

Title	Demonstrate knowledge of construction and maintenance of roads working surfaces <u>within at a surfacean</u> extraction <u>extractive</u> site		
Level	3	Credits	5

Purpose	People credited with this unit standard are able to: evaluate existing features of site roadsworking surfaces ; plan <u>demonstrate knowledge of</u> the layout of site roadsworking surfaces for an surface extraction <u>extractive</u> site; describe construction methods and equipment for site roadsworking surfaces within at an surface extraction <u>extractive</u> site; and describe methods for maintaining site roadsworking surfaces in at a surfacean extraction <u>extractive</u> site.
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Classification	Extractive Industries > Surface Extraction <u>Extractive Industries Management</u>
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Available grade	Achieved
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Explanatory notes **Guidance Information**

- Performance of the outcomes of this unit standard must comply with the following:
 - ~~—Health and Safety at Work Act 2015 (HSW);~~
 - ~~Health and Safety at Work (General Risk and Workplace Management) Regulations 2016;~~
 - ~~Health and Safety at Work (Mining Operations and Quarrying Operations) Regulations 2016;~~
 - ~~Health and Safety at Work (Worker Engagement, Participation, and Representation) Regulations 2016;~~
 - ~~approved codes of practice issued pursuant to the HSW Act~~ ~~Health and Safety in Employment Act 1992 (HSE);~~
 - ~~Health and Safety in Employment Regulations 1995;~~
 - ~~Health and Safety in Employment (Mining Operations and Quarrying Operations) Regulations 2013;~~
 - ~~approved codes of practice issued pursuant to the HSE Act;~~
 - Resource Management Act 1991;
 - Crown Minerals Act 1991;
 - Territorial and/or Local Authority requirements.
- Any new, amended or replacement Acts, regulations, standards, codes of practice, guidelines, or authority requirements or conditions affecting this unit standard will take precedence for assessment purposes, pending review of this unit standard.
- Definitions

Company procedures mean the documented methods for performing work activities and include health and safety, operational, environmental, and quality management

requirements. They may refer to legislation, regulations, guidelines, standard operating procedures, manuals, codes of practice, or policy statements.

Industry best practice may be documented in management plans, control plans, company procedures, managers' rules, occupational health and safety policy, industry guidelines, codes of practice, manufacturers' instructions, and safe working and/or job procedures (or equivalent).

4 This unit standard is intended for, but is not limited to, workplace assessment.

5 All evidence for assessment against this unit standard must be in accordance with industry best practice and company procedures.

Outcomes and ~~evidence requirements~~performance criteria

Outcome 1

Evaluate existing features of ~~site roads~~working surfaces ~~within at an~~ ~~surface extraction~~extractive site.

Performance criteria~~Evidence requirements~~

1.1 Existing ~~topographical-geometric~~ features are evaluated in terms of their effect on site ~~roads~~working surfaces ~~in accordance with company procedures and industry best practice.~~

Range may include but is not limited to – gradients, potential roads, widths, elevations, alignment.

1.2 Existing drainage features are evaluated ~~in accordance with company procedures and industry best practice.~~

Range may include but is not limited to – natural water channels, streams, rivers, waterways, inlets, outlets.

Outcome 2

~~Plan~~ Demonstrate knowledge of the layout of ~~site roads~~working surfaces for an ~~surface extraction~~extractive site.

Performance criteria~~Evidence requirements~~

2.1 ~~Site~~Site layout, signposting, and safety controls ~~are planned~~are explained in accordance with the site safety plans ~~and company procedures and/or industry best practice.~~

Range may include but is not limited to – safety barriers, speed signs, fences, suitably controlled vehicular access, principal hazard management plans (PHMPs).

2.2 ~~Stormwater~~ The design of stormwater runoff control is ~~designed~~ explained in accordance with resource consent conditions, and site plans, ~~and company procedures and/or industry best practice.~~

Range may include but is not limited to – culverts, open channels, road crown, sumps, discharge, entry.

