Summary of changes

Key to mapping tables

Code	Term	Definition
E	**Equivalent**	Where the workplace outcomes of the superseded and superseding training package components are equivalent.
NA	**Not applicable**	Where mapping information is not applicable. Minor updates do not require an equivalence determination.
NE	**Not equivalent**	Where a training package component is superseded, and the workplace outcome of the component has changed.
NC	**Newly created**	Where the training package component has been created to address an emerging skill or task required by industry.
D	**Deleted**	Where a training package component is deleted as the skill or task is no longer required by industry.

Qualifications

RII Release 11.0		Proposed RII Release 13.0			
Code	**Title**	**Code**	**Title**	**Proposed Changes**	**E/NE**
RII20920	Certificate II in Drilling Operations	RII2092X	Certificate II in Drilling Operations	Supersedes and is equivalent to RII20920 Certificate II in Drilling Operations. The following units have been added to the core: • RIIHAN213X Work effectively in the drilling industry The following Group A units have been reviewed, updated and replaced by equivalent units: • RIINHB201X Load, secure and unload drilling equipment and materials • RIINHB202X Set up and pack up drill sites • RIINHB203X Support drilling processes • RIINHB208X Assist conventional core drilling • RIINHB210X Assist surface directional drilling • RIINHB219X Assist with reverse circulation drilling • RIINHB221X Assist rotary air drilling The following unit has been added to the Group A electives • RIINHB2XX Assist wireline drilling The following units have been added to the Group B electives: • RIIBLA201E Support shotfiring operations • RIIBLA202F Support underground shotfiring operations • RIIBLA205E Store, handle and transport explosives • RIIHAN203E Conduct lifting operations • RIIMPO206D Conduct bulk water truck operations • RIIUND207E Conduct underground lifting operations	**E**

RII Release 11.0		Proposed RII Release 13.0			
Code	**Title**	**Code**	**Title**	**Proposed Changes**	**E/NE**
				The following units have been removed from the qualification: • BSBWOR203 Work effectively with others • RIIOGD205E Support blow out prevention operations • RIIOGD206E Assist and monitor well control operations	
RII31820	Certificate III in Drilling Operations	RII3182X	Certificate III in Drilling Operations	Supersedes and is equivalent to RII31820 Certificate III in Drilling Operations. The following units have been added to the core: • RIISAM215E Carry out drilling industry operational maintenance • RIIWHS3XX Work safely in the drilling industry The following core units have replaced superseded equivalent units: • RIICOM301 Communicate information • RIIRIS301 Apply risk management processes The following Group A units have been reviewed, updated and replaced: • RIIBHD301X Conduct surface blast hole drilling operations • RIINHB304X Conduct reverse circulation drilling operations • RIINHB305X Conduct continuous flight auger drilling • RIINHB306X Conduct large diameter auger drilling • RIINHB307X Conduct conventional core drilling • RIINHB308X Conduct wireline core drilling • RIINHB309X Conduct guided boring • RIINHB310X Conduct surface directional drilling • RIINHB311X Conduct mud rotary drilling operations • RIINHB312X Conduct raise boring • RIINHB315X Conduct top hammer drilling	**E**

RII Release 11.0		Proposed RII Release 13.0			
Code	**Title**	**Code**	**Title**	**Proposed Changes**	**E/NE**
				• RIINHB316X Conduct underground in-seam directional drilling • RIINHB323X Conduct horizontal directional drilling • RIINHB326X Conduct coil tube drilling • RIINHB328X Conduct rotary air drilling • RIINHB329X Conduct sonic drilling operations • RIINHB330X Conduct conventional down-hole hammer drilling The following units have been moved from the Group A electives to the Group B electives • RIICCM302 Track directional boring operations • RIINHB302X Carry out reaming • RIINHB303D Install product pipe • RIINHB317D Install underground in-seam directional drilling standpipes • RIINHB318D Install and operate water and gas control equipment • RIINHB320D Construct monitoring bores • RIINHB322E Construct multiple aquifer production bores • RIINHB324E Conduct grouting or cementing operations • RIINHB325E Construct single aquifer bores • RIISTD202E Collect routine site samples The following units have been added to the Group B electives: • BSBLDR413 Lead effective workplace relationships • RIIARO303 Operate equipment in autonomous environments • RIIBLA205E Store, handle and transport explosives • RIIHAN307E Operate a vehicle loading crane • RIIMEX302D Assess ground conditions	

