



## **Summary of review and consultation process**

Industry representatives for underground extraction met during 2003 to review unit standards in the underground extraction domain. Unit standards were reviewed for currency of industry practice, clarity of expression, assessability of content, elimination of restrictions to achievement, updating references, and evaluation of credit values. Submissions from industry were taken into account during the review process and other stakeholders were contacted to review drafts.

The NZ Extractive Industries Training Organisation is currently reviewing the following unit standards in the Underground Extraction domain 7145-7148, 7150-7155, 7169, 8920, 8921, 12632, 15662, 15666, 15668-5670, 17705, 17741-17742, 17746, the Extractive Industries Management domain 15659, 15660, 15672 and 17744, and the Surface Extraction domain 17745, 17979-17993.

## **Main changes resulting from the review**

The review process resulted in the following changes to the unit standards.

- Unit standards 7168, 8890, 8894, 8910, 8912, 8913 and 15661 were replaced with unit standards 21151-21157.
- Level and credit values were reviewed and updated to better reflect the content and purpose of each unit standard and time required for learning and assessment.
- Technical content was updated.
- Special notes were added and others amended in order to clarify the unit standards.
- References to legislation and regulations in special notes were updated.
- Some changes were made to performance criteria, elements, and titles.

**Unit standards categorised as category C expire at the end of December 2006.**

## **Impact on existing provider accreditations**

None.

## **Impact on Accreditation and Moderation Action Pan (AMAP)**

AMAP 0114 was updated to reflect the changes made to the unit standards.

## **Impact on existing qualifications**

The following Extractive Industries Training Organisation qualifications are affected by the outcome of this review, and will be reviewed to take account of the changes made during 2004 and 2005. Providers are invited to forward their comments directly to the NZ Extractive Industries Training Organisation.

Qualification Title	Id
National Certificate in Extractive Industries (Introductory Skills) with strands in Surface Extraction, and Underground Extraction [Ref: 0247]	17696
National Certificate Extractive Industries (Operations) with strands in Surface Extraction and Underground Extraction [Ref: 0248]	17696, 17695
National Certificate Extractive Industries (Supervision) with strands in Surface Extraction and Underground Extraction [Ref: 0249]	8894, 17695, 17696, 8902
National Certificate in Extractive Industries (Shotfiring) with strands in Surface Extraction, Underground Metalliferous Extraction, Underground Coal Extraction, and Tunnelling [Ref: 0391]	8890, 8918, 8907
National Certificate in Extractive Industries (Mineral Processing – Lime Mill Processing) [Ref: 0474]	14868, 17695
National Diploma in Extractive Industries (Mineral Processing – Metalliferous Gold) [Ref: 0475]	8908
National Certificate in Extractive Industries (Land Operations Using Explosives) (Level 3) [Ref: 0802]	8890
National Certificate in Extractive Industries (Construction Blasting) (Level 4) [Ref: 0803]	8890
National Diploma in Extractive Industries (Management) with strands in Surface Extraction, Underground Coal Extraction, and Underground Metalliferous Extraction/Tunnelling [Ref: 0806]	15661, 15663, 8910, 16886
National Diploma in Extractive Industries (Mining Electrical Engineering Hazardous Areas) (Level 5) NQF [Ref: 0805]	17695
National Certificate in Extractive Industries (Mining Electrical Engineering Non-hazardous Areas) (Level 5) NQF [Ref: 0804]	17695

The following qualification was not materially affected by the changes. It will be updated when it is next reviewed or revised.

- National Certificate in Extractive Industries (Land Operations Using Explosives) (Level 2) [Ref: 0802]

## Summary of main changes to standards' Ids, classification, titles, levels, and credits

The following summary shows the changes made to the standards as a result of the review. All changes are in **bold**.

### Key to review category

- A** Dates changed, but no other changes are made – the replacement standard carries the same Id and a new version number
- B** Changes made, but the overall outcome remains the same – the replacement standard carries the same Id and a new version number
- C** Major changes that necessitate the registration of a replacement standard with a new Id
- D** Standard will expire and not be replaced

Subfield      Extractive Industries  
Domain        Extractive Industries Management

Id	Title	Level	Credit	Review Category
7142	Demonstrate knowledge of regulatory requirements to manage an extractive site	6	20	B
7143	Inspect and report on extractive site and operations	5	10	B
7144	Review and implement plans for ongoing operations of extractive site <b>Review and implement plans for ongoing operations of an extractive site</b>	5	15	B
7168 21151	Determine and plan reclamation operations of an extractive site <b>Demonstrate knowledge of planning rehabilitation operations of an extractive site</b>	6	15	C
8890 21152	Store explosives for use in extractive industries <b>Demonstrate knowledge of storing explosives for use in extractive industries</b>	4	10	C
8899	Plan storage for product processed at extractive sites	4	8	B
15658	Select excavation and transportation plant for surface extraction	4	8	B
15661 21157	Select processing plant for extractive industries <b>Demonstrate knowledge of and select crushing and screening plant for extractive industries</b>	4	7	C
16686	Conduct an incident investigation at an extraction site	5	2 <b>8</b>	B
16687	Demonstrate knowledge of hazardous substances at an extractive site	3	1 <b>3</b>	B
17694	Demonstrate knowledge of explosives and their properties	2	2	B
17695	Lift and move a range of loads at an extractive site	2 <b>3</b>	6 <b>10</b>	B

