

RII RESOURCES AND INFRASTRUCTURE INDUSTRY

TRAINING PACKAGE

Version 9

WA NOMINAL HOURS GUIDE

Introduction

This Guide has been generated to enable the stakeholders in this Industry in Western Australia to participate in the managed implementation of the National RII Resources and Infrastructure Industry Training Package.

This Guide is designed to aid Registered Training Organisations (RTOs) to convert from existing Training Package qualifications to new Training Package qualifications within the scope of their training delivery.

The Guide should be read in conjunction with the endorsed components of the Training Package

Version 9.00 of the RII Resources and Infrastructure Industry Training Package was released by Training.Gov.Au (TGA) on the 19/10/2022

Transition Arrangements

Registered Training Organisations (RTOs) are required to deliver Training Package qualifications in accordance with the Standards for RTOs. For further information visit the Training Accreditation Council website www.tac.wa.gov.au

Nominal Hours

Nominal hours are the hours of training notionally required to achieve the outcomes of units of competency.

Nominal hours are identified for nationally endorsed qualifications. Nominal hours may vary for a qualification depending on the selection of units of competency.

In Western Australia, nominal hours are used as a mechanism for funding allocation.

Contact Details

For Training Packages content information, please contact:

Training Curriculum Services

Tel: (08) 6551 5541

Email: trainingpackages@dtwd.wa.gov.au

Qualifications and Nominal Hours

The following table provides a summary of the qualifications and nominal hours in the training package.

National Code	National Title	Nominal Hours
RII10115	Certificate I in Resources and Infrastructure Operations	180
RII20120	Certificate II in Resources and Infrastructure Work Preparation	250
RII20220	Certificate II in Surface Extraction Operations	220
RII20320	Certificate II in Underground Coal Mining	350
RII20420	Certificate II in Underground Metalliferous Mining	260
RII20520	Certificate II in Resource Processing	260
RII20620	Certificate II in Mining/Field Exploration	465
RII20720	Certificate II in Civil Construction	388
RII20819	Certificate II in Bituminous Surfacing	312
RII20920	Certificate II in Drilling Operations	391
RII21120	Certificate II in Oil & Gas Drilling (Onshore) and Well Servicing	350
RII21222	Certificate II in Autonomous Workplace Operations	301
RII30120	Certificate III in Surface Extraction Operations	455
RII30220	Certificate III in Underground Coal Operations	446
RII30320	Certificate III in Underground Metalliferous Mining	485
RII30420	Certificate III in Resource Processing	415
RII30520	Certificate III in Mining Exploration	598
RII30719	Certificate III in Emergency Response and Rescue	435
RII30820	Certificate III in Civil Construction Plant Operations	636
RII30920	Certificate III in Civil Construction	708
RII31220	Certificate III in Civil Foundations	673
RII31619	Certificate III in Trenchless Technology	850
RII31820	Certificate III in Drilling Operations	495

RII32020	Certificate III in Drilling Oil & Gas (Onshore)	375
RII32220	Certificate III in Well Servicing Operations	440
RII40120	Certificate IV in Surface Extraction Operations	550
RII40220	Certificate IV in Surface Coal Mining (Open Cut Examiner)	800
RII40320	Certificate IV in Underground Metalliferous Mining Operations	760
RII40420	Certificate IV in Underground Coal Operations	880
RII40520	Certificate IV in Resource Processing	650
RII40720	Certificate IV in Civil Construction	560
RII40820	Certificate IV in Civil Construction Design	594
RII40920	Certificate IV in Drilling Operations	440
RII41120	Certificate IV in Drilling Oil & Gas (Onshore)	350
RII41220	Certificate IV in Well Servicing Operations	360
RII41319	Certificate IV in Emergency Response Coordination	400
RII41421	Certificate IV in Civil Infrastructure Asset Management	475
RII41522	Certificate IV in Autonomous Control and Remote Operations	685
RII50120	Diploma of Surface Operations Management	875
RII50315	Diploma of Minerals Processing	920
RII50420	Diploma of Civil Construction Management	710
RII50520	Diploma of Civil Construction Design	1004
RII50620	Diploma of Drilling Operations	650
RII50820	Diploma of Drilling Oil & Gas (Onshore)	540
RII50920	Diploma of Underground Coal Mining Management	760
RII51020	Diploma of Well Servicing Operations	550
RII60120	Advanced Diploma of Metalliferous Mining	1150
RII60220	Advanced Diploma of Extractive Industries Management	1050
RII60320	Advanced Diploma of Underground Coal Mining Management	1010
RII60415	Advanced Diploma of Drilling Management	640

RII60520	Advanced Diploma of Civil Construction Design	795
RII60620	Advanced Diploma of Civil Construction	875
RII60720	Advanced Diploma of Surface Coal Mining Management	1090

Skill Sets and Nominal Hours

The following table provides a summary of the skill sets and nominal hours in the training package.

National Code	National Title	Nominal Hours
RIISS00018	Concrete Paving - Automated Paving Guidance System (APGS) Technician Skill Set	192
RIISS00019	Concrete Paving - Finisher Skill Set	318
RIISS00020	Concrete Paving - General Hand Skill Set	262
RIISS00021	Concrete Paving - Hand Texturing and Curing Skill Set	80
RIISS00022	Concrete Paving - Joint Sealer Skill Set	36
RIISS00023	Concrete Paving - Machine Operator Skill Set	152
RIISS00024	Concrete Paving - Saw Cutter Skill Set	24
RIISS00025	Concrete Paving - Spotter Recorder Skill Set	100
RIISS00026	Concrete Paving - Stringliner Skill Set	72
RIISS00027	Concrete Paving - Texture Machine Operator Skill Set	104
RIISS00028	Concrete Paving - Tie Bar Inserter Skill Set	16
RIISS00029	Leading Hand - Coal Mining Skill Set	365
RIISS00030	Explosion Protected Diesel Engine Systems Maintenance Skill Set	240
RIISS00031	Mine Surveying Skill Set	180
RIISS00032	Site Health and Safety Coordinator Skill Set	330
RIISS00033	Underground Coal Mine Safety Skill Set	150
RIISS00034	Surface Coal Mine Safety Skill Set	130
RIISS00035	Underground Shotfiring - Coal Skill Set	130
RIISS00036	Underground Shotfiring - Metalliferous Skill Set	210
RIISS00038	Oil and Gas (Off Shore) Rouseabout Skill Set	105
RIISS00042	Work Zone Traffic Control - Road Labourer Skill Set	50
RIISS00043	Work Zone Traffic Control - Supervisor Skill Set	186
RIISS00046	Leading Hand Skill Set	275

RIISS00047	Stabiliser Support Staff Skill Set	118
RIISS00048	Operator of Stabiliser Skill Set	186
RIISS00049	Operator of Spreader Skill Set	178
RIISS00050	Operator of Stabiliser (using foam bitumen) Skill Set	202
RIISS00051	Supervision of Diverse Work Teams Skill Set	125
RIISS00052	Surface Shotfiring Skill Set	150
RIISS00053	Advanced off-the-road and earthmoving tyre fitting	135
RIISS00054	Traffic Controller Skill Set	124
RIISS00055	Traffic Management Implementer Skill Set	151
RIISS00056	Traffic Management Designer Skill Set	110
RIISS00057	Construction Materials Testing Skill Set	120
RIISS00058	Traffic Controller Skill Set for Urban Streets and Low Volume Rural Roads	44
RIISS00059	Traffic Controller Skill Set for High Volume Roads	20
RIISS00060	Traffic Management Implementer Skill Set for Urban Streets and Low Volume Rural Roads	91
RIISS00061	Traffic Management Implementer Skill Set for High Volume Roads	50
RIISS00062	Traffic Management Implementer Skill Set for Motorways and Freeways	50
RIISS00063	Traffic Management Designer Skill Set for Urban Streets and Low Volume Rural Roads	110
RIISS00064	Traffic Management Designer Skill Set for High Volume Roads	45
RIISS00065	Traffic Management Designer Skill Set for Motorways and Freeways	45
RIISS00066	Civil Infrastructure Asset Management - Road Pavements Skill Set	200
RIISS00067	Civil Infrastructure Asset Management - Roadside Infrastructure Skill Set	200
RIISS00068	Civil Infrastructure Asset Management - Stormwater Drainage Skill Set	200
RIISS00069	Civil Infrastructure Asset Management - Civil Structures Skill Set	200
RIISS00070	Civil Infrastructure Asset Management - Civil Foundations Skill Set	200
RIISS00071	Civil Infrastructure Asset Management - Water and Sewerage Mains Skill Set	200
RIISS00072	Civil Infrastructure Asset Management - Underground Services Skill Set	200
RIISS00073	Civil Infrastructure Asset Management - Open Spaces Skill Set	200