RII Release 11.0		Proposed RII Release 13.0			
Code	**Title**	**Code**	**Title**	**Proposed Changes**	**E/NE**
				• RIINHB3XX Carry out surveying and orientation • RIIWHS301E Conduct safety and health investigations The following units have been removed from the qualification: • BSBWHS301 Maintain workplace safety • HLTAID014 Provide Advanced First Aid • RIIBLA201E Support shotfiring operations • RIIBLA202F Support underground shotfiring operations • RIIBLA205E Store, handle and transport explosives • RIINHB327 Conduct cyber chair drilling operations	
RII40920	Certificate IV in Drilling Operations	RII4092X	Certificate IV in Drilling Operations	Supersedes and is equivalent to RII40920 Certificate IV in Drilling Operations. An entry requirement has been included on this qualification. The following units have been added to the core: • RIICOM401 Communicate effectively in a remote work environment • RIILAT402E Provide leadership in the supervision of diverse work teams • RIINHB402E Supervise drilling operations • RIIWHS403E Apply the work health and safety management system The following units have been added to the Group A electives: • RIIRIS402E Carry out the risk management process • RIISAM401E Apply site plant, equipment and infrastructure maintenance management plans The following unit has been added to the Group B electives: • RIINHB401E Plan and supervise the mobilisation of equipment, crew and materials	**E**

RII Release 11.0		Proposed RII Release 13.0			
Code	**Title**	**Code**	**Title**	**Proposed Changes**	**E/NE**
				The following units have been removed from the qualification: • BSBMGT401 Show leadership in the workplace • BSBWHS401 Implement and monitor WHS policies, procedures and programs to meet legislative requirements • HLTAID011 Provide First Aid • HLTAID014 Provide Advanced First Aid • RIICOM301E Communicate information • TAEASS401 Plan assessment activities and processes	
RII50620	Diploma of Drilling Operations	RII5062X	Diploma of Drilling Operations	Supersedes and is equivalent to RII50620 Diploma of Drilling Operations. The following unit has been added to the core: • RIIQUA501E Implement, monitor and develop quality management plans The following core units have replaced superseded equivalent units: • BSBOPS502 Manage business operational plans • BSBOPS505 Manage organisational customer service • BSBTWK502 Manage team effectiveness • RIIRIS501 Implement and maintain management systems to control risk The following unit has been added to the electives: • RIIERR503D Implement emergency preparedness and response systems • RIIOGD504E Manage drilling operations • RIIOGD502E Plan and evaluate rig operations • RIISAM502E Manage general drilling equipment maintenance	**E**

RII Release 11.0		Proposed RII Release 13.0			
Code	**Title**	**Code**	**Title**	**Proposed Changes**	**E/NE**
RII60415	Advanced Diploma of Drilling Management	RII6042X	Advanced Diploma of Drilling Management	Supersedes and is equivalent to RII60415 Advanced Diploma of Drilling Management. The following units have been added to the core: • BSBOPS404 Implement customer service strategies • RIILAT601E Manage group processes The following core units have replaced superseded equivalent units: • BSBLDR602 Provide leadership across the organisation • BSBOPS601 Develop and implement business plans • RIIENV601E Establish and maintain the environmental management system • RIIGOV601E Establish, maintain and develop a statutory compliance management system • RIIRIS601 Establish and maintain the risk management system • RIIWHS601E Establish and maintain the WHS management system The following units have been added to the electives: • RIIBEF601E Conduct business negotiations • RIIBEF602E Establish and evaluate operational performance management systems • RIIBEF604E Conduct a feasibility study • RIIBLA602E Establish and maintain explosives safety and security management systems • RIILAT601E Manage group processes • RIIRAI601D Establish and maintain the site infrastructure and fixed plant systems • RIIRAI602D Establish and maintain mine mechanical plant, services and infrastructure systems • RIISAM601E Establish and maintain plant, equipment and infrastructure maintenance systems The following units have been removed from the qualification:	**E**

