities	40
MNMG352A	Apply blasting activities	60
MNMG353A	Fire surface blasts	80
MNMG406A	Manage blasting activities	80
MNMG412A	Initiate blasts	80
MNMG414A	Monitor and control the effects of blasting on the environment	20
MNMG1000A	Conduct mine surveying operations	20 *
MNMMEN304A	Take environmental samples and measurements	80
MNMMEN501A	Develop site environmental policy	80
MNMMEN502A	Undertake process or project environmental impact assessment	80
MNMMEN503A	Implement mining operations environmental management system	60
MNMMEN505A	Monitor and correct activities having impact on the environment	60
MNMMEN506A	Review environmental management system performance	50
MNMMMG501A	Implement and maintain statutory/legal compliance systems	80
MNMMMG502A	Implement pit plan	80
MNMMMG504A	Select and install surface mine plant and equipment	80
MNMMMG505A	Plan and oversee drilling operations	60
MNMMMG506A	Plan and monitor water management	80
MNMMMG507A	Plan and monitor recycled material operations	40
MNMMMG508A	Design stockpile formations and reclaiming systems	40
MNMMMG509A	Develop, implement and maintain process control systems	60
MNMMMG510A	Implement the ventilation management plan	80
MNMMMG511A	Implement design systems for stable mining	80
MNMMMG512A	Implement mine transport systems and production equipment	60
MNMMMG513A	Implement mine services and infrastructure systems	80
MNMMMG515A	Implement emergency preparedness and response systems	80
MNMMMG516A	Facilitate the risk management process	80
MNMMSM601A	Establish and maintain the environmental management system	60
MNMMSM604A	Manage the decision making process	40
MNMMSM607A	Manage group process	40
MNMMSM610A	Resource mine site plans and objectives	80
MNMMSM611A	Evaluate and enhance mine site performance	50
MNMMSM612A	Initiate, monitor and supervise contracts	60
MNMMSM613A	Establish and implement operational management plans	60
MNMMSM615A	Conduct business negotiations	50
MNMMSM616A	Establish the statutory compliance management system	100
MNMMSM617A	Establish the risk management system	80
MNMMSM618A	Establish the mine infrastructure and fixed plant systems	80
MNMMSM619A	Establish mine services systems	80
MNMMSM620A	Establish plant, equipment and infrastructure maintenance system	60
MNMMSM621A	Establish the mine water management system	60
MNMMSM622A	Establish the stockpile management system	60
MNMMSM623A	Establish waste and by-product management system	60
MNMMSM624A	Establish and manage the mine Occupational Health and Safety management system	60
MNMMSM625A	Establish and manage mine emergency preparedness and response systems	80
MNMMSM626A	Establish a blasting system	80
MNMMSM627A	Establish mine closure management systems	60
MNMMSM628A	Establish ground control and slope stability systems	80

National ID	Unit of Competency Title	Nominal Hours
MNMMSM629A	Establish surface product haulage and transport systems	80
MNMMSM630A	Establish ground control and stable mining systems	80
MNMMSM631A	Establish the ventilation management system	60
MNMMSM632A	Establish underground product haulage and transport systems	80
MNMMSU401A	Apply, monitor, rectify and report statutory/legal compliance systems	80
MNMMSU402A	Apply, monitor and report pit development systems	80
MNMMSU404A	Apply and monitor the ventilation management system	80
MNMMSU405A	Apply and monitor systems for stable mining	80
MNMMSU406A	Apply and monitor mine transport systems and production equipment	80
MNMMSU407A	Apply and monitor mine services and infrastructure systems	60
MNMMSU409A	Apply and monitor mine emergency preparedness and response systems	80
MNMMSU410A	Commission/recommission plant	60
MNMMSU411A	Supervise work in confined space	30
MNMODB203A	Install open cut mine ground support	30
MNMODB301A	Set-up and prepare for open cut drilling operations	40
MNMODB302A	Drill in open cut environment	60
MNMODR301A	Dredge materials	30
MNMODR302A	Shut down dredge for operator maintenance	40
MNMOLH301A	Conduct excavator operations	60
MNMOLH302A	Conduct electric rope shovel operations	60
MNMOLH303A	Conduct hydraulic shovel operations	60
MNMOLH305A	Conduct front end loader operations	65
MNMOLH306A	Conduct haul truck operations	60
MNMOLH307A	Conduct dozer operations	60
MNMOLH308A	Conduct scraper operations	60
MNMOLH310A	Service and hand over mine plant and machines	50
MNMOMS202A	Suppress dust in open cut environment	20
MNMOMS203A	Position and set up mobile lighting	10
MNMOMS204A	Operate roller/compactor	20
MNMOMS207A	Operate light vehicle	40
MNMOMS301A	Construct and maintain roads	60
MNMOMS306A	Conduct grader operations	60
MNMOR210A	Identify and assess environmental and heritage concerns	20
MNMOSP304A	Operate plant/machinery on live stockpiles	40
MNMPBE201A	Conduct aeration process	40
MNMPBE203A	Conduct digestion process	40
MNMPBE204A	Conduct precipitation operations	40
MNMPBE205A	Conduct reduction process	40
MNMPBE206A	Conduct roasting operations	40
MNMPBE302A	Conduct calcination activities	25
MNMPBE307A	Conduct bacterial oxidation	40
MNMPBE308A	Conduct filtering process	25
MNMPBE309A	Conduct flotation process	50
MNMPBE310A	Conduct heavy media separation	40
MNMPBE311A	Conduct high tension separation	30
MNMPBE312A	Conduct leaching process	40
MNMPBE313A	Conduct magnetic separation	30
MNMPBE314A	Conduct pressure oxidation	40
MNMPBE315A	Conduct thickening and clarifying process	20
MNMPBE316A	Conduct wet gravity separation	30
MNMPBP201A	Conduct acid plant operations	40
MNMPBP202A	Conduct air cleaning activities	40
MNMPBP204A	Reclaim and treat water systems	20
MNMPBP305A	Process lime products	30
MNMPBP403A	Monitor, coordinate and operate waste water treatment processes	50
MNMPGP204A	Conduct pump operations	20
MNMPGP205A	Distribute tailings	20

National ID	Unit of Competency Title	Nominal Hours
MNMPPG206A	Handle reagents	30
MNMPPG207A	Monitor tailings dam environment	20
MNMPPG208A	Operate compressors	20
MNMPPG210A	Take samples	40
MNMPPG212A	Carry out bore field operations	20
MNMPPG214A	Perform metallurgical accounting	20
MNMPPG303A	Conduct drying activities	30
MNMPPG309A	Perform process control room operations	60
MNMPPG310A	Monitor and operate auxiliary plant and equipment	40
MNMPPA206A	Operate raw material feed systems	20
MNMPPA209A	Conduct mobile crushing plant operations	40
MNMPPA210A	Conduct fixed crushing plant operations	40
MNMPPA302A	Conduct crushing and screening	40
MNMPPA303A	Conduct milling/grinding	40
MNMPPA307A	Operate and monitor filter processes	30
MNMPPD203A	Connect and disconnect reefer units	20
MNMPPD206A	Bulk package and store product	20
MNMPPD207A	Prepare and load for transport	30
MNMPPD209A	Secure cargo	30
MNMPPD210A	Transfer cargo	20
MNMPPD301A	Check and evaluate records and documentation	25
MNMPPD302A	Complete import/export documentation	25
MNMPPD304A	Maintain container/bulk cargo records	20
MNMPPD405A	Organise and monitor wharf/terminal operations	25
MNMPPD408A	Process movement of containers and cargo	30
MNMPPRE204A	Conduct solvent extraction	40
MNMPPRE205A	Prepare and carry-out electrolytic cleaning process	25
MNMPPRE207A	Prepare for sintering activities	15
MNMPPRE209A	Sinter materials	15
MNMPPRE301A	Conduct electrowinning/electrorefining operations	40
MNMPPRE302A	Conduct elution processes	40
MNMPPRE303A	Conduct gold room operations	40
MNMPPRE310A	Monitor casting quality	50
MNMPPSM207A	Tap furnaces	50
MNMPPSM210A	Prepare for pelletising activities	15
MNMPPSM211A	Produce pellets	15
MNMPPSM301A	Cast a blast furnace	35
MNMPPSM302A	Cast ingots	20
MNMPPSM303A	Operate a blast furnace	50
MNMPPSM304A	Operate furnaces	40
MNMPPSM305A	Operate converters	50
MNMPPSM306A	Supply molten metal and additives to furnaces	50
MNMPPSM308A	Control molten metal in holding furnace/vessel	50
MNMPPSM313A	Monitor and maintain furnace gas efficiency	35
MNMPPSM314A	Monitor and maintain flue gas efficiency	35
MNMRR301A	Respond to mine incident	40
MNMRR303A	Operate in self-contained regenerative oxygen breathing apparatus	40
MNMRR305A	Control underground fires	40
MNMRR306A	Conduct underground search	40
MNMRR307A	Extricate casualties from underground incident	40
MNMRR309A	Establish and operate from fresh air base	40
MNMRR310A	Provide support for rescue operations	40
MNMRR411A	Lead rescue team	40
MNMMSM302A	Establish a mining claim	60
MNMMSM303A	Plan small mine operations	80
MNMMSM304A	Rehabilitate small mine site	60
MNMMSM305A	Operate small open-cut mine equipment	40
MNMMSM306A	Conduct shovel/excavator operations	40

National ID	Unit of Competency Title	Nominal Hours
MNMSM308A	Install underground shaft	80
MNMSM309A	Inspect small mines operations	80
MNMSM310A	Conduct materials extraction operations underground	40
MNMSM311A	Design and maintain pillar system and ground control	60
MNMSM312A	Install and commission small mine plant, machinery and services	60
MNMSM313A	Install and maintain ventilation systems and equipment	60
MNMSM315A	Apply mine communications systems	10
MNMUDB201A	Set up and prepare for ground support	20
MNMUDB202A	Install ground support	60
MNMUDB208A	Apply shot-crete	60
MNMUDB304A	Conduct long hole drilling	30
MNMUDB305A	Conduct raise boring/drilling	50
MNMUDB307A	Conduct wet filling activities	20
MNMUDB309A	Install sets	60
MNMUDB310A	Conduct hand held mining	70
MNMUDB311A	Conduct underground development drilling	30
MNMULH201A	Conduct load, haul, dump operations	30
MNMULH202A	Conduct underground truck operations	20
MNMULH204A	Conduct skip operations	20
MNMULH205A	Operate automated winder	20
MNMULH306A	Operate manual winder	40
MNMULH307A	Conduct rail haulage operations	30
MNMULH308A	Conduct line of sight remote operations	30
MNMULH309A	Conduct tele-remote operations	30
MNMULH310A	Conduct control room operations	40
MNMULH311A	Conduct cage operations	40
MNMULH312A	Operate winder for shaft sinking	40
MNMULH313A	Maintain winder equipment	40
MNMULH314A	Inspect and maintain shafts and structures	40
MNMULH315A	Monitor, inspect and service ropes and attachments	40
MNMUMS202A	Operate from elevated work platform underground	20
MNMUMS205A	Operate roller/compactor underground	20
MNMUMS207A	Undertake towing underground	20
MNMUMS209A	Operate equipment services vehicle underground	20
MNMUMS210A	Undertake dewatering activities	20
MNMUMS211A	Install and maintain reticulation systems	20
MNMUMS212A	Install and maintain vent	30
MNMUMS215A	Prepare and perform manual scaling operations	20
MNMUMS216A	Operate light vehicle underground	20
MNMUMS217A	Refuel vehicles/machines underground	20
MNMUMS218A	Escape from hazardous situation unaided	20
MNMUMS219A	Provide aided rescue to endangered personnel	20
MNMUMS220A	Respond to workface incident	20
MNMUMS301A	Construct and maintain underground roads	40
MNMUMS303A	Conduct crane operations underground	35
MNMUMS304A	Conduct grader operations in the underground mine	40
MNMUMS306A	Recover underground equipment	20
MNMUMS313A	Install and remove a secondary fan	20
MNMUMS314A	Conduct mechanical scaling	30
MNMUSP301A	Maintain underground stockpiles	20

* Mines Safety and Inspection Act 1994 and Regulations 1995 require evidence of an appropriate degree or diploma (e.g. Diploma of Engineering and Mine Surveying or equivalent) plus practical experience prior to enrolment in the unit of competency MNMG1000A Conduct Mine Surveying Operations. The 20 nominal hours allocated to this unit will be used to process the evidence of competency once the requirements of the Mining Surveying Board have been achieved.

Imported Units

The following table provides a summary of the imported units of competency and nominal hours in the Metalliferous Mining Training Package MNM05.

National ID	Unit of Competency Title	Nominal Hours
BCCCM2008B	Carry out basic levelling	8
BCGCM3001B	Operate elevated work platforms	16
BSBCM215A	Participate in environmental work practices	10
BSBCM312A	Support innovation and change	20
BSBCM402A	Develop work priorities	30
BSBCM404A	Develop teams and individuals	40
BSBCM410A	Coordinate implementation of customer service strategies	30
BSBCM411A	Monitor a safe workplace	40
BSBCM412A	Promote innovation and change	30
BSBFLM403B	Implement effective workplace relationships	40
BSBFLM405B	Implement operational plan	50
BSBFLM406B	Implement workplace information system	40
BSBFLM409B	Implement continuous improvement	40
BSBFLM412A	Promote team effectiveness	30
BSBFLM501B	Manage personal work priorities and professional development	50
BSBFLM502A	Provide leadership in the workplace	60
BSBFLM503B	Manage effective workplace relationships	50
BSBFLM504A	Facilitate work team	40
BSBFLM505B	Manage operational plan	50
BSBFLM506B	Manage workplace information systems	60
BSBFLM507B	Manage quality customer service	50
BSBFLM508B	Ensure a safe workplace	40
BSBFLM509B	Facilitate continuous improvement	50
BSBFLM510B	Facilitate and capitalise on change and innovation	50
BSBFLM511B	Develop a workplace learning environment	50
BSBFLM512A	Ensure team effectiveness	50
BSBMGT505A	Ensure a safe workplace	50
BSBMGT601A	Contribute to strategic direction	50
BSBMGT603A	Review and develop business plans	50
BSBMGT605A	Provide leadership across the organisation	40
BSBMGT606A	Manage customer focus	50
BSBMGT607A	Manage knowledge and information	50
BSBMGT608A	Manage innovation and continuous improvement	60
BSZ401A	Plan assessment	15
BSZ402A	Conduct assessment	15
BSZ403A	Review Assessment	5
BSZ404A	Train small groups	30
FPPSTM1A	Manage steam boiler start-up	65
FPPSTM2A	Monitor and control boiler operation	30
FPPSTM3A	Shutdown and store steam boiler	50
FPPSTM4A	Troubleshoot and rectify boiler plant system faults	90
HLTFA1A	Apply basic First Aid	20
HLTFA2A	Apply advanced First Aid	40
MNCG1031A	Remove, fit and adjust wheel(s)	20
MNCG1032A	Remove, repair and refit tyres and tubes	36
MNCG1033A	Conduct lifting operations	30
MNCG1060A	Operate support equipment	30
MNCG1063A	Operate heavy rigid vehicle	30
MNCG1064A	Operate articulated vehicle	40
MNCG1065A	Operate multi-combination vehicles on mine sites	50
MNCG1068A	Test operational functions of mine vehicles and equipment	30