RIISS00074	Civil Infrastructure Asset Management - Analyse Data for Asset Management Decision Making Skill Set	145
RIISS00075	Work with Data in an Autonomous Workplace Skill Set	50

Units of Competency and Nominal Hours

The following table provides a summary of the units of competency and nominal hours in the training package.

National Code	National Title	Nominal Hours
RIIARO201	Work in autonomous operations	40
RIIARO202	Use data and technology to complete work in autonomous operations	50
RIIARO301	Work safely in autonomous environments	20
RIIARO302	Work safely with remotely piloted aircraft systems	35
RIIARO303	Operate equipment in autonomous environments	45
RIIARO304	Coordinate and interact with autonomous systems	55
RIIARO305	Build and maintain routes for autonomous operations	55
RIIARO306	Respond to obstructions to autonomous operations	45
RIIARO307	Activate and deactivate autonomous systems	55
RIIARO308	Use data in an autonomous workplace	50
RIIARO401	Supervise autonomous operations	90
RIIARO402	Optimise performance of complex control systems in autonomous operations	80
RIIARO403	Maintain continuity of operational control	60
RIIARO404	Improve outcomes within a distributed value chain network	40
RIIARO405	Optimise automated drilling operations	50
RIIARO406	Optimise automated haulage operations	80
RIIARO407	Optimise automated fixed plant operations	50
RIIARO408	Optimise automated wet processing plant operations	80
RIIARO409	Optimise automated in-loading and out-loading operations	80
RIIARO410	Control safety risks in autonomous operations	50
RIIARO411	Manage situational awareness	40
RIIBEF201D	Plan and organise work	16
RIIBEF201E	Plan and organise work	16

RIIBEF202E	Identify and rectify site operating problems	30
RIIBEF301D	Run on-site operations	30
RIIBEF302E	Monitor site production activities	40
RIIBEF401E	Manage non-routine and complex technical situations	40
RIIBEF402D	Supervise on-site operations	30
RIIBEF403	Collaborate to achieve quality outcomes	60
RIIBEF404	Undertake informed and dynamic decision making	50
RIIBEF405	Optimise personal performance	40
RIIBEF601E	Conduct business negotiations	60
RIIBEF602E	Establish and evaluate operational performance management systems	60
RIIBEF604E	Conduct a feasibility study	70
RIIBHD301E	Conduct surface blast hole drilling operations	80
RIIBHD302E	Conduct underground development drilling	30
RIIBHD303E	Conduct long hole drilling	30
RIIBHD401D	Supervise blast hole drilling operations	45
RIIBLA201E	Support shotfiring operations	80
RIIBLA202F	Support underground shotfiring operations	80
RIIBLA203E	Conduct mobile mixing of explosives	40
RIIBLA204E	Store, handle and transport explosives in underground coal mines	20
RIIBLA205D	Store, handle and transport explosives	30
RIIBLA205E	Store, handle and transport explosives	30
RIIBLA301D	Conduct surface shotfiring operations	80
RIIBLA301E	Conduct surface shotfiring operations	80
RIIBLA302E	Conduct shotfiring operations in underground coal mines	80
RIIBLA303E	Conduct underground development shotfiring	80
RIIBLA304E	Conduct underground production shotfiring	80
RIIBLA305D	Conduct secondary blasting	20

RIIBLA305E	Conduct secondary blasting	20
RIIBLA307E	Conduct a blast survey	20
RIIBLA401E	Manage blasting operations	40
RIIBLA402D	Monitor and control the effects of blasting on the environment	20
RIIBLA402E	Monitor and control the effects of blasting on the environment	20
RIIBLA403	Design blasts	60
RIIBLA602D	Establish and maintain a blasting system	80
RIIBLA602E	Establish and maintain explosives safety and security management systems	110
RIICAM401	Conduct a condition assessment of road pavements	35
RIICAM402	Conduct a condition assessment of roadside infrastructure	35
RIICAM403	Conduct a condition assessment of stormwater drainage	35
RIICAM404	Conduct a condition assessment of civil structures	35
RIICAM405	Conduct a condition assessment of civil foundations	35
RIICAM406	Conduct a condition assessment of water and sewerage mains	35
RIICAM407	Conduct a condition assessment of underground services	35
RIICAM408	Conduct a condition assessment of open spaces	35
RIICAM409	Manage civil infrastructure datasets	35
RIICAM410	Maintain asset inventories	20
RIICAM501	Analyse and interpret civil infrastructure asset datasets	30
RIICAM502	Make decisions using civil infrastructure asset data	35
RIICAR301D	Rehabilitate exploration site	50
RIICAR302D	Rehabilitate small mine site	50
RIICBM201E	Strip pile heads	16
RIICBM301E	Maintain concrete bridges	68
RIICBM302E	Install pre-cast girders	70
RIICBM303E	Install pre-cast parapets	68
RIICBM304E	Operate bridge inspection units	68

RIICBM305E	Install pre-cast concrete bridge decks	70
RIICBM306E	Undertake concreting work on concrete bridges	68
RIICBM307E	Construct formwork and false work on concrete bridges	92
RIICBS202E	Hand spread asphalt	16
RIICBS203E	Safely handle bituminous materials	16
RIICBS207E	Take samples of road surfacing materials	8
RIICBS301E	Conduct profile planer operations	68
RIICBS302E	Conduct paver screeding operations	48
RIICBS303E	Conduct materials transfer vehicle operations	48
RIICBS304E	Compact asphalt with rollers	36
RIICBS305E	Conduct asphalt paver operation	44
RIICBS306E	Conduct micro surfacing operations	68
RIICBS307E	Conduct bitumen sprayer operations	84
RIICBS308E	Load aggregate using purpose built loaders	16
RIICBS309E	Conduct self-propelled aggregate spreader operations	24
RIICBS310E	Conduct patching operations	52
RIICBS311E	Produce asphalt products	84
RIICBS312E	Conduct bitumen tanker operations	52
RIICBS313	Conduct tack coat spraying operations	16
RIICBS314	Conduct aggregate spreader box operations	16
RIICBS315	Roll aggregate in sprayed sealing operations	24
RIICBS316	Conduct pavement sweeping operations	16
RIICBS317	Conduct road maintenance operations	28
RIICBS401E	Supervise asphalt paving and compaction operations	40
RIICBS402E	Supervise the application of bituminous sprayed treatments	45
RIICBS403E	Supervise the application of polymer modified binders	25
RIICBS404E	Supervise the selection and use of bituminous emulsions	20

