

## For New Zealand extractives' certificate of competence (CoC) applicants

Use this logbook to record your practical experience which is required when applying for a CoC.

The logbook has two sections which must be completed to show that you have been employed 'in the workings' of a mine, tunnel or quarry, demonstrating the required practical experience over a specified period of time.

Some of the entries may cover a lengthy period of time and others only a single day. Each activity must be confirmed by a suitable supervisor, manager or expert. Their contact details need to be recorded on the final page.

#### What should be entered into your logbook?

- Actual activities relating to the workings of a mine, tunnel or quarry (as listed under 'Defining Workings') must be outlined in your logbook. For example, driving a loader, operating a digger or working on ground and strata control are all considered operational experience.
- Activities which are not operational will not be accepted.
   For example completion of unit standards; first aid courses; tertiary qualifications are not considered operational experience.

#### Defining workings

- emplacement stabilisation
- electrical engineering
- environmental management
- exploration or site investigation
- use, storage and transport of explosives
- fire and explosion detection and prevention
- flammable dust management
- gas management
- ground or strata control
- design, installation and maintenance of plant guarding
- use of hyperbarics to control the working environment
- inrush and inundation management
- instrumentation and monitoring
- maintenance of fixed and mobile plant
- mechanical engineering
- mine surveying
- operational planning
- outburst management
- operation of plant and equipment

- design, construction and maintenance of ponds, dams and waste dumps
- materials processing
- risk management
- roads, rail and vehicle operations
- safety management
- handling of pre-cast tunnel linings
- installation, maintenance and removal of utilities supplied to the mine, tunnel or quarry
- slope stabilisation
- prevention, detection and responding to spontaneous combustion
- design, construction and maintenance of stockpiles
- construction and maintenance of ventilation control devices
- design, construction and monitoring of temporary or preparatory works
- operating winding engines
- worker health management
- any other work in operating and safety systems related to the workings of a mine, tunnel or quarry.



Section A

Activities for each CoC type should include any related operating and safety system experience and specify the actual activity undertaken.

CoC	REQUIRED EXPERIENCE					
Site senior executive	At least 12 months' work experience in the extractives industry in a management role that is acceptable to the Board.					
First class mine manager	At least 3 years' work experience in the underground workings of a mining operation or tunnelling operation (including any period served in the course of study), including at least: - 2 years in a mining operation.					
First class coal mine manager	<ul> <li>Holder of a degree in Mineral Technology (Mining) conferred by the University of Otago, or</li> <li>Holder of a qualification in mining from another institution that the NZQA recognises as equivalent to a 4-year bachelor's degree in mining: <ul> <li>At least 3 years' work experience in the underground workings of a coal mining operation (including any period served in the course of study), including at least:</li> <li>6 months actively engaged in the development and extraction of coal and support of the face openings.</li> </ul> </li> <li>If neither of the above apply to you: <ul> <li>At least 5 years' work experience in the underground workings of a coal mining operation, including at least:</li> <li>2 years actively engaged in the development and extraction of coal and support of the face openings.</li> </ul> </li> </ul>					
A-grade opencast coal mine manager	Holder of a certificate of competence as a B-grade opencast coal mine manager, A-grade or B-grade quarry manager, or A-grade or B-grade alluvial mine manager or At least 2 years' work experience in the workings of an opencast mining operation, quarrying operation, or alluvial mining operation or At least 2 years in the underground workings of a mining operation, and 12 months in the workings of an alluvial mining operation, opencast mining operation, or quarrying operation.					
B-grade opencast coal mine manager	Holder of a certificate of competence as an A-grade or B-grade quarry manager, or A-grade or B-grade alluvial mine manager or At least 2 years' work experience in the workings of an opencast mining operation, quarrying operation, or alluvial mining operation or At least 2 years in the underground workings of a mining operation, and 12 months in the workings of an alluvial mining operation, opencast mining operation, or quarrying operation.					
A-grade metalliferous mine manager	At least 2 years' work experience in the underground workings of a mining operation or tunnelling operation (including any periods served in the course of study), including at least: - 12 months in the underground workings of a metalliferous mining operation.					
B-grade metalliferous mine manager	At least 2 years' work experience in the underground workings of a mining operation or tunnelling operation (including any periods served in the course of study), including at least: - 12 months in a metalliferous mining operation.					