RII Release 11.0		Proposed RII Release 13.0			
Code	**Title**	**Code**	**Title**	**Proposed Changes**	**E/NE**
				• RIICCR601D Manage customer relationships • RIILAT402E Provide leadership in the supervision of diverse work teams	

Skill Sets

RII Release 11.0		Proposed RII Release 13.0			
Code	**Title**	**Code**	**Title**	**Rel.**	**Changes**
N/A		**RIISS000X1**	Continuous Flight Auger Drilling Operations in Single Non-Flowing Aquifer Systems Skill Set	**1**	Newly created skill set
N/A		**RIISS000X2**	Rotary Air Drilling Operations in Single Non-Flowing Aquifer Systems Skill Set	**1**	Newly created skill set
N/A		**RIISS000X3**	Mud Rotary Drilling Operations in Single Non-Flowing Aquifer Systems Skill Set	**1**	Newly created skill set
N/A		**RIISS000X4**	Sonic Drilling Operations in Single Non-Flowing Aquifer Systems Skill Set	**1**	Newly created skill set
N/A		**RIISS000X5**	Conventional Down Hole Hammer Drilling Operations in Single Non-Flowing Aquifer Systems Skill Set	**1**	Newly created skill set
N/A		**RIISS000X6**	Multiple Non-Flowing Aquifer Systems Skill Set	**1**	Newly created skill set
N/A		**RIISS000X7**	Flowing Aquifer Systems Skill Set	**1**	Newly created skill set

Units of Competency

RII Release 11.0		Proposed RII Release 13.0				
Code	**Title**	**Code**	**Title**	**Proposed Changes**	**Rationale**	**E/NE**
RIIHAN213E	Work effectively in the drilling industry	RIIHAN213X	Work effectively in the drilling industry	Performance criterion 1.2 updated to include emergency procedures. Wheel changing removed from the performance criteria, Performance Evidence and Knowledge Evidence. Knowledge Evidence updated to include briefings and handover, storage of tools and equipment, and reporting of hazards and equipment problems.	Consultation feedback identified gaps in safety-critical knowledge. The unit has been updated to include the safety knowledge required to work effectively in the drilling industry.	**E**
RIINHB201E	Load, secure and unload drilling equipment and materials	RIINHB201X	Load, secure and unload drilling equipment and materials	Application updated to reference the assistant driller role only, and legislative and regulatory requirements for loading, securing and unloading. Performance criteria consolidated and reworded for clarity, with new requirements for confirming load lists and transport information, the loading and unloading sequence, communication methods and exclusion zones, and complying with road transport and dangerous goods requirements. Performance Evidence restructured and expanded to include safety-critical criteria; safety systems, segregation of hazardous and dangerous goods, and protecting the load from weather. Knowledge Evidence significantly expanded to include vehicle mass and load restraint	Consultation feedback identified gaps in load transport and safety-critical knowledge. The unit has been updated to include the transport, legislative and safety knowledge required to conduct this work.	**E**

RII Release 11.0		Proposed RII Release 13.0				
Code	**Title**	**Code**	**Title**	**Proposed Changes**	**Rationale**	**E/NE**
				requirements, dangerous goods, manual handling and the hazards of loading and unloading.		
RIINHB202E	Set up and pack up drill sites	RIINHB202X	Set up and pack up drill sites	Application updated to apply only to the assistant driller role. Elements and performance criteria consolidated and reworded for clarity, with new criteria for erecting safety systems to prevent unauthorised entry and for confirming ground conditions, access and clearances for rig establishment. Performance Evidence updated to replace the prescribed list of ancillary equipment with at least three items relevant to the drilling method and site, and to include ground conditions, safety systems and personal protective equipment. Knowledge Evidence expanded to include ground surface factors affecting rig establishment, safety equipment, emergency response and high-pressure cleaning hazards.	Consultation feedback identified gaps in drilling process and safety-critical knowledge. The unit has been updated to include the drilling and safety knowledge required to conduct this work.	**E**