RIICBS405E	Supervise micro surfacing operations	40
RIICBS406E	Supervise pavement profiling operations using a profiler	30
RIICBS407E	Supervise the manufacture and delivery of hot mix asphalt	40
RIICBS408E	Supervise the manufacture of cold mixes	40
RIICBS409E	Supervise the manufacture of polymer modified binders	40
RIICBS410E	Supervise the manufacture of bituminous emulsions	40
RIICBS411E	Supervise the manufacture of micro surfacing mixes	40
RIICCM201D	Carry out measurements and calculations	16
RIICCM201E	Carry out measurements and calculations	16
RIICCM202E	Identify, locate and protect underground services	24
RIICCM203D	Read and interpret plans and job specifications	32
RIICCM203E	Read and interpret plans and job specifications	32
RIICCM204E	Place and fix reinforcement materials	40
RIICCM205E	Carry out manual excavation	8
RIICCM205F	Carry out manual excavation	8
RIICCM206D	Support plant operations	8
RIICCM206E	Support plant operations	8
RIICCM207D	Spread and compact materials manually	12
RIICCM207E	Spread and compact materials manually	12
RIICCM208D	Carry out basic levelling	8
RIICCM208E	Carry out basic levelling	8
RIICCM209D	Carry out concrete work	36
RIICCM209E	Carry out concrete work	36
RIICCM210D	Install trench support	8
RIICCM210E	Install trench support	8
RIICCM211E	Construct and dismantle fences and gates	35
RIICCM302	Track directional boring operations	30

RIICCM303	Conduct vacuum excavations	30
RIICCR401E	Develop and maintain positive community relations	20
RIICCR601D	Manage customer relationships	30
RIICFW301E	Construct underpinning	52
RIICFW302E	Install temporary and permanent rock anchors	20
RIICFW303E	Install primary ground supports	20
RIICFW304E	Conduct pile driving operations	32
RIICFW305E	Conduct cast in-situ pilings operations	32
RIICFW306E	Direct pile driving operations	20
RIICFW307E	Direct cast in-situ piling operations	20
RIICFW308	Conduct screw piling operations	35
RIICOM201D	Communicate in the workplace	20
RIICOM201E	Communicate in the workplace	20
RIICOM202	Contribute to effectiveness of communication and teamwork in an autonomous workplace	40
RIICOM301E	Communicate information	20
RIICOM302D	Communicate workplace information	40
RIICOM401	Communicate effectively in a remote work environment	40
RIICPL301D	Install water mains pipelines	36
RIICPL301E	Install water mains pipelines	36
RIICPL302D	Install stormwater systems	36
RIICPL302E	Install stormwater systems	36
RIICPL303D	Install sewer pipelines	36
RIICPL303E	Install sewer pipelines	36
RIICPL304D	Install pre-cast gully pits	36
RIICPL304E	Install pre-cast gully pits	36
RIICPL305E	Install pre-cast access chambers	36
RIICPL401E	Supervise the installation of underground services using open excavation	60

RIICRC201D	Repair potholes	28
RIICRC201E	Repair potholes	28
RIICRC202E	Install signs	12
RIICRC203D	Install sub-soil drainage	16
RIICRC203E	Install sub-soil drainage	16
RIICRC204E	Install and maintain roadside fixtures	24
RIICRC205E	Install utility poles	32
RIICRC206E	Install pre-cast concrete crash barriers	32
RIICRC207E	Install noise barriers	32
RIICRC208D	Lay pipes	32
RIICRC208E	Lay pipes	32
RIICRC209E	Lay reinforced concrete box culverts	32
RIICRC301E	Maintain drainage systems	12
RIICRC302E	Place and form concrete kerb, channel and fixtures	28
RIICRC303E	Lay pavers	20
RIICRC304E	Maintain sealed roads	24
RIICRC305E	Conduct road construction paver screeding operations	48
RIICRC306E	Conduct earthworks	68
RIICRC307E	Conduct road pavement construction	20
RIICRC308E	Conduct paver operations	68
RIICRC309E	Conduct stabiliser operations	68
RIICRC310E	Construct and maintain roads	60
RIICRC311E	Conduct concrete road paver operations	60
RIICRC312E	Set up and maintain concrete paver stringlines	40
RIICRC313E	Conduct concrete road curing and texturing operations	24
RIICRC314E	Handle concrete materials	24
RIICRC315E	Use concreting materials and equipment	60

RIICRC316E	Place and compact concrete	170
RIICRC317E	Finish concrete pavements	40
RIICRC318E	Cure concrete	16
RIICRC319E	Saw and cut concrete pavements to initiate planned cracks	16
RIICRC320E	Seal concrete pavements	12
RIICRC321E	Use automated paving guidance systems	80
RIICRC322E	Receive, check and record concrete deliveries	8
RIICRC323E	Insert tie bars in fresh concrete	8
RIICRC401E	Supervise flexible pavement construction	50
RIICRC402E	Supervise rigid pavement construction	30
RIICRC403E	Supervise the stabilisation of materials	50
RIICRC404E	Inspect and report on pavement condition	24
RIICRC405E	Carry out pavement condition measurement	50
RIICRC406E	Supervise pavement maintenance	50
RIICRM201F	Escort mobile works	20
RIICRM202E	Handle and store road marking materials	8
RIICRM203E	Conduct pedestrian road marking operations	20
RIICRM204E	Prepare surfaces for road marking	12
RIICRM205E	Conduct road marking measuring operations	12
RIICRM206E	Conduct airless and atomised spraying operations	16
RIICRM207E	Install raised pavement markers	12
RIICRM301E	Conduct ride on road marking operations	12
RIICRM302E	Conduct long line road marking operations	32
RIICRM303E	Conduct thermo plastic road marking operations	24
RIICSG401E	Supervise civil concrete structure construction	60
RIICSG402E	Supervise civil steel structure construction	60
RIICSG403E	Supervise civil timber structure construction	60

RIICSG404E	Supervise civil masonry, crib and gabion structure construction	60
RIICSG405E	Carry out inspections of civil structures	60
RIICSG406E	Supervise maintenance of civil structures	60
RIICTB201E	Maintain timber bridges	30
RIICTB202E	Apply bridge durability treatments	55
RIICTB203E	Produce bridge drawings and sketches	20
RIICTB301E	Undertake visual inspections	55
RIICTB302E	Install temporary support members	30
RIICTB303E	Erect temporary modular support systems (baileys) on existing bridges	40
RIICTB304E	Install or replace sub-structure members	40
RIICTB305E	Install or replace super-structure members	40
RIICTB306E	Splice and connect timber members	30
RIICTB307E	Assemble and disassemble temporary modular bridges	40
RIICTB308E	Install or replace truss members	30
RIICTB309E	Construct, maintain and remove coffer dams	50
RIICTB310E	Construct specialised timber deck systems	55
RIICTC301E	Install tunnelling constructions services	68
RIICTC302E	Line tunnels	68
RIICTC303E	Excavate tunnel by machine	24
RIICTC304E	Muck out tunnel earthworks	12
RIICTC305E	Construct portals	20
RIICTC306	Conduct tunnel boring machine operations	180
RIICTC401E	Supervise tunnel construction	60
RIICTC402	Supervise tunnel boring machine operations	180
RIICTT301E	Conduct fluid assisted directional boring	68
RIICTT302E	Conduct impact moling, ramming and augering operations	68
RIICTT303E	Control micro tunnelling and pipe-jacking operations	68