CoC	REQUIRED EXPERIENCE
A-grade quarry manager	Holder of a certificate of competence as a A-grade or B-grade opencast coal mine manager, B-grade quarry manager, or A-grade or B-grade alluvial mine manager or At least 2 years' work experience in the workings of an opencast mining operation, quarrying operation, or alluvial mining operation or At least 2 years in the underground workings of a mining operation, and 12 months in the workings of an alluvial mining operation, opencast mining operation, or quarrying operation.
B-grade quarry manager	Holder of a certificate of competence as a A-grade or B-grade opencast coal mine manager, or A-grade or B-grade alluvial mine manager or At least 2 years' work experience in the workings of an opencast mining operation, quarrying operation, or alluvial mining operation or At least 2 years in the underground workings of a mining operation, <b>and</b> 12 months in the workings of an alluvial mining operation, opencast mining operation, or quarrying operation.
Manager to manage the quarrying operation specified in the certificate	<ul> <li>Holder of a certificate of competence as a A-grade or B-grade opencast coal mine manager, A-grade or B-grade quarry manager, or A-grade or B-grade alluvial mine manager</li> <li>or</li> <li>At least 2 years' work experience in the workings of an opencast mining operation, quarrying operation, or alluvial mining operation</li> <li>or</li> <li>At least 2 years in the underground workings of a mining operation, and</li> <li>12 months in the workings of an alluvial mining operation, opencast mining operation, or quarrying operation.</li> </ul>
A-grade alluvial mine manager	Holder of a certificate of competence as a A-grade or B-grade opencast coal mine manager, A-grade or B-grade quarry manager, or B-grade alluvial mine manager or At least 2 years' work experience in the workings of an opencast mining operation, quarrying operation, or alluvial mining operation or At least 2 years in the underground workings of a mining operation, and 12 months in the workings of an alluvial mining operation, opencast mining operation, or quarrying operation.
B-grade alluvial mine manager	Holder of a certificate of competence as a A-grade or B-grade opencast coal mine manage or A-grade or B-grade quarry manager or At least 2 years' work experience in the workings of an opencast mining operation, quarrying operation, or alluvial mining operation or At least 2 years in the underground workings of a mining operation, <b>and</b> 12 months in the workings of an alluvial mining operation, opencast mining operation, or quarrying operation.