National ID	Unit of Competency Title	Nominal Hours
MNCO1015A	Conduct bulk water truck operations	40
MNCO1024A	Conduct wheeled dozer operations	40
MNCO1025A	Lay and recover cables and hoses	20
MNCO1060A	Operate support equipment	40
MNQOPS202A	Conduct dewatering operations	25
MNQOPS226A	Conduct screening operations	25
MNQOPS511A	Design surface blasts	60
PMAOHS211A	Prepare equipment for emergency response	20
PMAOMIR444A	Develop incident containment tactics	40
PMAOPS202A	Operate fluid mixing equipment	20
PMAOPS205A	Operate heat exchangers	40
PMAOPS206A	Operate separation equipment	15
PMAOPS207A	Operate powered separation equipment	15
PMAOPS208A	Operate chemical separation equipment	20
PMAOPS223A	Operate and monitor valve systems	20
PMAOPS230A	Monitor, operate, and maintain pipeline stations and equipment	40
PMAOPS307A	Transfer bulk fluids into/out of storage facility	50
PMAOPS330A	Communicate and monitor pipeline activities	40
PMAOPS411A	Manage plant shutdown and restart	40
PMAPER205B	Enter confined space	20
PMAPER300C	Issue work permits	10
PMASUP340A	Conduct pipeline pigging	16
PMASUP420A	Minimise environmental impact of process	40
PMASUP441B	Decommission plant	30
PMCCOR102A	Clean plant and equipment	10
PMCOPS202C	Operate equipment to blend/mix materials	30
PMCSUP282A	Use computers and related programs in the workplace	35
PMCSUP290A	Monitor and maintain product quality	30
PMCSUP392A	Perform basic laboratory tests	30
PMLDATA500B	Analyse data and report results	130
PMLOHS301B	Work safely with instruments that emit ionising radiation	80
PMLORG300A	Follow established work plan	20
PMLTEST302A	Calibrate testing equipment and assist with its maintenance	80
PRDSIS10A	Provide field support services	40
PUAAMS007A	Coordinate search and rescue operations	70
PUADEFEO201A	Respond to fire	20
PUAEME001A	Provide emergency care	30
PUAEME002B	Manage injuries at emergency incident	20
PUAFIR207A	Operate breathing apparatus open circuit	16
PUAFIR306A	Render hazardous materials incidents safe	16
PUAFIR307A	Monitor hazardous atmospheres	24
PUAOPE002A	Operate communications systems and equipment	20
PUASAR004A	Undertake vertical rescue	30
PUASAR005A	Undertake confined space rescue	30
PUASAR008A	Search as a member of a land search team	10
RTD2022A	Carry out natural area restoration works	40
RTD2202A	Conduct erosion and sediment control activities	24
RTD2703A	Operate in isolated and remote situations	50
RTD3034A	Implement revegetation works	35
RTD3205A	Construct conservation earthworks	50
SUGPOTB2A	Operate a turbine	40
TDTD497B	Load and unload goods/cargo	30
UTPNEG154A	Operate electrostatic precipitator dust collection plant	50
UTPNEG162A	Operate and monitor boiler steam/water cycle	50

* The current BSZ units will be replaced with equivalent when the revised Assessment and Workplace Training Package is endorsed.

Existing Qualifications which are replaced by Qualifications from the Metalliferous Mining Training Package MNM05.

The following table provides an overview of the qualifications from the Metalliferous Mining Training Package MNM99 which are replaced by the qualifications from the Metalliferous Mining Training Package MNM05.

Metalliferous Mining MNM99 Current Qualifications			Metalliferous Mining MNM05 Replacement Qualifications		
National ID	Qualification Title	Hrs	National ID	Qualification Title	Hrs
MNM20103	Certificate II in Metalliferous Mining Operations (Open Cut)	320	MNM20105	Certificate II in Metalliferous Mining Operations (Open Cut)	320
MNM20203	Certificate II in Metalliferous Mining Operations (Underground)	360	MNM20205	Certificate II in Metalliferous Mining Operations (Underground)	360
MNM20303	Certificate II in Metalliferous Mining Operations (Processing)	340	MNM20305	Certificate II in Metalliferous Mining Operations (Processing)	340
New Qualification			MNM20405	Certificate II in Mining Field/Exploration Operations	700
MNM30103	Certificate III in Metalliferous Mining Operations (Open Cut)	530	MNM30105	Certificate III in Metalliferous Mining Operations (Open Cut)	530
MNM30203	Certificate III in Metalliferous Mining Operations (Underground)	805	MNM30205	Certificate III in Metalliferous Mining Operations (Underground)	805
MNM30303	Certificate III in Metalliferous Mining Operations (Processing)	590	MNM30305	Certificate III in Metalliferous Mining Operations (Processing)	590
New Qualification			MNM30405	Certificate III in Mining Exploration	880
New Qualification			MNM30505	Certificate III in Small Mining Operations	800
New Qualification			MNM30605	Certificate III in Mine Emergency Response and Rescue	540
MNM40103	Certificate IV in Metalliferous Mining Operations (Open Cut)	1130	MNM40105	Certificate IV in Metalliferous Mining Operations (Open Cut)	720*
MNM40203	Certificate IV in Metalliferous Mining Operations (Underground)	1100	MNM40205	Certificate IV in Metalliferous Mining Operations (Underground)	720
MNM40303	Certificate IV in Metalliferous Mining Operations (Processing)	1030	MNM40305	Certificate IV in Metalliferous Mining Operations (Processing)	650
MNM50299	Diploma of Metalliferous Mining (Open Cut And Underground)	1120	MNM50105	Diploma of Metalliferous Mining (Open Cut) and (Underground)	1100
MNM50399	Diploma of Metalliferous Mining (Processing)	920	MNM50205	Diploma of Metalliferous Mining (Processing)	920
MNM60101	Advanced Diploma of Metalliferous Mining	1000	MNM60105	Advanced Diploma of Metalliferous Mining	1240

Existing Units of Competency which are replaced by Units of Competency from the Metalliferous Mining Training Package MNM05

The following table provides an overview of the units of competency which replace units of competency from an earlier version of the Training Package

Existing Unit		Replacement Unit		Changes
MNMCCCOO1002A	Work safely	MNMC201A	Work safely	These units are equivalent other than the new code, ANTA template, plain English and improved linkage of Range Statements to PCs have been applied
MNMCCCOO001A	Communicate in the workplace	MNMC202A	Communicate in the workplace	Changes are: Element "Participate in and facilitate teamwork" and associated PC deleted ANTA template, plain English and improved linkage of Range Statements to PCs have been applied
MNMCCCOO004A	Contribute to quality work outcomes	MNMC203A	Contribute to quality work outcomes	Changes are: Element "Participate in and facilitate teamwork" and associated PC added to unit ANTA template, plain English and improved linkage of Range Statements to PCs have been applied
MNMCCCOO005A	Apply local risk control processes	MNMC205A	Conduct local risk assessment	These units are equivalent other than the new title, ANTA template, plain English and improved linkage of Range Statements to PCs have been applied
MNMCCCOO003A	Plan and organise individual work	MNMG203A	Plan and organise individual work	These units are equivalent other than the new code, ANTA template, plain English and improved linkage of Range Statements to PCs have been applied
MNMCCCOO006A	Perform initial response first aid	MNMG204A	Perform initial response first aid	These units are equivalent other than the new title, ANTA template, plain English and improved linkage of Range Statements to PCs have been applied
MNMUGC108A	Maintain magazine	MMNG205A	Maintain magazine	These units are equivalent other than the new code, ANTA template, plain English and improved linkage of Range Statements to PCs have been applied
MNMMNI401A	Administer shotfiring	MNMG406A	Manage blasting activities	These units are equivalent other than the new title, ANTA template, plain English and improved linkage of Range Statements to PCs have been applied
MNMMNI303A	Handle and transport explosives	MNMG210A	Store, handle and transport explosives	Changes are: New Element "Access and manage explosives storage" ANTA template, plain English and improved linkage of Range Statements to PCs have been applied

Existing Unit		Replacement Unit		Changes
MNMMNI302A	Conduct secondary firing	MNMG311A	Conduct secondary blasting	These units are equivalent other than the new title, ANTA template, plain English and improved linkage of Range Statements to PCs have been applied
MNMMNI402A	Fire shots	MNMG412A	Initiate blast	The original unit is equivalent to the two new units other than the new title, ANTA template, plain English and improved linkage of Range Statements to PCs have been applied
		MNMG322A	Initiate blasts by remote control	
MNMUGC118A	Charge underground blast	MNMG313A	Charge blast holes	The original unit is equivalent to the three new units other than the new title, ANTA template, plain English and improved linkage of Range Statements to PCs have been applied
		MNMG321A	Charge production blast holes	
		MNMG323A	Charge development blast holes	
MNMOCC220A	Apply operational maintenance skills	MNMG215A	Apply operational maintenance skills	These units are equivalent other than the new code, ANTA template, plain English and improved linkage of Range Statements to PCs have been applied
MNMOCC221A	Service mine plant and equipment	MNMG216A	Service mine plant and equipment	These units are equivalent other than the new code, ANTA template, plain English and improved linkage of Range Statements to PCs have been applied
MNMOCC1418A	Transport plant, equipment and personnel	MNMG217A	Transport plant, equipment and personnel	These units are equivalent other than the new code, ANTA template, plain English and improved linkage of Range Statements to PCs have been applied
MNMOCC427A	Recover equipment	MNMG318A	Recover equipment	Performance criteria added: 2.5 Carry out pushing of equipment and plant safely and in accordance with the equipment capabilities; 2.6 Carry out towing of equipment and plant safely and in accordance with authorised equipment and/or connection capabilities ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMOCC428A	Operate mine services vehicle	MNMG319A	Operate mine services vehicle	These units are equivalent other than the new code, ANTA template, plain English and improved linkage of Range Statements to PCs have been applied
MNMUGC107A	Conduct diamond drilling	MNMG320A	Conduct diamond drilling	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.

Existing Unit		Replacement Unit		Changes
MNMOCC1212A	Conduct conveyor operations	MNMG228A	Conduct conveyor operations	Changes are: Element added: "Carry out operator maintenance". ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMOCC533A	Break oversize rock	MNMG229A	Break oversize rock	Units are equivalent. New unit incorporates all outcomes of combined original units.
MNMPRD218A	Break oversize rock			
MNMPRD170A	Conduct non-slewing crane operations	MNMG234A	Conduct non-slewing crane operations	Changes are: Element "Carry out multiple crane lifts" deleted. New unit developed to address this operation: MNMG339A Carry out lifts using multiple cranes. ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD171A	Conduct slewing crane operations	MNMG335A	Conduct slewing crane operations	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD169A	Operate gantry crane	MNMG236A	Operate overhead crane	These units are equivalent other than the new title, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMOCC1423A	Operate forklift	MNMG238A	Conduct forklift operations	These units are equivalent other than the new title, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMOCC531A	Maintain stockpiles	MNMG345A	Maintain stockpiles	These units are equivalent other than the new title, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMOCC532A	Blend stockpile material	MNMG346A	Blend stockpile material	These units are equivalent other than the new title, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMUGC431A	Conduct integrated tool carrier operations	MNMG347A	Conduct integrated tool carrier operations	Changes are: PC added: "Inspect and assess site conditions to determine if scaling is required and take action according to site requirements". ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD222A	Move and position materials to form stockpile	MNMG348A	Move and position materials to form stockpile	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMOCC429A	Undertake dewatering activities	MNQOPS202A	Conduct dewatering operations	Units are equivalent. New unit incorporates all outcomes of combined original units.

Existing Unit		Replacement Unit		Changes
MNMOCC213A	Conduct slurry pump operations			
MNMOCC101A	Set up and prepare for drilling operations	MNMODB301A	Set up and prepare for open-cut drilling operations	Changes are: Added PC 1.11 Erect physical barricades and signage to protect pattern from unauthorised personnel and equipment; Element 2 and associated PC deleted; New Element added: Pack-up drill site; New Element added: Conduct housekeeping activities. ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMOCC102A	Drill in open cut environment	MNMODB302A	Drill in open cut environment	Changes are: New Element added: Prepare drilling site New Element added: Mark out drill pattern ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMOCC105A	Install ground support	MNMODB203A	Install open-cut mine ground support	These units are equivalent other than the new title, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMOCC201A	Conduct excavator operation	MNMOLH301A	Conduct excavator operation	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMOCC202A	Conduct electric rope shovel operation	MNMOLH302A	Conduct electric rope shovel operation	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMOCC203A	Conduct hydraulic shovel operation	MNMOLH303A	Conduct hydraulic shovel operation	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMOCC206A	Conduct shovel/excavator operation	MNMOLH301A	Conduct excavator operation	Units are equivalent. New units incorporate all outcomes of the original unit.
		MNMOLH302A	Conduct electric rope shovel operation	
		MNMOLH303A	Conduct hydraulic shovel operation	
MNMOCC207A	Conduct front end loader operations	MNMOLH305A	Conduct front end loader operations	Changes are: Removal of PC 3.4: Back blade to level material over working area. ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.

Existing Unit		Replacement Unit		Changes
MNMOCC208A	Conduct truck operations	MNMOLH306A	Conduct haul truck operations	Changes are: Removal of PC 3.4: Fully lower tray when equipment is in motion; Addition of PC 2.1: Carry out start-up, park and shut-down procedures; Addition of PC 2.2: Operate equipment within recommended speed, engine capability and limitations. ANTA template, plain English and improved linkage of Range Statements to PCs have been applied. Required Knowledge and Skills amended
MNMOCC209A	Conduct dozer operations	MNMOLH307A	Conduct dozer operations	Changes are: Removal of Element "Push equipment" Removal of Element "Carry out ripping activities" Removal of Element "Carry out operator maintenance". ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMOCC210A	Conduct scraper operations	MNMOLH308A	Conduct scraper operations	These units are equivalent other than the new title, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMOCC1211A	Conduct loading and hauling support equipment	MNCG1060A	Operate support equipment	New Unit
MNMOCC314A	Prepare for dredging operations	MNMODR301A	Dredge materials	Units are equivalent. New unit incorporates all outcomes of combined original units.
MNMOCC315A	Conduct dredging operations			
MNMOCC316A	Shut down dredge for maintenance	MNMODR302A	Shut down dredge for maintenance	These units are equivalent other than the new title, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMOCC417A	Construct and maintain roads	MNMOMS301A	Construct and maintain roads	Units are equivalent. New unit incorporates all outcomes of combined original units.
MNMOCC419A	Suppress dust in open-cut environment	MNMOMS202A	Suppress dust in open-cut environment	Units are equivalent. New unit incorporates all outcomes of combined original units.