RIICTT304E	Undertake on-line replacement for existing pipeline systems	68
RIICTT305E	Undertake localised repair and sealing of existing pipeline systems	68
RIICTT306E	Install cure in-place linings for existing pipeline systems	68
RIICTT307E	Spray linings for existing pipeline systems	68
RIICTT308E	Install close-fit linings for existing pipeline systems	68
RIICTT309E	Install slip lining in existing pipeline systems	68
RIICTT310E	Renovate large diameter pipes and chambers	68
RIICTT401E	Supervise the installation of underground services using trenchless technology	60
RIICTT402E	Supervise repair and rehabilitation of underground services using trenchless technology	60
RIICWD501E	Prepare detailed design of foundations	60
RIICWD502E	Prepare detailed design of lighting	60
RIICWD503E	Prepare traffic management plans and traffic guidance schemes	30
RIICWD504E	Prepare detailed design of environmental controls	60
RIICWD505E	Prepare detailed design of landscaping	60
RIICWD506E	Prepare detailed design of canals	60
RIICWD507D	Prepare detailed geotechnical design	60
RIICWD508E	Prepare detailed design of rural roads	60
RIICWD509E	Prepare detailed design of urban roads	60
RIICWD510E	Prepare detailed design of busways	60
RIICWD511E	Prepare detailed design of sub-divisions	60
RIICWD512E	Prepare detailed design of motorways and interchanges	60
RIICWD513E	Prepare detailed design of rail civil infrastructure	60
RIICWD514E	Prepare detailed design of dams	60
RIICWD515E	Prepare detailed design of airfield civil works	60
RIICWD516E	Prepare detailed design of bicycle ways	50
RIICWD517E	Prepare detailed design of industrial hardstands	60
RIICWD518E	Prepare detailed design of open car parks	50

RIICWD519E	Prepare detailed design of intermodal facilities civil works	60
RIICWD520E	Prepare detailed design of rigid pavements	60
RIICWD521E	Prepare detailed design of flexible pavements	60
RIICWD522E	Prepare stabilised material mix design	60
RIICWD523E	Prepare asphalt mix design	36
RIICWD524E	Prepare design of spray seal surfacing	60
RIICWD525E	Select pavement surfacing	36
RIICWD526E	Prepare detailed traffic analysis	60
RIICWD527E	Prepare detailed design of traffic signals	60
RIICWD528E	Prepare detailed design of traffic management systems	60
RIICWD529E	Prepare detailed design of underground services	60
RIICWD530E	Prepare detailed design of surface drainage	30
RIICWD531E	Prepare detailed design of subsurface drainage	60
RIICWD532E	Prepare detailed design of tunnels	60
RIICWD533E	Prepare detailed design of civil concrete structures	60
RIICWD534E	Prepare detailed design of civil steel structures	60
RIICWD535E	Prepare detailed design of civil timber structures	60
RIICWD536E	Prepare detailed design of civil masonry, crib and gabion structures	60
RIICWD537E	Prepare detailed design of marine structures civil works	70
RIICWD538	Prepare traffic management plans and traffic guidance schemes for high volume roads	45
RIICWD539	Prepare traffic management plans and traffic guidance schemes for motorways and freeways	45
RIICWD601E	Manage civil works design processes	180
RIICWM401E	Supervise civil works	80
RIICWM402E	Supervise civil works contractors	60
RIICWM501E	Implement civil construction plans	70
RIICWM502E	Implement civil works maintenance programs	70
RIICWM503E	Prepare civil works cost estimates	60

RIICWM504E	Prepare civil works bill of quantities	60
RIICWM505E	Prepare civil works schedule of rates	60
RIICWM601E	Establish civil construction plans	180
RIICWM602E	Establish civil works maintenance programs	180
RIIDES301D	Inspect, test and maintain diesel engine systems and their ancillary systems	80
RIIDES302D	Inspect, test and maintain joints on diesel engine systems	40
RIIDES303D	Inspect, test and maintain cooling systems on diesel engine systems	20
RIIDES304D	Inspect, test and maintain inlet systems on diesel engine systems	20
RIIDES305D	Inspect, test and maintain exhaust systems on diesel engine systems	20
RIIDES306D	Inspect, test and maintain safety shutdown systems on diesel engine systems	40
RIIDES307D	Test, determine the cause and rectify excessive emission levels on diesel engine systems	20
RIIDML401E	Supervise demolitions	60
RIIEGS201D	Operate in isolated and remote situations	50
RIIEGS202E	Conduct field work	160
RIIEGS301D	Operate and maintain instruments and field equipment	120
RIIEGS301E	Operate and maintain instruments and field equipment	120
RIIEGS302D	Plan and undertake field trip	120
RIIEGS303E	Provide geological field assistance	100
RIIEGS304E	Mobilise equipment and materials	60
RIIEGS305E	Navigate in remote or trackless areas	20
RIIENV201D	Identify and assess environmental and heritage concerns	20
RIIENV201E	Identify and assess environmental and heritage concerns	20
RIIENV301E	Conduct atmospheric monitoring	40
RIIENV302E	Apply environmentally sustainable work practices	15
RIIENV401E	Supervise dust and noise control	40
RIIENV402E	Implement and monitor environmental policies	40
RIIENV501D	Implement and maintain environmental management plan	60

RIIENV501E	Implement and maintain environmental management plans	60
RIIENV502E	Undertake process or project environmental impact assessments	80
RIIENV601D	Establish and maintain the environmental management system	90
RIIENV601E	Establish and maintain the environmental management system	90
RIIERR201E	Conduct fire team operations	16
RIIERR202E	Contribute to the control of emergencies and critical situations	25
RIIERR203E	Escape from hazardous situations unaided	40
RIIERR204E	Provide aided rescue to endangered personnel	40
RIIERR205D	Apply initial response First Aid	20
RIIERR301E	Respond to work site incidents	40
RIIERR302E	Respond to local emergencies and incidents	20
RIIERR303E	Operate in self-contained regenerative oxygen breathing apparatus	40
RIIERR304D	Control emergencies and critical situations	30
RIIERR305E	Control underground fires	40
RIIERR306E	Conduct underground searches	40
RIIERR307E	Extricate casualties from underground incidents	40
RIIERR308E	Extricate and transport people involved in incidents	40
RIIERR309D	Establish and operate from fresh air base	40
RIIERR310D	Provide support for rescue operations	40
RIIERR401E	Apply and monitor emergency preparedness and response systems in surface operations	80
RIIERR402D	Apply and monitor underground coal mine emergency preparedness and response systems	60
RIIERR402E	Apply and monitor underground coal mine emergency preparedness and response systems	60
RIIERR403E	Lead rescue teams	40
RIIERR404D	Apply and monitor underground Metalliferous mine emergency preparedness and response systems	60
RIIERR405	Control emergencies and critical situations	30
RIIERR406	Provide support for rescue operations	40
RIIERR501E	Implement underground coal mine emergency preparedness and response systems	60

RIIERR503D	Implement emergency preparedness and response systems	80
RIIERR504E	Manage major incidents and emergencies	70
RIIERR601E	Establish and maintain mine emergency preparedness and response systems	100
RIIERR602E	Establish and maintain underground coal mine emergency preparedness and response systems	80
RIIFIA401E	Manage financial records	30
RIIGOV201E	Comply with site work processes/procedures	20
RIIGOV401E	Apply, monitor and report on compliance systems	80
RIIGOV501D	Identify, implement and maintain legal compliance requirements	80
RIIGOV501E	Identify, implement and maintain legal compliance requirements	80
RIIGOV601D	Establish, maintain and develop a statutory compliance management system	80
RIIGOV601E	Establish, maintain and develop a statutory compliance management system	80
RIIHAN201E	Operate a forklift	40
RIIHAN203D	Conduct lifting operations	30
RIIHAN203E	Conduct lifting operations	30
RIIHAN204D	Load and unload cargo/goods	30
RIIHAN205D	Secure cargo	30
RIIHAN206E	Transport plant, equipment and personnel	30
RIIHAN208D	Perform dogging	40
RIIHAN208E	Perform dogging	40
RIIHAN209E	Perform basic rigging	40
RIIHAN210D	Perform intermediate rigging operations	40
RIIHAN211D	Conduct basic scaffolding operations	40
RIIHAN212E	Conduct non-slewing crane operations	40
RIIHAN213E	Work effectively in the drilling industry	18
RIIHAN301E	Operate elevating work platform	20
RIIHAN302D	Conduct intermediate scaffolding operations	100
RIIHAN304E	Conduct slewing crane operations	50