RII Release 11.0		Proposed RII Release 13.0				
Code	**Title**	**Code**	**Title**	**Proposed Changes**	**Rationale**	**E/NE**
RIINHB203E	Support drilling processes	RIINHB203X	Support drilling processes	Application updated to apply to the assistant driller role. Performance criteria reworded for clarity, with a new criterion for erecting safety systems to prevent unauthorised entry. Element 6 reframed from 'Carry out basic operator maintenance' to 'Assist in carrying out basic maintenance', limited to maintaining fluids and consumables and routine operator-support checks, with faults outside own role reported. Performance Evidence updated to include personal protective equipment, safety systems and prestart checks. Knowledge Evidence expanded to include emergency procedures, consumables, recovery techniques, and hydraulic and pneumatic systems, with 'basic geology' replaced by basic ground conditions.	Review identified gaps in drilling process and safety-critical knowledge. The unit has been updated to include the drilling and safety knowledge required to conduct this work.	**E**
		RIINHB2XX	Assist wireline core drilling	Previously deleted unit DRTNHB12A Assist wireline core drilling	Consultation feedback identified the need to train assistant drillers in this methodology.	**NC**
RIINHB208E	Assist diamond core drilling	RIINHB208X	Assist conventional core drilling	Title and Application updated from 'Assist diamond core drilling' to 'Assist conventional core drilling', to align with changed level 3 ‘Conduct… drilling’ unit’s title. Terminology updated throughout. Load, unload and rack set-up criteria moved	Consultation feedback identified gaps in drilling process and safety-critical knowledge. The unit has been updated to include the drilling and safety knowledge required to conduct this work.	**E**

RII Release 11.0		Proposed RII Release 13.0				
Code	**Title**	**Code**	**Title**	**Proposed Changes**	**Rationale**	**E/NE**
				from Element 1 to Element 2, as Element 1 focuses on planning and preparation. Performance Evidence updated to replace basic maintenance of pumps with inspections and routine checks on ancillary equipment, and to remove vehicle cleaning and housekeeping. Knowledge Evidence updated to remove refuelling and housekeeping and to include setting up and stabilising racks, safe lifting and handling, and rod and casing handling hazards.		
RIINHB219E	Assist with reverse circulation drilling	RIINHB219X	Assist with reverse circulation drilling	Performance criterion 2.6 and associated Performance Evidence updated to refer to casing handling equipment only. Vehicle driving, vehicle cleaning, refuelling and restraining device requirements removed from Performance Evidence, and basic maintenance reworded to inspections and routine checks on ancillary equipment. Knowledge Evidence corrected to refer to reverse circulation drilling (previously referenced grouting and cementing) and expanded to include reverse circulation bits and tools, casing and collar equipment, high-velocity and hazardous samples, and drilling fluid mixing and storage.	Consultation feedback identified gaps in drilling process and safety-critical knowledge. The unit has been updated to include the drilling and safety knowledge required to conduct this work.	**E**

RII Release 11.0		Proposed RII Release 13.0				
Code	**Title**	**Code**	**Title**	**Proposed Changes**	**Rationale**	**E/NE**
RIINHB221	Assist rotary air drilling	RIINHB221X	Assist rotary air drilling	Application updated to clarify the drilling methods covered and that the unit does not apply to reverse circulation or down hole hammer drilling. Element 1 reworded to include assisting with preparing the drill site and work area, including access and exclusion zones. Element 4 reframed from 'Carry out basic maintenance of tools and equipment' to 'Carry out post-operational procedures', with maintenance criteria consolidated. Performance Evidence updated to remove vehicle driving and cleaning and to reword maintenance as routine checks within scope of own role. Knowledge Evidence significantly expanded to include limits of own role, ancillary equipment, hole cleaning and indicators of changing hole and ground conditions.	Consultation feedback identified gaps in drilling process and safety-critical knowledge. The unit has been updated to include the drilling and safety knowledge required to conduct this work.	**E**
RIIBHD301E	Conduct surface blast hole drilling operations	RIIBHD301X	Conduct surface blast hole drilling	Drilling terminology updated to reflect current industry usage across different drilling contexts. Made explicit in Performance Evidence that one of the demonstrations of skills must require 'candidate to make adjustments within authorised limits in response to changing ground or hole conditions' Element 2 reframed from 'Mark out drill pattern' to 'Verify and establish drill pattern' to more accurately reflect the outcome of	Consultation feedback identified gaps in drilling process and safety-critical knowledge. The unit has been updated to include the drilling and safety knowledge required to conduct this work.	**E**