Domain Surface Extraction				
<b>Id</b>	<b>Title</b>	<b>Level</b>	<b>Credit</b>	<b>Review Category</b>
8891	Carry out hydraulic sand extraction operations	4	12	B
8892	Blend product using an aggregate blending plant for extractive industries <b>Blend product using a blending plant for extractive industries</b>	4	8	B
8893	Carry out weighbridge operations for extractive industries	3	10	B
8894 21153	Dewater extraction sites <b>Demonstrate knowledge of dewatering, pump maintenance, cleaning settling ponds at extraction sites</b>	3	10 12	C
8895	Supervise loading out of materials from extractive sites	4	12	B
8897	Adjust jaws on aggregate crushing plant for extractive industries <b>Adjust jaws on crushing plant for extractive industries</b>	3	10	B
8898	Adjust cone crusher on aggregate crushing plant for extractive industries <b>Adjust cone crusher on crushing plant for extractive industries</b>	3	10	B
8900	Clean surface extraction production plant and equipment	2	5	B
8901	Make and spread aggregate stockpiles <b>Make and spread stockpiles for an extractive site</b>	2	3	B
8902	Prepare and implement safety plans for quarry face and benching operations <b>Prepare and implement safety plans for surface face and benching operations</b>	4	4	B
8903	Maintain mesh screens on aggregate production plants <b>Maintain mesh screens on production plant</b>	2	5	B
8904	Produce roading aggregates using a mobile crushing plant <b>Produce product using a mobile crushing plant</b>	4	25	B
8905	Construct and maintain access roads within quarries and aggregate production sites <b>Construct and maintain access roads within surface extraction sites</b>	3	3	B
8906	Apply water to surfaces and product stockpiles <b>Apply water to surfaces and stockpiles at an extractive site</b>	2	2	B
8907	Design blasting layouts within quarries and aggregate production areas <b>Design blasting layouts within surface operation production areas</b>	4	20	B

Id	Title	Level	Credit	Review Category
8908	Inspect and maintain conveyors and screens <b>Inspect and maintain conveyors and screens at a surface extraction site</b>	3	5	B
8909	Maintain working surfaces at surface extraction sites	2	2	B
8910 <b>21154</b>	Manage surface extraction site to minimise environmental impact <b>Demonstrate knowledge of procedures to minimise environmental impact at an extraction site</b>	5	7	C
8911	Operate a static primary crushing plant	2	12	B
8912 <b>21155</b>	Use water at surface extraction sites <b>Review consent conditions and demonstrate knowledge of the use of water at surface extraction sites</b>	3	10	C
8913 <b>21156</b>	Plan and manage aggregate production to minimise environmental impacts <b>Plan, implement, and describe surface extraction production to minimise environmental impacts</b>	5	15	C
8914	Arrange for laboratory testing of crushed stone and rock aggregates	4	15	B
8915	Conduct drilling operations <b>Conduct drilling operations at a surface extractive site</b>	3	20	B
8916	Operate secondary and tertiary crushing plant	4	25	B
8917	Operate haul trucks on surface extraction sites	2	6	B
8918	Carry out shotfiring operations <b>Carry out shotfiring operations at a surface extraction site</b>	3	12	B
8922	Conduct safety checks prior to equipment usage at an extractive site	2	2	B
14868	Operate a lime mill processing plant <b>Demonstrate knowledge of and operate a lime mill processing plant</b>	4	45	B
14870	Operate a rope excavator	3	12	B
15663	Design and maintain sloping surfaces in surface excavations and stockpiles <b>Design and maintain stockpiles and sloping surfaces in surface excavations and stockpiles</b>	6	20	B
15664	Demonstrate knowledge of the geological nature of surface extraction sites	3	5	B
15665	Demonstrate knowledge of the geology of surface extraction	4	5	B
15667	Demonstrate knowledge of surface extraction methods <b>Demonstrate knowledge of extraction methods and the effects of geological features on these methods</b>	5	10	B

Id	Title	Level	Credit	Review Category
16690	Evaluate a mine plan, interpret and execute procedures <b>Evaluate a mine plan, interpret, and execute sampling procedures</b>	4	12	B
16694	Control quality of aggregate produced by mobile and static plant	3	2 4	B
16695	Create a quarry safety management system document	5	2	B
17696	Demonstrate knowledge and ability to work at a surface extraction site <b>Describe and apply basic skills and knowledge required to work at a surface extraction site</b>	2	3 4	B