RIIHAN305D	Operate a gantry or overhead crane	40
RIIHAN307E	Operate a vehicle loading crane	40
RIIHAN308F	Load and unload plant	16
RIIHAN309F	Conduct telescopic materials handler operations	80
RIIHAN310E	Conduct crane operations underground	35
RIIHAN311F	Conduct operations with integrated tool carrier	68
RIIHAN401D	Organise and monitor wharf/terminal operations	25
RIIMG301D	Maintain site records	8
RIIMG301E	Maintain site records	8
RIILAT401D	Provide leadership in the supervision of Indigenous employees	40
RIILAT401E	Provide leadership in the supervision of Indigenous employees	40
RIILAT402D	Provide leadership in the supervision of diverse work teams	45
RIILAT402E	Provide leadership in the supervision of diverse work teams	45
RIILAT601E	Manage group processes	40
RIIMCO201D	Conduct spreader operations	60
RIIMCO302D	Conduct surface miner operations	60
RIIMCO303E	Conduct auger miner operations	80
RIIMCP202D	Conduct rail dispatch operations	40
RIIMCP301D	Monitor plant operations for coal preparation	60
RIIMCU201D	Operate power tram	40
RIIMCU202D	Conduct tracked vehicle/plant operations	40
RIIMCU203D	Conduct wheeled vehicle operations (non-articulated)	40
RIIMCU204D	Conduct wheeled vehicle operations (articulated)	40
RIIMCU205D	Conduct rotational drilling	40
RIIMCU206D	Install, maintain and recover gas drainage systems	40
RIIMCU207D	Install, maintain and recover electrical services	20
RIIMCU208E	Conduct basic strata control operations	40

RIIMCU209E	Conduct roadway maintenance	20
RIIMCU210D	Conduct stonedusting operations	20
RIIMCU211D	Install and maintain explosion barriers	20
RIIMCU212E	Construct and maintain basic ventilation devices	20
RIIMCU213E	Conduct feeder breaker operations	40
RIIMCU214E	Conduct ventilation operations	40
RIIMCU215D	Operate longwall ancillary equipment	40
RIIMCU216D	Maintain lamp cabin operations	40
RIIMCU217	Apply spontaneous combustion management measures	40
RIIMCU218	Work safely with polymeric chemicals in underground coal mining	20
RIIMCU301E	Conduct specialised strata control operations	40
RIIMCU302F	Construct and maintain ventilation devices	35
RIIMCU303E	Conduct continuous miner operations	100
RIIMCU304E	Conduct shuttle car operations	40
RIIMCU305E	Conduct outburst mining operations	40
RIIMCU306E	Conduct shearer operations	40
RIIMCU307E	Conduct longwall face equipment operations	100
RIIMCU308E	Install and recover longwall equipment	40
RIIMCU309E	Operate breaker line supports	40
RIIMCU310E	Conduct flexible conveyor train (FCT) operations	40
RIIMCU311E	Monitor control processes	40
RIIMCU312	Conduct polymeric chemical operations in underground coal mining	55
RIIMCU313	Mix and pump polymeric chemicals in underground coal mining	45
RIIMCU314	Transport and store polymeric chemicals in underground coal mining	70
RIIMCU401E	Conduct special roadway operations	60
RIIMCU403E	Apply and monitor the gas management plan	60
RIIMCU404E	Apply and monitor the gas drainage management plan	60

RIIMCU405D	Apply and monitor the outburst management plan	60
RIIMCU406E	Apply and monitor the inrush management plan	70
RIIMCU407E	Apply and monitor the strata management plan	60
RIIMCU408E	Apply the spontaneous combustion management plan	60
RIIMCU409	Apply and monitor polymeric chemical management plans	20
RIIMCU501E	Implement the spontaneous combustion management plan	60
RIIMCU502E	Implement the gas management plan	60
RIIMCU503D	Implement the gas drainage management plan	60
RIIMCU504D	Implement the outburst management plan	60
RIIMCU505E	Implement the inrush management plan	80
RIIMCU506E	Implement the strata management plan	60
RIIMCU601E	Establish and maintain spontaneous combustion management systems	80
RIIMCU602E	Establish and maintain gas management systems	80
RIIMCU603D	Establish and maintain the gas drainage management plan	80
RIIMCU604D	Establish and maintain the outburst management plan	80
RIIMCU605E	Establish and maintain inrush management systems	100
RIIMCU606E	Establish and maintain the mining method and strata management systems	80
RIIMEX201E	Suppress dust in open-cut environments	20
RIIMEX203D	Break oversize rock	30
RIIMEX204D	Conduct workboat/barge operations	50
RIIMEX301D	Conduct dredging operations	45
RIIMEX302D	Assess ground conditions	20
RIIMEX303	Conduct local geotechnical risk control in surface operations	70
RIIMEX401D	Apply pit plan	160
RIIMEX402E	Supervise dredging operations	45
RIIMEX403E	Supervise canal construction	60
RIIMEX404E	Apply and monitor systems for stable mining	80

RIIMEX405E	Apply and monitor systems and methods of surface coal mining	80
RIIMEX406D	Apply and monitor mine transport systems and production equipment	80
RIIMEX407	Apply and monitor the ground control management plan	70
RIIMEX408	Supervise overburden dump operations	70
RIIMEX501D	Implement pit plan	120
RIIMEX502D	Implement systems and methods of mining	80
RIIMEX503E	Manage dredging operations	50
RIIMEX504	Implement the ground control management plan	80
RIIMEX601D	Plan pit development	90
RIIMEX602D	Establish and maintain surface mining ground control and slope stability systems	120
RIIMEX603D	Establish and maintain underground mining ground control and stable mining systems	80
RIIMEX604D	Establish and maintain surface product haulage and transport systems	80
RIIMPG301D	Control and monitor automated plant/machinery	20
RIIMPO201E	Operate roller/compactor underground	20
RIIMPO205E	Operate roller/compactor	20
RIIMPO206D	Conduct bulk water truck operations	40
RIIMPO208F	Operate support equipment	50
RIIMPO210E	Conduct underground truck operations	20
RIIMPO301E	Conduct hydraulic excavator operations	60
RIIMPO302E	Conduct hydraulic shovel operations	60
RIIMPO303E	Conduct rope shovel operations	70
RIIMPO304E	Conduct wheel loader operations	65
RIIMPO305F	Conduct coal stockpile dozer operations	35
RIIMPO306D	Operate plant/machinery on live stockpiles	40
RIIMPO307E	Conduct wheel grader operations in underground mines	40
RIIMPO308F	Conduct tracked dozer operations	60
RIIMPO309F	Conduct wheeled dozer operations	40

RIIMPO310F	Conduct grader operations	60
RIIMPO312E	Conduct scraper operations	60
RIIMPO313E	Conduct face loader operations	50
RIIMPO315E	Conduct tractor operations	52
RIIMPO316E	Conduct self-propelled compactor operations	32
RIIMPO317F	Conduct roller operations	20
RIIMPO318F	Conduct civil construction skid steer loader operations	68
RIIMPO319E	Conduct backhoe/loader operations	50
RIIMPO320F	Conduct civil construction excavator operations	160
RIIMPO321F	Conduct civil construction wheeled front end loader operations	40
RIIMPO322E	Conduct civil construction tracked front end loader operations	68
RIIMPO323E	Conduct civil construction dozer operations	192
RIIMPO324F	Conduct civil construction grader operations	192
RIIMPO325E	Conduct civil construction scraper operations	128
RIIMPO326E	Conduct water vehicle operations	32
RIIMPO327E	Conduct pipe layer operations	68
RIIMPO328E	Conduct continuous bucket trencher operations	32
RIIMPO329F	Conduct dragline operations	110
RIIMPO331E	Conduct operations with stockpile dozer	40
RIIMPO333E	Conduct underground load, haul and dump truck operations	30
RIIMPO334E	Conduct skid steer loader operations using attachments	68
RIIMPO335E	Conduct skid steer loader operations without attachments	68
RIIMPO336E	Conduct belly dump truck operations	60
RIIMPO337E	Conduct articulated haul truck operations	60
RIIMPO338E	Conduct rigid haul truck operations	60
RIIMPO339A	Conduct side tipper operations	35
RIIMPO401D	Supervise mobile plant operations	35