Existing Unit		Replacement Unit		Changes
MNMOCC420A	Position and set up mobile lighting	MNMOMS203A	Position and set up mobile lighting	Units are equivalent. New unit incorporates all outcomes of combined original units. Addition of PC 1.7 Secure all equipment in preparation for towing in accordance with site procedures Rewrite of PC 2.3 Activate lights according to schedule Rewrite of PC 2.4 Enhance visibility of site according to the position of the lighting. Rewrite of PC 2.5 Reassess risk to ensure enhanced illumination does not adversely affect safety of persons in the area. Range Statements to PCs have been applied.
MNMOCC421A	Operate from elevated work platform	BCGCM3001B	Operate elevated work platforms	Replaces old unit
MNMOCC422A	Operate roller/compactor	MNMOMS204A	Operate roller/compactor	Units are equivalent. New unit incorporates all outcomes of combined original units.
MNMOCC424A	Conduct crane operations	MNMG234A	Conduct non-slewing crane operations	Units are equivalent. New units incorporates all outcomes of combined original unit
		MNMG335A	Conduct slewing crane operations	
		MNMG236A	Operate overhead crane	
		MNMG339A	Carry out lifts using multiple cranes.	
MNMOCC425A	Conduct grader operations	MNMOMS306A	Conduct grader operations	Changes are: Addition of PC: 'Select and modify the operating technique to appropriately meet changing site conditions' ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMOCC426A	Operate light vehicle	MNMOMS207A	Operate light vehicle	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied. Required Knowledge and Skills amended.
MNMOCC534A	Re-contour site	RTD2202A	Conduct erosion and sediment control activities	Units are equivalent. New units incorporate all outcomes of combined original units.
MNMOCC635A	Profile soil			
MNMOCC636A	Construct drains and berms	RTD2022A	Carry out natural area restoration work	
MNMOCC637A	Undertake contour ripping			
MNMOCC638A	Undertake direct seeding	RTD3205A	Construct conservation	

Existing Unit		Replacement Unit		Changes
MNMOCC639A	Plant seedlings		earthworks	
MNMOCC640A	Install reticulation systems	RTD3034A	Implement vegetation works	
MNMOCC641A	Monitor and maintain vegetation			
MNMOCC643A	Identify and assess environmental and heritage concerns	MNMOR210A	Identify and assess environmental and heritage concerns	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMUGC101A	Set up and prepare for ground support	MNMUDB201A	Set up and prepare for ground support	Changes are: PC included: "Inspect and assess site conditions to determine if scaling is required and take action according to site requirements" ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMUGC102A	Install ground support – bolting and meshing	MNMUDB202A	Install ground support	Changes are: PC added: "Inspect and assess site conditions to determine if scaling is required and take action according to site requirements" ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMUGC103A	Set up and prepare for drilling operations			Unit deleted. This unit is part of all other drilling units.
MNMUGC104A	Conduct underground production drilling	MNMUDB304A	Conduct long-hole drilling	Changes are: Element added "Move equipment and materials to site" PC added: "Inspect and assess site conditions to determine if scaling is required and take action according to site requirements" ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMUGC106A	Conduct raise bore drilling	MNMUDB305A	Conduct raise boring/drilling	
MNMUGC112A	Conduct wet filling activities	MNMUDB307A	Conduct wet filling activities	Changes are: PC added: "Inspect and assess site conditions to determine if scaling is required and take action according to site requirements" ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMUGC120A	Apply shot-crete	MNMUDB208A	Apply shot-crete	Changes are: PC added: "Inspect and assess site conditions to determine if scaling is required and take action according to site requirements" ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.

Existing Unit		Replacement Unit		Changes
MNMUGC121A	Install sets	MNMUDB309A	Install sets	Changes are: PC added: "Inspect and assess site conditions to determine if scaling is required and take action according to site requirements" ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMUGC124A	Conduct air-leg mining	MNMUDB310A	Conduct hand-held mining	Changes are: PC included: "Plan and prepare work according to site procedures and relevant legislation" PC included: "Inspect and assess site conditions to determine if scaling is required and take action according to site requirements" ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMUGC105A	Conduct underground development drilling	MNMUDB311A	Conduct underground development drilling	Changes are: PC added: "Inspect and assess site conditions to determine if scaling is required and take action according to site requirements" ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMUGC213A	Conduct load, haul, dump operation	MNMULH201A	Conduct load, haul, dump operation	Changes are: Removal of Element "Fill site/void" ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMUGC214A	Conduct truck operations	MNMULH202A	Conduct underground truck operations	Changes are: PC added: "Inspect and assess site conditions to determine if scaling is required and take action according to site requirements" ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMUGC216A	Conduct skip operation	MNMULH204A	Conduct skip operation	These units are equivalent other than the new title, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMUGC217A	Operate automated winder	MNMULH205A	Operate automated winder	These units are equivalent other than the new title, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMUGC218A	Operate manual winder	MNMULH306A	Operate manual winder	These units are equivalent other than the new title, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMUGC219A	Conduct rail haulage operations	MNMULH307A	Conduct rail haulage operations	These units are equivalent other than the new title, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.

Existing Unit		Replacement Unit		Changes
MNMUGC220A	Conduct line of site remote operations	MNMULH308A	Conduct line of site remote operations	Changes are: PC added: "Inspect and assess site conditions to determine if scaling is required and take action according to site requirements" ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMUGC221A	Conduct tele-remote operations	MNMULH309A	Conduct tele-remote operations	Changes are: PC added: "Inspect and assess site conditions to determine if scaling is required and take action according to site requirements" ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMUGC222A	Conduct control room operations	MNMULH310A	Conduct control room operations	Changes are: PC added: "Inspect and assess site conditions to determine if scaling is required and take action according to site requirements" ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMUGC224A	Conduct cage operations	MNMULH311A	Conduct cage operations	Changes are: PC added "Select personal protective equipment appropriate for work activities" PC added "Identify, address and report potential risks and hazards" PC added « Identify, address and report environmental issues » ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMUGC225A	Operate winder for shaft sinking	MNMULH312A	Operate winder for shaft sinking	Changes are: PC added "Select personal protective equipment appropriate for work activities" PC added "Identify, address and report potential risks and hazards" ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMUGC226A	Maintain winder equipment	MNMULH313A	Maintain winder equipment	Changes are: PC added "Select personal protective equipment appropriate for work activities" PC added "Identify, address and report potential risks and hazards" ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.

Existing Unit		Replacement Unit		Changes
MNMUGC227A	Inspect and maintain shafts and structures	MNMULH314A	Inspect and maintain shafts and structures	Changes are: PC added "Select personal protective equipment appropriate for work activities" PC added "Identify, address and report potential risks and hazards" PC added "Check and prepare appropriate tools, measuring equipment, materials and services" ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMUGC228A	Monitor, inspect and service ropes and attachments	MNMULH315A	Monitor, inspect and service ropes and attachments	Changes are: PC added "Select personal protective equipment appropriate for work activities" PC added "Identify, address and report potential risks and hazards" PC added « Identify, address and report environmental issues » ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMUGC424A	Construct and maintain underground roads	MNMUMS301A	Construct and maintain underground roads	Changes are: PC added: "Inspect and assess site conditions to determine if scaling is required and take action according to site requirements" ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMUGC425A	Operate from elevated work platform	MNMUMS202A	Operate from elevated work platform underground	Changes are: PC added: "Inspect and assess site conditions to determine if scaling is required and take action according to site requirements" ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMUGC426A	Conduct crane operations underground	MNMUMS303A	Conduct crane operations underground	Changes are: PC added: "Inspect and assess site conditions to determine if scaling is required and take action according to site requirements" ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMUGC427A	Conduct grader operations	MNMUMS304A	Conduct grader operations in the underground mine	Changes are: PC added: "Inspect and assess site conditions to determine if scaling is required and take action according to site requirements" ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.

Existing Unit		Replacement Unit		Changes
MNMUGC428A	Operate roller/compactor	MNMUMS205A	Operate roller/compactor underground	Changes are: PC added: "Inspect and assess site conditions to determine if scaling is required and take action according to site requirements" ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMUGC429A	Conduct equipment recovery operations	MNMUMS306A	Recover underground equipment	New Unit
MNMUGC430A	Undertake towing underground	MNMUMS207A	Undertake towing underground	Changes are: PC added "Select personal protective equipment appropriate for work activities" PC added "Identify, address and report potential risks and hazards" PC added « Identify, address and report environmental issues » ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMUGC432A	Operate equipment services vehicle underground	MNMUMS209A	Operate equipment services vehicle underground	Changes are: PC added: "Inspect and assess site conditions to determine if scaling is required and take action according to site requirements" PC added "Select personal protective equipment appropriate for work activities" PC added "Identify, address and report potential risks and hazards" PC added « Identify, address and report environmental issues » ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMUGC433A	Undertake dewatering activities	MNMUMS210A	Undertake dewatering activities	Changes are: PC added: "Inspect and assess site conditions to determine if scaling is required and take action according to site requirements" PC added "Select personal protective equipment appropriate for work activities" PC added "Identify, address and report potential risks and hazards" PC added « Identify, address and report environmental issues » ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.

Existing Unit		Replacement Unit		Changes
MNMUGC435A	Install and maintain reticulation systems	MNMUMS211A	Install and maintain reticulation systems	Changes are: PC added: "Inspect and assess site conditions to determine if scaling is required and take action according to site requirements" PC added "Select personal protective equipment appropriate for work activities" PC added "Identify, address and report potential risks and hazards" PC added « Identify, address and report environmental issues » ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMUGC436A	Install and maintain vent	MNMUMS212A	Install and maintain vent	Changes are: PC added: "Inspect and assess site conditions to determine if scaling is required and take action according to site requirements" PC added "Select personal protective equipment appropriate for work activities" PC added "Identify, address and report potential risks and hazards" PC added « Identify, address and report environmental issues » ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMUGC437A	Install and remove a secondary fan	MNMUMS313A	Install and remove a secondary fan	Changes are: PC added: "Inspect and assess site conditions to determine if scaling is required and take action according to site requirements" PC added "Select personal protective equipment appropriate for work activities" PC added "Identify, address and report potential risks and hazards" PC added « Identify, address and report environmental issues » ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMUGC438A	Conduct remote controlled equipment recovery operations	MNMUS306A	Recover underground equipment	Unit covered by MNMUS306A

Existing Unit		Replacement Unit		Changes
MNMUGC439A	Conduct mechanical scaling	MNMUMS314A	Conduct mechanical scaling	Changes are: Deletion of PC "Visually inspect equipment and report faults and make equipment available for operational maintenance" ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMUGC440A	Set up and perform manual scaling operations	MNMUMS215A	Prepare and perform manual scaling operations	These units are equivalent other than the new title, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMUGC442A	Operate light vehicle underground	MNMUMS216A	Operate light vehicle underground	Changes are: PC added: "Inspect and assess site conditions to determine if scaling is required and take action according to site requirements" PC added "Select personal protective equipment appropriate for work activities" PC added "Identify, address and report potential risks and hazards" PC added « Identify, address and report environmental issues » ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMUGC443A	Refuel vehicles/machines underground	MNMUMS217A	Refuel vehicles/machines underground	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMUGC542A	Maintain underground stockpiles	MNMUSP301A	Maintain underground stockpiles	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD103A	Conduct drying activities	MNMPPGP303A	Conduct drying activities	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD104A	Conduct pump operations	MNMPPGP204A	Conduct pump operations	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD107A	Distribute tailings	MNMPPGP205A	Distribute tailings	Changes are: Addition of PC "Ensure tailings meet fill plant operating parameters" ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD108A	Handle reagents	MNMPPGP206A	Handle reagents	These units are equivalent other than the new title, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.

Existing Unit		Replacement Unit		Changes
MNMPRD110A	Monitor tailings dam environment	MNMPPGP207A	Monitor tailings dam environment	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD111A	Operate compressors	MNMPPGP208A	Operate compressors	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD114A	Perform process control room operations	MNMPPGP309A	Perform process control room operations	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD116A	Take samples	MNMPPGP210A	Take samples	Changes are: Deletion of PC "Read and interpret data from equipment indicators to determine sample characteristics" Deletion of PC "Observe radiation safety procedure maintaining radiation elements" Deletion of PC "Pass on samples to approved personnel" ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD117A	Maintain auxiliary plant and equipment operation	MNMPPGP310A	Monitor and operate auxiliary plant and equipment	These units are equivalent other than the new title, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD109A	Monitor and control boiler operations	UTPNEG162A	Operate and monitor boiler water/steam cycle	Replaced old unit
MNMPRD112A	Operate fluid mixing equipment	PMAOPS202A	Operate fluid mixing equipment	Replaced old unit
MNMPRD113A	Operate heat exchangers	PMAOPS205A	Operate heat exchangers	Replaced old unit
MNMPRD115A	Respond to an unplanned shut down	PMAOPS411A	Manage plant shutdown and restart	Replaced old unit
MNMPRD105A	Conduct valve operations	PMAOPS223A	Operate and monitor valve systems	Replaced old unit
MNMPRD106A	De-commission plant	PMASUP441B	Decommission plant	Replaced old unit
MNMPRD223A	Operate raw material feed systems	MNMPPHA206A	Operate raw material feed systems	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD224A	Operate and monitor filter processes	MNMPPHA307A	Operate and monitor filter processes	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.

Existing Unit		Replacement Unit		Changes
MNMPRD219A	Conduct crushing and screening	MNMPHA302A	Conduct crushing and screening	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD220A	Conduct milling/grinding	MNMPHA303A	Conduct milling/grinding	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD324A	Conduct aeration process	MNMPBE201A	Conduct aeration process	Changes are: Deletion of PC "Add reagents to approved operating parameters" Deletion of PC "Complete all required documentation clearly, concisely and on time" ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD325A	Conduct calcination activities	MNMPBE302A	Conduct calcination activities	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD326A	Conduct digestion process	MNMPBE203A	Conduct digestion process	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD327A	Conduct precipitation operations	MNMPBE204A	Conduct precipitation operations	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD328A	Conduct reduction process	MNMPBE205A	Conduct reduction process	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD329A	Conduct roasting operations	MNMPBE206A	Conduct roasting operations	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD330A	Conduct bacterial oxidation	MNMPBE307A	Conduct bacterial oxidation	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD331A	Conduct filtering process	MNMPBE308A	Conduct filtering process	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD332A	Conduct flotation process	MNMPBE309A	Conduct flotation process	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD333A	Conduct heavy media separation	MNMPBE310A	Conduct heavy media separation	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.

Existing Unit		Replacement Unit		Changes
MNMPRD334A	Conduct high tension separation	MNMPBE311A	Conduct high tension separation	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD335A	Conduct leaching process	MNMPBE312A	Conduct leaching process	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD336A	Conduct magnetic separation	MNMPBE313A	Conduct magnetic separation	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD337A	Conduct pressure oxidation	MNMPBE314A	Conduct pressure oxidation	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD338A	Conduct thickening and clarifying process	MNMPBE315A	Conduct thickening and clarifying process	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD339A	Conduct wet gravity separation	MNMPBE316A	Conduct wet gravity separation	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD440A	Conduct electrowinning/ electro fining operations	MNMPRE301A	Conduct electrowinning/ electro fining operations	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD441A	Conduct elution process	MNMPRE302A	Conduct elution process	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD442A	Conduct gold room operations	MNMPRE303A	Conduct gold room operations	Changes are: Deletion of PC "strip e electrowinning cell cathode" ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD443A	Conduct solvent extraction	MNMPRE204A	Conduct solvent extraction	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD444A	Prepare and carry out electrolytic cleaning process	MNMPRE205A	Prepare and carry out electrolytic cleaning process	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD446A	Prepare for sintering activities	MNMPRE207A	Prepare for sintering activities	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.

