

### **Certificate of competence as a site senior executive**

- 1) The holder of a certificate of competence as a site senior executive must have the qualifications and experience set out in paragraph 2) and
- 2) The holder must have passed the unit standards set out below
- 3) The holder must have a minimum of 12 months' work experience in [an](#) accepted [operational](#) management role in the extractive industry to the satisfaction of the [secretary WorkSafe New Zealand](#)

<i>Unit No.</i>	<i>Title</i>	<i>Level</i>	<i>Credits</i>
7142	<del>Demonstrate knowledge of regulatory requirements to manage an extractive</del> <a href="#">Demonstrate knowledge of the application of regulatory requirements to manage an extractive site</a>	6	25

<i>Unit No.</i>	<i>Title</i>	<i>Level</i>	<i>Credits</i>
23547	Establish the risk management system at an extractive site	7	20
23548	Establish and maintain the health and safety management system at an extractive site	7	20

<i>Unit No.</i>	<i>Title</i>	<i>Level</i>	<i>Credits</i>
26855	Analyse human factors present in workplace practices to determine how they contribute to incidents at an extractive site	5	10

<i>Unit No.</i>	<i>Title</i>	<i>Level</i>	<i>Credits</i>
16810	Develop a workplace emergency management plan	6	10

### **Certificate of competence as a first-class mine manager**

- (1) The holder of a certificate of competence as a first-class mine manager must have the qualifications and experience set out in paragraph (2) and one of paragraphs (3), (4), or (5), as applicable.
- (2) The holder must have passed:
  - (a) the unit standards set out in Group A and Group 10 of the Appendix; ~~and,~~
  - (b) ~~if the holder works in an operation where explosives are used,~~ the unit standards set out in Group 13 of the Appendix, ~~and~~
  - (c) [the unit standards 23547,23458,26855,17279,and 22445](#)
- (3) If the holder has held a certificate of competence as a first-class coal mine manager under the Coal Mines Act 1979 or regulations made under the Health and Safety in Employment Act 1992, the holder must satisfy the [secretary WorkSafe New Zealand](#) that he or she has been employed in the underground workings of a mine or of an

~~approved~~ tunnel for a period or periods totalling not less than 1 year, of which not more than 6 months was in an ~~approved~~ tunnel.

- (4) If the holder has a degree in Mineral Technology (Mining) conferred by the University of Otago or holds a degree or diploma in mining engineering conferred by any other university or school of mines, the holder must satisfy ~~the secretary chair~~ [WorkSafe New Zealand](#) that:
- (a) he or she has been employed in the underground workings of a mine or approved tunnel for not less than 3 years (including any periods served in the course of study); and
  - (b) at least 1 year of the employment described in subparagraph (a) was at the face of a mine or ~~approved~~ tunnel; and
  - (c) no more than 6 months of the work experience referred to in subparagraph (b) was in an ~~approved~~ tunnel.
- (5) In cases to which paragraphs (3) or (4) do not apply, the holder must satisfy the ~~secretary chair~~ [WorkSafe New Zealand](#) that he or she has not less than 3 years' work experience at the face of a mine or ~~approved~~ tunnel, of which not more than 6 months was in an ~~approved~~ tunnel.
- ~~(6) In paragraphs (3) to (5), "approved tunnel" means a tunnel whose workings are, in the opinion of the secretary chair, WorkSafe New Zealand similar to the workings of a mine.~~
- ~~(7) The holder must hold a current first aid certificate~~

**Group A: For Certificate of Competence as first-class mine manager**

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credits</i>
7146	Demonstrate <del>basic</del> knowledge and ability <del>required</del> to work in <del>an</del> underground mine	2	6
8905	Construct and maintain access roads within surface extraction sites	3	3
8909	Maintain working surfaces at surface extraction sites	2	2
8922	Conduct safety checks prior to equipment usage at an extractive site	2	2
15664	Demonstrate knowledge of the geological nature of surface extraction sites	3	5
15672	Demonstrate knowledge of the Mines Rescue Service	2	2
21153	Demonstrate <del>and apply</del> knowledge of dewatering, pump maintenance, <del>and</del> cleaning settling ponds at extraction sites	3	12
21155	Review consent conditions and demonstrate knowledge of the use of water at surface extraction sites	3	10

**Group 10: Underground Metalliferous**

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credits</i>
7142	<del>Demonstrate knowledge of regulatory requirements to manage an extractive site</del> Demonstrate knowledge of the application of regulatory requirements to manage an extractive site	6	25
7143	Inspect and report on extractive site and operations	5	10

7144	Review and implement plans for ongoing operations of an extractive site	5	15
7145	Design, establish and maintain effective ventilation systems for an underground mine	5	20
8899	Plan storage for product processed at extractives sites	4	8
8902	<del>Prepare and implement plans for quarry face and benching operations</del> Prepare and implement safety plans for surface face and benching operations	4	4
15658	Select excavation and transportation plant for surface extraction	4	8
15662	<del>Investigate and design a roof support system for underground mines and tunnels</del> Evaluate ground conditions and design support methods for underground mines and tunnels	6	20
15663	<del>Design and maintain sloping surfaces in surface excavations and stockpiles</del> Design and maintain stockpiles and sloping surfaces in surface excavations and stockpiles	6	20
15665	Demonstrate knowledge of the geology of surface extraction	4	5
15666	Demonstrate knowledge of the geology of underground extraction	4	10
15667	<del>Demonstrate knowledge of surface extraction methods</del> Demonstrate knowledge of extraction methods and the effects of geological features on these methods	5	10
15670	<del>Demonstrate knowledge of extraction methods for metalliferous mines</del> Demonstrate knowledge of mining methods for metalliferous mines	6	20
16686	Conduct an incident investigation at an extraction site	5	8
17693	<del>Demonstrate knowledge of water properties in extractive sites</del> Explain and determine water flow, select pumps, and structures for an extraction site	6	20
17744	Read and interpret an underground extractive site plan	4	5
21151	Demonstrate knowledge of planning rehabilitation operations of an extractive site	6	15
<del>21154</del>	<del>Demonstrate knowledge of procedures to minimise environmental impact at an extraction site</del>	5	7
21156	Plan, implement, and describe surface extraction production to minimise environmental impacts	5	15
<del>21157</del> <del>25878</del>	<del>Demonstrate knowledge of and select crushing and screening plant for extractive industries</del> Demonstrate knowledge of crushing and screening plant for extractives industries	4	7
21278	Describe, install, and reassess support systems for an underground mine	4	15
21280	Demonstrate knowledge of and design an effective ventilation system in an underground mine	6	20
21281	Interpret and test for gases in an underground extraction site	4	15

21629	Evaluate and implement plans to manage old workings and inundations in underground sites	5	10
22056	Demonstrate knowledge of theoretical mechanics for extractive industries	5	20

### Group 13: Explosives

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credit</i>
17694	Demonstrate knowledge of explosives and their properties	3	2
21152	<del>Demonstrate knowledge of storing explosives for use in extractive industries</del> Demonstrate and apply knowledge of storing explosives for use	4	10

<u><i>Unit No.</i></u>	<u><i>Title</i></u>	<u><i>Level</i></u>	<u><i>Credits</i></u>
<u>23547</u>	<u>Establish the risk management system at an extractive site</u>	<u>7</u>	<u>20</u>
<u>23548</u>	<u>Establish and maintain the health and safety management system at an extractive site</u>	<u>7</u>	<u>20</u>

<u><i>Unit No.</i></u>	<u><i>Title</i></u>	<u><i>Level</i></u>	<u><i>Credits</i></u>
<u>26855</u>	<u>Analyse human factors present in workplace practices to determine how they contribute to incidents at an extractive site</u>	<u>5</u>	<u>10</u>

<u><i>Unit No.</i></u>	<u><i>Title</i></u>	<u><i>Level</i></u>	<u><i>Credits</i></u>
<u>17279</u>	<u>Demonstrate knowledge of the coordinated incident management system(CIMS)</u>	<u>4</u>	<u>2</u>
<u>22445</u>	<u>Describe the roles and functions of a CIMS Incident management Team</u>	<u>2</u>	<u>4</u>

### **Certificate of competence as a first-class coal mine manager**

- (1) The holder of a certificate of competence as a first-class coal mine manager must have the qualifications and experience set out in paragraphs (2) and (6), and one of paragraphs (3), (4), or (5), as applicable.
- (2) The holder must have passed:
  - (a) the unit standards set out in Groups B and D and in Groups 3, 4, 5, ~~and 6~~ and 12 of the Appendix; and
  - (b) ~~if the holder works in an operation where explosives are used,~~ the unit standards set out in Group 13 of the Appendix, ~~and-~~
  - (c) the unit standards 23457,23458,26855,17279,and 22445 or has been awarded the level 6 mining certificate
- (3) If the holder has held a certificate of competence as a first-class mine manager under the Mining Act 1971 or regulations made under the Health and Safety in Employment Act 1992, he or she must satisfy ~~the secretary chair~~ WorkSafe New Zealand that he or she has been employed in the underground workings of a coal

mine or of an ~~n-approved~~ tunnel, for a period or periods totalling not less than 1 year, of which not more than 6 months was in an ~~n-approved~~ tunnel.