RII Release 11.0		Proposed RII Release 13.0				
Code	**Title**	**Code**	**Title**	**Proposed Changes**	**Rationale**	**E/NE**
				this element. Added new Element 'Conduct pre-operation checks' to include safety critical 'isolate & test for dead'. Performance and knowledge evidence updated to reflect changes to elements and performance criteria.		
		RIINHB3XX	Carry out downhole surveying and orientation in drilling operations		Consultation feedback identified the knowledge and skills requirement for surveying and orientation to be trained as a standalone unit.	**NC**
RIINHB301E	Set up and prepare for drilling operations	RIINHB301X	Set up and prepare for drilling operations	Element 1 performance criteria consolidated and reworded for clarity, including strengthened requirements for managing environmental hazards and risks and confirming emergency procedures. Knowledge Evidence updated to define workplace documentation such as drill plans, site procedures, manufacturer specifications and safety data sheets.	Review identified gaps in safety-critical knowledge. Changes made to the unit to increase safety requirements, underpinning knowledge required to conduct this work.	**E**
RIINHB302D	Conduct reaming	RIINHB302X	Carry out reaming	Title updated from 'Conduct reaming' to 'Carry out reaming'. Application expanded to describe the scope of the unit more fully. Performance Evidence restructured and updated to include preventing tooling loss in the hole, maintaining hole integrity and avoiding damage to existing services.	Review identified gaps in drilling process and safety-critical knowledge. The unit has been updated to include the drilling and safety knowledge required to conduct this work.	**E**

RII Release 11.0		Proposed RII Release 13.0				
Code	**Title**	**Code**	**Title**	**Proposed Changes**	**Rationale**	**E/NE**
				Knowledge Evidence expanded to include safety critical emergency responses, equipment and tooling condition, hole integrity, locating existing services and fault diagnosis.		
RIINHB304E	Conduct reverse circulation drilling operations	RIINHB304X	Conduct reverse circulation drilling	Removed 'operations' from title to achieve naming convention consistency across the 'Conduct' units. Application updated to focus on drillers controlling reverse circulation drilling and coordinating drill-crew activities, and to clarify that licensed or regulated work must be performed by authorised personnel. Elements and performance criteria substantially restructured to address gaps in drilling steps, including stronger safety controls. Performance Evidence updated to require drilling under materially different conditions, including adjusting operating parameters in response to changing drilling or sample conditions. Knowledge Evidence significantly expanded to include reverse circulation operating principles, compressed-air safety, sample integrity and quality control, and hazards and critical controls.	Consultation feedback identified gaps in drilling process and safety-critical knowledge. The unit has been updated to include the drilling and safety knowledge required to conduct this work.	**E**
RIINHB305E	Conduct continuous flight	RIINHB305X	Conduct continuous flight auger drilling	Removed 'operations' from title to achieve naming convention consistency across the	Review identified gaps in drilling process and safety-critical knowledge. The unit has been	**E**

RII Release 11.0		Proposed RII Release 13.0				
Code	**Title**	**Code**	**Title**	**Proposed Changes**	**Rationale**	**E/NE**
	auger drilling			'Conduct' units. Application updated. Elements and performance criteria consolidated and reworded for clarity. Reduced performance criteria in Element 2 to avoid redundancy. Manufacturer specifications and workplace procedures added for consistency across the RII package. Performance Evidence restructured to specify a minimum of two occasions. Performance and Knowledge evidence updated to reflect changes to elements and performance criteria.	updated to include the drilling and safety knowledge required to conduct this work.	