Existing Unit		Replacement Unit		Changes
MNMPRD448A	Sinter materials	MNMPRE209A	Sinter materials	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD450A	Monitor casting quality	MNMPRE310A	Monitor casting quality	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD550A	Cast a blast furnace	MNMPSM301A	Cast a blast furnace	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD551A	Cast ingots	MNMPSM302A	Cast ingots	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD552A	Operate a blast furnace	MNMPSM303A	Operate a blast furnace	Changes are: Deletion of PC "Maintain manual operation of gas plant for safe operating conditions" Deletion of PC "Correctly operate furnace isolation valves when on emergency" Deletion of PC "Correctly operate stove valves by hand winches to meet operating requirements" ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.

Existing Unit		Replacement Unit		Changes
MNMPRD1553A	Operate furnaces	MNMPSM304A	Operate furnaces	<p>Changes are: Deletion of Element 4: "Change production rates and/or production specification"</p> <p>Deletion of Element 5: "Maintain plant efficiency"</p> <p>Deletion of PC "Heat up furnace by the rate and standard required"</p> <p>Deletion of PC "Build production rate steadily with no surge or lull"</p> <p>Deletion of PC "Stabilise system to produce in-specification product at specified rates within minimum time"</p> <p>Deletion of PC "Monitor condition of any added catalyst and take action to maintain production schedule, quality and safety"</p> <p>Deletion of PC "Monitor availability of feeds and take action to maintain production schedule and quality"</p> <p>Deletion of PC "Change over individual items of equipment"</p> <p>Deletion of PC "Shut down to standby condition if required"</p> <p>Deletion of PC "Shut down in an emergency"</p> <p>Deletion of PC "Drain/empty furnace following safe working practices"</p> <p>Delete PC "Reset trips and alarms during operation and after a shutdown"</p> <p>ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.</p>

Existing Unit		Replacement Unit		Changes
MNMPRD554A	Operate converters	MNMPSM305A	Operate converters	<p>Changes are: Deletion of PC “Start up individual items and entire converter”</p> <p>Deletion of PC “Operate equipment to ensure the flow to the converter is maintained at all times during operation”</p> <p>Deletion of PC “Trim plant to achieve required rates and quality while maximising plant efficiency”</p> <p>Deletion of PC “Manage converter levels and discharges to suit changed furnace production rates”</p> <p>Deletion of PC “Monitor critical equipment/processes and tune their performance”</p> <p>Deletion of PC “Identify issues likely to impact on plant performance and take appropriate action”</p> <p>Deletion of PC “Carry out lock-out procedures for temporary shutdowns to site requirements”</p> <p>Addition of PC “Prepare plant for maintenance as required”</p> <p>ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.</p>
MNMPRD555A	Supply molten metal and additives to furnaces	MNMPSM306A	Supply molten metal and additives to furnaces	<p>Changes are: Deletion of PC “Carry out pre-tar, start-up, park-up and shutdown procedures in accordance with Australian Standards, manufacturer’s and/or site requirements”</p> <p>Deletion of PC “Operate controls to lift, transfer and lower loads in accordance with legislation, manufacturers’ instructions and organisation’s procedures, and monitor to ensure compliance with equipment limitations”</p> <p>Deletion of PC “Perform designated duties and establish and maintain communication with other crane driver during two crane operations</p> <p>Deletion of PC “Carry out minor maintenance to manufacturers’ instructions and site requirements”</p> <p>ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.</p>
MNMPRD556A	Tap furnaces	MNMPSM207A	Tap furnaces	<p>These units are equivalent other than the new title, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.</p>

Existing Unit		Replacement Unit		Changes
MNMPRD557A	Control molten metal in holding furnace vessel	MNMPSM308A	Control molten metal in holding furnace vessel	These units are equivalent other than the new title, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD558A	Monitor and control furnace combustion gases	MNMPSM313A	Monitor and maintain furnace gas efficiency	Units are equivalent. New units incorporate all outcomes of the original unit.
		MNMPSM314A	Monitor and maintain flue gas efficiency	
MNMPRD445A	Prepare for pelletising activities	MNMPSM210A	Prepare for pelletising activities	Changes are: Deletion of PC "Monitor and control material feed rate" Deletion of PC "Monitor and control moisture content of materials" ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD447A	Produce pellets	MNMPSM211A	Produce pellets	Changes are: Deletion of PC "Separate pellets not meeting specified size to reject bin" Deletion of PC "Monitor and adjust temperature to maintain uniform distribution across the bed and to ensure correct bonding of pellets and prevent dust generation" Addition of PC "Carry out hand-over procedures" ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD654A	Control acid plant operation	MNMPPB201A	Control acid plant operation	These units are equivalent other than the new title, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD655A	Conduct air cleaning activities	MNMPPB202A	Conduct air cleaning activities	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD656A	Monitor and coordinate waste water treatment processes	MNMPPB403A	Monitor, coordinate and operate waste water treatment processes	Units are equivalent. New unit incorporates all outcomes of original units.
MNMPRD657A	Monitor and operate waste water treatment processes			
MNMPRD658A	Reclaim and treat water system	MNMPPB204A	Reclaim and treat water system	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD759A	Check and evaluate records and documentation	MNMPPD301A	Check and evaluate records and documentation	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.

Existing Unit		Replacement Unit		Changes
MNMPRD760A	Complete import/export documentation	MNMPPD302A	Complete import/export documentation	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD761A	Connect and disconnect reefer units	MNMPPD203A	Connect and disconnect reefer units	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD762A	Maintain container/bulk cargo records	MNMPPD304A	Maintain container/bulk cargo records	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD763A	Organise and monitor wharf/terminal operations	MNMPPD405A	Organise and monitor wharf/terminal operations	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD764A	Bulk package and store product	MNMPPD206A	Bulk package and store product	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD765A	Prepare and load for transport	MNMPPD207A	Prepare and load for transport	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD766A	Process movement of containers and cargo	MNMPPD408A	Process movement of containers and cargo	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD767A	Secure cargo	MNMPPD209A	Secure cargo	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD768A	Transfer cargo	MNMPPD210A	Transfer cargo	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMF5FX18A	Apply, monitor, rectify and report statutory/legal compliance systems	MNMMSU401A	Apply, monitor, rectify and report statutory/legal compliance systems	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMF5FX19A	Apply, monitor and report pit development systems	MNMMSU402A	Apply, monitor and report pit development systems	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMF5FX20A	Lead and monitor surface mining operations and report outcomes,			The unit removed from the Training Package as it is considered too large, and is covered by other units of competency in the Training Package
MNMF5FX21A	Apply and monitor the ventilation management system	MNMMSU404A	Apply and monitor the ventilation management system	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.

Existing Unit		Replacement Unit		Changes
MNMF5FX22A	Apply and monitor systems for stable mining	MNMMSU405A	Apply and monitor systems for stable mining	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMF5FX23A	Apply and monitor mine transport systems and production equipment	MNMMSU406A	Apply and monitor mine transport systems and production equipment	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMF5FX24A	Apply and monitor mine services systems	MNMMSU407A	Apply and monitor mine services and infrastructure systems	These units are equivalent other than the new title, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMF5FX25A	Apply and monitor mine fixed plant and infrastructure systems			
MNMF5FX26A	Apply and monitor emergency preparedness and response systems	MNMMSU409A	Apply and monitor mine emergency preparedness and response systems	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMPRD101A	Commission/recommission plant	MNMMSU410A	Commission/recommission plant	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMF5FX01A	Implement and maintain statutory/legal compliance systems	MNMMMMG501A	Implement and maintain statutory/legal compliance systems	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMF5FX02A	Implement and maintain pit development system	MNMMMMG502A	Implement pit plan	These units are equivalent other than the new title, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMF5FX03A	Implement and maintain surface mining operation			The unit removed from the Training Package as it is considered too large, and is covered by other units of competency in the Training Package
MNMF5FX04A	Select and install surface mine plant and equipment	MNMMMMG504A	Select and install surface mine plant and equipment	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMF5FX05A	Plan conduct and oversee drilling operations	MNMMMMG505A	Plan conduct and oversee drilling operations	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMF5FX07A	Plan and monitor water management	MNMMMMG506A	Plan and monitor water management	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMF5FX08A	Plan and monitor recycled material operations	MNMMMMG507A	Plan and monitor recycled material operations	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.

Existing Unit		Replacement Unit		Changes
MNMF5FX09A	Design stockpile formations and reclaiming systems	MNMMM508A	Design stockpile formations and reclaiming systems	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMF5FX10A	Develop, implement and maintain process control systems	MNMMM509A	Develop, implement and maintain process control systems	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMF5FX11A	Implement the ventilation management plan	MNMMM510A	Implement the ventilation management plan	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMF5FX12A	Design systems for stable mining	MNMMM511A	Design systems for stable mining	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMF5FX13A	Implement mine transport systems and production equipment	MNMMM512A	Implement mine transport systems and production equipment	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMF5FX14A	Implement mine services systems	MNMMM513A	Implement mine services and infrastructure systems	Units are equivalent. New unit incorporate all outcomes of the original units.
MNMF5FX15A	Implement mine fixed plant and infrastructure systems			
MNMF5FX16A	Implement emergency preparedness and response systems	MNMMM515A	Implement emergency preparedness and response systems	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMF5FX27A	Facilitate the risk management process	MNMMM516A	Facilitate the risk management process	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNIL02A	Establish and manage environmental management policies, plans and procedures	MNMMS601A	Establish and maintain the environmental management system	These units are equivalent other than the new title, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNIL03A	Establish and manage the management information system	BSBMGT607A	Manage knowledge and information	Replaces old unit
MNIL04A	Establish operational strategies	BSBMGT601A	Contribute to strategic direction	Replaces old unit
MNIL05A	Manage the decision making process	MNMMS604A	Manage the decision making process	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNIL06A	Provide leadership	BSBMGT605A	Provide leadership across the organisation	Replaces old unit

Existing Unit		Replacement Unit		Changes
MNIL07A	Manage organisational change	BSBMGT608A	Manage innovation and continuous improvement	Replaces old unit
MNIL08A	Manage group process	MNMMSM607A	Manage group process	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNIL09A	Manage major incidents and emergencies	MNMMSM625A	Establish and manage mine emergency preparedness and response systems	Unit information incorporated into MNMMSM625A
MNIL10A	Evaluate and respond to business influences	BSBMGT603A	Review and develop business plan	Replaces old unit
MNIL11A	Resource minesite plans and objectives	MNMMSM610A	Resource minesite plans and objectives	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNIL12A	Evaluate and enhance minesite performance	MNMMSM611A	Evaluate and enhance minesite performance	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNIL13A	Initiate, monitor and supervise contracts	MNMMSM612A	Initiate, monitor and supervise contracts	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNIL14A	Establish and implement operational management plans	MNMMSM613A	Establish and implement operational management plans	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNIL15A	Manage customer service	BSBMGT606A	Manage customer focus	
MNIL17A	Conduct business negotiations	MNMMSM615A	Conduct business negotiations	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNIC01A	Establish the mine statutory/legal compliance system	MNMMSM616A	Establish the statutory compliance management system	These units are equivalent other than the new title, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNIC02A	Establish the mine risk assessment and control system	MNMMSM617A	Establish the risk management system	These units are equivalent other than the new title, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNIC03A	Establish mine infrastructure and plant systems	MNMMSM618A	Establish the mine infrastructure and fixed plant systems	These units are equivalent other than the new title, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNIC04A	Establish mine services system	MNMMSM619A	Establish mine services system	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.

Existing Unit		Replacement Unit		Changes
MNIC05A	Establish plant, equipment and infrastructure maintenance systems	MNMMSM620A	Establish plant, equipment and infrastructure maintenance systems	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNIC06A	Establish the mine water management system	MNMMSM621A	Establish the mine water management system	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNIC07A	Establish the stockpile management system	MNMMSM622A	Establish the stockpile management system	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNIC08A	Establish waste and by product management system	MNMMSM623A	Establish waste and by product management system	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNIC09A	Establish and manage the mine occupational health and safety management system	MNMMSM624A	Establish and manage the mine occupational health and safety management system	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNIC10A	Establish the mine emergency systems	MNMMSM625A	Establish and manage mine emergency preparedness and response systems	Changes are: Addition of Element " Manage the incident/emergency response" ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.
MNIC11A	Establish a blasting system	MNMMSM626A	Establish a blasting system	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNIC12A	Establish mine closure management systems	MNMMSM627A	Establish mine closure management systems	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNIS01A	Establish ground control and slope stability systems	MNMMSM628A	Establish ground control and slope stability systems	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNIS02A	Establish surface product haulage and transport systems	MNMMSM629A	Establish surface product haulage and transport systems	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNIU01A	Establish ground control and stable mining systems	MNMMSM630A	Establish ground control and stable mining systems	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNIU02A	Establish the ventilation management system	MNMMSM631A	Establish the ventilation management system	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.

Existing Unit		Replacement Unit		Changes
MNIU03A	Establish underground product haulage and transport systems	MNMMSM632A	Establish underground product haulage and transport systems	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMBEB307A	Develop site environmental policy	MNMMEN501A	Develop site environmental policy	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMBEB308A	Undertake process or project environmental impact assessment	MNMMEN502A	Undertake process or project environmental impact assessment	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMBEB309A	Implement mine operations environmental system	MNMMEN503A	Implement mining operations environmental system	These units are equivalent other than the new title, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMBEB310A	Take environmental samples and measurements	MNMMEN304A	Take environmental samples and measurements	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMBEB311A	Monitor and correct activities having impact on the environment	MNMMEN505A	Monitor and correct activities having impact on the environment	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMBEB312A	Review environmental management system performance	MNMMEN506A	Review environmental management system performance	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMAAA301A	Operate and maintain instruments and field equipment	MNMEGS301A	Operate and maintain instruments and field equipment	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMAAA302A	Plan and undertake field trip	MNMEGS302A	Plan and undertake field trip	These units are not equivalent. The unit has been rewritten to better meet the needs of industry.
MNMAAA303A	Conduct field work	MNMEGS203A	Conduct field work	These units are not equivalent. The unit has been rewritten to better meet the needs of industry.
MNMAAA304A	Collect and prepare samples	MNMEGS204A	Collect and prepare samples	These units are equivalent other than the new code, ANTA template; plain English and improved linkage of Range Statements to PCs have been applied.
MNMAAA305A	Perform geoscientific tests and analyses in the field and laboratory			Unit deleted Unit too large and not achievable at the workplace

Existing Unit		Replacement Unit		Changes
MNMAAA306A	Process data and maintain accurate records	MNMEGS306A	Process data and maintain accurate records	Changes are: Deletion of PC "Employ mathematical and statistical techniques to analyse data" Deletion of PC "Store samples and specimens correctly labelled to enable easy retrieval" ANTA template, plain English and improved linkage of Range Statements to PCs have been applied.

Traineeships and Apprenticeships

The following table provides a summary of the qualifications in the Metalliferous Mining Training Package MNM05 and the accredited traineeship, apprenticeship and pre-apprenticeship courses they will replace.