- (4) If the holder has a degree in Mineral Technology (Mining) conferred by the University of Otago, or is the holder of a degree or diploma in mining engineering conferred by any other university or school of mines, he or she must satisfy the ~~secretary chair~~ [WorkSafe New Zealand](#) that:
- (a) he or she has been employed in the underground workings of a coal mine or of an ~~n-approved~~ tunnel, for a period or periods totalling not less than 3 years (including any periods served in the course of study); and
  - (b) at least 1 year of the work experience referred to in subparagraph (a) was at the face of a coal mine, or ~~approved~~ tunnel; and
  - (c) no more than 6 months of the work experience referred to in subparagraph (b) was in an approved tunnel.
- (5) In cases to which paragraph (3) or (4) does not apply, the holder must satisfy the ~~secretary chair~~ [WorkSafe New Zealand](#) that:
- (a) he or she has been employed in the underground workings of a coal mine or of an approved tunnel for a period or periods totalling not less than 5 years; and
  - (b) at least 1 year of the work experience described in subparagraph (a) was at the face of a coal mine or ~~approved~~ tunnel; and
  - (c) no more than 6 months of the work experience described in subparagraph (b) was in an ~~n-approved~~ tunnel.

~~(6) Every holder of a certificate of competence as a first-class coal mine manager must hold a current certificate of competence as a gas tester issued under the regulations.~~

~~(7) In paragraphs (3) to (5), "approved tunnel" means a tunnel whose workings are, in the opinion of the ~~secretary chair~~, similar to the workings of a coal mine.~~

~~(8) The holder must hold a current first aid certificate.~~

**Group B: For a certificate of competence as a first-class coal mine manager**

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credit</i>
8905	Construct and maintain access roads within surface extraction sites	3	3
8909	Maintain working surfaces at surface extraction sites	2	2

**Group D: For a certificate as a coal mine deputy**

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credits</i>
2401	Safely shut down and isolate machines and equipment	3	3
3271	Suppress fire with hand extinguishers and fixed hose reels	2	1
7146	Demonstrate basic knowledge and ability required to work in an underground mine	2	6
8922	Conduct safety checks prior to equipment usage at an extractives site	2	2
15672	Demonstrate knowledge of the Mines Rescue Service	2	2
21821	Supply, maintain, deliver, and store services for an underground mine	3	15

### Group 3: Underground coal

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credit</i>
7142	<del>Demonstrate knowledge of regulatory requirements to manage an extractive site</del> <del>Demonstrate knowledge of the application of regulatory requirements to manage an extractive site</del> <del>Demonstrate knowledge of the application of regulatory requirements to manage an extractive site</del>	6	25
7143	Inspect and report on extractive site and operations	5	10
21278	Describe, install, and reassess support systems for an underground mine	4	15

### Group 4: Underground coal

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credits</i>
7144	Review and implement plans for ongoing operations of extractive site	5	15
8899	Plan storage for product processed at extractives sites	4	8
16686	Conduct an incident investigation at an extraction site	5	8
17691	Use mathematics to solve problems in an extractive industries workplace	4	15
17705	<del>Develop and maintain basic ventilation systems in underground mines and tunnels</del> <del>Describe, develop, and maintain basic ventilation systems for an underground mine or tunnel</del>	4	15
21661	Demonstrate knowledge of the use of electrical reticulation plant and equipment in underground mines	4	15
21662	Demonstrate knowledge of development and extraction plant and methods for underground coal mining	4	10
21281	Interpret and test gases in an underground extraction site	4	15
22057	Demonstrate knowledge of fluid power systems used in underground mines and tunnels	4	10

### Group 5: Underground coal

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credits</i>
7145	Design, establish and maintain effective ventilation systems in underground mines	5	20
15666	Demonstrate knowledge of the geology of underground extraction	4	10
17743	<del>Demonstrate knowledge of surveying tools and principles applicable to an extractive site</del> <del>Demonstrate knowledge of survey principles and apply to an extraction site</del>	4	4
17744	Read and interpret an underground extractive site plan	4	5
21151	Demonstrate knowledge of planning rehabilitation operations of an extractive site	6	15
21153	<del>Demonstrate knowledge of dewatering, pump maintenance, cleaning settling ponds at extraction sites</del> <del>Demonstrate and apply knowledge of</del>	3	12

	<a href="#">dewatering, pump maintenance, and cleaning settling ponds at extraction sites</a>		
21629	Evaluate and implement plans to manage old workings and inundations in underground sites	5	10
21823	Analyse and select mining and transportation plant for underground coalmines	6	15

### Group 6: Underground coal

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credits</i>
8902	Prepare and implement safety plans for surface face and benching operations	4	4
15658	Select excavation and transportation plant for surface extraction	4	8
15662	<del>Investigate and design a roof support system for underground mines and tunnels</del> <a href="#">Evaluate ground conditions and design support methods for underground mines and tunnels</a>	6	20
15663	<del>Design and maintain sloping surfaces in surface excavations and stockpiles</del> <a href="#">Design and maintain stockpiles and sloping surfaces in surface excavations and stockpiles</a>	6	20
15665	Demonstrate knowledge of the geology of surface extraction	4	5
15667	<del>Demonstrate knowledge of surface extraction methods</del> <a href="#">Demonstrate knowledge of extraction methods and the effects of geological features on these methods</a>	5	10
15668	<del>Demonstrate knowledge of extraction methods for underground coal</del> <a href="#">Demonstrate knowledge of mining methods for underground coal</a>	6	20
17693	<del>Demonstrate knowledge of water properties in extractive sites</del> <a href="#">Explain and determine water flow, select pumps, and structures for an extraction site</a>	6	20
<del>21154</del>	<del>Demonstrate and apply knowledge of procedures to minimise environmental impact at an extraction site</del>	5	7
21156	Plan, implement, and describe surface extraction production to minimise environmental impacts	5	15
<del>2587821157</del>	<del>Demonstrate knowledge of and select crushing and screening plant for extractive industries</del> <a href="#">Demonstrate knowledge of crushing and screening plant for extractives industries</a>	<del>44</del>	<del>715</del>
21280	Demonstrate knowledge of and design an effective ventilation system in an underground mine	6	20
22056	Demonstrate knowledge of theoretical mechanics for extractive industries	5	20

### Group 13: Explosives

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credit</i>
17694	Demonstrate knowledge of explosives and their properties	3	10

21152	<del>Demonstrate knowledge of storing explosives for use in extractive industries</del> <u>Demonstrate and apply knowledge of storing explosives for use</u>	4	10
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<u>Unit No.</u>	<u>Title</u>	<u>Level</u>	<u>Credits</u>
<u>23547</u>	<u>Establish the risk management system at an extractive site</u>	<u>7</u>	<u>20</u>
<u>23548</u>	<u>Establish and maintain the health and safety management system at an extractive site</u>	<u>7</u>	<u>20</u>

<u>Unit No.</u>	<u>Title</u>	<u>Level</u>	<u>Credits</u>
<u>26855</u>	<u>Analyse human factors present in workplace practices to determine how they contribute to incidents at an extractive site</u>	<u>5</u>	<u>10</u>

<u>Unit No.</u>	<u>Title</u>	<u>Level</u>	<u>Credits</u>
<u>17279</u>	<u>Demonstrate knowledge of the coordinated incident management system(CIMS)</u>	<u>2</u>	<u>2</u>
<u>22445</u>	<u>Describe the roles and functions of a CIMS Incident management Team</u>	<u>4</u>	<u>4</u>

