

Title	Conduct drilling operations at a surface extractive site		
Level	3	Credits	20

Purpose	People credited with this unit standard are able to: carry out pre-start checks for drilling operations; check that the machine is 'warmed up' and that the hydraulic and/or pneumatic system is operating; drill holes for blasting; and complete shut-down procedures and maintenance checks for drilling operations.
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Classification	Extractive Industries > Surface Extraction
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Available grade	Achieved
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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 (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;
Instruction Manual for Operation of Drilling Systems;
Occupational health and safety guidelines available at, <https://worksafe.govt.nz/>.
- 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.
- Definition**
Site requirements and *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 manuals, codes of practice, or policy statements.
- This unit standard is intended for, but is not limited to, workplace assessment.

Outcomes and performance criteria

Outcome 1

Carry out pre-start checks for drilling operations.

Performance criteria

- 1.1 Drilling system components are checked in accordance with manufacturer's instructions and company procedures.
- Range oil, water, fuel, hydraulic oil, grease, hydraulic and/or pneumatic hoses, bolts, chain drive, hammer, compressor.
- 1.2 Ground area and machinery are checked visually to identify any mechanical problems in accordance with company procedures.
- Range tracks, under machine, drill bits, rods, external compressors and hoses.

Outcome 2

Check that the machine is 'warmed up' and that the hydraulic and/or pneumatic system is operating.

Performance criteria

- 2.1 Engine and hydraulic and/or pneumatic system are checked to be running or 'warmed up' in accordance with manufacturer's instructions and company procedures.
- 2.2 Personal protective equipment is selected, fitted, and used in accordance with company procedures.
- Range includes but is not limited to – ear muffs, gloves, hard hat, safety boots, safety glasses, overalls.
- 2.3 Controls, monitoring gauges, and attachments are checked to ensure that they operate in accordance with manufacturer's instructions and site requirements.

Outcome 3

Drill holes for blasting.

Performance criteria

- 3.1 Drill is established in position and set to stated angle in accordance with blast plan.
- 3.2 Drills are rigged in accordance with job requirements.
- 3.3 Holes are drilled in accordance with blast plan.
- Range hole depth, angle, logging holes for shot firers, boom placement, collar holes, operate drill at optimum drilling pressures, dust control, check holes are required depth and are clear.

- 3.4 Drill is operated smoothly and efficiently in accordance with manufacturer's specifications.
- 3.5 Servicing and running repairs to ensure efficiency and safety are carried out in accordance with company procedures.

Range may include but is not limited to – periodic inspection of bits and steels for wear, couplings, shock adaptor.

Outcome 4

Complete shut-down procedures and maintenance checks for drilling operations.

Performance criteria

- 4.1 Drill is shut down in accordance with manufacturer's instructions and company procedures.
- 4.2 Inspection, fault finding, lubrication, and minor maintenance are carried out in accordance with company procedures and manufacturer's requirements.
- 4.3 Plant and equipment are stored in accordance with manufacturer's instructions and company procedures.

Planned review date	31 December 2022
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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 2019
Revision	2	17 December 1996	31 December 2019
Revision	3	18 December 1998	31 December 2019
Revision	4	17 April 2002	31 December 2019
Review	5	27 January 2005	N/A
Rollover and Revision	6	16 July 2010	N/A
Rollover and Revision	7	25 January 2018	N/A

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>.

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.