Metalliferous Mining MNM99 Existing Qualification	Metalliferous Mining MNM05 Replacement Qualification
Traineeships	
MNM20103 Certificate II in Metalliferous Mining Operations (Open Cut) (Level 2) Nominal hours: 320	MNM20105 Certificate II in Metalliferous Mining Operations - Open Cut Nominal hours: 320
MNM30103 Certificate III in Metalliferous Mining Operations (Open Cut) (Level 3) Nominal hours: 210	MNM30105 Certificate III in Metalliferous Mining Operations - Open Cut Nominal hours: 210
MNM20203 Certificate II in Metalliferous Mining Operations (Underground) (Level 2) Nominal hours: 360	MNM20205 Certificate II in Metalliferous Mining Operations - Underground Nominal hours: 360
MNM30203 Certificate III in Metalliferous Mining Operations (Underground) (Level 3) Nominal hours: 445	MNM30205 Certificate III in Metalliferous Mining Operations - Underground Nominal hours: 445
MNM40203 Certificate IV in Metalliferous Mining Operations (Underground) (Level 4) Nominal hours: 1000	MNM40205 Certificate IV in Metalliferous Mining Operations - Underground Nominal hours: 720
MNM20303 Certificate II in Metalliferous Mining Operations (Processing) (Level 2) Nominal hours: 340	MNM20305 Certificate II in Metalliferous Mining Operations - Processing Nominal hours: 340
MNM30303 Certificate III in Metalliferous Mining Operations (Processing) (Level 3) Nominal hours: 250	MNM30305 Certificate III in Metalliferous Mining Operations - Processing Nominal hours: 250
Established Traineeships	
No previous traineeship in the old version.	MNM40105 Certificate IV in Metalliferous Mining Operations - Open Cut Nominal hours: 720
No previous traineeship in the old version.	MNM40305 Certificate IV in Metalliferous Mining Operations - Processing Nominal hours: 650
Apprenticeships	
There are no Apprenticeships in this area.	
Pre-apprenticeships	
There are no Pre-apprenticeships in this area.	

Examples of Training Package Programs

Units of competency may be customised so that the tasks involved in demonstrating competence are designed to meet the requirements of an individual enterprise or to satisfy regulations in a particular state or territory.

Each qualification in the Metalliferous Mining Training Package MNM05 may be customised to meet the context in which the training is taking place. A qualification can also be customised to accommodate a learner's chosen career pathway.

The following are examples of suitable training programs for the Metalliferous Mining Training Package MNM05. The models are not intended to be prescriptive but illustrate ways that qualifications can be achieved.

Training Program 1:

MNM20105– Certificate II in Metalliferous Mining Operations (Open Cut)

Qualification Title	Certificate II in Metalliferous Mining Operations (Open Cut)
Qualification Code	MNM20105
Qualification Summary	This qualification reflects the role of employees such as operators in an open cut metalliferous mine who undertake a prescribed range of functions involving known routines and procedures and who take some responsibility for the quality of work outcomes.
Licensing Requirements	<p>Shotfiring (Open Cut)</p> <p>The units of competency, relating to shotfiring, currently exist in the Metalliferous Mining Training Package (MNM05). The industry, through the development of the Training Package, has deemed these appropriate units of competency for the function in open cut mining. However to be designated/appointed under any statutory requirements as a shotfirer, units of competency should be demonstrated to meet the state/territory licensing requirements. State/territory licensing requirements need to be confirmed by the Registered Training Organisation delivering and/or assessing the competency.</p>
Qualification Packaging Rules	<p>Successful completion of a total of twelve (12) units of competency made up of:</p> <ul style="list-style-type: none"> • five (5) mandatory units of competency, and • seven (7) electives units of which: <ul style="list-style-type: none"> – all seven units are drawn from the elective units listed <p>OR</p> <ul style="list-style-type: none"> – a minimum of five (5) units are drawn from the specified Metalliferous Mining units listed and – a maximum of two (2) units, relevant to the job function from elsewhere in the Metalliferous Mining Training Package or other endorsed Training Package

Unit Code	Unit Title	Nominal Hours
Mandatory Units		
MNMC201A	Work safely	20
MNMC202A	Communicate in the workplace	20
MNMC203A	Contribute to quality work outcomes	20
MNMC205A	Conduct local risk assessment	20
BSBCM215A	Participate in environmental work practices	10
Elective Units		
<i>General</i>		
MNMG203A	Plan and organise individual work	20
MNMG204A	Perform initial response First Aid	20
MNMG207A	Conduct dogging operations	35
MNMG208A	Conduct basic rigging operations	40
MNMG209A	Conduct intermediate rigging operations	40
MNMG215A	Apply operational maintenance skills	40
MNMG216A	Service mine plant and equipment	40
MNMG217A	Transport plant, equipment and personnel	30
MNMG224A	Identify and rectify mine operating problems	30
MNMG228A	Conduct conveyor operations	30
MNMG229A	Break oversize rock	30

Unit Code	Unit Title	Nominal Hours
MNMG232A	Operate vehicle loading crane	20
MNMG234A	Conduct non slewing crane operations	20
MNMG236A	Operate overhead crane	20
MNMG237A	Work safely at heights	16
MNMG238A	Conduct forklift operations	30
MNMG342A	Conduct reclaim operations	40
MNQOPS202A	Conduct dewatering operations	25
MNCG1031A	Remove, fit and adjust wheel(s)	20
MNCG1032A	Remove, repair and refit tyres and tubes	36
MNCG1033A	Conduct lifting operations	30
MNCG1063A	Operate heavy rigid vehicle	30
MNCG1064A	Operate articulated vehicle	40
MNCG1068A	Test operational functions of mine vehicles and equipment	30
BCCCM2008B	Carry out basic levelling	8
PMAPER205B	Enter confined spaces	20
<i>Shotfiring</i>		
MNMG205A	Maintain magazine	20
MNMG210A	Store, handle and transport explosives	36
MNMG241A	Conduct mobile mixing of explosives	40
MNMG311A	Conduct secondary blasting	20
<i>Drilling and ground control</i>		
MNMODB203A	Install open cut mine ground support	30
<i>Loading and hauling</i>		
MNMOLH301A	Conduct excavator operation	60
MNMOLH305A	Conduct front end loader operation	65
MNMOLH306A	Conduct haul truck operations	60
MNMOLH307A	Conduct dozer operations	60
MNMOLH308A	Conduct scraper operations	60
MNMOLH310A	Service and handover mine plant and machines	50
MNCO1024A	Conduct wheeled dozer operations	40
MNCO1060A	Operate support equipment	40
<i>Ancillary mine support</i>		
MNMOMS202A	Suppress duct in open cut environment	20
MNMOMS203A	Position and set up mobile lighting	10
MNMOMS204A	Operate roller/compactor	20
MNMOMS207A	Operate light vehicle	40
MNMOMS306A	Conduct grader operations	60
MNCO1015A	Conduct bulk water truck operations	40
MNCO1025A	Lay and recover cable and hoses	20
BCGCM3001B	Operate elevated work platforms	16
<i>Stockpiling and preparation</i>		
MNMOSP304A	Operate plant/machinery on live stockpiles	40
<i>Rehabilitation</i>		

Unit Code	Unit Title	Nominal Hours
MNMOR210A	Identify and assess environmental and heritage concerns	20
RTD2022A	Carry out natural area restoration works	40
RTD2202A	Conduct erosion and sediment control activities	24
RTD3034A	Implement revegetation works	35
RTD3205A	Construct conservation earthworks	50
<i>General processing</i>		
PMCOPS202C	Operate equipment to blend/mix materials	30
PMCSUP282A	Use computers and related programs in the workplace	35
PMCSUP290A	Monitor and maintain product quality	30
TOTAL		320

Training Program 2:

MNM20205 – Certificate II in Metalliferous Mining Operations (Underground)

Qualification Title	Certificate II in Metalliferous Mining Operations (Underground)
Qualification Code	MNM20205
Qualification Summary	This qualification reflects the role of employees such as operators in an underground metalliferous mine who undertake a prescribed range of functions involving known routines and procedures and who take some responsibility for the quality of work outcomes.
Licensing Requirements	<p>Shotfiring (Underground)</p> <p>The units of competency, relating to shotfiring, currently exist in the Metalliferous Mining Training Package (MNM05). The industry, through the development of the Training Package, has deemed these appropriate units of competency for the function in underground mining. However to be designated/appointed under any statutory requirements as a shotfirer, units of competency should be demonstrated to meet the state/territory licensing requirements. State/territory licensing requirements need to be confirmed by the Registered Training Organisation delivering and/or assessing the competency.</p>
Qualification Packaging Rules	<p>Successful completion of a total of fourteen (14) units of competency made up of:</p> <ul style="list-style-type: none"> • five (5) mandatory units of competency, and • nine (9) electives units of which: <ul style="list-style-type: none"> – all nine units are drawn from the elective units listed <p>OR</p> <ul style="list-style-type: none"> – a minimum of seven (7) units are drawn from the specified Metalliferous Mining units listed, and – a maximum of two (2) units, relevant to the job function from elsewhere in the Metalliferous Mining Training Package or other endorsed Training Package

Unit Code	Unit Title	Nominal Hours
Mandatory Units		
MNMC201A	Work safely	20
MNMC202A	Communicate in the workplace	20
MNMC203A	Contribute to quality work outcomes	20
MNMC205A	Conduct local risk assessment	20
BSBCM215A	Participate in environmental work practices	10
Elective Units		
<i>General</i>		
MNMG203A	Plan and organise individual work	20
MNMG204A	Perform initial response First Aid	20
MNMG207A	Conduct dogging operations	35
MNMG208A	Conduct basic rigging operations	40
MNMG209A	Conduct intermediate rigging operations	40
MNMG215A	Apply operational maintenance skills	40
MNMG216A	Service mine plant and equipment	40
MNMG217A	Transport plant, equipment and personnel	30
MNMG224A	Identify and rectify mine operating problems	30
MNMG228A	Conduct conveyor operations	30

Unit Code	Unit Title	Nominal Hours
MNMG234A	Conduct non slewing crane operations	20
MNMG236A	Operate overhead crane	20
MNMG237A	Work safely at heights	16
MNMG238A	Conduct forklift operations	30
MNMG240A	Operate personnel cage/platform	20
MNMG342A	Conduct reclaim operations	40
MNCG1033A	Conduct lifting operations	30
MNCG1068A	Test operational functions of mine vehicles and equipment	30
PMAPER205B	Enter confined spaces	20
<i>Shotfiring</i>		
MNMG205A	Maintain magazine	20
MNMG210A	Store, handle and transport explosives	36
MNMG241A	Conduct mobile mixing of explosives	40
MNMG311A	Conduct secondary blasting	20
<i>Drilling and ground control</i>		
MNMULH201A	Conduct load, haul, dump operation	30
MNMULH202A	Conduct underground truck operations	20
MNMILH204A	Conduct skip operations	20
MNMULH205A	Operate automated winder	20
<i>Ancillary mine support</i>		
MNMUMS202A	Operate from elevated work platform underground	20
MNMUMS205A	Operate roller/compactor underground	20
MNMUMS207A	Undertake towing underground	20
MNMUMS209A	Operate equipment services vehicle underground	20
MNMUMS210A	Undertake dewatering activities	20
MNMUMS211A	Install and maintain reticulation systems	20
MNMUM212A	Install and maintain vent	30
MNMUM215A	Prepare and perform manual scaling operations	20
MNMUMS216A	Operate light vehicle underground	20
MNMUMS217A	Refuel vehicles/machines underground	20
MNMUMS218A	Escape from hazardous situation unaided	20
MNMUM313A	Install and remove a secondary fan	20
TOTAL		360

Training Program 3: MNM20305 – Certificate II in Metalliferous Mining Operations (Processing)

Qualification Title	Certificate II in Metalliferous Mining Operations (Processing)
Qualification Code	MNM20305
Qualification Summary	This qualification reflects the role of employees such as operators in a metal processing facility who undertake a prescribed range of functions involving known routines and procedures and who take some responsibility for the quality of work outcomes.
Qualification Packaging Rules	<p>Successful completion of a total of twelve (12) units of competency made up of:</p> <ul style="list-style-type: none"> • five (5) mandatory units of competency, and • seven (7) electives units of which: <ul style="list-style-type: none"> – all seven units are drawn from the elective units listed <p>OR</p> <ul style="list-style-type: none"> – a minimum of five (5) units are drawn from the specified Metalliferous Mining units listed and – a maximum of two (2) units, relevant to the job function from elsewhere in the Metalliferous Mining Training Package or other endorsed Training Package

Unit Code	Unit Title	Nominal Hours
Mandatory Units		
MNMC201A	Work safely	20
MNMC202A	Communicate in the workplace	20
MNMC203A	Contribute to quality work outcomes	20
MNMC205A	Conduct local risk assessment	20
BSBCM215A	Participate in environmental work practices	10
Elective Units		
<i>General</i>		
MNMG203A	Plan and organise individual work	20
MNMG204A	Perform initial response First Aid	20
MNMG207A	Conduct dogging operations	35
MNMG208A	Conduct basic rigging operations	40
MNMG209A	Conduct intermediate rigging operations	40
MNMG215A	Apply operational maintenance skills	40
MNMG216A	Service mine plant and equipment	40
MNMG228A	Conduct conveyor operations	30
MNMG229A	Break oversize rock	30
MNMG232A	Operate vehicle loading crane	20
MNMG234A	Conduct non slewing crane operations	20
MNMG236A	Operate overhead crane	20
MNMG237A	Work safely at heights	16
MNMG238A	Conduct forklift operations	30
MNMG342A	Conduct reclaim operations	40
MNMG350A	Carry out plant isolation and tagging	10
PMAPER205B	Enter confined space	20
<i>Loading and hauling</i>		

Unit Code	Unit Title	Nominal Hours
MNMOLH305A	Conduct front end loader operation	65
MNMOLH307A	Conduct dozer operations	60
<i>General processing</i>		
MNMPPGP204A	Conduct pump operations	20
MNMPPGP205A	Distribute tailings	20
MNMPPGP206A	Handle reagents	30
MNMPPGP207A	Monitor tailings dam environment	20
MNMPPGP208A	Operate compressors	20
MNMPPGP210A	Take samples	40
MNMPPGP212A	Carry out bore-field operations	20
MNMPPGP214A	Perform metallurgical accounting	20
PMAOPS202A	Operate fluid mixing equipment	20
PMAOPS205A	Operate heat exchangers	40
PMAOPS223A	Operate and monitor valve systems	20
PMAOPS230A	Monitor, operate and maintain pipeline stations and equipment	40
PMCCOR102A	Clean plant and equipment	10
PMCOPS202C	Operate equipment to blend/mix materials	30
PMCSUP282A	Use computers and related programs in the workplace	35
PMCSUP290A	Monitor and maintain product quality	30
PMCSUP392A	Perform basic laboratory tests	30
<i>Handle and pre-treatment</i>		
MNMPPHA206A	Operate raw material feed systems	20
MNMPPHA209A	Conduct mobile crushing plant operations	40
MNMPPHA210A	Conduct fixed crushing plant operations	40
MNQOPS226A	Conduct screening operations	25
<i>Beneficiation</i>		
MNMPPBE201A	Conduct aeration process	40
MNMPPBE203A	Conduct digestion process	40
MNMPPBE204A	Conduct precipitation operations	40
MNMPPBE205A	Conduct reduction process	40
MNMPPBE206A	Conduct roasting operations	40
PMAOPS206A	Operate separation equipment	15
PMAOPS207A	Operate powered separation equipment	15
PMAOPS208A	Operate chemical separation equipment	20
<i>Refining</i>		
MNMPPRE204A	Conduct solvent extraction	40
MNMPPRE205A	Prepare and carry out electrolytic cleaning process	25
MNMPPRE207A	Prepare for sintering activities	15
MNMPPRE209A	Sinter materials	15
PMAOPS307A	Transfer bulk fluids into/out of storage facility	50
<i>Smelting</i>		
MNMPPSM207A	Tap furnace	50
MNMPPSM210A	Prepare for pelletising activities	15