***Certificate of competence as an A-grade opencast coal mine manager***

- (1) The holder of a certificate of competence as an A-grade opencast mine manager must have the qualifications and experience set out in paragraphs (2) and (3).
- (2) The holder must have passed:
  - (a) the unit standards set out in Groups 1 and 2 of the Appendix; and
  - (b) ~~if the holder works in an operation where explosives are used,~~ the unit standards set out in Group 13 of the Appendix; ~~and,~~
  - (c) the unit standards 23457, 23458, 26855, 17279, and 22445 of the Appendix or has been awarded the level 5 mining certificate.
- (3) The holder must satisfy ~~the secretary chair~~WorkSafe New Zealand that –
  - (a) he or she has had, in the aggregate, at least 2 years’ work experience in the workings of an opencast coal mine; or
  - (b) he or she has had, in the aggregate, at least 12 months’ work experience in the workings of an opencast coal mine, and at least two years’ work experience in the underground workings of a mine, coal mine, or tunnel; or
  - (c) he or she:
    - (i) is currently the holder of a certificate of competence as a first-class mine manager; and
    - (ii) has had at least 12 months’ work experience in an opencast coal mine.
- (4) The holder must hold a current first aid certificate



### Group 1: Surface Extraction

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credits</i>
7142	<del>Demonstrate knowledge of regulatory requirements to manage an extractive site</del> Demonstrate knowledge of the application of regulatory requirements to manage an extractive site <del>Demonstrate knowledge of the application of regulatory requirements to manage an extractive site</del>	6	25
8902	Prepare and implement safety plans for surface face and benching operations	4	4
8905	Construct and maintain access roads within surface extraction sites	3	3
8909	Maintain working surfaces at surface extraction sites	2	2
8922	Conduct safety checks prior to equipment usage at an extractive site	2	2
21153	Demonstrate knowledge of dewatering, pump maintenance, cleaning settling ponds at extraction sites	3	12
<del>21154</del>	<del>Demonstrate and apply knowledge of procedures to minimise environmental impact at an extraction site</del>	<del>5</del>	<del>7</del>
21155	Review consent conditions and demonstrate knowledge of the use of water at surface extraction sites	3	10
21156	Plan, implement, and describe surface extraction production to minimise environmental impacts	5	15

### Group 2: Surface Extraction

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credits</i>
7143	Inspect and report on extractive site and operations	5	10
7144	Review and implement plans for ongoing operations of an extractive site	5	15
8899	Plan storage for product processed at extractives sites	4	8
15658	Select excavation and transportation plant for surface extraction	4	8
15663	<del>Design and maintain sloping surfaces in surface excavations and stockpiles</del> Design and maintain stockpiles and sloping surfaces in surface excavations and stockpiles	6	20
15664	Demonstrate knowledge of the geological nature of surface extraction sites	3	5
15667	<del>Demonstrate knowledge of surface extraction methods</del> Demonstrate knowledge of extraction methods and the effects of geological features on these methods	5	10
21151	Demonstrate knowledge of planning rehabilitation operations of an extractive site	6	15
<del>25878</del> 21157	<del>Demonstrate knowledge of and select crushing and screening plant for extractive industries</del> Demonstrate knowledge of crushing and screening plant for extractives industries	<del>4</del> 4	<del>7</del> 15

### Group 13: Explosives

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credit</i>
17694	Demonstrate knowledge of explosives and their properties	<del>3</del>	<del>2</del> 10
21152	<del>Demonstrate knowledge of storing explosives for use in extractive industries</del> Demonstrate and apply knowledge of storing explosives for use	4	10

<i>Unit No.</i>	<i>Title</i>	<i>Level</i>	<i>Credits</i>
<a href="#">23547</a>	<a href="#">Establish the risk management system at an extractive site</a>	<a href="#">7</a>	<a href="#">20</a>
<a href="#">23548</a>	<a href="#">Establish and maintain the health and safety management system at an extractive site</a>	<a href="#">7</a>	<a href="#">20</a>

<i>Unit No.</i>	<i>Title</i>	<i>Level</i>	<i>Credits</i>
<a href="#">26855</a>	<a href="#">Analyse human factors present in workplace practices to determine how they contribute to incidents at an extractive site</a>	<a href="#">5</a>	<a href="#">10</a>

<i>Unit No.</i>	<i>Title</i>	<i>Level</i>	<i>Credits</i>
<a href="#">17279</a>	<a href="#">Demonstrate knowledge of the coordinated incident management system(CIMS)</a>	<a href="#">2</a>	<a href="#">2</a>
<a href="#">22445</a>	<a href="#">Describe the roles and functions of a CIMS Incident management Team</a>	4	<a href="#">4</a>

#### **Certificate of competence as a B-grade opencast coal mine manager**

- (1) The holder of a certificate of competence as a B-grade opencast coal mine manager must have the qualifications and experience set out in paragraphs (2) and (3).
- (2) The holder must have passed:
  - (a) the unit standards set out in Group 1 of the Appendix; and
  - (b) ~~if the holder works in an operation where explosives are used,~~ the unit standards set out in Group 13 of the Appendix, and
  - (c) ~~the unit standards 26856, 16686, 26855, 17279 and 22445 or has been awarded the level 4 mining certificate.x-~~
- (3) The holder must ~~satisfy the secretary chair~~[WorkSafe New Zealand](#) that –
  - (a) he or she has had, in the aggregate, at least 2 years' work experience in the workings of an opencast coal mine; or
  - (b) he or she has had, in the aggregate, at least 12 months' work experience in the workings of an opencast coal mine, and at least 2 years' work experience in the underground workings of a mine, coal mine, or tunnel; or
  - (c) he or she:
    - (i) is currently the holder of a certificate of competence as a first-class mine manager; and
    - (ii) has had at least 12 months' work experience in an opencast coal mine.

(4) [The holder must hold a current first aid certificate.](#)

### Group 1: Surface Extraction

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credits</i>
7142	<del>Demonstrate knowledge of regulatory requirements to manage an extractive site</del> <a href="#">Demonstrate knowledge of the application of regulatory requirements to manage an extractive site</a> <del>Demonstrate knowledge of the application of regulatory requirements to manage an extractive site</del>	6	25
8902	<del>Prepare and implement plans for quarry face and benching operations</del> <a href="#">Prepare and implement safety plans for surface face and benching operations</a>	4	4
8905	Construct and maintain access roads within surface extraction sites	3	3
8909	Maintain working surfaces at surface extraction sites	2	2
8922	Conduct safety checks prior to equipment usage at an extractives site	2	2
21153	Demonstrate and apply knowledge of dewatering, pump maintenance, cleaning settling ponds at extraction sites	3	12
<a href="#">21154</a>	<a href="#">Demonstrate knowledge of procedures to minimise environmental impact at an extraction site</a>	<a href="#">5</a>	<a href="#">7</a>
21155	Review consent conditions and demonstrate knowledge of the use of water at surface extraction sites	3	10
21156	Plan, implement, and describe surface extraction production to minimise environmental impacts	5	15

### Group 13:Explosives

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credit</i>
17694	Demonstrate knowledge of explosives and their properties	2	2
21152	<del>Demonstrate knowledge of storing explosives for use in extractive industries</del> <a href="#">Demonstrate and apply knowledge of storing explosives for use</a>	4	10

<a href="#">Unit No.</a>	<a href="#">Title</a>	<a href="#">Level</a>	<a href="#">Credits</a>
<a href="#">26856</a>	<a href="#">Carry out the risk management processes at an extractive site</a>	<a href="#">4</a>	<a href="#">10</a>
<a href="#">16686</a>	<a href="#">Conduct an incident investigation at an extractive site</a>	<a href="#">5</a>	<a href="#">8</a>

<a href="#">Unit No.</a>	<a href="#">Title</a>	<a href="#">Level</a>	<a href="#">Credits</a>
<a href="#">26855</a>	<a href="#">Analyse human factors present in workplace practices to determine how they contribute to incidents at an extractive site</a>	<a href="#">5</a>	<a href="#">10</a>