RII Release 11.0		Proposed RII Release 13.0				
Code	**Title**	**Code**	**Title**	**Proposed Changes**	**Rationale**	**E/NE**
RIINHB306E	Conduct large diameter auger drilling	RIINHB306X	Conduct large diameter auger drilling	Removed ‘operations’ from title to achieve naming convention consistency across the ‘Conduct’ units. Elements and performance criteria consolidated and reworded for clarity. Element 2 reduced from 26 to 8 performance criteria, with new criteria for comparing approved drilling information with site conditions and for selecting and checking tools and equipment. Performance Evidence restructured, with additional requirements for adjusting drilling parameters and completing records. Knowledge Evidence expanded to include ground conditions, hole stability, support fluids and the consequences of incorrect practice.	Review identified gaps in drilling process and safety-critical knowledge. The unit has been updated to include the drilling and safety knowledge required to conduct this work.	**E**
RIINHB307D	Conduct conventional core drilling	RIINHB307	Conduct conventional core drilling	Element 5 reframed from 'Take core samples' to 'Retrieve and record core', with new performance criteria for core barrel handling, core sequencing, recovery measurement and re-entering the hole. Other performance criteria consolidated and updated to include establishing a safe work area, selecting and checking tools and equipment, and comparing approved drilling information with site conditions. Performance and Knowledge Evidence restructured and expanded to reflect changes to elements and performance	Consultation feedback identified gaps in drilling process and safety-critical knowledge. The unit has been updated to include the drilling and safety knowledge required to conduct this work.	**E**

RII Release 11.0		Proposed RII Release 13.0				
Code	**Title**	**Code**	**Title**	**Proposed Changes**	**Rationale**	**E/NE**
				criteria, including core recovery, drilling fluids and hole integrity.		
RIINHB308D	Conduct wireline core drilling	RIINHB308X	Conduct wireline core drilling	Elements restructured from eight to six, with new elements for establishing the hole and circulation system, conducting and controlling wireline core drilling, and completing post-drilling operations. Performance criteria strengthened for safety-critical controls. Performance Evidence updated to require drilling to be performed in at least two different ground or formation conditions. Knowledge Evidence expanded to support skills required.	Consultation feedback identified gaps in drilling process and safety-critical knowledge. The unit has been updated to include the drilling and safety knowledge required to conduct this work.	**E**
RIINHB309E	Conduct guided boring	RIINHB309X	Conduct guided boring	Elements and performance criteria consolidated and reworded for clarity, with manufacturer specifications and workplace procedures referenced throughout. Elements 2 and 3 each reduced from 13 to 6 performance criteria, with new criteria for comparing approved drilling information with site conditions and for selecting and checking tools and equipment. Performance Evidence restructured to include responding to changing ground conditions during back reaming and product pull back.	Consultation feedback identified gaps in drilling process and safety-critical knowledge. The unit has been updated to include the drilling and safety knowledge required to conduct this work.	**E**

RII Release 11.0		Proposed RII Release 13.0				
Code	**Title**	**Code**	**Title**	**Proposed Changes**	**Rationale**	**E/NE**
				Knowledge Evidence expanded to include drilling fluid functions, bore cleaning, dogleg severity and ground conditions.		
RIINHB310D	Conduct surface directional drilling	RIINHB310X	Conduct surface directional drilling	Application updated to reflect mineral exploration and coalbed methane (CBM) drilling and to apply to driller roles. Prerequisite added: RIINHB307X Conduct conventional core drilling or RIINHB308X Conduct wireline core drilling. Elements consolidated from four to three, including removal of the separate 'Respond to problems' element as the normal drilling procedure is responsive to changing conditions and problem solving is intrinsic because drillers need to ‘respond to changes’. Element 2 reframed from 'Bore pilot hole' to 'Set up and operate drill' to better reflect elements outcome. Terminology updated, e.g. 'bottom hole assembly' and 'hole plan'. Performance criteria updated to include safety and environmental-critical knowledge and skills, e.g. environmental controls, emergency procedures, exclusion zones, and managing fluids, cuttings, waste and spills. Performance and Knowledge Evidence updated to reflect changes to Elements and performance criteria, including ground condition and drilling fluid knowledge.	Consultation feedback identified gaps in drilling process and safety-critical knowledge. The unit has been updated to include the drilling and safety knowledge required to conduct this work.	**E**