Unit Code	Unit Title	Nominal Hours
MNMPSM211A	Produce pellets	15
<i>By-product management</i>		
MNMPBP201A	Control acid plant operation	40
MNMPBP202A	Conduct air cleaning activities	40
MNMPBP204A	Reclaim and treat water system	20
<i>Product distribution</i>		
MNMPPD203A	Connect and disconnect reefer units	20
MNMPPD206A	Bulk package and store products	20
MNMPPD207A	Prepare and load for transport	30
MNMPPD209A	Secure cargo	30
MNMPPD210A	Transfer cargo	20
TOTAL		340

Training Program 4:
 MNM20405 – Certificate II in Metalliferous Mining Field/Exploration
 Operations

Qualification Title	Certificate II in Metalliferous Mining Field/Exploration Operations
Qualification Code	MNM20405
Qualification Summary	This qualification reflects the role of employees working in a mining exploration team or work as a pit technician who undertake a prescribed range of functions involving known routines and procedures and who take some responsibility for the quality of work outcomes.
Qualification Packaging Rules	Successful completion of a total of fourteen (14) units of competency made up of: <ul style="list-style-type: none"> • eleven (11) mandatory units of competency, and • three (3) electives units from the elective units listed

Unit Code	Unit Title	Nominal Hours
Mandatory Units		
<i>Core Units</i>		
MNMC201A	Work safely	20
MNMC202A	Communicate in the workplace	20
MNMC203A	Contribute to quality work outcomes	20
MNMC205A	Conduct local risk assessment	20
BSBCM215A	Participate in environmental work practices	10
<i>General</i>		
HLTFA1A	Apply basic First Aid	20
HLTFA2A	Apply advanced First Aid	40
<i>Geological survey</i>		
MNMEGS203A	Conduct field work	160
MNMEGS204A	Collect and prepare samples	80
MNMEGS312A	Drive and recover a four-wheel-drive vehicle	40
RTD2703A	Operate in isolated and remote situations	50
Elective Units		
<i>Geological survey</i>		
MNMEGS301A	Operate and maintain instruments and field equipment	120
MNMEGS308A	Mobilise equipment and materials	60
MNMEGS312A	Navigate in a remote or tackless areas	20
PRDSIS10A	Provide field support services	40
<i>General processing</i>		
PMCSUP282A	Use computers and related programs in the workplace	35
<i>Rehabilitation</i>		
RTD2022A	Carry out natural area restoration works	40
RTD2202A	Conduct erosion and sediment control activities	24
RTD3034A	Implement revegetation works	35
RTD3205A	Construct conservation earthworks	50
TOTAL		700

Training Program 5:

MNM30105 – Certificate III in Metalliferous Mining Operations (Open Cut)

Qualification Title	Certificate III in Metalliferous Mining Operations (Open Cut)
Qualification Code	MNM30105
Qualification Summary	This qualification reflects the role of employees such a production operators in an open cut metalliferous mine who perform tasks involving a broad range of skilled applications applied in a wide variety of contexts, which may involve application of some discretion and judgement in selecting equipment, services or contingency measures.
Licensing Requirements	<p>Shotfiring (Open Cut)</p> <p>The units of competency, relating to shotfiring, currently exist in the Metalliferous Mining Training Package (MNM05). The industry, through the development of the Training Package, has deemed these appropriate units of competency for the function in open cut mining. However to be designated/appointed under any statutory requirements as a shotfirer, units of competency should be demonstrated to meet the state/territory licensing requirements. State/territory licensing requirements need to be confirmed by the Registered Training Organisation delivering and/or assessing the competency.</p>
Qualification Packaging Rules	<p>Successful completion of a total of eighteen (18) units of competency made up of:</p> <ul style="list-style-type: none"> • twelve (12) units of competency satisfying the criteria for the Certificate II in Metalliferous Mining (Open Cut), and • six (6) electives units of which: <ul style="list-style-type: none"> – all six units are drawn from the elective units listed <p>OR</p> <ul style="list-style-type: none"> – a minimum of four (4) units are drawn from the specified units listed and – a maximum of two (2) units, relevant to the job function from elsewhere in the Metalliferous Mining Training Package or other endorsed Training Package <p><i>Note</i> Units of competency which are completed as part of the Certificate II in Metalliferous Mining Operations (Open Cut) cannot be credited as an elective for this qualification.</p>

Unit Code	Unit Title	Nominal Hours
Elective Units		
<i>General</i>		
MNMG215A	Apply operational maintenance skills	40
MNMG216A	Service mine plant and equipment	40
MNMG318A	Recover equipment	20
MNMG319A	Operate mine services vehicle	30
MNMG320A	Conduct diamond drilling	60
MNMG325A	Apply risk management processes	30
MNMG326A	Conduct safety and health investigations	30
MNMG327A	Communicate information	20
MNMG330A	Respond to local emergencies and incidents	20
MNMG335A	Conduct slewing crane operations	20
MNMG339A	Carry out lifts using multiple cranes	40
MNMG342A	Conduct reclaim operations	40

Unit Code	Unit Title	Nominal Hours
MNMG343A	Control and monitor automated plant/machinery	20
MNMG344A	Assess ground conditions	20
MNMG345A	Maintain stockpiles	20
MNMG346A	Blend stockpile material	20
MNMG347A	Conduct integrated tool carrier operations	20
MNMG348A	Move and position materials to form stockpile	20
MNMG350A	Carry out plant isolation and tagging	10
MNMG351A	Monitor mine production activities	40
MNCG1065A	Operate multi combination vehicles on mine sites	50
PMAPER300C	Issue work permits	10
BSBCM312A	Support innovation and change	20
<i>Shotfiring</i>		
MNMG311A	Conduct secondary blasting	20
MNMG313A	Charge blast holes	60
MNMG321A	Charge production blast holes	50
MNMG322A	Initiate blasts by remote control	40
MNMG349A	Conduct accretion firing	40
MNMG352A	Apply blasting activities	60
MNMG353A	Fire surface blasts	80
MNMG412A	Initiate blasts	80
<i>Environmental management</i>		
MNMEN304A	Take environmental samples and measurements	80
<i>Drilling and ground control</i>		
MNMODB301A	Set up and prepare for open cut drilling operations	40
MNMODB302A	Drill in open cut environment	60
<i>Loading and hauling</i>		
MNMOLH301A	Conduct excavator operations	60
MNMOLH302A	Conduct electric rope shovel operations	60
MNMOLH303A	Conduct hydraulic shovel operations	60
MNMOLH305A	Conduct front end loader operations	65
MNMOLH306A	Conduct haul truck operations	60
MNMOLH307A	Conduct dozer operations	60
MNMOLH308A	Conduct scraper operations	60
<i>Dredging</i>		
MNMODR301A	Dredge materials	30
MNMODR302A	Shut down dredge for operator maintenance	40
<i>Ancillary mine support</i>		
MNMOMS301A	Construct and maintain roads	60
MNMOMS306A	Conduct grader operations	60
<i>Stockpiling and preparation</i>		
MNMOSP304A	Operate plant and machinery on live stockpiles	40
<i>Rehabilitation</i>		
RTD3034A	Implement revegetation works	35

Unit Code	Unit Title	Nominal Hours
RTD3205A	Construct conservation earthworks	50
<i>General processing</i>		
PMCSUP392A	Perform basic laboratory tests	30
PMLOHS301B	Work safely with instruments that emit ionizing radiation	80
PMLORG300A	Follow established work plan	20
PMLTEST302A	Calibrate testing equipment and assist with its maintenance	80
TOTAL		530

Training Program 6: MNM30205 – Certificate III in Metalliferous Mining Operations (Underground)

Qualification Title	Certificate III in Metalliferous Mining Operations (Underground)
Qualification Code	MNM30205
Qualification Summary	This qualification reflects the role of employees such as production operators in an underground metalliferous mine who perform tasks involving a broad range of skilled applications applied in a wide variety of contexts, which may involve application of some discretion and judgement in selecting equipment, services or contingency measures.
Licensing Requirements	<p>Shotfiring (Underground)</p> <p>The units of competency, relating to shotfiring, currently exist in the Metalliferous Mining Training Package (MNM05). The industry, through the development of the Training Package, has deemed these appropriate units of competency for the function in underground mining. However to be designated/appointed under any statutory requirements as a shotfirer, units of competency should be demonstrated to meet the state/territory licensing requirements. State/territory licensing requirements need to be confirmed by the Registered Training Organisation delivering and/or assessing the competency.</p>
Qualification Packaging Rules	<p>Successful completion of a total of twenty (20) units of competency made up of:</p> <ul style="list-style-type: none"> • fourteen (14) units of competency satisfying the criteria for the Certificate II in Metalliferous Mining (Underground), and • six (6) electives units of which: <ul style="list-style-type: none"> – all six units are drawn from the elective units listed <p>OR</p> <ul style="list-style-type: none"> – a minimum of four (4) units are drawn from the specified units listed and – a maximum of two (2) units, relevant to the job function from elsewhere in the Metalliferous Mining Training Package or other endorsed Training Package <p><i>Note</i> Units of competency which are completed as part of the Certificate II in Metalliferous Mining Operations (Underground) cannot be credited as an elective for this qualification.</p>

Unit Code	Unit Title	Nominal Hours
Elective Units		
<i>General</i>		
MNMG318A	Recover equipment	20
MNMG319A	Operate mine services vehicle	30
MNMG320A	Conduct diamond drilling	60
MNMG325A	Apply risk management processes	30
MNMG326A	Conduct safety and health investigations	30
MNMG327A	Communicate information	20
MNMG330A	Respond to local emergencies and incidents	20
MNMG335A	Conduct slewing crane operations	20
MNMG339A	Carry out lifts using multiple cranes	40
MNMG342A	Conduct reclaim operations	40
MNMG343A	Control and monitor automated plant/machinery	20
MNMG344A	Assess ground conditions	20

Unit Code	Unit Title	Nominal Hours
MNMG347A	Conduct integrated tool carrier operations	20
MNMG350A	Carry out plant isolation and tagging	10
MNMG351A	Monitor mine production activities	40
PMAPER300C	Issue work permits	10
BSBCM312A	Support innovation and change	20
<i>Shotfiring</i>		
MNMG311A	Conduct secondary blasting	20
MNMG313A	Charge blast holes	60
MNMG321A	Charge production blast holes	50
MNMG322A	Initiate blasts by remote control	40
MNMG349A	Conduct accretion firing	40
MNMG352A	Apply blasting activities	60
MNMG353A	Fire surface blasts	80
MNMG412A	Initiate blast	80
<i>Environmental management</i>		
MNMMEN304A	Take environmental samples and measurements	80
<i>Drilling and ground control</i>		
MNMUDB202A	Install ground support	60
MNMUDB304A	Conduct long-hole drilling	30
MNMUDB305A	Conduct raise boring/drilling	50
MNMUDB307A	Conduct wet filling activities	20
MNMUDB309A	Install sets	60
MNMUDB310A	Conduct hand-held mining	70
MNMUDB311A	Conduct underground development drilling	30
<i>Loading and hauling</i>		
MNMULH306A	Operate manual winder	40
MNMULH307A	Conduct rail haulage operations	30
MNMULH308A	Conduct line of site remote operations	30
MNMULH309A	Conduct tele-remote operations	30
MNMULH310A	Conduct control room operations	40
MNMULH311A	Conduct cage operations	40
MNMULH312A	Operate winder for shaft sinking	40
MNMULH313A	Maintain winder equipment	40
MNMULH314A	Inspect and maintain shafts and structures	40
MNMULH315A	Monitor, inspect and service ropes and attachments	40
<i>Ancillary mine support</i>		
MNMUMS218A	Escape from hazardous situation unaided	20
MNMUMS219A	Provide aided rescue to endangered personnel	20
MNMUMS220A	Respond to workface incident	20
MNMUMS301A	Construct and maintain underground roads	40
MNMUMS303A	Conduct crane operations underground	35
MNMUMS304A	Conduct grader operations in the underground mine	40
MNMUMS306A	Recover underground equipment	20

Unit Code	Unit Title	Nominal Hours
MNMUMS313A	Install and remove a secondary fan	20
MNMUMS314A	Conduct mechanical scaling	30
<i>Stockpiling and preparation</i>		
MNMUSP301A	Maintain underground stockpiles	20
TOTAL		805

Training Program 7:
 MNM30305 – Certificate III in Metalliferous Mining Operations (Processing)

Qualification Title	Certificate III in Metalliferous Mining Operations (Processing)
Qualification Code	MNM30305
Qualification Summary	This qualification reflects the role of employees such as production operators in a metalliferous processing facility who perform tasks involving a broad range of skilled applications applied in a wide variety of contexts, which may involve application of some discretion and judgement in selecting equipment, services or contingency measures.
Qualification Packaging Rules	<p>Successful completion of a total of eighteen (18) units of competency made up of:</p> <ul style="list-style-type: none"> • twelve (12) units of competency satisfying the criteria for the Certificate II in Metalliferous Mining (Processing), PLUS • six (6) electives units of which: <ul style="list-style-type: none"> – all six units are drawn from the elective units listed OR <ul style="list-style-type: none"> – a minimum of four (4) units are drawn from the specified units listed and – a maximum of two (2) units, relevant to the job function from elsewhere in the Metalliferous Mining Training Package or other endorsed Training Package <p><i>Note</i> Units of competency which are completed as part of the Certificate II in Metalliferous Mining Operations (Processing) cannot be credited as an elective for this qualification.</p>

Unit Code	Unit Title	Nominal Hours
Elective units		
<i>General</i>		
MNMG342A	Conduct reclaim operations	40
MNMG345A	Maintain stockpiles	20
MNMG346A	Blend stockpile material	20
MNMG350A	Carry out plant isolation and tagging	10
PMAPER300C	Issue work permits	10
<i>Mine supervision</i>		
MNMMSU410A	Commission/recommission plant	60
<i>Environmental management</i>		
MNMMEN304A	Take environmental samples and measurements	80
<i>General processing</i>		
MNMPGP303A	Conduct drying activities	30
MNMPGP309A	Perform process control room operations	60
MNMPGP310A	Monitor and operate auxiliary plant and equipment	40
UTPNEG162A	Operate and monitor boiler steam/water cycle	50
SUGPOTB2A	Operate a turbine	40
PMAOPS330A	Communicate and monitor pipeline activities	40
PMASUP340A	Conduct pipeline pigging	16
PMLOHS301B	Work safely with instruments that emit ionising radiation	80
PMLORG300A	Follow established work plan	20