<u>Unit No.</u>	<u>Title</u>	<u>Level</u>	<u>Credits</u>
<u>17279</u>	<u>Demonstrate knowledge of the coordinated incident management system(CIMS)</u>	<u>2</u>	<u>2</u>
<u>22445</u>	<u>Describe the roles and functions of a CIMS Incident management Team</u>	<u>4</u>	<u>4</u>

### **Certificate of competence as an A-grade quarry manager**

- (1) The holder of a certificate of competence as an A-Grade quarry manager must have the qualifications and experience set out in paragraphs (2) and (3).
- (2) The holder must have passed:
- (a) the unit standards set out in Groups 1 and 2 of the Appendix; and
  - (b) ~~if the holder works in an operation where explosives are used,~~ the unit standards set out in Group 13 of the Appendix
  - (c) the unit standards 23457, 23458, 26855, 17279, and 22445 of the Appendix or has been awarded the level 5 mining certificate.
- (3) The holder must satisfy ~~the secretary chair~~ WorkSafe New Zealand that –
- (a) he or she has had, in the aggregate, at least 2 years' work experience in the workings of an opencast mine or quarry; or
  - (b) he or she has had, in the aggregate, at least 12 months' work experience in the workings of an opencast mine or quarry, and at least 2 years' work experience in the underground workings of a mine, coal mine, or tunnel; or
  - (d) he or she:
    - (i) is currently the holder of a certificate of competence as a first-class mine manager; and
    - (ii) has had at least 12 months' work experience in an opencast mine or quarry.

(4) The holder must hold a current first aid certificate

### **Group 1: Surface Extraction**

<u>Unit No</u>	<u>Title</u>	<u>Level</u>	<u>Credits</u>
7142	<del>Demonstrate knowledge of regulatory requirements to manage an extractive site</del> <u>Demonstrate knowledge of the application of regulatory requirements to manage an extractive site</u>	6	25
8902	<del>Prepare and implement plans for quarry face and benching operations</del> <u>Prepare and implement safety plans for surface face and benching operations</u>	4	4
8905	Construct and maintain access roads within surface extraction sites	3	3
8909	Maintain working surfaces at surface extraction sites	2	2
8922	Conduct safety checks prior to equipment usage at an extractives site	2	2
21153	Demonstrate and apply knowledge of dewatering, pump maintenance, cleaning settling ponds at extraction sites	3	12
<u>21154</u>	<del>Demonstrate and apply knowledge of procedures to minimise environmental impact at an extraction site</del>	<u>5</u>	<u>7</u>
21155	Review consent conditions and demonstrate knowledge of the use of water at surface extraction sites	3	10

21156	Plan, implement, and describe surface extraction production to minimise environmental impacts	5	15
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## Group 2: Surface Extraction

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credits</i>
7143	Inspect and report on extractive site and operations	5	10
7144	Review and implement plans for ongoing operations of extractive site	5	15
8899	Plan storage for product processed at extractives sites	4	8
15658	Select excavation and transportation plant for surface extraction	4	8
15663	<del>Design and maintain sloping surfaces in surface excavations and stockpiles</del> Design and maintain stockpiles and sloping surfaces in surface excavations and stockpiles	6	20
15664	Demonstrate knowledge of the geological nature of surface extraction sites	3	5
15667	<del>Demonstrate knowledge of surface extraction methods</del> Demonstrate knowledge of extraction methods and the effects of geological features on these methods	5	10
21151	Demonstrate knowledge of planning rehabilitation operations of an extractive site	6	15
<del>258782</del> 21157	<del>Demonstrate knowledge of and select crushing and screening plant for extractive industries</del> Demonstrate knowledge of crushing and screening plant for extractive industries	<del>4</del> 4	<del>7</del> 15

## Group 13:Explosives

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credit</i>
17694	Demonstrate knowledge of explosives and their properties	<del>3</del> 2	<del>10</del> 2
21152	<del>Demonstrate knowledge of storing explosives for use in extractive industries</del> Demonstrate and apply knowledge of storing explosives for use	4	10

<u><i>Unit No.</i></u>	<u><i>Title</i></u>	<u><i>Level</i></u>	<u><i>Credits</i></u>
<u>26856</u>	<u>Carry out the risk management processes at an extractive site</u>	<u>4</u>	<u>10</u>
<u>16686</u>	<u>Conduct an incident investigation at an extractive site</u>	<u>5</u>	<u>8</u>

<u><i>Unit No.</i></u>	<u><i>Title</i></u>	<u><i>Level</i></u>	<u><i>Credits</i></u>
<u>26855</u>	<u>Analyse human factors present in workplace practices to determine how they contribute to incidents at an extractive site</u>	<u>5</u>	<u>10</u>

<u><i>Unit No.</i></u>	<u><i>Title</i></u>	<u><i>Level</i></u>	<u><i>Credits</i></u>
<u>17279</u>	<u>Demonstrate knowledge of the coordinated incident</u>	<u>2</u>	<u>2</u>

	<a href="#">management system(CIMS)</a>		
<a href="#">22445</a>	<a href="#">Describe the roles and functions of a CIMS Incident management Team</a>	4	<a href="#">4</a>

### **Certificate of competence as a B-grade quarry manager**

- (1) The holder of a certificate of competence as a B-grade quarry manager must have the qualifications and experience set out in paragraphs (2) and (3).
- (2) The holder must have passed:
  - (a) the unit standards set out in Group 1 of the Appendix; and
  - (b) ~~if the holder works in an operation where explosives are used,~~ the unit standards set out in Group 13 of the Appendix, and
  - (c) ~~the unit standards 26856, 16686, 26855, 17279, 22445, or has been awarded the level 4 mining certificate.~~
- (3) The holder must satisfy ~~the secretary chair~~ [WorkSafe New Zealand](#) that –
  - (a) he or she has had, in the aggregate, at least 2 years’ work experience in the workings of an opencast mine or quarry; or
  - (b) he or she has had, in the aggregate, at least 12 months’ work experience In the workings of an opencast mine or quarry and at least 2 years’ work experience in the underground workings of a mine, coal mine, or tunnel; or
  - (c) he or she:
    - (i) is currently the holder of a certificate of competence as a first-class mine manager; and
    - (ii) has had at least 12 months’ work experience in an opencast mine or quarry.
- (4) [The holder must hold a current first aid certificate](#)

### **Group1: Surface Extraction**

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credits</i>
7142	<del>Demonstrate knowledge of regulatory requirements to manage an extractive site</del> <a href="#">Demonstrate knowledge of the application of regulatory requirements to manage an extractive site</a>	6	25
8902	<del>Prepare and implement plans for quarry face and benching operations</del> <a href="#">Prepare and implement safety plans for surface face and benching operations</a>	4	4
8905	Construct and maintain access roads within surface extraction sites	3	3
8909	Maintain working surfaces at surface extraction sites	2	2
8922	Conduct safety checks prior to equipment usage at an extractives site	2	2
21153	Demonstrate and apply knowledge of dewatering, pump maintenance, cleaning settling ponds at extraction sites	3	12
<a href="#">21154</a>	<del>Demonstrate knowledge of procedures to minimise environmental impact at an extraction site</del>	5	<del>7</del>
21155	Review consent conditions and demonstrate knowledge of the use of water at surface extraction sites	3	10
21156	Plan, implement, and describe surface extraction	5	15

	production to minimise environmental impacts		
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### Group 13:Explosives

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credit</i>
17694	Demonstrate knowledge of explosives and their properties	3	10
21152	<del>Demonstrate knowledge of storing explosives for use in extractive industries</del> Demonstrate and apply knowledge of storing explosives for use	4	10

<u><i>Unit No.</i></u>	<u><i>Title</i></u>	<u><i>Level</i></u>	<u><i>Credit</i></u>
<u>26856</u>	<u>Carry out the risk management processes at an extractive site</u>	<u>4</u>	<u>10</u>
<u>16686</u>	<u>Conduct an incident investigation at an extractive site</u>	<u>5</u>	<u>8</u>

<u><i>Unit No.</i></u>	<u><i>Title</i></u>	<u><i>Level</i></u>	<u><i>Credit</i></u>
<u>26855</u>	<u>Analyse human factors present in workplace practices to determine how they contribute to incidents at an extractive site</u>	<u>5</u>	<u>10</u>