RII Release 11.0		Proposed RII Release 13.0				
Code	**Title**	**Code**	**Title**	**Proposed Changes**	**Rationale**	**E/NE**
RIINHB311E	Conduct mud rotary drilling operations	RIINHB311X	Conduct mud rotary drilling	Removed 'operations' from title to achieve naming convention consistency across the 'Conduct' units. Performance criteria updated to include confirming hole plan, permit requirements, environmental controls, emergency procedures and exclusion zones, and confirming drilling crew roles. Elements 2 and 3 restructured to address gaps in drilling steps, including constructing the top hole, monitoring down hole conditions and completing ‘end of hole requirements’. Element 3 title changed from ‘Complete equipment shut down and maintenance activities to 'Complete post-drilling operation processes' to better reflect activities and to keep language inclusive considering legislative restrictions in some States regarding ‘maintenance’ requirements for drills and ancillary equipment. Performance Evidence updated to require drilling in at least two different ground formation types. Knowledge Evidence expanded to include hazards and permits, end of hole requirements, lost circulation, hole stability and indicators of changing ground conditions.	Consultation feedback identified gaps in drilling process and safety-critical knowledge. The unit has been updated to include the drilling and safety knowledge required to conduct this work.	**E**

RII Release 11.0		Proposed RII Release 13.0				
Code	**Title**	**Code**	**Title**	**Proposed Changes**	**Rationale**	**E/NE**
RIINHB312D	Conduct raise boring	RIINHB312X	Conduct raise boring	Performance criteria reworded for clarity, with manufacturer specifications and workplace procedures added for consistency across the RII package. Redundant performance criteria in Elements 5 and 6 consolidated. Performance Evidence updated to include adjusting drilling and reaming technique in response to changing ground conditions and completing drilling records. Knowledge Evidence expanded to include ground conditions, pilot hole alignment, break-through hazards and underground dust and site hazard controls.	Review identified gaps in drilling process and safety-critical knowledge. The unit has been updated to include the drilling and safety knowledge required to conduct this work.	**E**
RIINHB315	Conduct top-hole hammer drilling	RIINHB315X	Conduct top hammer drilling	Title updated from 'Conduct top-hole hammer drilling' to 'Conduct top hammer drilling'. Application updated, including clarification that the unit does not apply to down hammer or reverse circulation drilling. Element 3 and 4's performance criteria have been incorporated into the drilling process itself as responding to changes or abnormal circumstances or ground conditions is intrinsic to the process. Element 2 reframed as 'Verify and establish drilling requirements' to more accurately reflect the outcome of this element. Performance Evidence updated to require	Consultation feedback identified gaps in drilling process and safety-critical knowledge. The unit has been updated to include the drilling and safety knowledge required to conduct this work.	**E**

RII Release 11.0		Proposed RII Release 13.0				
Code	**Title**	**Code**	**Title**	**Proposed Changes**	**Rationale**	**E/NE**
				drilling on at least two occasions, one of which requires adjustments within authorised limits in response to changing ground or hole conditions. Knowledge Evidence restructured and expanded to include isolation and shutdown procedures, drill string and bit selection, indicators of changing ground conditions and emergency procedures.		
RIINHB316D	Conduct underground in-seam directional drilling	RIINHB316X	Conduct underground in-seam directional drilling	Performance criteria reworded for clarity, with manufacturer specifications and workplace procedures added for consistency across the RII package. Performance Evidence updated to include adjusting drilling technique in response to changing conditions and completing drill logs. Knowledge Evidence expanded to include seam structure, gas and water hazards, drilling fluid functions, hole cleaning and indicators of changing ground conditions.	Review identified gaps in drilling process and safety-critical knowledge. The unit has been updated to include the drilling and safety knowledge required to conduct this work.	**E**
RIINHB324E	Conduct grouting or cementing operations	RIINHB324X	Conduct grouting or cementing operations	Elements restructured from three to seven to address gaps in the grouting and cementing process, including preparing the worksite, hole and equipment, preparing and verifying the mix, placing and controlling grout or cement, verifying placement, and responding to abnormal conditions. Performance criteria strengthened for safety-critical controls, including permits,	Review identified gaps in the grouting and cementing process and safety-critical controls. The unit has been updated to include the process and safety requirements needed to conduct this work.	**E**