Unit Code	Unit Title	Nominal Hours
PMLTEST302A	Calibrate testing equipment and assist with its maintenance	80
<i>Handling and pre-treatment</i>		
MNMPHA302A	Conduct crushing and screening	40
MNMPHA303A	Conduct milling/grinding	40
MNMPHA307A	Operate and monitor filter processes	30
<i>Beneficiation</i>		
MNMPBE302A	Conduct calcination activities	25
MNMPBE307A	Conduct bacterial oxidation	40
MNMPBE308A	Conduct filtering process	25
MNMPBE309A	Conduct flotation process	50
MNMPBE310A	Conduct heavy media separation	40
MNMPBE311A	Conduct high tension separation	30
MNMPBE312A	Conduct leaching process	40
MNMPBE313A	Conduct magnetic separation	30
MNMPBE314A	Conduct pressure oxidation	40
MNMPBE315A	Conduct thickening and clarifying process	20
MNMPBE316A	Conduct wet gravity separation	30
<i>Refining</i>		
MNMPRE301A	Conduct electrowinning/electrorefining operations	40
MNMPRE302A	Conduct elution process	40
MNMPRE303A	Conduct gold room operations	40
MNMPRE310A	Monitor casting quality	50
PMAOPS307A	Transfer bulk fluids into/out of storage facility	50
<i>Smelting</i>		
MNMPSM207A	Tap furnaces	50
MNMPSM301A	Cast a blast furnace	35
MNMPSM302A	Cast ingots	20
MNMPSM303A	Operate a blast furnace	50
MNMPSM304A	Operate furnaces	40
MNMPSM305A	Operate converters	50
MNMPSM306A	Supply molten metal and additives to furnaces	50
MNMPSM308A	Control molten metal in holding furnace vessel	50
MNMPSM313A	Monitor and maintain furnace gas efficiency	35
MNMPSM314A	Monitor and maintain flue gas efficiency	35
<i>By-product management</i>		
MNMPBP305A	Process lime products	30
FPPSTM1A	Manage steam boiler start-up	65
FPPSTM2A	Monitor and control boiler operation	30
FPPSTM3A	Shut down and store steam boiler	50
FPPSTM4A	Troubleshoot and rectify boiler plant system faults	90
<i>Product distribution</i>		
MNMPPD301A	Check and evaluate records and documentation	25
MNMPPD302A	Complete import/export documentation	25
MNMPPD304A	Maintain container/bulk cargo records	20

Unit Code	Unit Title	Nominal Hours
TDTD497B	Load and unload goods/cargo	30
TOTAL		590

Training Program 8:

MNM30405 – Certificate III in Mining Exploration

Qualification Title	Certificate III in Mining Exploration
Qualification Code	MNM30405
Qualification Summary	This qualification reflects the role of exploration geological technicians or mining geological technicians who perform tasks involving a broad range of skilled applications applied in a wide variety of contexts, which may involve application of some discretion and judgement in selecting equipment, services or contingency measures.
Qualification Packaging Rules	Successful completion of a total of eighteen (18) units of competency, made up of: <ul style="list-style-type: none"> • twelve (12) mandatory units of competency, PLUS • six (6) elective units drawn from the elective units listed.

Unit Code	Unit Title	Nominal Hours
Mandatory units		
Core		
MNMC201A	Work safely	20
MNMC202A	Communicate in the workplace	20
MNMC203A	Contribute to quality work outcomes	20
MNMC205A	Conduct local risk assessment	20
BSBCM215A	Participate in environmental work practices	10
<i>General</i>		
HLTFA1A	Apply basic First Aid	20
HLTFA2A	Apply advanced First Aid	40
<i>Geological survey</i>		
MNMEGS204A	Collect and prepare samples	80
MNMEGS301A	Operate and maintain instruments and field equipment	120
MNMEGS306A	Process data and maintain accurate records	80
MNMEGS311A	Navigate in remote or trackless areas	20
MNMEGS312A	Drive and recover a four-wheel-drive vehicle	40
Elective units		
<i>Geological survey</i>		
MNMEGS302A	Plan and undertake field trip	120
MNMEGS307A	Provide geological field assistance	100
MNMEGS308A	Mobilise equipment and materials	60
MNMEGS309A	Carry out operational maintenance	40
MNMEGS313A	Prepare drill site	40
MNMEGS314A	Rehabilitate exploration site	50
PRDSIS10A	Provide field support services	40
RTD2703A	Operate in isolated and remote situations	50
<i>General processing</i>		
PMCSUP282A	Use computers and related programs in the workplace	35
TOTAL		880

Training Program 9:
 MNM30505 – Certificate III in Small Mining Operations

Qualification Title	Certificate III in Small Mining Operations
Qualification Code	MNM30505
Qualification Summary	This qualification reflects the role of people working in an underground or open cut soft rock small mine, such as an opal mine. They perform tasks involving a broad range of skilled applications applied in a wide variety of contexts, which may involve application of some discretion and judgement in selecting equipment, services or contingency measures.
Qualification Packaging Rules	Successful completion of a total of fifteen (15) units of competency, made up of: <ul style="list-style-type: none"> • four (4) mandatory units of competency, PLUS • eleven (11) elective units drawn from the elective units listed with at least 5 (five) units drawn from the small mining grouping of units.

Unit Code	Unit Title	Nominal Hours
Mandatory units		
<i>Core</i>		
MNMC201A	Work safely	20
MNMC202A	Communicate in the workplace	20
MNMC205A	Conduct local risk assessment	20
BSBCM215A	Participate in environmental work practices	10
Elective units		
<i>General</i>		
MNMG204A	Perform initial response first aid	20
MNMG207A	Conduct dogging operations	35
MNMG208A	Conduct basic rigging operations	40
MNMG215A	Apply operational maintenance skills	40
MNMG216A	Service mine plant and equipment	40
MNMG228A	Conduct conveyor operations	30
MNMG229A	Break oversize rock	30
MNMG237A	Work safely at heights	16
MNMG325A	Apply risk management processes	30
MNMG330A	Respond to local emergencies and incidents	20
MNMG344A	Assess ground conditions	20
MNMG345A	Maintain stockpiles	20
MNMG348A	Move and position materials to form stockpile	20
MNCG1033A	Conduct lifting operations	30
<i>Drilling and ground control underground</i>		
MNMUD202A	Install ground support	60
<i>Loading and hauling open cut</i>		
MNMSM306A	Conduct shovel/excavator operations	40
MNMOLH305A	Conduct front end loader operations	65
MNMOLH306A	Conduct haul truck operations	60
<i>Ancillary mine support underground</i>		
MNMUMS215A	Prepare and perform manual scaling	20

Unit Code	Unit Title	Nominal Hours
<i>Rehabilitation</i>		
MNMOR210A	Identify and assess environmental and heritage concerns	20
RTD2022A	Carry out natural are restoration works	40
RTD2202A	Conduct erosion and sediment control activities	24
RTD3034A	Implement revegetation works	35
RTD3205A	Construct conservation earthworks	50
Small Mining Operations		
MNMSM302A	Establish a mining claim	60
MNMSM303A	Plan small mine operations	80
MNMSM304A	Rehabilitate small mine site	60
MNMSM305A	Operate small open cut mine equipment	40
MNMSM308A	Install underground shaft	80
MNMSM309A	Inspect small mines operations	80
MNMSM310A	Conduct materials extraction operations underground	40
MNMSM311A	Design and maintain pillar systems and ground control	60
MNMSM312A	Install and commission small mine plant, machinery and services	60
MNMSM313A	Install and maintain ventilation systems and equipment	60
MNMSM315A	Apply mine communications system	10
TOTAL		800

Training Program 10: MNM30605 – Certificate III in Mine Emergency Response and Rescue

Qualification Title	Certificate III in Mine Emergency Response and Rescue
Qualification Code	MNM30605
Qualification Summary	This qualification reflects the role of response and rescue team members in a metalliferous mine who perform tasks involving a broad range of skilled applications applied in a wide variety of contexts, which may involve application of some discretion and judgement in selecting equipment, services or contingency measures.
Qualification Packaging Rules	Successful completion of a total of sixteen (16) units of competency, made up of: <ul style="list-style-type: none"> • six (6) mandatory units of competency, PLUS • ten (10) elective units drawn from the elective units listed

Unit Code	Unit Title	Nominal Hours
Mandatory units		
<i>Core</i>		
MNMC201A	Work safely	20
MNMC202A	Communicate in the workplace	20
MNMC203A	Contribute to quality work outcomes	20
MNMC205A	Conduct local risk assessment	20
<i>General</i>		
HLTFA1A	Apply basic First Aid	20
HLTFA2A	Apply advanced First Aid	40
Elective units		
<i>Response and rescue</i>		
MNMRR301A	Respond to mine incident	40
MNMRR303A	Operate in self-contained regenerative oxygen breathing apparatus	40
MNMRR305A	Control underground fires	40
MNMRR306A	Conduct underground search	40
MNMRR307A	Extricate casualties from underground incident	40
MNMRR309A	Establish and operate from fresh air base	40
MNMRR310A	Provide support for rescue operations	40
MNMRR411A	Lead rescue team	40
PUADEFEO201A	Respond to fire	20
PUAEME001A	Provide emergency care	30
PUAEME002B	Manage injuries at emergency incident	20
PUAFIR207A	Operate breathing apparatus open circuit	16
PUAFIR306A	Render hazardous materials incidents safe	16
PUAFIR307A	Monitor hazardous atmospheres	24
PMAOHS211A	Prepare equipment for emergency response	20
PMAOMIR444A	Develop incident containment strategies	40
PUAAMS007A	Coordinate search and rescue operations	70
PUAOPE002A	Operate communications systems and equipment	20
PUASAR004A	Undertake vertical rescue	30

Unit Code	Unit Title	Nominal Hours
PUASAR005A	Undertake confined space rescue	30
PUASAR008A	Search as a member of a land search team	10
TOTAL		540

Training Program 11: MNM40105 – Certificate IV in Metalliferous Mining Operations (Open Cut)

Qualification Title	Certificate IV in Metalliferous Mining Operations (Open Cut)
Qualification Code	MNM40105
Qualification Summary	This qualification reflects the role of employees such as supervisor/team leader in an open cut metalliferous mine. They perform tasks involving a broad range of varied activities most of which are complex and non-routine. They are responsible for the quantity and quality of the output of others, contribute to the development of technical solutions to non-routine problems and apply mine management plans to the workplace.
Licensing Requirements	Shotfiring (Open cut) The units of competency, relating to shotfiring, currently exist in the Metalliferous Mining Training Package (MNM05). The industry, through the development of the Training Package, has deemed these appropriate units of competency for the function in open cut mining. However to be designated/appointed under any statutory requirements as a shotfirer, units of competency should be demonstrated to meet the state/territory licensing requirements. State/territory licensing requirements need to be confirmed by the Registered Training Organisation delivering and/or assessing the competency.
Qualification Packaging Rules	Successful completion of a total of fifteen (15) units of competency made up of: <ul style="list-style-type: none"> • ten (10) mandatory units of competency PLUS • five (5) electives units of which: <ul style="list-style-type: none"> – all five units are drawn from the elective units listed OR <ul style="list-style-type: none"> – a minimum of three (3) units are drawn from the specified units listed and – a maximum of two (2) units, relevant to the job function from elsewhere in the Metalliferous Mining Training Package or other endorsed Training Package

Unit Code	Unit Title	Nominal Hours
Mandatory Units		
<i>Core</i>		
MNMC201A	Work safely	20
MNMC202A	Communicate in the workplace	20
MNMC203A	Contribute to quality work outcomes	20
BSBCM215A	Participate in environmental work practices	10
<i>Mine management</i>		
MNMMSU401A	Apply, monitor, rectify and report statutory/legal compliance systems	80
MNMMSU405A	Apply and monitor systems for stable mining	80
MNMMSU409A	Apply and monitor mine emergency preparedness and response systems	80
<i>General</i>		
MNMG325A	Apply risk management processes	30
MNMG326A	Conduct safety and health investigations	30
MNMG327A	Communicate information	20
Elective Units		
<i>General</i>		

Unit Code	Unit Title	Nominal Hours
HLTFA1A	Apply basic First Aid	20
HLTFA2A	Apply advanced First Aid	40
<i>Shotfiring</i>		
MNMG313A	Charge blast holes	60
MNMG321A	Charge production blast holes	50
MNMG322A	Initiate blasts by remote control	40
MNMG352A	Apply blasting activities	60
MNMG353A	Fire surface blasts	80
MNMG406A	Manage blasting activities	80
MNMG412A	Initiate blasts	80
MNMG414A	Monitor and control the effects of blasting on the environment	20
MNQOPS511A	Design surface blasts	60
<i>Management supervision</i>		
MNMMSU402A	Apply, monitor and report pit development systems	80
MNMMSU406A	Apply and monitor mine transport systems and production equipment	80
MNMMSU407A	Apply and monitor mine services and infrastructure systems	60
MNMMSU410A	Commission/recommission plant	60
MNMMSU411A	Supervise work in confined space	30
<i>Supervision</i>		
BSBCM402A	Develop work priorities	30
BSBCM404A	Develop teams and individuals	40
BSBCM411A	Monitor a safe workplace	40
BSBCM412A	Promote innovation and change	30
BSBFLM403B	Implement effective workplace relationships	40
BSBFLM405B	Implement operational plan	50
BSBFLM406B	Implement workplace information system	40
BSBFLM409B	Implement continuous improvement	40
BSBFLM412A	Promote team effectiveness	30
BSZ401A	Plan assessment	15
BSZ402A	Conduct assessment	15
BSZ403A	Review Assessment	5
BSZ404A	Train small groups	30
TOTAL		720

Training Program 12: MNM40205 – Certificate IV in Metalliferous Mining Operations (Underground)

Qualification Title	Certificate IV in Metalliferous Mining Operations (Underground)
Qualification Code	MNM40205
Qualification Summary	This qualification reflects the role of employees such as supervisor/team leader in an underground metalliferous mine. They perform tasks involving a broad range of varied activities most of which are complex and non-routine. They are responsible for the quantity and quality of the output of others, contribute to the development of technical solutions to non-routine problems and apply mine management plans to the workplace.
	Shotfiring (Underground) The units of competency, relating to shotfiring, currently exist in the Metalliferous Mining Training Package (MNM05). The industry, through the development of the Training Package, has deemed these appropriate units of competency for the function in underground mining. However to be designated/appointed under any statutory requirements as a shotfirer, units of competency should be demonstrated to meet the state/territory licensing requirements. State/territory licensing requirements need to be confirmed by the Registered Training Organisation delivering and/or assessing the competency.
Qualification Packaging Rules	Successful completion of a total of fifteen (15) units of competency made up of: <ul style="list-style-type: none"> • ten (10) mandatory units of competency PLUS • five (5) electives units of which: <ul style="list-style-type: none"> – all five units are drawn from the elective units listed OR <ul style="list-style-type: none"> – a minimum of three (3) units are drawn from the specified units listed and <ul style="list-style-type: none"> – a maximum of two (2) units, relevant to the job function from elsewhere in the Metalliferous Mining Training Package or other endorsed Training Package

Unit Code	Unit Title	Nominal Hours
Mandatory Units		
<i>Core</i>		
MNMC201A	Work safely	20
MNMC202A	Communicate in the workplace	20
MNMC203A	Contribute to quality work outcomes	20
BSBCM215A	Participate in environmental work practices	10
<i>Mine management</i>		
MNMMSU401A	Apply, monitor, rectify and report statutory/legal compliance systems	80
MNMMSU405A	Apply and monitor systems for stable mining	80
MNMMSU409A	Apply and monitor mine emergency preparedness and response systems	80
<i>General</i>		
MNMG325A	Apply risk management processes	30
MNMG326A	Conduct safety and health investigations	30
MNMG327A	Communicate information	20
Elective Units		