<u><i>Unit No.</i></u>	<u><i>Title</i></u>	<u><i>Level</i></u>	<u><i>Credit</i></u>
<u>17279</u>	<u>Demonstrate knowledge of the coordinated incident management system(CIMS)</u>	<u>2</u>	<u>2</u>
<u>22445</u>	<u>Describe the roles and functions of a CIMS Incident management Team</u>	<u>4</u>	<u>4</u>

### **Certificate of competence A-grade tunnel manager**

- (1) The holder of a certificate of competence as an A-grade tunnel manager must have the qualifications and experience set out in paragraphs (2) and (3).
- (2) The holder must have passed:
  - (a) the unit standards set out in Group C and in Groups 7, 8 and 9 of the Appendix; and
  - (b) ~~if the holder works in an operation where explosives are used,~~ the unit standards set out in Groups 12 and 13 of the Appendix, and
  - (c) ~~the unit standards 23547, 23548, 26855, 17279, and 22445 or has been awarded the level 5 mining certificate.~~
- (3) The holder must satisfy ~~the secretary chair~~WorkSafe New Zealand that –
  - (a) he or she has had, in the aggregate, at least 2 years' work experience in the workings of a tunnel; or
  - (b) he or she has had, in the aggregate, at least 12 months' work experience in the workings of a tunnel, and at least 2 years' work experience in the underground workings of a mine or coal mine; or

(c) he or she:

- (i) is currently the holder of a certificate of competence as a first-class mine manager; and
- (ii) has had at least 12 months' work experience in a tunnel.

(4) The holder must hold a current first aid certificate

### Group C: For certificate of competence as a B-grade tunnel manager

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credits</i>
2401	Safely shut down and isolate machines and equipment	3	3
3271	Suppress fire with hand extinguishers and fixed hose reels	2	1
7146	Demonstrate basic knowledge and ability required to work in an underground mine	2	6
8922	Conduct safety checks prior to equipment usage at an extractives site	2	2
15672	Demonstrate knowledge of the Mines Rescue Service	2	2
21821	Supply, maintain, deliver, and store services for an underground mine	3	15

### Group 7: Tunnels

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credits</i>
7142	<del>Demonstrate knowledge of regulatory requirements to manage an extractive site</del> <del>Demonstrate knowledge of the application of regulatory requirements to manage an extractive site</del>	6	25
7143	Inspect and report on extractive site and operations	5	10
7144	Review and implement plans for ongoing operations of extractive site	5	15
8899	Plan storage for product processed at extractives sites	4	8
16686	Conduct an incident investigation at an extraction site	5	8
17705	<del>Develop and maintain basic ventilation systems in underground mines and tunnels</del> <del>Describe, develop, and maintain basic ventilation systems for an underground mine or tunnel</del>	4	15
21278	Describe, install, and reassess support systems for an underground mine	4	15
21821	Supply, maintain, deliver, and store services for an underground mine	3	15



### Group 8: Tunnels

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credit</i>
15660	<del>Select excavation and transportation plant for tunnels and underground metalliferous mines</del> <del>Analyse and select mining and transportation plant for a metalliferous underground extractive site</del>	6	15
15666	Demonstrate knowledge of the geology of underground extraction	4	10
15669	<del>Demonstrate knowledge of planning rehabilitation operations of an extractive site</del> <del>Demonstrate knowledge of tunnelling methods</del>	5	15

### Group 9: Tunnels

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credit</i>
15662	<del>Investigate and design a roof support system for underground mines and tunnels</del> <del>Evaluate ground conditions and design support methods for underground mines and tunnels</del>	6	20
17691	Use mathematics to solve problems in an extractive industries workplace	4	15
21151	Demonstrate knowledge of planning rehabilitation operations of an extractive site	6	15

Plus ONE of the following:

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credit</i>
7145	Design, establish and maintain effective ventilation systems in underground mines	5	20

OR

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credit</i>
21280	Demonstrate knowledge of and design an effective ventilation system in an underground mine	6	20

### Group 13: Explosives

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credit</i>
17694	Demonstrate knowledge of explosives and their properties	<del>3</del>	<del>10</del>
21152	<del>Demonstrate knowledge of storing explosives for use in extractive industries</del> <del>Demonstrate and apply knowledge of storing explosives for use</del>	4	10

<i>Unit No.</i>	<i>Title</i>	<i>Level</i>	<i>Credit</i>
<del>1668623548</del>	<del>Establish and maintain the health and safety management system at an extractive site</del> <del>Conduct</del>	<del>7</del>	<del>20</del>

	<a href="#">an incident investigation at an extractive site</a>		
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<a href="#">Unit No.</a>	<a href="#">Title</a>	<a href="#">Level</a>	<a href="#">Credits</a>
<a href="#">26855</a>	<a href="#">Analyse human factors present in workplace practices to determine how they contribute to incidents at an extractive site</a>	<a href="#">5</a>	<a href="#">10</a>

<a href="#">Unit No.</a>	<a href="#">Title</a>	<a href="#">Level</a>	<a href="#">Credits</a>
<a href="#">17279</a>	<a href="#">Demonstrate knowledge of the coordinated incident management system(CIMS)</a>	<a href="#">2</a>	<a href="#">2</a>
<a href="#">22445</a>	<a href="#">Describe the roles and functions of a CIMS Incident management Team</a>	<a href="#">4</a>	<a href="#">4</a>

### **Certificate of competence as a B-grade tunnel manager**

- (1) The holder of a certificate of competence as a B-grade tunnel manager must have the qualifications and experience set out in paragraphs (2) and (3).
- (2) The holder must have passed:
  - (a) the unit standards set out in Group C and in Group 7 of the Appendix; and
  - (b) ~~if the holder works in an operation where explosives are used,~~ the unit standards set out in [Group 12 and](#) Group 13 of the Appendix.
  - (c) ~~the unit standards 21281,26856,16686,26855,17279,and 22445 or has been awarded the level 4 mining certificate~~
- (3) The holder must satisfy ~~the secretary chair~~ [WorkSafe New Zealand](#) that:
  - (a) he or she has had, in the aggregate, at least 2 years' work experience in the workings of a tunnel; or
  - (b) he or she has had, in the aggregate, at least 12 months' work experience in the workings of a tunnel, and at least 2 years' work experience in the underground workings of a mine or coal mine; or
  - (c) he or she:
    - (i) is the holder of a certificate of competence as a first-class mine manager; and
    - (ii) has had at least 12 months' work experience in a tunnel.
- (4) [The holder must hold a current first aid certificate.](#)

### **Group C: For a certificate of competence as B-Grade tunnel manager**

<a href="#">Unit No</a>	<a href="#">Title</a>	<a href="#">Level</a>	<a href="#">Credits</a>
<a href="#">2401</a>	<a href="#">Safely shut down and isolate machines and equipment</a>	<a href="#">3</a>	<a href="#">3</a>
<a href="#">3271</a>	<a href="#">Suppress fire with hand extinguishers and fixed hose reels</a>	<a href="#">2</a>	<a href="#">1</a>
<a href="#">7146</a>	<a href="#">Demonstrate basic knowledge and ability required to work in an underground mine</a>	<a href="#">2</a>	<a href="#">6</a>
<a href="#">8922</a>	<a href="#">Conduct safety checks prior to equipment usage at an extractives site</a>	<a href="#">2</a>	<a href="#">2</a>

15672	Demonstrate knowledge of the Mines Rescue Service	2	2
21821	Supply, maintain, deliver, and store services for an underground mine	3	15

### Group 7: Tunnels

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credits</i>
7142	<del>Demonstrate knowledge of regulatory requirements to manage an extractive site</del> <del>Demonstrate knowledge of the application of regulatory requirements to manage an extractive site</del>	6	25
7143	Inspect and report on extractive site and operations	5	10
7144	Review and implement plans for ongoing operations of extractive site	5	15
8899	Plan storage for product processed at extractives sites	4	8
16686	Conduct an incident investigation at an extraction site	5	8
17705	<del>Develop and maintain basic ventilation systems in underground mines and tunnels</del> <del>Describe, develop, and maintain basic ventilation systems for an underground mine or tunnel</del>	4	15
21278	Describe, install, and reassess support systems for an underground mine	4	15

### Group 13: Explosives

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credit</i>
17694	Demonstrate knowledge of explosives and their properties	3	10
21152	<del>Demonstrate knowledge of storing explosives for use in extractive industries</del> <del>Demonstrate and apply knowledge of storing explosives for use</del>	4	10