CoC	REQUIRED EXPERIENCE
A-grade and B-grade tunnel manager	2 years' work experience in the underground workings of a mining operation or tunnelling operation (including any periods served in the course of study), including at least: - 12 months in the underground workings of a tunneling operation.
Coal mine underviewer	<ul> <li>Holder of a degree in Mineral Technology (Mining) conferred by the University of Otago, or</li> <li>Holder of a qualification in mining from another institution that the NZQA recognises as equivalent to a 4-year bachelor's degree in mining:</li> <li>3 years' work experience in the underground workings of a coal mining operation (including any period served in the course of study), including at least:</li> <li>6 months actively engaged in the development and extraction of coal and support of the face openings.</li> <li>If neither of the above apply to you:</li> <li>5 years' work experience in the underground workings of a coal mining operation, including at least:</li> <li>2 years actively engaged in the development and extraction of coal and support of the face openings.</li> </ul>
Coal mine deputy	<ul> <li>Holder of a degree in Mineral Technology (Mining) conferred by the University of Otago, or</li> <li>Holder of a qualification in mining from another institution that the NZQA recognises as equivalent to a 4-year bachelor's degree in mining:</li> <li>3 years' work experience in the underground workings of a coal mining operation (including any period served in the course of study), including at least:</li> <li>6 months actively engaged in the development and extraction of coal and support of the face openings.</li> <li>If neither of the above apply to you:</li> <li>5 years' work experience in the underground workings of a coal mining operation, including at least:</li> <li>2 years actively engaged in the development and extraction of coal and support of the face openings.</li> </ul>
Gas monitor	At least 3 months' work experience in coal exploration operations or in a coal mining operation.
Electrical superintendent	<ul> <li>Holder of one of the following qualifications: <ul> <li>a New Zealand national qualification as an electrician (trade)</li> <li>a national qualification in electrical engineering</li> </ul> </li> <li>iii. a qualification in electrical engineering, acceptable to the Board, that is recognised by the NZQA as equivalent to a New Zealand national qualification in electrical engineering, and</li> <li>Holder of a current practicing licence for electrical work and an endorsed mining registration under the Electricity Act 1992, and At least 3 years' work experience acceptable to the Board in the extractives industry or heavy industry.</li> <li>or</li> <li>Holder of one of the following qualifications: <ul> <li>a degree in electrical engineering conferred by a New Zealand university or by another university acceptable to the Board</li> <li>a qualification in electrical engineering accentable to the Board that is recognized by the NZOA as equivalent to a 4 year bacheler's degree in electrical engineering accentable to the Board that is recognized by the NZOA as equivalent to a 4 year bacheler's degree in electrical engineering accentable to the Board that is recognized by the NZOA as equivalent to a 4 year bacheler's degree in electrical engineering accentable to the Board that is recognized by the NZOA as equivalent to a 4 year bacheler's degree in electrical engineering accentable to the Board that is recognized by the NZOA as equivalent to a 4 year bacheler's degree in electrical engineering accentable to the Board that is recognized by the NZOA as equivalent to a 4 year bacheler's degree in electrical engineering accentable to the Board that is recognized by the NZOA as equivalent to a 4 year bacheler's degree in electrical engineering accentable to the Board that is recognized by the NZOA as equivalent to a 4 year bacheler's degree in electrical engineering accentable to the Board that is recognized by the NZOA as equivalent to a 4 year bacheler's degree in electrical engineering accentable to the Board that</li></ul></li></ul>
	<ul> <li>ii. a qualification in electrical engineering, acceptable to the Board, that is recognised by the NZQA as equivalent to a 4-year bachelor's degree in electrical engineering, and</li> <li>At least 12 months' work experience acceptable to the Board in the extractives industry or heavy industry.</li> </ul>

CoC	REQUIRED EXPERIENCE
Mechanical	Holder of one of the following qualifications:
superintendent	i. a New Zealand certificate in mechanical engineering (trade)
	ii. a national qualification in mechanical engineering acceptable to the Board
	iii. a qualification in mechanical engineering, acceptable to the Board, that is recognised by the NZQA as equivalent to a New Zealand national qualification in mechanical engineering, and
	At least 3 years' work experience acceptable to the Board in the extractives industry or heavy industry.
	or
	Holder of one of the following qualifications:
	i. a degree in mechanical engineering conferred by a New Zealand university
	ii. a qualification in mechanical engineering, acceptable to the Board, that is recognised by the NZQA as equivalent to a 4-year bachelor's degree in mechanical engineering, and
	At least 12 months' work experience acceptable to the Board in the extractives industry or heavy industry.
Mine surveyor	Holder of one of the following qualifications:
	i. New Zealand Diploma in Surveying
	ii. degree in surveying
	iii. a qualification in surveying, acceptable to the Board, that is recognised by the NZQA as equivalent to a New Zealand diploma or degree in surveying (level 6 or higher), and
	At least 3 years' work experience in surveying, including:
	- 12 months' work experience surveying in the extractives industry, <b>and</b>
	If you intend to work underground, at least 12 months surveying in the underground workings of a mining operation or tunnelling operation.
Ventilation officer	At least 2 years' work experience in the workings of an underground mining operation or tunnelling operation, <b>and</b> If you intend to work in an operation involved in coal extraction, you must have at least 12 months experience in the workings of an underground coal mine.
Winding engine driver	Section A does not need to be completed for this certificate of competence.