RIIMPO402D	Apply the principles of earthworks construction	60
RIIMPO403D	Monitor interaction of heavy and light vehicles and mining equipment	60
RIIMPO501D	Implement, monitor, rectify and report on mobile plant and equipment systems	80
RIIMPO502D	Manage the interaction of heavy and light vehicles and mining equipment	100
RIIMSM307D	Install and maintain ventilation systems and equipment	60
RIINHB201E	Load, secure and unload drilling equipment and materials	40
RIINHB202E	Set up and pack up drill sites	40
RIINHB203E	Support drilling processes	96
RIINHB205F	Assist continuous flight auger drilling	35
RIINHB206E	Assist large diameter auger drilling	35
RIINHB208E	Assist diamond core drilling	20
RIINHB210E	Assist surface directional drilling	20
RIINHB211E	Assist mud rotary drilling	20
RIINHB217E	Assist horizontal direction drilling	30
RIINHB218E	Assist grouting and cementing operations	20
RIINHB219E	Assist with reverse circulation drilling	30
RIINHB220	Assist coil tube drilling	35
RIINHB221	Assist rotary air drilling	35
RIINHB222	Assist sonic drilling operations	35
RIINHB223	Prepare, run and cement casing	35
RIINHB301E	Set up and prepare for drilling operations	60
RIINHB302D	Conduct reaming	60
RIINHB303D	Install product pipe	40
RIINHB304E	Conduct reverse circulation drilling operations	60
RIINHB305E	Conduct continuous flight auger drilling	60
RIINHB306E	Conduct large diameter auger drilling	60
RIINHB307D	Conduct conventional core drilling	60

RIINHB308D	Conduct wireline core drilling	60
RIINHB309E	Conduct guided boring	60
RIINHB310D	Conduct surface directional drilling	60
RIINHB311E	Conduct mud rotary drilling operations	60
RIINHB312D	Conduct raise boring	60
RIINHB315D	Conduct top-hole hammer drilling	60
RIINHB316D	Conduct underground in-seam directional drilling	60
RIINHB317D	Install underground in-seam directional drilling standpipes	40
RIINHB318D	Install and operate water and gas control equipment	40
RIINHB320D	Construct monitoring bores	80
RIINHB322E	Construct multiple aquifer production bores	40
RIINHB323D	Conduct horizontal directional drilling	60
RIINHB324E	Conduct grouting or cementing operations	40
RIINHB325E	Construct single aquifer bores	40
RIINHB326	Conduct coil tube drilling	60
RIINHB327	Conduct cyber chair drilling operations	60
RIINHB328	Conduct rotary air drilling	60
RIINHB329	Conduct sonic drilling operations	60
RIINHB330	Conduct down-hole hammer drilling	40
RIINHB401E	Plan and supervise the mobilisation of equipment, crew and materials	30
RIINHB402E	Supervise drilling operations	45
RIINHB403D	Supervise geotechnical drilling operations	45
RIINHB411E	Construct artesian (flowing) aquifer bores	40
RIINHB412D	Construct geothermal wells	40
RIINHB501F	Plan drilling	40
RIIOGD202E	Carry out equipment and basic rig maintenance procedures	40
RIIOGD203F	Prepare and operate drilling fluid systems	25

RIIOGD204F	Perform rig floor operations	45
RIIOGD205E	Support blow out prevention operations	20
RIIOGD206E	Assist and monitor well control operations	20
RIIOGD209F	Operate and maintain ancillary equipment	40
RIIOGD301E	Conduct and maintain derrick operations	45
RIIOGD302F	Assist in running casing	20
RIIOGD303F	Trip pipe	25
RIIOGD304D	Apply effective coal seam gas control practices	40
RIIOGD305E	Apply blow out prevention operational procedures	40
RIIOGD401E	Rig up, conduct pre-spud operations and rig down	30
RIIOGD402E	Participate in nipples-up and pressure tests	20
RIIOGD403E	Conduct drilling operations	30
RIIOGD404E	Coordinate air drilling operations	40
RIIOGD405E	Carry out well control and blow out prevention operations	30
RIIOGD501F	Manage rig operations	40
RIIOGD502E	Plan and evaluate rig operations	40
RIIOGD503E	Oversee drilling operations	40
RIIOGD504D	Manage drilling operations	40
RIIOGD504E	Manage drilling operations	40
RIIOGD505E	Manage drilling and well servicing induction and orientation	20
RIIOGD506D	Manage rig move and camp move	20
RIIOGD507D	Manage and monitor rig-up and rig-up to spud operations	40
RIIOGD508D	Manage well completion and abandonment	40
RIIOGD601D	Manage multiple drilling operations	40
RIIOGF302E	Operate drilling fluids and mud pits	30
RIIOGN201F	Carry out rig lease operations	25
RIIOGN302F	Operate mud pumps	20

RIIOGN303D	Operate mud systems	20
RIIOGN303E	Operate, monitor and maintain mud systems	20
RIIPBE201D	Conduct aeration process	40
RIIPBE202D	Conduct digestion process	40
RIIPBE203D	Conduct precipitation operations	40
RIIPBE204D	Conduct reduction process	40
RIIPBE301D	Conduct calcinations activities	25
RIIPBE302D	Conduct bacterial oxidation	40
RIIPBE303D	Conduct filtering process	25
RIIPBE304D	Conduct heavy media separation	40
RIIPBE305D	Conduct high tension separation	30
RIIPBE306D	Conduct leaching process	40
RIIPBE308D	Conduct thickening and clarifying process	20
RIIPBE309D	Conduct wet gravity separation	30
RIIPBE310D	Conduct flotation process	50
RIIPBE311D	Conduct magnetic separation	30
RIIPEO201E	Conduct conveyor operations	40
RIIPEO202E	Provide deck support for conveyor-car high wall mining operations	40
RIIPEO203D	Conduct stacker operations	30
RIIPEO204D	Conduct shore side mooring operations	30
RIIPEO205D	Conduct ship loading operations	30
RIIPEO206D	Lay and recover cables and hoses	20
RIIPEO207E	Carry out conveyor system shift	20
RIIPEO208E	Extend, retract and maintain conveyor componentry	20
RIIPEO301E	Conduct conveyor-car high wall mining operations	40
RIIPEO302E	Operate and monitor ore car dumpers	40
RIIPGP201D	Conduct pump operations	20

RIIPGP202D	Handle reagents	30
RIIPGP203D	Operate compressors	20
RIIPGP301D	Conduct drying activities	30
RIIPGP302D	Monitor and operate auxiliary plant and equipment	40
RIIPHA201D	Operate raw material feed systems	20
RIIPHA301D	Conduct milling/grinding	40
RIIPHA302D	Operate and monitor filter processes	30
RIIPRE301D	Conduct electrowinning/electro-refining operations	40
RIIPRE302D	Conduct elution processes	40
RIIPRE303D	Conduct gold room operations	40
RIIPRM501E	Implement, monitor, rectify and report on contracts	80
RIIPRO201D	Conduct crushing operations	40
RIIPRO202D	Conduct screening and conveying operations	25
RIIPRO203D	Operate programmable logic control systems	25
RIIPRO204D	Bulk package and store product	20
RIIPRO205D	Conduct blending plant operations	25
RIIPRO301D	Conduct crushing and screening plant operations	60
RIIPRO302D	Perform process control room operations	60
RIIPRO303D	Conduct sand wash plant operations	35
RIIPRO401D	Supervise processing operations	60
RIIPRO402D	Supervise recycled materials operations	20
RIIPRO501D	Implement site processing plant operations	30
RIIPRO502D	Develop, implement and maintain process control systems	60
RIIPSM302D	Cast ingots	20
RIIPSM304D	Operate furnaces	40
RIIQUA201D	Maintain and monitor site quality standards	40
RIIQUA201E	Maintain and monitor site quality standards	40