<u><i>Unit No.</i></u>	<u><i>Title</i></u>	<u><i>Level</i></u>	<u><i>Credits</i></u>
<u>26856</u>	<u>Carry out the risk management processes at an extractive site</u>	<u>4</u>	<u>10</u>
<u>16686</u>	<u>Conduct an incident investigation at an extractive site</u>	<u>5</u>	<u>8</u>

<u><i>Unit No.</i></u>	<u><i>Title</i></u>	<u><i>Level</i></u>	<u><i>Credits</i></u>
<u>26855</u>	<u>Analyse human factors present in workplace practices to determine how they contribute to incidents at an extractive site</u>	<u>5</u>	<u>10</u>

<u><i>Unit No.</i></u>	<u><i>Title</i></u>	<u><i>Level</i></u>	<u><i>Credits</i></u>
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<a href="#">17279</a>	<a href="#">Demonstrate knowledge of the coordinated incident management system(CIMS)</a>	<a href="#">2</a>	<a href="#">2</a>
<a href="#">22445</a>	<a href="#">Describe the roles and functions of a CIMS Incident management Team</a>	4	<a href="#">4</a>

### **Certificate of competence as a coal mine deputy**

- (1) The holder of a certificate of competence as a coal mine deputy must have the qualifications and experience set out in paragraphs (2), (5) and (6), and one of paragraphs (3) or (4), as applicable.
- (2) The holder must have passed:
  - (a) the unit standards set out in Group D and in Groups 3 and 4 of the Appendix; and
  - (b) ~~if the holder works in an operation where explosives are used,~~ the unit standards set out in [Group 12 and Group 13 of the Appendix,](#) and
  - (c) ~~the unit standards 16856, 16686, 21629, 26855, 17279, 22445 or has been awarded the level 4 mining certificate.~~
- (3) The holder must satisfy ~~the secretary chair~~[WorkSafe New Zealand](#) that he or she has had at least 1 year's work experience actively engaged in the winning of coal and support of the face openings, if the holder is the holder of a certificate of competence as a first-class mine manager, [a certificate of competence as a first-class coal mine manager](#) or a certificate of competence as an A-grade tunnel manager.
- (4) In cases where paragraph (3) does not apply, the holder must satisfy the ~~secretary chair~~[WorkSafe New Zealand](#) that he or she has had at least 5 years' work experience in the underground workings of a coal mine or of a metalliferous mine or in tunnel construction, including:
  - (a) 2 years' work experience actively engaged in the winning of coal and support of the face openings; and
  - (b) 1 year's work experience in ~~some or all of~~ the shift work referred to in paragraph (7).
- (5) The holder must hold a [current](#) first-aid certificate ~~that:~~
  - ~~(a) shows that he or she is qualified to give first aid to persons requiring it; and~~
  - ~~(b) has been obtained by the holder within the 5 years immediately preceding the date of application for the coal mine deputy's certificate.~~
- ~~(6) The holder must hold a current certificate of competence as a gas tester issued under the regulations.~~
- (7) The shift work to which paragraph (4)(b) applies is:
  - (a) preparing for and installing either mechanical or hydraulic transport of coal;
  - (b) building permanent or temporary stoppings;
  - (c) [installation of auxiliary ventilation and erection of brattice;](#)
  - (d) erection of either steel or timber sets;
  - ~~(e) erection of other types of roof supports~~[\(f\) installation of roof bolts](#)
  - [\(g\) installation of services](#)

**Group D: For a certificate as a coal mine deputy**

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credits</i>
2401	Shut down and isolate machines and equipment	3	3
3271	Supress fire with hand extinguishers and fixed hose reels	2	1
7146	Demonstrate knowledge and ability to work in underground mine	2	6
8922	Conduct safety checks prior to equipment usage at an extractive site	2	2
15672	Demonstrate knowledge of mines rescue service	2	2
21821	Supply, maintain, deliver, and store services for an underground mine	3	15

**Group 3: Underground coal**

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credit</i>
7142	<del>Demonstrate knowledge of regulatory requirements to manage an extractive site</del> <del>Demonstrate knowledge of the application of regulatory requirements to manage an extractive site</del>	6	25
7143	Inspect and report on extractive site and operations	5	10
21278	Describe, install, and reassess support systems for an underground mine	4	15

**Group 4: Underground coal**

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credits</i>
7144	Review and implement plans for ongoing operations of extractive site	5	15
8899	Plan storage for product processed at extractives sites	4	8
16686	Conduct an incident investigation at an extraction site	5	8
17691	Use mathematics to solve problems in an extractive industries workplace	4	15
17705	<del>Develop and maintain basic ventilation systems in underground mines and tunnels</del> <del>Describe, develop, and maintain basic ventilation systems for an underground mine or tunnel</del>	4	15
21661	Demonstrate knowledge of the use of electrical reticulation plant and equipment in underground mines	4	10
21662	Demonstrate knowledge of development and extraction plant and methods for underground coal mining	4	15
21281	Interpret and test gases in an underground extraction site	4	15
22057	Demonstrate knowledge of fluid power systems used in underground mines and tunnels	4	10

## Explosives

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credit</i>
17694	Demonstrate knowledge of explosives and their properties	3	10
21152	<del>Demonstrate knowledge of storing explosives for use in extractive industries</del> Demonstrate and apply knowledge of storing explosives for use	4	10

<u><i>Unit No.</i></u>	<u><i>Title</i></u>	<u><i>Level</i></u>	<u><i>Credits</i></u>
<u>26856</u>	<u>Carry out the risk management processes at an extractive site</u>	<u>4</u>	<u>10</u>
<u>16686</u>	<u>Conduct an incident investigation at an extractive site</u>	<u>5</u>	<u>8</u>

<u><i>Unit No.</i></u>	<u><i>Title</i></u>	<u><i>Level</i></u>	<u><i>Credits</i></u>
<u>26855</u>	<u>Analyse human factors present in workplace practices to determine how they contribute to incidents at an extractive site</u>	<u>5</u>	<u>10</u>

<u><i>Unit No.</i></u>	<u><i>Title</i></u>	<u><i>Level</i></u>	<u><i>Credits</i></u>
<u>17279</u>	<u>Demonstrate knowledge of the coordinated incident management system(CIMS)</u>	<u>2</u>	<u>2</u>
<u>22445</u>	<u>Describe the roles and functions of a CIMS Incident management Team</u>	<u>4</u>	<u>4</u>

### ***Certificate of competence as a coal mine underviewer***

- (1) The holder of a certificate of competence as a coal mine underviewer must have the qualifications and experience set out in paragraphs (2), (5) and (6), and one of paragraphs (3) or (4), as applicable.
- (2) The holder must have passed:
  - (a) the unit standards set out in Group D and in Groups 3, 4 and 5 of the Appendix; and
  - (b) ~~if the holder works in an operation where explosives are used,~~ the unit standards set out in Group 12 and Group 13 of the Appendix, ~~and-~~
  - (c) the unit standards 16856, 16686, 26855, 17279, 22445 or has been awarded the level 5 mining certificate
- (3) The holder must satisfy the ~~secretary chair~~ WorkSafe New Zealand that he or she has had at least 1 year's work experience actively engaged in the winning of coal and support of the face openings, if the holder is the holder of a certificate of competence as a first-class mine manager, a certificate of competence as a first-class coal mine manager or a certificate of competence as an A-grade tunnel manager.
- (4) In cases where paragraph (3) does not apply, the holder must satisfy the ~~secretary chair~~ WorkSafe New Zealand that he or she has had at least 5 years' work experience

in the underground workings of a coal mine or of a metalliferous mine or in tunnel construction, including:

- (a) 2 years' work experience actively engaged in the winning of coal and support of the face openings; and
- (b) 1 year's work experience in ~~some or all of~~ the shift work referred to in paragraph (7).

