

<b>Title</b>	<b>Operate an excavator safely for surface work at an extractive site</b>		
<b>Level</b>	<b>3</b>	<b>Credits</b>	<b>8</b>

<b>Purpose</b>	<p>This unit standard is for people operating excavators for surface work at an extractive site.</p> <p>People credited with this unit standard are able to, for surface work at an extractive site: describe safe work practices, environmental issues, and emergency procedures for operating an excavator; operate an excavator to load and place materials; and operate an excavator to excavate and strip materials.</p>
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<b>Classification</b>	Extractive Industries > Surface Extraction
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<b>Available grade</b>	Achieved
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<b>Prerequisites</b>	Unit 8922, <i>Conduct safety checks before and after equipment use at an extractive site</i> , or demonstrate equivalent knowledge and skills.
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**Guidance Information**

- 1 Performance of the outcomes of this unit standard must comply with the following:  
 Resource Management Act 1991;  
 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 (Worker Engagement, Participation, and Representation) Regulations 2016;  
 Health and Safety at Work (Mining Operations and Quarrying Operations) Regulations 2016;  
 approved codes of practice issued pursuant to the HSW Act.
  
- 2 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.
  
- 3 **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.

*Dry* means the surface is dry to touch and no rain falls during the task.

*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).

*Job instructions* are those given to the operator before undertaking a job. They may include site safety instructions, contract drawings, and written memos.

*Wet* means it has been raining for more than one hour before starting and is still raining during and on completion of the task.

- 4 Personal protective equipment must be used throughout operations in accordance with industry best practice and/or company procedures.
- 5 Assessment against this unit standard must be based on evidence from an extractives industry site.
- 6 It is recommended that people seeking credit for this unit standard first hold credit for Unit 16703, *Demonstrate knowledge and skills for driving on a road for endorsement T (tracks)*, or demonstrate equivalent knowledge and skills; and class of driver licence required for the vehicle being driven.

## Outcomes and performance criteria

### Outcome 1

Describe safe work practices, environmental issues, and emergency procedures for operating an excavator at an extractive site.

### Performance criteria

- 1.1 Safe work practices for excavator operation are described in accordance with industry best practice and/or company procedures.
 

Range	includes but is not limited to – vehicle interactions, pedestrians, edge protection, ground stability, overhead lines.
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- 1.2 Emergency procedures for operating an excavator are described in accordance with industry best practice and/or company procedures.
 

Range	operation and maintenance manuals (safety section), warning systems, isolating systems, extinguishers, site safety plan; may include – two-way radio procedures.
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- 1.3 Environmental issues related to the work site are described in terms of the impact of excavator operations.
- 1.4 The methods for controlling and monitoring adverse effects on the environment during excavator operations are described in accordance with legislative requirements, industry best practice, and/or company procedures.

**Outcome 2**

Operate an excavator to load and place materials for surface work at an extractive site.

Range may include but is not limited to – reversing, working on slope, working on benches, working on unstable ground, wet or dry conditions, day or night shift.

**Performance criteria**

2.1 Pre-start checks are carried out in accordance with industry best practice, company procedures, and/or manufacturer's instructions.

Range includes – walk-around inspection, fuel, lubricants, water levels, hydraulic fluid level;  
may include but is not limited to – cleanliness of windows, battery isolated, machine not tagged out, seatbelt.

2.2 The excavator is mounted and dismounted in accordance with the principle of three points of contact.

2.3 Post-start checks are carried out in accordance with industry best practice, company procedures, and/or manufacturer's instructions.

Range includes but is not limited to – warning systems, brakes, lights, leaks, gauges, operating controls.

2.4 Identified health and safety hazards are controlled and monitored in accordance with legislative requirements and company procedures.

2.5 Material is loaded to truck and/or hopper, or placed on ground to specified quantity with minimal spillage, and quality of material grading is maintained (where applicable), in accordance with industry best practice and/or company procedures.

2.6 Communication is maintained with load vehicle driver in accordance with industry best practice and/or company procedures.

Range may include but is not limited to – giving direction for the positioning of load vehicles, audible signals, bucket positioning, two-way radio procedures.

2.7 Material is placed in truck and/or hopper, or placed on ground in accordance with industry best practice and/or company procedures.

Range load – placement, distribution, size.

2.8 Excavator is parked, shut down, and maintained in accordance with industry best practice, company procedures, and/or manufacturer's instructions.

2.9 Documentation is completed in accordance with company procedures.

**Outcome 3**

Operate an excavator to excavate and strip materials for surface work at an extractive site.

Range may include but is not limited to – reversing, working on slope, working on benches, working on unstable ground, wet or dry conditions, day or night shift.

**Performance criteria**

3.1 Pre-start checks are carried out in accordance with industry best practice, company procedures, and/or manufacturer's instructions.

Range includes – walk-around inspection, fuel, lubricants, water levels, hydraulic fluid level;  
may include but is not limited to – cleanliness of windows, battery isolated, machine not tagged out, seatbelt.

3.2 The excavator is mounted and dismounted in accordance with the principle of three points of contact.

3.3 Post-start checks are carried out in accordance with industry best practice, company procedures, and/or manufacturer's instructions.

Range includes but is not limited to – warning systems, brakes, lights, leaks, gauges, operating controls.

3.4 Identified health and safety hazards are controlled and monitored in accordance with legislative requirements and company procedures.

3.5 Communication is maintained with other vehicles and/or machinery in accordance with industry best practice and/or company procedures.

Range may include but is not limited to – audible signals, two-way radio procedures, hand signals.

3.6 Material is stripped to contour and depth and placed in accordance with job instructions.

3.7 Area for specified job is excavated to the depth and level in accordance with job instructions.

3.8 Material is stockpiled without contamination or segregation in accordance with industry best practice and/or company procedures.

3.9 Excavator is parked, shut down, and maintained in accordance with industry best practice, company procedures, and/or manufacturer's instructions.

3.10 Documentation is completed in accordance with company procedures.

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

<b>Process</b>	<b>Version</b>	<b>Date</b>	<b>Last Date for Assessment</b>
Registration	1	15 April 2011	31 December 2017
Review	2	18 June 2015	N/A
Rollover and Revision	3	25 January 2018	N/A

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

**Comments on this unit standard**

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