RIIQUA401E	Apply a quality management system on site	30
RIIQUA501E	Implement, monitor and develop quality management plans	40
RIIQUA601D	Establish and maintain a quality system	65
RIIQUA601E	Establish and maintain a quality system	65
RIIRAI401D	Apply and monitor mine services and infrastructure systems	60
RIIRAI402D	Apply and monitor site plant and resource management plan	80
RIIRAI501D	Implement mine transport systems and production equipment	60
RIIRAI502D	Develop and implement site plant and resource management plan	80
RIIRAI503D	Implement site services and infrastructure systems	80
RIIRAI504D	Select and install surface plant and equipment	80
RIIRAI505D	Implement the surface mine mechanical plant management plan	100
RIIRAI506D	Implement, monitor, rectify and report on inventory control system	80
RIIRAI507D	Implement the underground coal mine mechanical plant management plan	80
RIIRAI508E	Implement mine services systems	80
RIIRAI509D	Implement mine fixed plant and infrastructure systems	80
RIIRAI510D	Implement, monitor, rectify and report on interfaces between electrical and mechanical componentry	80
RIIRAI601D	Establish and maintain the site infrastructure and fixed plant systems	120
RIIRAI602D	Establish and maintain mine mechanical plant, services and infrastructure systems	120
RIIRAI603E	Establish and maintain mine transport systems and production equipment	80
RIIRAI604E	Establish and maintain mine services and infrastructure systems	80
RIIRAI605D	Establish and maintain an underground mine mechanical plant management system	100
RIIRAI607D	Establish quarry operations	80
RIIRAI608D	Establish quarry development	60
RIIRAI609D	Establish and maintain electrical installations, reticulation and protection system	120
RIIRAI610D	Establish and maintain mechanical standard/engineering practices for transport/production equipment	120
RIIRAI611D	Establish and maintain a surface mine mechanical plant management system	100
RIIRIS201D	Conduct local risk control	20

RIIRIS201E	Conduct local risk control	20
RIIRIS202D	Respond to site based spills	30
RIIRIS202E	Respond to site based spills	30
RIIRIS301E	Apply risk management processes	30
RIIRIS401E	Apply site risk management system	40
RIIRIS402E	Carry out the risk management process	80
RIIRIS403D	Manage and coordinate spill response	50
RIIRIS403E	Manage and coordinate spill response	50
RIIRIS501E	Implement and maintain management systems to control risk	80
RIIRIS601D	Establish and maintain the risk management system	70
RIIRIS601E	Establish and maintain risk management systems	70
RIIRTM201E	Position, set-up and operate variable message signs	20
RIIRTM202E	Position, set-up and operate portable traffic signals	20
RIIRTM203E	Work as a safety observer/spotter	20
RIIRTM301E	Operate truck or trailer mounted attenuators	20
RIISAM201D	Handle resources and infrastructure materials and safely dispose of nontoxic materials	16
RIISAM201E	Handle resources and infrastructure materials and safely dispose of nontoxic materials	16
RIISAM202E	Isolate and access plant	20
RIISAM203D	Use hand and power tools	60
RIISAM203E	Use hand and power tools	60
RIISAM204D	Operate small plant and equipment	30
RIISAM204E	Operate small plant and equipment	30
RIISAM205D	Cut, weld and bend materials	50
RIISAM205E	Cut, weld and bend materials	50
RIISAM207E	Apply operational maintenance skills	50
RIISAM208E	Perform plant operational maintenance	50
RIISAM209E	Carry out operational maintenance	50

RIISAM212E	Service mine plant and equipment	40
RIISAM213E	Position and set up mobile lighting	10
RIISAM215E	Carry out drilling industry operational maintenance	40
RIISAM301F	Test operational functions of vehicles and equipment	30
RIISAM303E	Shutdown dredge for operator maintenance	40
RIISAM304E	Install, commission and maintain major conveyor equipment and systems	80
RIISAM306E	Service and maintain conveyors, feeders and hoppers	30
RIISAM307E	Service and maintain crushers	30
RIISAM308E	Service and maintain screens	30
RIISAM309E	Service and maintain pumps	30
RIISAM315A	Manage tyre, wheel and rim assembly applications	35
RIISAM401E	Apply site plant, equipment and infrastructure maintenance management plans	80
RIISAM403E	Commission/recommission plant	60
RIISAM404	Monitor oil and gas equipment maintenance	30
RIISAM501E	Implement and maintain the site plant, equipment and infrastructure maintenance plans	80
RIISAM502E	Manage general drilling equipment maintenance	40
RIISAM601E	Establish and maintain plant, equipment and infrastructure maintenance systems	90
RIISDM501D	Conduct mine surveying operations	50
RIISRM301E	Blend stockpile materials	20
RIISRM302E	Conduct stockpile reclaiming operations	40
RIISRM303E	Move and position materials to form stockpiles	20
RIISRM304E	Maintain stockpiles	20
RIISRM401D	Apply and monitor the site stockpile management plan	15
RIISRM501E	Implement stockpile management plans	60
RIISRM502E	Design stockpile formations and reclaiming systems	40
RIISRM601D	Establish and maintain the stockpile management system	90
RIISRM601E	Establish and maintain stockpile management systems	90

RIISTD201D	Read and interpret maps	20
RIISTD201E	Read and interpret maps	20
RIISTD202D	Collect routine site samples	80
RIISTD202E	Collect routine site samples	80
RIISTD301D	Take environmental samples and measurements	80
RIISTD302E	Process data and maintain accurate records	80
RIISTD401	Monitor quarry laboratory operations and the quality of results	55
RIIUMM201D	Install ground support	60
RIIUMM202D	Install and maintain vent	30
RIIUMM203D	Prepare and perform manual scaling operations	20
RIIUMM303D	Conduct hand held mining	70
RIIUMM304D	Construct and maintain underground roads	40
RIIUMM305D	Install and remove a secondary fan	20
RIIUMM306D	Conduct mechanical scaling	30
RIIUMM307D	Maintain underground stockpiles	20
RIIUND201D	Install, maintain and recover reticulation systems	20
RIIUND202E	Operate from elevated work platform underground	40
RIIUND204D	Refuel vehicles/machines underground	20
RIIUND205E	Respond to a workforce incident	40
RIIUND206D	Install hand held underground ground support	20
RIIUND207E	Conduct underground lifting operations	40
RIIUND208E	Conduct skip operations	20
RIIUND209E	Operate automated winder	20
RIIUND301E	Operate manual winder	40
RIIUND302E	Conduct cage operations	40
RIIUND303E	Operate winder for shaft sinking	40
RIIUND305D	Recover underground equipment	35