Name:	Certificate of competence:
Email:	Mobile phone:

	(Choose from Defined workings on page 1)		(for example, mining, tunnelling or quarry)	COMPANY NAME AND POSITION	SUPERVISOR/EXPERT NAME AND SIGNATURE AS VERIFICATION
57 months	Use and storage of explosives	Blast design and shot firing at hard rock quarry Keeping accurate stock records for inspection/ audits. On call for any magazine alarm activations	Quarry	ABC Quarry Quarry Manager	J Blogs Signature
85 months	Ground/strata control; operation of plant/equipment	Operating jumbo multi boom drill rig, operating underground haul trucks	Underground gold mine	DEF Gold Mine Mine worker	K Smith Signature
		of explosives 85 months control; operation	of explosivesKeeping accurate stock records for inspection/ audits. On call for any magazine alarm activations85 monthsGround/strata control; operationOperating jumbo multi boom drill rig, operating underground haul trucks	of explosivesKeeping accurate stock records for inspection/ audits. On call for any magazine alarm activations85 monthsGround/strata control; operationOperating jumbo multi boom drill rig, operating underground haul trucksUnderground gold mine	of explosivesKeeping accurate stock records for inspection/ audits. On call for any magazine alarm activationsQuarry Manager85 monthsGround/strata control; operationOperating jumbo multi boom drill rig, operating underground haul trucksUnderground gold mine Mine workerDEF Gold Mine Mine worker

START AND END DATES	PERIOD COVERED (months)	ACTIVITY (Choose from Defined workings on page 1)	DESCRIPTION OF WORKS	<b>TYPE OF OPERATION</b> (for example, mining, tunnelling or quarry)	COMPANY NAME AND POSITION	SUPERVISOR/EXPERT NAME AND SIGNATURE AS VERIFICATION

START AND END DATES	PERIOD COVERED (months)	ACTIVITY (Choose from Defined workings on page 1)	DESCRIPTION OF WORKS	<b>TYPE OF OPERATION</b> (for example, mining, tunnelling or quarry)	COMPANY NAME AND POSITION	SUPERVISOR/EXPERT NAME AND SIGNATURE AS VERIFICATION

Section B

A range of activities over a specified minimum period in operations for more than one of the following options is required. These are part of the overall specified time for operational experience and are **not additional** to Section A of the logbook.

CoC	REQUIRED EXPERIENCE				
Site senior executive	Section B does not need to be completed for this certificate of competence.				
First-class mine manager	At least 9 months of the applicant's experience must be carrying out 3 or more of the following types of work at a mining operation or tunnelling operation: i. development operations (excluding operating tunnel boring machines) ii. extraction operations iii. installation of ground support iv. filling operations v. shaft sinking vi. installation and maintenance of services.				
First-class coal mine manager	<ul> <li>Holder of a degree in Mineral Technology (Mining) conferred by the University of Otago, or</li> <li>Holder of a qualification in mining from another institution that the NZQA recognises as equivalent to a 4-year bachelor's degree in mining qualification: <ul> <li>6 months carrying out back-bye work involving all of the following activities:</li> <li>i. preparing for and installing mechanical or hydraulic transport of coal</li> <li>ii. building permanent or temporary stoppings</li> <li>iii. installation of auxiliary ventilation</li> <li>iv. installation of ground support</li> <li>v. installation and maintenance of services.</li> </ul> </li> <li>If neither of the above apply to you: <ul> <li>12 months carrying out back-bye work involving all of the following activities:</li> <li>i. preparing for and installing mechanical or hydraulic transport of coal</li> <li>ii. building permanent or temporary stoppings</li> <li>iii. installation and maintenance of services.</li> </ul> </li> </ul>				

CoC	REQUIRED EXPERIENCE				
A-grade opencast coal mine manager	Holder of a certificate of competence as a B-grade opencast coal mine manager, A-grade or B-grade quarry manager, or A-grade or B-grade alluvial mine manager Section B does not need to be completed				
	or				
	If the above does not apply to you:				
	At least 9 months carrying out 3 or more of the following types of work in an opencast mine or quarry:				
	i. excavation				
	ii. drill and blast				
	iii. load and haul				
	iv. processing				
	v. stockpile and loadout vi. coal exploration.				
B-grade opencast coal	Holder of a certificate of competence as an A-grade or B-grade quarry manager, or A-grade or B-grade alluvial mine manager				
nine manager	Section B does not need to be completed				
	or				
	If the above does not apply to you:				
	At least 9 months carrying out 3 or more of the following types of work in an opencast mine or quarry:				
	i. excavation				
	ii. drill and blast				
	iii. load and haul				
	iv. processing				
	v. stockpile and loadout vi. coal exploration.				
A-grade and	At least 9 months carrying out 3 or more of the following types of work in an underground mine:				
3-grade metalliferous	i. development operations (excluding operating tunnel boring machines)				
nine manager	ii. extraction operations				
	iii. installation of ground support systems				
	iv. filling operations				
	v. shaft sinking				
	vi. installation and maintenance of services.				