RII Release 11.0		Proposed RII Release 13.0				
Code	**Title**	**Code**	**Title**	**Proposed Changes**	**Rationale**	**E/NE**
				exclusion zones, and isolation and depressurisation of pressure systems. Performance Evidence updated to require work in line with the approved program and without uncontrolled spillage.		
RIINHB326	Conduct coil tube drilling	RIINHB326X	Conduct coil tube drilling	Application updated to describe the full scope of coil tubing drilling operations. Elements consolidated from 10 to 6 and reframed to follow the sequence of work, with new criteria for comparing approved drilling information with site conditions, lift planning, and function, leak and pressure checks. Performance Evidence updated to reflect changes to elements and performance criteria, including monitoring drilling response and adjusting drilling parameters. Knowledge Evidence significantly expanded to include coil tubing principles, fatigue life, tubing connections, lifting and pressure-integrity hazards, and indicators of changing ground conditions.	Review identified gaps in drilling process and safety-critical knowledge. The unit has been updated to include the drilling and safety knowledge required to conduct this work.	**E**

RII Release 11.0		Proposed RII Release 13.0				
Code	**Title**	**Code**	**Title**	**Proposed Changes**	**Rationale**	**E/NE**
RIINHB328	Conduct rotary air drilling	RIINHB328X	Conduct rotary air drilling	Application updated to clarify the drilling methods covered and that the unit does not apply to reverse circulation or down hammer drilling. Elements 3 and 5 restructured and their performance criteria absorbed into the drilling process itself. This process then highlighted gaps and performance criteria have been added to support critical drilling tasks and strengthened for safety-critical controls, including exclusion zones. Performance Evidence updated to require drilling on at least two occasions under materially different conditions, one of which requires adjusting drilling technique or parameters in response to changing conditions. Knowledge Evidence significantly expanded to support skills required.	Consultation feedback identified gaps in drilling process and safety-critical knowledge. The unit has been updated to include the drilling and safety knowledge required to conduct this work.	**E**
RIINHB329	Conduct sonic drilling operations	RIINHB329X	Conduct sonic drilling	Removed 'operations' from title to achieve naming convention consistency across the 'Conduct' units. Performance criteria reworded for clarity, with manufacturer specifications and workplace procedures added for consistency across the RII package. Criteria added for setting up ancillary equipment and confirming emergency procedures. Performance Evidence updated to define parameters, e.g. adjusting feed, rotation	Consultation feedback identified gaps in drilling process and safety-critical knowledge. The unit has been updated to include the drilling and safety knowledge required to conduct this work.	**E**

RII Release 11.0		Proposed RII Release 13.0				
Code	**Title**	**Code**	**Title**	**Proposed Changes**	**Rationale**	**E/NE**
				and oscillation in response to changing conditions and completing drilling records. Knowledge Evidence expanded to include sonic drilling principles, vibration fatigue, casing, drilling fluids and indicators of changing ground conditions.		
RIINHB330	Conduct down-hole hammer drilling	RIINHB330X	Conduct down hammer drilling	Application updated to describe the unit's scope more fully. Elements restructured and reduced from 6 to 4, and their performance criteria absorbed into the drilling process itself. This process then highlighted gaps and performance criteria have been added to support critical drilling tasks and strengthened for safety-critical controls. Performance Evidence updated to require drilling on at least two occasions under materially different conditions, one of which requires adjusting drilling technique or parameters in response to changing conditions. Knowledge Evidence expanded to include hammer operating principles, drill string integrity, drilling fluids and indicators of changing ground conditions.	Consultation feedback identified gaps in drilling process and safety-critical knowledge. The unit has been updated to include the drilling and safety knowledge required to conduct this work.	**E**

RII Release 11.0		Proposed RII Release 13.0				
Code	**Title**	**Code**	**Title**	**Proposed Changes**	**Rationale**	**E/NE**
		RIIWHS30X	Work safely in the drilling industry		Consultation feedback identified drillers need knowledge and skills to work safely in the context of the drilling industry as a whole. This unit's safety requirements strengthens and adds to the safety requirements within 'Conduct drilling' units.	**NC**