2.3 ~~Type~~ Specifications for type and quantity of roading materials are specified described in accordance with projected vehicle loading use, type of mobile plant and equipment in use, and site safety plans, ~~and company procedures and/or industry best practice.~~

Range may include but is not limited to – hardfill, drainage material, sub-base, basecourse, topcourse, sand.

2.4 Roadway geometric layout is ~~designed~~ explained in accordance with projected usage requirements of vehicles and, site safety plans ~~and/or company procedures and/or industry best practices.~~

Range may include but is not limited to – road width, corner super elevation, gradient, crossfall, alignment.

Outcome 3

Describe construction methods and equipment for ~~site roads~~ working surfaces within at an ~~surface~~ ~~extraction~~ ~~extractive~~ site.

Performance criteria ~~Evidence requirements~~

3.1 The selection process for construction equipment is described in accordance with the site plans ~~and company procedures and/or industry best practice.~~

Range may include but is not limited to – excavator, bulldozer, motor scraper, grader, trucks, front-end loader, dumper, rollers.

3.2 The selection process for road construction material is described in accordance with the site plans ~~and company procedures and/or industry best practice.~~

Range may include but is not limited to – hardfill, sub-base, drainage material, basecourse, topcourse, sand.

3.3 The formation of roads working surfaces is described in accordance with the site plans ~~and company procedures and/or industry best practice.~~

Range alignment, width, gradient, super elevation, crossfall, crown level, water table level.

3.4 The control of natural waterways encountered is described in accordance with resource consent conditions, and site plans, ~~and company procedures and/or industry best practice.~~

Range may include but is not limited to – culverts, pipes, field drains, bridges, abutments.

Outcome 4

Describe methods for maintaining ~~site roads working surfaces in at an surface extraction extractive~~ site.

Performance criteria~~Evidence requirements~~

4.1 Maintenance of road shape and alignment are described in accordance with the site plans ~~and company procedures and/or industry best practice~~.

Range may include but is not limited to – crossfall, undulations, wheel tracking, slips, grader, bulldozer, basecourse material, ~~regular basis~~.

4.2 Maintenance and clearance ~~of access road working surface~~ stormwater runoff facilities are described in accordance with the site plans ~~and company procedures and/or industry best practice~~.

Range may include but is not limited to – drains, water tables, sumps, culverts, pipes.

Planned review date	31 December 2019 <u>2022</u>
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	26 November 1996	31 December 2017
Revision	2	17 December 1996	31 December 2017
Revision	3	18 December 1998	31 December 2017
Revision	4	17 April 2002	31 December 2017
Review	5	27 January 2005	31 December 2017
Rollover and Revision	6	16 July 2010	31 December 2017
Rollover and Revision	7	19 September 2013	31 December 2017
Review	8	18 June 2015	N/A <u>31 December 2019</u>
<u>Review</u>	<u>9</u>		<u>N/A</u>

Consent and Moderation Requirements (CMR) reference	0114
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Please note

~~Providers must be granted consent to assess against standards (accredited) by NZQA, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.~~

~~Industry Training Organisations must be granted consent to assess against standards by NZQA before they can register credits from assessment against unit standards.~~

~~Providers and Industry Training Organisations, which have been granted consent and which are assessing against unit standards must engage with the moderation system that applies to those standards.~~

~~Requirements for consent to assess and an outline of the moderation system that applies to this standard are outlined in the Consent and Moderation Requirements (CMR). The CMR also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.~~

Comments on this unit standard

~~[Please contact MITO New Zealand Incorporated info@mito.org.nz if you wish to suggest changes to the content of this unit standard.](mailto:info@mito.org.nz)~~

~~[Please contact the NZ Motor Industry Training Organisation \(Incorporated\) \(MITO\) info@mito.org.nz if you wish to suggest changes to the content of this unit standard.](mailto:info@mito.org.nz)~~