CoC	REQUIRED EXPERIENCE
A-grade quarry manager	Holder of a certificate of competence as an A-grade or B-grade opencast coal mine manager, B-grade quarry manager or A-grade or B-grade alluvial mine manager Section B does not need to be completed
	or
	If the above does not apply to you:
	At least 9 months carrying out 3 or more of the following types of work:
	i. excavation
	ii. drill and blast
	iii. load and haul
	iv. processing
	v. stockpile and loadout.
B-grade quarry manager	Holder of a certificate of competence as an A-grade or B-grade opencast coal mine manager or A-grade or B-grade alluvial mine manager Section B does not need to be completed
	or
	If the above does not apply to you:
	At least 9 months carrying out 3 or more of the following types of work:
	i. excavation
	ii. drill and blast
	iii. load and haul
	iv. processing
	v. stockpile and loadout.
Manager to manage	Holder of a certificate of competence as an A-grade or B-grade opencast coal mine manager, A-grade or B-grade quarry manager, or A-grade or B-grade alluvial
he quarrying	mine manager
peration specified n the certificate	Section B does not need to be completed
i the certificate	or
	If the above does not apply to you:
	At least 9 months carrying out 3 or more of the following types of work:
	i. excavation
	ii. drill and blast
	iii. load and haul
	iv. processing
	v. stockpile and loadout.

CoC	REQUIRED EXPERIENCE
A-grade alluvial mine manager	Holder of a certificate of competence as an A-grade or B-grade opencast coal mine manager, A-grade or B-grade quarry manager, or B-grade alluvial mine manager         Section B does not need to be completed         or         If the above does not apply to you:         At least 9 months carrying out 3 or more of the following types of work:         i. excavation         ii. drill and blast         iii. load and haul         iv. processing         v. stockpile and loadout.
B-grade alluvial mine manager	<ul> <li>Holder of a certificate of competence as an A-grade or B-grade opencast coal mine manager or A-grade or B-grade quarry manager</li> <li>Section B does not need to be completed</li> <li>or</li> <li>If the above does not apply to you:</li> <li>At least 9 months carrying out 3 or more of the following types of work:</li> <li>i. excavation</li> <li>ii. drill and blast</li> <li>iii. load and haul</li> <li>iv. processing</li> <li>v. stockpile and loadout.</li> </ul>
A-grade and B-grade tunnel manager	At least 9 months carrying out 3 or more of the following types of work in an underground mining or tunnelling operation: i. excavation activities of development ii. materials handling iii. installation and maintenance of services iv. installation of ground support v. shaft sinking.

CoC	REQUIRED EXPERIENCE						
Coal mine underviewer	REGUIRED EXPERIENCE         Holder of a degree in Mineral Technology (Mining) conferred by the University of Otago, or         Holder of a qualification in mining from another institution that the NZQA recognises as equivalent to a 4-year bachelor's degree in mining qualification:         - 6 months of back-bye work involving all of the following activities:         i. preparing for, and installing, mechanical or hydraulic transport of coal         iii. building permanent or temporary stoppings         iii. installation of auxiliary ventilation         iv. installation and maintenance of services.         If the above does not apply to you:         - 12 months of back-bye work involving all of the following activities:         i. preparing for, and installing, mechanical or hydraulic transport of coal         ii. building permanent or temporary stoppings         iii. installation of auxiliary ventilation         iv. installation and maintenance of services.         If the above does not apply to you:         - 12 months of back-bye work involving all of the following activities:         i. preparing for, and installing, mechanical or hydraulic transport of coal         iii. installation of auxiliary ventilation         iii. installation of auxiliary ventilation         iv. installation of auxiliary ventilation         iv. installation of auxiliary ventilation         iv. installation of ground support         v. install						
Coal mine deputy	<ul> <li>Holder of a degree in Mineral Technology (Mining) conferred by the University of Otago, or</li> <li>Holder of a qualification in mining from another institution that the NZQA recognises as equivalent to a 4-year bachelor's degree in mining qualification:</li> <li>Section B does not need to be completed</li> <li>If neither of the above apply to you: <ul> <li>12 months carrying out back-bye work involving all of the following activities:</li> <li>i. preparing for and installing either mechanical or hydraulic transport of coal</li> <li>ii. building permanent or temporary stoppings</li> <li>iii. installation of auxiliary ventilation</li> <li>iv. erection of either steel or timber sets</li> <li>v. installation of roof bolts</li> <li>vi. installation and maintenance of services.</li> </ul> </li> </ul>						
Gas monitor	Section B does not need to be completed for this certificate of competence						
Electrical superintendent	At least 12 months' experience acceptable to the Board in the extractives industry or heavy industry, carrying out the following types of work in respect of mobile or fixed electrical installations: i. installation ii. commissioning iii. electrical maintenance iv. repair.						