- (5) The holder must hold a current first-aid certificate ~~that:~~  
~~(a) shows that he or she is qualified to give first aid to persons requiring it; and~~  
~~(b) has been obtained by the applicant within the 5 years immediately preceding the date of application for the certificate of competence as a coal mine underviewer.~~  
~~(6) The holder must hold a current certificate of competence as a gas tester issued under the regulations.~~

- (7) The shift work to which paragraph (4)(b) applies is:  
~~(a) preparing for and installing either mechanical or hydraulic transport of coal:~~  
~~(b) building permanent or temporary stoppings:~~  
~~(c) ventilation and erection of brattice:~~  
~~(d) erection of either steel or timber sets:~~  
~~(e) erection of other types of roof supports.~~
- (a) preparing for and installing either mechanical or hydraulic transport of coal:  
(b) building permanent or temporary stoppings:  
(c) installation of auxiliary ventilation  
(d) erection of either steel or timber sets:  
(f) installation of roof bolts  
(g) installation of services

**Group D: For a certificate of competence as a coal mine deputy**

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credits</i>
2401	Shut down and isolate machines and equipment	3	3
3271	Supress fire with hand extinguishers and fixed hose reels	2	1
7146	Demonstrate knowledge and ability to work in underground mine	2	6
8922	Conduct safety checks prior to equipment usage at an extractive site	2	2
15672	Demonstrate knowledge of mines rescue service	2	2
21821	Supply, maintain, deliver, and store services for an underground mine	3	15

**Group 3: Underground coal**

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credit</i>
7142	<del>Demonstrate knowledge of regulatory requirements to manage an extractive site</del> <u>Demonstrate knowledge of the application of regulatory requirements to manage an extractive site</u>	6	25
7143	Inspect and report on extractive site and operations	5	10
21278	Describe, install, and reassess support systems for an underground mine	4	15

#### Group 4: Underground coal

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credits</i>
7144	Review and implement plans for ongoing operations of extractive site	5	15
8899	Plan storage for product processed at extractives sites	4	8
16686	Conduct an incident investigation at an extraction site	5	8
17691	Use mathematics to solve problems in an extractive industries workplace	4	15
17705	<del>Develop and maintain basic ventilation systems in underground mines and tunnels</del> Describe, develop, and maintain basic ventilation systems for an underground mine or tunnel	4	15
21661	Demonstrate knowledge of the use of electrical reticulation plant and equipment in underground mines	4	10
21662	Demonstrate knowledge of development and extraction plant and methods for underground coal mining	4	15
21281	Interpret and test gases in an underground extraction site	4	15
22057	Demonstrate knowledge of fluid power systems used in underground mines and tunnels	4	10

#### Group 5: Underground coal

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credits</i>
7145	Design, establish and maintain effective ventilation systems in underground mines	5	20
15666	Demonstrate knowledge of the geology of underground extraction	4	10
17743	Demonstrate knowledge of surveying <del>tools and principles applicable and apply</del> to an extractive site	4	4
17744	Read and interpret an underground extractive site plan	4	5
21151	Demonstrate knowledge of planning rehabilitation operations of an extractive site	6	15
21153	<del>Demonstrate knowledge of dewatering, pump maintenance, cleaning settling ponds at extraction sites</del> Demonstrate and apply knowledge of dewatering, pump maintenance, and cleaning settling ponds at extraction sites	3	12
21823	Analyse and select mining and transportation plant for underground coalmines	6	15

#### Group 13: Explosives

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credit</i>
17694	Demonstrate knowledge of explosives and their properties	3	10
21152	<del>Demonstrate knowledge of storing explosives for use in extractive industries</del> Demonstrate and apply knowledge of storing explosives for use	4	10



<u>Unit No.</u>	<u>Title</u>	<u>Level</u>	<u>Credits</u>
<a href="#">26856</a>	<a href="#">Carry out the risk management processes at an extractive site</a>	4	<a href="#">10</a>
<a href="#">16686</a>	<a href="#">Conduct an incident investigation at an extractive site</a>	5	<a href="#">8</a>

<u>Unit No.</u>	<u>Title</u>	<u>Level</u>	<u>Credits</u>
<a href="#">26855</a>	<a href="#">Analyse human factors present in workplace practices to determine how they contribute to incidents at an extractive site</a>	5	<a href="#">10</a>

<u>Unit No.</u>	<u>Title</u>	<u>Level</u>	<u>Credits</u>
<a href="#">17279</a>	<a href="#">Demonstrate knowledge of the coordinated incident management system(CIMS)</a>	2	<a href="#">2</a>
<a href="#">22445</a>	<a href="#">Describe the roles and functions of a CIMS Incident management Team</a>	4	<a href="#">4</a>

### **Certificate of Competence as a Supervisor**

1) [The holder of a certificate of competence as a supervisor must have the qualifications set out in paragraphs](#)

(A) [A supervisor of an underground metalliferous mining operation must hold a B-grade tunnel manager, an A-grade tunnel manager, or a first class mine manager](#)

(B) [A supervisor of a tunnelling operation must hold a current certificate of competence as B-grade tunnel manager or an A-grade tunnel manager](#)

(C) [A supervisor of an opencast coal mining operation must hold a current certificate of competence as a B-grade opencast coal mine manager or an a-grade opencast coal mine manager](#)

(D) [A supervisor of an opencast metalliferous mining operation must hold a current certificate of competence as a B-grade quarry manager, an A-grade quarry manager, or a first class mine manager.](#)

### **Certificate of competence as a mine surveyor**

- 1) [The holder of a certificate of competence as a mine surveyor must have the qualifications and experience set out in paragraph 2\), 3 and 4](#)
- 2) [The holder must have passed the unit standards set out below](#)
- 3) [The holder must be the holder of a New Zealand Diploma of Surveying, or the holder of a degree in surveying conferred by a New Zealand University or other university acceptable to the chair](#)

- 4) The holder must have had at least 3 years' practical experience in surveying including:
- (a) 6 months' work experience in opencast and topographical surveying; and
  - (b) 6 months' work experience in engineering surveying; and
  - (c) 6 months' work experience underground in the surveying of mines, and
  - (d) 3 months' work experience in boundary definition work comprising field and office work.

**Group E: For a certificate of competence as a mine surveyor**

<u>Unit No.</u>	<u>Title</u>	<u>Level</u>	<u>Credits</u>
<u>7146</u>	<u>Demonstrate basic knowledge and ability required to work in an underground mine</u>	<u>2</u>	<u>6</u>
<u>15665</u>	<u>Demonstrate knowledge of the geology of surface extraction</u>	<u>4</u>	<u>5</u>
<u>15666</u>	<u>Demonstrate knowledge of the geology of underground extraction</u>	<u>4</u>	<u>10</u>
<u>17741</u>	<u>Demonstrate specialist underground survey techniques</u>	<u>6</u>	<u>15</u>
<u>17742</u>	<u>Survey and draw an underground extractive site plan</u>	<u>6</u>	<u>20</u>
<u>17745</u>	<u>Survey and draw a surface extractive site plan</u>	<u>5</u>	<u>10</u>
<u>17696</u>	<u>Demonstrate knowledge and ability to work at a surface extraction site</u>	<u>2</u>	<u>4</u>
<u>7142</u>	<u>Demonstrate knowledge of the application of regulatory requirements to manage an extractive site</u>	<u>6</u>	<u>25</u>

### Certificate of competence as a ventilation officer

- 1) [The holder of a certificate of competence as a ventilation officer must have the qualifications and experience set out in paragraph 2\) and 5\) and requirements set out in either paragraph 3\) or 4\) and must be the holder of a certificate of competence as either a first-class mine manager or a first-class coal mine manager or a coal mine underviewer or an A-Grade tunnel manager](#)
- 2) [The holder must have passed the unit standards set out below](#)
- 3) [The holder must have passed the unit standards 7145 and 21280](#)
- 4) [The holder must have passed an Australian ventilation officer qualification or unit standard 23550](#)
- 5) [The holder must have not less than 2 years' work experience in an underground mining operation.](#)

#### **Group F: For a certificate of competence as a ventilation officer**

<u>Unit No.</u>	<u>Title</u>	<u>Level</u>	<u>Credits</u>
<a href="#">7142</a>	<del>Demonstrate knowledge of regulatory requirements to manage an extractive site</del> <a href="#">Demonstrate knowledge of the application of regulatory requirements to manage an extractive site</a>	<a href="#">6</a>	<a href="#">25</a>
<a href="#">7146</a>	<a href="#">Demonstrate knowledge and ability to work in an underground mine</a>	<a href="#">2</a>	<a href="#">6</a>
<a href="#">2401</a>	<a href="#">Shut down and isolate machines and equipment</a>	<a href="#">3</a>	<a href="#">3</a>
<a href="#">3271</a>	<a href="#">Suppress fires with hand extinguishers and fixed hose reels</a>	<a href="#">2</a>	<a href="#">1</a>
<a href="#">8922</a>	<a href="#">Conduct safety checks prior to equipment usage at an extractive site</a>	<a href="#">2</a>	<a href="#">2</a>
<a href="#">17744</a>	<a href="#">Read and interpret an underground extraction site plan</a>	<a href="#">4</a>	<a href="#">5</a>
<a href="#">21821</a>	<a href="#">Supply, maintain, deliver and store services for an underground mine</a>	<a href="#">3</a>	<a href="#">15</a>