Unit Code	Unit Title	Nominal Hours
<i>General</i>		
HLTFA1A	Apply basic First Aid	20
HLTFA2A	Apply advanced First Aid	40
<i>Shotfiring</i>		
MNMG313A	Charge blast holes	60
MNMG321A	Charge production blast holes	50
MNMG322A	Initiate blasts by remote control	40
MNMG323A	Charge development blast holes	40
MNMG352A	Apply blasting activities	60
MNMG406A	Manage blasting activities	80
MNMG412A	Initiate blasts	80
MNMG414A	Monitor and control the effects of blasting on the environment	20
<i>Mine supervision</i>		
MNMMSU405A	Apply and monitor systems for stable mining	80
MNMMSU406A	Apply and monitor mine transport systems and production equipment	80
MNMMSU407A	Apply and monitor mine services and infrastructure systems	80
MNMMSU410A	Commission/recommission plant	60
MNMMSU411A	Supervise work in confined space	30
<i>Supervision</i>		
BSBCM402A	Develop work priorities	30
BSBCM404A	Develop teams and individuals	40
BSBCM411A	Monitor a safe workplace	40
BSBCM412A	Promote innovation and change	30
BSBFLM403B	Implement effective workplace relationships	40
BSBFLM405B	Implement operational plan	50
BSBFLM406B	Implement workplace information system	40
BSBFLM409B	Implement continuous improvement	40
BSBFLM412A	Promote team effectiveness	30
BSZ401A	Plan assessment	15
BSZ402A	Conduct assessment	15
BSZ403A	Review Assessment	5
BSZ404A	Train small groups	30
TOTAL		720

Training Program 13: MNM40305 – Certificate IV in Metalliferous Mining Operations (Processing)

Qualification Title	Certificate IV in Metalliferous Mining Operations (Processing)
Qualification Code	MNM40305
Qualification Summary	This qualification reflects the role of employees such as supervisor/team leader in a metalliferous processing facility. They perform tasks involving a broad range of varied activities most of which are complex and non-routine. They are responsible for the quantity and quality of the output of others, contribute to the development of technical solutions to non-routine problems and apply mine management plans to the workplace.
Qualification Packaging Rules	Successful completion of a total of fourteen (14) units of competency made up of: <ul style="list-style-type: none"> • nine (9) mandatory units of competency PLUS • five (5) electives units of which: <ul style="list-style-type: none"> – all five units are drawn from the elective units listed OR <ul style="list-style-type: none"> – a minimum of three (3) units are drawn from the specified units listed and – a maximum of two (2) units, relevant to the job function from elsewhere in the Metalliferous Mining Training Package or other endorsed Training Package

Unit Code	Unit Title	Nominal Hours
Mandatory Units		
<i>Core</i>		
MNMC201A	Work safely	20
MNMC202A	Communicate in the workplace	20
MNMC203A	Contribute to quality work outcomes	20
BSBCM215A	Participate in environmental work practices	10
<i>Mine supervision</i>		
MNMMSU401A	Apply, monitor, rectify and report statutory/legal compliance systems	80
MNMMSU409A	Apply and monitor mine emergency preparedness and response systems	80
<i>General</i>		
MNMG325A	Apply risk management processes	30
MNMG326A	Conduct safety and health investigations	30
MNMG327A	Communicate information	20
Elective units		
<i>General</i>		
HLTFA1A	Apply basic First Aid	20
HLTFA2A	Apply advanced First Aid	40
<i>Mine supervision</i>		
MNMMSU407A	Apply and monitor mine services and infrastructure systems	80
MNMMSU410A	Commission/recommission plant	60
MNMMSU411A	Supervise work in confined space	30
<i>General processing</i>		
PMAOPS411A	Manage plant shutdown and restart	40

Unit Code	Unit Title	Nominal Hours
PMASUP441B	Decommission plant	30
PMLDATA500B	Analyse data and report results	130
<i>By-product management</i>		
MNMPBP403A	Monitor, coordinate and operate waste water treatment processes	50
<i>Product distribution</i>		
MNMPPD405A	Organise and monitor wharf/terminal operations	25
MNMPPD408A	Process movement of containers and cargo	30
<i>Supervision</i>		
BSBCM402A	Develop work priorities	30
BSBCM404A	Develop teams and individuals	40
BSBCM411A	Monitor a safe workplace	40
BSBCM412A	Promote innovation and change	30
BSBFLM403B	Implement effective workplace relationships	40
BSBFLM405B	Implement operational plan	50
BSBFLM406B	Implement workplace information system	40
BSBFLM409B	Implement continuous improvement	40
BSBFLM412A	Promote team effectiveness	30
BSZ401A	Plan assessment	15
BSZ402A	Conduct assessment	15
BSZ403A	Review Assessment	5
BSZ404A	Train small groups	30
TOTAL		650

Training Program 14: MNM50105 – Diploma of Metalliferous Mining (Open Cut) and (Underground)

Qualification Title	Diploma of Metalliferous Mining (Open Cut) and (Underground)
Qualification Code	MNM50105
Qualification Summary	This qualification reflects the role of mine managers in an open cut or underground metalliferous mine who perform tasks involving a high level of autonomy and requiring the application of significant judgement in planning and determining the selection of equipment/roles/techniques for themselves and others. They are required to demonstrate the application of a broad range of technical, managerial, coordination and planning and implement mine management plans.
Qualification Packaging Rules	Successful completion of a total of sixteen (16) units of competency made up of: <ul style="list-style-type: none"> • nine (9) mandatory units of competency PLUS • seven (7) electives units of which: <ul style="list-style-type: none"> – all seven units are drawn from the elective units listed OR <ul style="list-style-type: none"> – a minimum of five (5) units are drawn from the specified units listed and – a maximum of two (2) units, relevant to the job function from elsewhere in the Metalliferous Mining Training Package or other endorsed Training Package

Unit Code	Unit Title	Nominal Hours
Mandatory Units		
<i>Mine management</i>		
MNMG326A	Conduct safety and health investigations	30
MNMG327A	Communicate information	20
MNMMM501A	Implement and maintain statutory/legal compliance systems	80
MNMMM511A	Implement design systems for stable mining	80
MNMMM512A	Implement mine transport systems and production equipment	60
MNMMM513A	Implement mine services and infrastructure systems	80
MNMMM515A	Implement emergency preparedness and response systems	80
MNMMM516A	Facilitate the risk management process	80
<i>Environmental management</i>		
MNMMEN503A	Implement mining operations environmental system	60
Elective units		
<i>Mine management</i>		
MNMMM502A	Implement pit plan	80
MNMMM504A	Select and install surface mine plant and equipment	80
MNMMM505A	Plan and oversee drilling operations	60
MNMMM506A	Plan and monitor water management	80
MNMMM507A	Plan and monitor recycled material operations	40
MNMMM508A	Design stockpile formations and reclaiming systems	40
MNMMM509A	Develop, implement and maintain process control systems	60
MNMMM510A	Implement the ventilation management plan	80
MNMG1000A	Conduct mine surveying operations	20 *
<i>Environmental management</i>		

Unit Code	Unit Title	Nominal Hours
MNMMEN501A	Develop site environmental policy	80
MNMMEN502A	Undertake process or project environmental impact assessment	80
MNMMEN505A	Monitor and correct activities having impact on the environment	60
MNMMEN506A	Review environmental management system performance	50
<i>Supervision</i>		
BSBFLM501B	Manage personal work priorities and professional development	50
BSBFLM502A	Provide leadership in the workplace	60
BSBFLM503B	Manage effective workplace relationships	50
BSBFLM504A	Facilitate work team	40
BSBFLM505B	Manage operational plan	50
BSBFLM506B	Manage workplace information systems	60
BSBFLM507B	Manage quality customer service	50
BSBFLM508B	Ensure a safe workplace	40
BSBFLM509B	Facilitate continuous improvement	50
BSBFLM510B	Facilitate and capitalise on change and innovation	50
BSBFLM511B	Develop a workplace learning environment	50
BSBFLM512A	Ensure team effectiveness	50
BSBMGT505A	Ensure a safe workplace	50
TOTAL		1100

* The Mines Safety and Inspection Act 1994 and Regulations 1995 require evidence of an appropriate degree or diploma (e.g. Diploma of Engineering and Mine Surveying or equivalent) plus practical experience prior to enrolment in the unit of competency MNMG1000A Conduct Mine Surveying Operations. The 20 nominal hours allocated to this unit will be used to process the evidence of competency once the requirements of the Mining Surveying Board have been achieved.

Training Program 15:
MNM50205 – Diploma of Metalliferous Mining (Processing)

Qualification Title	Diploma of Metalliferous Mining (Processing)
Qualification Code	MNM50205
Qualification Summary	This qualification reflects the role of personnel working in a mining operation, on a single or a group of sites, who perform tasks involving a high level of autonomy and requiring the application of significant judgement in planning and determining the selection of equipment/roles/techniques for themselves and others. They are required to develop site specific work instructions and practices to ensure the implementation of the site management systems, plans and policies. They demonstrate the application of a broad range of technical, managerial, coordination and planning skills.
Qualification Packaging Rules	Successful completion of a total of sixteen (16) units of competency made up of: <ul style="list-style-type: none"> • eight (8) mandatory units of competency PLUS • eight (8) electives units of which: <ul style="list-style-type: none"> – all eight units are drawn from the elective units listed OR <ul style="list-style-type: none"> – a minimum of six (6) units are drawn from the specified units listed and – a maximum of two (2) units, relevant to the job function from elsewhere in the Metalliferous Mining Training Package or other endorsed Training Package

Unit Code	Unit Title	Nominal Hours
Mandatory units		
<i>General</i>		
MNMG327A	Communicate information	20
<i>Environmental management</i>		
MNMMEN503A	Implement mining operations environmental management system	60
<i>Mine Management</i>		
MNMMMMG501A	Implement and maintain statutory/legal compliance systems	80
MNMMMMG506A	Plan and monitor water management	80
MNMMMMG515A	Implement emergency preparedness and response systems	80
MNMMMMG516A	Facilitate the risk management process	80
BSBFLM507B	Manage quality customer service	50
BSBFLM509B	Facilitate continuous improvement	50
Elective Units		
<i>Mine management</i>		
MNMMMMG507A	Plan and monitor recycled material operations	40
MNMMMMG508A	Design stockpile formations and reclaiming systems	40
MNMMMMG509A	Develop, implement and maintain process control systems	60
MNMMMMG512A	Implement mine transport systems and production equipment	60
MNMMMMG513A	Implement mine services and infrastructure systems	80
<i>Environmental management</i>		
MNMMEN501A	Develop site environmental policy	80
MNMMEN502A	Undertake process or project environmental impact assessment	80

Unit Code	Unit Title	Nominal Hours
MNMMEN505A	Monitor and correct activities having impact on the environment	60
MNMMEN506A	Review environmental management system performance	50
<i>Supervision</i>		
BSBFLM501B	Manage personal work priorities and professional development	50
BSBFLM503B	Manage effective workplace relationships	50
BSBFLM505B	Manage operational plan	50
BSBFLM506B	Manage workplace information systems	60
BSBFLM510B	Facilitate and capitalise on change and innovation	50
BSBFLM511B	Develop a workplace learning environment	50
BSBFLM512A	Ensure team effectiveness	50
BSBMGT505A	Ensure a safe workplace	50
TOTAL		920

Training Program 16: MNM60105 – Advanced Diploma of Metalliferous Mining

Qualification Title	Advanced Diploma of Metalliferous Mining
Qualification Code	MNM60105
Qualification Summary	This qualification reflects the role of open cut or underground metalliferous mine managers who perform tasks that are broad, specialised, complex and technical and include strategic areas and initiating activities. They are required to demonstrate self-directed application of theoretical and technical knowledge and initiate solutions to technical problems or management requirements.
Qualification Packaging Rules	<p>A total of fourteen (14) units of competency:</p> <p>Mandatory units</p> <ul style="list-style-type: none"> • <i>for Open Cut</i> - eight (8) mandatory units of competency, PLUS - two (2) Technical Management units from those listed, • <i>for Underground</i> - eight (8) mandatory units of competency, PLUS - three (3) Technical Management units from those listed, <p>Elective Units</p> <ul style="list-style-type: none"> • <i>for Open Cut</i> - four (4) elective units of which <ul style="list-style-type: none"> - all four (4) units are drawn from the specified elective units listed, <p>OR</p> <ul style="list-style-type: none"> - a minimum of two (2) units are drawn from the specified units listed and - a maximum of two (2) units, relevant to the job function from elsewhere in the Metalliferous Mining Training Package or other endorsed Training Package <ul style="list-style-type: none"> • <i>for Underground</i> - three (3) elective units of which <ul style="list-style-type: none"> - all three (3) units are drawn from the specified elective units listed, <p>OR</p> <ul style="list-style-type: none"> - a minimum of two (2) units are drawn from the specified units listed and - a maximum of one (1) unit, relevant to the job function from elsewhere in the Metalliferous Mining Training Package or other endorsed Training Package

Unit Code	Unit Title	Nominal Hours
Mandatory units for both Open Cut and Underground		
MNMMSM601A	Establish and maintain the environmental management system	60
MNMMSM616A	Establish the statutory compliance management system	100
MNMMSM617A	Establish the risk management system	80
MNMMSM618A	Establish the mine infrastructure and fixed plant systems	80
MNMMSM619A	Establish mine services system	80
MNMMSM624A	Establish and manage the mine occupational health and safety management system	60
MNMMSM625A	Establish and manage mine emergency preparedness and response systems	80
MNMMSM626A	Establish a blasting system	80
Mandatory for Open Cut Mining		

Unit Code	Unit Title	Nominal Hours
<i>Technical management</i>		
MNMMSM630A	Establish ground control and stable mining systems	80
MNMMSM631A	Establish the ventilation management system	60
MNMMSM632A	Establish underground product haulage and transport systems	80
Elective units (Open Cut – total 4, with a minimum of 2 from those listed here) and (Underground – total 3, with a minimum of 2 from those listed here)		
MNMMSM604A	Manage the decision making process	40
MNMMSM607A	Manage group process	40
MNMMSM610A	Resource minesite plans and objectives	80
MNMMSM611A	Evaluate and enhance minesite performance	50
MNMMSM612A	Initiate, monitor and supervise contracts	60
MNMMSM613A	Establish and implement operational management plans	60
MNMMSM615A	Conduct business negotiations	50
MNMMSM620A	Establish plant, equipment and infrastructure maintenance systems	60
MNMMSM621A	Establish the mine water management system	60
MNMMSM622A	Establish the stockpile management system	60
MNMMSM623A	Establish waste and by product management system	60
MNMMSM627A	Establish mine closure management systems	60
BSBMGT601A	Contribute to strategic direction	50
BSBMGT603A	Review and develop business plan	50
BSBMGT605A	Provide leadership across the organisation	40
BSBMGT606A	Manage customer focus	50
BSBMGT607A	Manage knowledge and information	50
BSBMGT608A	Manage innovation and continuous improvement	60
TOTAL		1240