RIIUND307D	Conduct tele-remote operations	30
RIIUND309D	Conduct mechanical underground ground support drilling and installation	40
RIIUND310E	Apply shotcrete underground	60
RIIUND401E	Apply and monitor the ventilation management plan	80
RIIUND501E	Implement the ventilation management plan	80
RIIUND601E	Establish and maintain ventilation management systems	80
RIIUND602D	Establish and maintain mine services systems	120
RIIUND603D	Manage, operate and maintain the mine ventilation system	60
RIIVEH201E	Operate a light vehicle	40
RIIVEH202F	Operate a medium vehicle	40
RIIVEH203E	Operate a light vehicle underground	40
RIIVEH302E	Operate multi-combination vehicle	40
RIIVEH303F	Drive heavy combination vehicle	40
RIIVEH304E	Conduct tip truck operations	52
RIIVEH305F	Operate and maintain a four wheel drive vehicle	30
RIIVEH306E	Operate a mine service vehicle	40
RIIVEH307F	Operate a heavy rigid vehicle	40
RIIWBP201E	Treat and dispose of rejects and tailings	60
RIIWBP202E	Distribute tailings	20
RIIWBP203E	Monitor tailings dam environments	20
RIIWBP401D	Apply and monitor site waste and by-products management plan	80
RIIWBP501D	Implement site waste and by-product management plan	80
RIIWBP502D	Plan and monitor recycled material operations	40
RIIWHS201D	Work safely and follow WHS policies and procedures	30
RIIWHS201E	Work safely and follow WHS policies and procedures	30
RIIWHS202D	Enter and work in confined spaces	24
RIIWHS202E	Enter and work in confined spaces	24

RIIWHS204E	Work safely at heights	16
RIIWHS205E	Control traffic with stop-slow bat	4
RIIWHS206	Control traffic with portable traffic control devices and temporary traffic signs	20
RIIWHS207	Control traffic on high volume roads	20
RIIWHS208	Operate within an autonomous workplace functional safety system	30
RIIWHS301E	Conduct safety and health investigations	40
RIIWHS302E	Implement traffic management plans	16
RIIWHS303	Position, set up and program portable traffic control devices	25
RIIWHS304	Implement traffic management plans on high volume roads	20
RIIWHS305	Implement traffic management plans on motorways and freeways	20
RIIWHS401E	Supervise work in confined spaces	30
RIIWHS402E	Examine and maintain mine safety	50
RIIWHS403E	Apply the work health and safety management system	80
RIIWHS404D	Implement and monitor health and hygiene management systems	50
RIIWHS404E	Implement and monitor health and hygiene management systems	50
RIIWHS405D	Maintain standard procedures and safe working practices	20
RIIWHS601D	Establish and maintain the WHS management system	70
RIIWHS601E	Establish and maintain the WHS management system	70
RIIWMG201D	Conduct dewatering activities in surface operations	40
RIIWMG202D	Conduct dewatering operations in underground mining operations	40
RIIWMG203D	Drain and dewater civil construction site	12
RIIWMG203E	Drain and dewater civil construction sites	12
RIIWMG301E	Control construction site water tables	20
RIIWMG302D	Reclaim and treat water	20
RIIWMG401D	Apply and monitor the site water management plan	80
RIIWMG501D	Implement the site water management plan	80
RIIWMG601D	Establish and maintain water management system	90

RIISV203E	Prepare equipment for well servicing air operations	30
RIISV301F	Conduct and maintain well servicing derrick operations	45
RIISV302E	Trip production string for well servicing operations	30
RIISV303E	Operate fluid systems	40
RIISV304E	Prepare well servicing fishing operations	40
RIISV401E	Rig up and rig down for well servicing operations	30
RIISV402D	Conduct well servicing milling operations	30
RIISV403E	Participate in well servicing nipple-up and pressure test	30
RIISV404D	Conduct fishing operations	30
RIISV501D	Manage well servicing induction and orientation	50
RIISV502E	Manage well completion and rig release	50
RIISV503E	Manage and monitor rig-up operations	40

Mapping Qualifications

The following table provides an overview of the qualifications from version 9 which replace qualifications from the existing version of the RII Resources and Infrastructure Industry Training Package.

Current Qualification				Replacement Qualification		
National Code	National Title	Nominal Hours	E / NE	National Code	National Title	Nominal Hours
			New	RII21222	Certificate II in Autonomous Workplace Operations	301
			New	RII41522	Certificate IV in Autonomous Control and Remote Operations	685

Mapping Skill Sets

The following table provides an overview of the skill sets from version 9 which replace skill sets from the existing version of the RII Resources and Infrastructure Industry Training Package.

Current Skill Set				Replacement Skill Set		
National Code	National Title	Nominal Hours	E / NE	National Code	National Title	Nominal Hours
			New	RIISS00075	Work with Data in an Autonomous Workplace Skill Set	50
RIISS00058	Traffic Controller Skill Set for Urban Streets and Low Volume Rural Roads (Release 1)	74		RIISS00058	Traffic Controller Skill Set for Urban Streets and Low Volume Rural Roads (Release 2)	44
RIISS00060	Traffic Management Implementer Skill Set for Urban Streets and Low Volume Rural Roads (Release 1)	121		RIISS00060	Traffic Management Implementer Skill Set for Urban Streets and Low Volume Rural Roads (Release 2)	91

Mapping Units of Competency

The following table provides an overview of the units of competency from version 9 which replace units of competency from the existing version of the RII Resources and Infrastructure Industry Training Package.

Current Unit				Replacement Unit		
National Code	National Title	Nominal Hours	E / NE	National Code	National Title	Nominal Hours
			New	RIIARO201	Work in autonomous operations	40
			New	RIIARO202	Use data and technology to complete work in autonomous operations	50
			New	RIIARO308	Use data in an autonomous workplace	50
			New	RIIARO402	Optimise performance of complex control systems in autonomous operations	80
			New	RIIARO403	Maintain continuity of operational control	60
			New	RIIARO404	Improve outcomes within a distributed value chain network	40
			New	RIIARO405	Optimise automated drilling operations	50
			New	RIIARO406	Optimise automated haulage operations	80
			New	RIIARO407	Optimise automated fixed plant operations	50
			New	RIIARO408	Optimise automated wet processing plant operations	80
			New	RIIARO409	Optimise automated in-loading and out-loading operations	80
			New	RIIARO410	Control safety risks in autonomous operations	50
			New	RIIARO411	Manage situational awareness	40
			New	RIIBEF403	Collaborate to achieve quality outcomes	60
			New	RIIBEF404	Undertake informed and dynamic decision making	50
			New	RIIBEF405	Optimise personal performance	40
			New	RIICOM202	Contribute to effectiveness of communication and teamwork in an autonomous workplace	40
			New	RIICOM401	Communicate effectively in a remote work environment	40

			New	RIIWHS208	Operate within an autonomous workplace functional safety system	30
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Apprenticeships

The following table provides a summary of the apprenticeships that have been affected by changes in this RII Resources and Infrastructure Industry Training Package update.

Please refer to the current *Register of Class A and B qualifications* found on the Department of Training and Workforce Development website for the official list of apprenticeships in Western Australia.

Current Qualification					Replacement Qualification		
National Code	National Title	Apprenticeship	Nominal Hours	E / NE	National Code	National Title	Nominal Hours

No changes occurred between versions 8.1 and 9

Traineeships

The following table provides a summary of the traineeships that have been affected by changes in this RII Resources and Infrastructure Industry Training Package update.

Please refer to the current *Register of Class A and B qualifications* found on the Department of Training and Workforce Development website for the official list of apprenticeships in Western Australia.

Current Qualification					Replacement Qualification		
National Code	National Title	Traineeship	Nominal Hours	E / NE	National Code	National Title	Nominal Hours

No changes occurred between versions 8.1 and 9

Pre-apprenticeships

The following table provides a summary of the pre-apprenticeships that have been affected by changes in this RII Resources and Infrastructure Industry Training Package update.

Please refer to the current *list of pre-apprenticeship courses* found on the Department of Training and Workforce Development website for the official list of pre-apprenticeships in Western Australia.

Current Qualification					Replacement Qualification		
National Code	National Title	Pre-apprenticeship	Nominal Hours	E / NE	National Code	National Title	Nominal Hours

No changes occurred between versions 8.1 and 9