CoC	REQUIRED EXPERIENCE
Mechanical superintendent	<ul> <li>If you are the holder of one of the following qualifications:</li> <li>i. a New Zealand certificate in mechanical engineering (trade)</li> <li>ii. a national qualification in mechanical engineering acceptable to the Board</li> <li>iii. a qualification in mechanical engineering, acceptable to the Board, that is recognised by the NZQA as equivalent to a New Zealand national qualification in mechanical engineering.</li> </ul>
	Your work experience must include at least 12 months carrying out the following types of work in respect of mobile or fixed plant: i. installation ii. commissioning iii. mechanical maintenance iv. repair or If you are the holder of one of the following qualifications: i. a degree in mechanical engineering conferred by a New Zealand university ii. a qualification in mechanical engineering, acceptable to the Board, that is recognised by the NZQA as equivalent to a 4-year bachelor's degree in mechanical engineering.
	You must have at least 12 months' work experience acceptable to the Board in the extractives industry or heavy industry carrying out the following types of work in respect of mobile or fixed plant: <ul> <li>i. installation</li> <li>ii. commissioning</li> <li>iii. mechanical maintenance.</li> </ul>
Mine surveyor	Section B does not need to be completed for this certificate of competence
Ventilation officer	Section B does not need to be completed for this certificate of competence
Winding engine driver	Section B does not need to be completed for this certificate of competence

Name:	Certificate of competence:
Email:	Mobile phone:

START AND END DATES	<b>PERIOD COVERED</b> (months)	<b>REGUIRED EXPERIENCE</b> (Choose from lists on page 9-14)	DESCRIPTION OF WORKS	<b>TYPE OF OPERATION</b> (for example, mining, tunnelling or quarry)	COMPANY NAME AND POSITION	SUPERVISOR/EXPERT NAME AND SIGNATURE AS VERIFICATION
Examples:						
1/01/2008 to 3/05/2011	40 months	Installation of ground support systems	Scaling of loose rocks. Installing rock bolts and mesh. Spraying shotcrete onto walls	Underground gold mine	DEF Gold Mine Mine worker	J Blogs Signature
April 2010 - April 2011	12 months	Load and haul, processing and stockyard loadout	Machine operatior for open-cast coal mining operation, extracting, hauling coal and removing overburden	Opencast coal mine	GHI Coal Mine Supervisor	K Smith Signature

START AND END DATES	<b>PERIOD COVERED</b> (months)	<b>REQUIRED EXPERIENCE</b> (Choose from lists on page 9–14)	DESCRIPTION OF WORKS	<b>TYPE OF OPERATION</b> (for example, mining, tunnelling or quarry)	COMPANY NAME AND POSITION	SUPERVISOR/EXPERT NAME AND SIGNATURE AS VERIFICATION

START AND END DATES	<b>PERIOD COVERED</b> (months)	<b>REQUIRED EXPERIENCE</b> (Choose from lists on page 9-14)	DESCRIPTION OF WORKS	<b>TYPE OF OPERATION</b> (for example, mining, tunnelling or quarry)	COMPANY NAME AND POSITION	SUPERVISOR/EXPERT NAME AND SIGNATURE AS VERIFICATION

## Contacts

Contact information for the manager, supervisor or expert that verified your logbook.

NAME	POSITION	ORGANISATION	PHONE	EMAIL