#### **Paragraph 3 unit standards**

<u>Unit No.</u>	<u>Title</u>	<u>Level</u>	<u>Credits</u>
7145	Design, establish and maintain effective ventilation systems in underground mines	5	20

<u>Unit No.</u>	<u>Title</u>	<u>Level</u>	<u>Credits</u>
21280	Demonstrate knowledge of and design an effective ventilation system in an underground mine	6	20

#### **Paragraph 4 unit standards**

<u>Unit No.</u>	<u>Title</u>	<u>Level</u>	<u>Credits</u>
<a href="#">23550</a>	<a href="#">Manage the mine ventilation system at an extractive site</a>	<a href="#">7</a>	<a href="#">30</a>

**Certificate of competence as a winding engine driver**

- (1) The holder a certificate of competence as a winding engine driver must have passed the unit standards set out in Group 11 of the Appendix.
- (2) The applicant for a certificate of competence as a winding engine driver must demonstrate to the satisfaction of the [secretary WorkSafe New Zealand](#) that:
  - (a) he or she has the ability to operate a winder and respond to standard industry signals: and
  - (b) he or she has knowledge of, and the appropriate skill to respond to, emergency procedures.

**Group 11: Winding Engines**

<i>Unit No</i>	<i>Title</i>	<i>Level</i>	<i>Credit</i>
7164	<del>Operate a manually controlled winding engine in an underground mine</del> Describe and operate a winding engine in an underground extractive site	4	6

**Certificate of competence as a mechanical superintendent**

- 1) The holder of a certificate of competence as a mechanical superintendent must have the qualifications and experience set out in paragraph 2) and one of the paragraphs 3) and 4).
- 2) [The holder must have passed the unit standards set out below](#)
- 3) [The holder must have a national qualification in mechanical engineering and must have a minimum of 3 years' experience working in the extractive or heavy industry to the satisfaction of WorkSafe New Zealand](#)

OR

- 3)4) [The holder must have a degree in mechanical engineering conferred by a New Zealand university or by another university approved by WorkSafe New Zealand and must have one year's work experience in the extractive or heavy industry to the satisfaction of WorkSafe New Zealand.](#)

- 5) [The holder must hold a current first aid certificate.](#)

[Group G: :For a certificate of competence as a mechanical superintendent](#)

<i>Unit No.</i>	<i>Title</i>	<i>Level</i>	<i>Credits</i>
26856	<a href="#">Carry out the risk management processes at an extractive</a>	4	10

	<a href="#">site</a>		
<a href="#">16686</a>	<a href="#">Conduct an incident investigation at an extractive site</a>	<a href="#">5</a>	<a href="#">8</a>

<a href="#">Unit No.</a>	<a href="#">Title</a>	<a href="#">Level</a>	<a href="#">Credits</a>
<a href="#">7142</a>	<a href="#">Demonstrate knowledge of regulatory requirements to manage an extractive site</a> <a href="#">Demonstrate knowledge of the application of regulatory requirements to manage an extractive site</a>	<a href="#">6</a>	<a href="#">25</a>
<a href="#">7146</a>	<a href="#">Demonstrate knowledge and ability to work in an underground mine</a>	<a href="#">2</a>	<a href="#">6</a>
<a href="#">2401</a>	<a href="#">Shut down and isolate machines and equipment</a>	<a href="#">3</a>	<a href="#">3</a>
<a href="#">3271</a>	<a href="#">Suppress fires with hand extinguishers and fixed hose reels</a>	<a href="#">2</a>	<a href="#">1</a>
<a href="#">8922</a>	<a href="#">Conduct safety checks prior to equipment usage at an extractive site</a>	<a href="#">2</a>	<a href="#">2</a>
<a href="#">17744</a>	<a href="#">Read and interpret an underground extraction site plan</a>	<a href="#">4</a>	<a href="#">5</a>
<a href="#">21821</a>	<a href="#">Supply, maintain, deliver and store services for an underground mine</a>	<a href="#">3</a>	<a href="#">15</a>

<a href="#">Unit No.</a>	<a href="#">Title</a>	<a href="#">Level</a>	<a href="#">Credits</a>
<a href="#">22903</a>	<ul style="list-style-type: none"> <li><a href="#">• Demonstrate knowledge of modern manufacturing concepts and their significance in plant maintenance</a></li> <li><a href="#">• Demonstrate knowledge of modern engineering plant maintenance practice</a></li> <li><a href="#">• Demonstrate planned maintenance work on mechanical equipment</a></li> </ul>		
<a href="#">22904</a>			
<a href="#">22905</a>			

### **[Certificate of competence as an electrical superintendent](#)**

[The holder of a certificate of competence as an electrical superintendent must have the qualifications and experience set out in paragraphs 2\) and 3\) and one of the paragraphs 3\) and 4\).](#)

- 1) [The holder must have passed:](#)
  - a) [the unit standards 21281,26856, 16686 and 26855](#)
  - a)b) [the unit standards set out below](#)
  
- 2) [The holder must have a trade certificate/national qualification in electrical engineering and must have a minimum of 3 years' experience working in the extractive or heavy industry to the satisfaction of the chair](#)
  
- 3) [The holder must hold a current electrical registration certificate](#)

- 4) [The holder must have a degree in electrical engineering conferred by a New Zealand university or by another university approved by the chair and must have one year's work experience in the extractive or heavy industry](#)
- 5) [The holder must hold a current first aid certificate](#)

**Group H: For a certificate of competence as an electrical superintendent**

<u>Unit No.</u>	<u>Title</u>	<u>Level</u>	<u>Credits</u>
<a href="#">26856</a>	<a href="#">Carry out the risk management processes at an extractive site</a>	4	<a href="#">10</a>
<a href="#">16686</a>	<a href="#">Conduct an incident investigation at an extractive site</a>	5	<a href="#">8</a>

<u>Unit No.</u>	<u>Title</u>	<u>Level</u>	<u>Credits</u>
<a href="#">7142</a>	<a href="#">Demonstrate knowledge of regulatory requirements to manage an extractive site</a> <a href="#">Demonstrate knowledge of the application of regulatory requirements to manage an extractive site</a>	6	<a href="#">25</a>
<a href="#">7146</a>	<a href="#">Demonstrate knowledge and ability to work in an underground mine</a>	2	<a href="#">6</a>
<a href="#">2401</a>	<a href="#">Shut down and isolate machines and equipment</a>	3	<a href="#">3</a>
<a href="#">3271</a>	<a href="#">Suppress fires with hand extinguishers and fixed hose reels</a>	2	<a href="#">1</a>
<a href="#">8922</a>	<a href="#">Conduct safety checks prior to equipment usage at an extractive site</a>	2	<a href="#">2</a>
<a href="#">17744</a>	<a href="#">Read and interpret an underground extraction site plan</a>	4	<a href="#">5</a>
<a href="#">21821</a>	<a href="#">Supply, maintain, deliver and store services for an underground mine</a>	3	<a href="#">15</a>

<u>Unit No.</u>	<u>Title</u>	<u>Level</u>	<u>Credits</u>
<a href="#">22903</a>	<ul style="list-style-type: none"> <li>• <a href="#">Demonstrate knowledge of modern manufacturing concepts and their significance in plant maintenance</a></li> <li>• <a href="#">Demonstrate knowledge of modern engineering plant maintenance practice</a></li> <li>• <a href="#">Demonstrate planned maintenance work on mechanical equipment</a></li> <li>— <a href="#">Inspect, test and maintain diesel engine systems and their ancillary equipment (ASNZ3584.3 Diesel engine systems for U/G coal mines. Part 3 maintenance)</a></li> </ul>		
<a href="#">22904</a>			
<a href="#">22905</a>			
<a href="#">RIIDES301</a>			