

Title	Demonstrate knowledge of horizontal directional drilling		
Level	4	Credits	5

Purpose	People credited with this unit standard are able to demonstrate knowledge of horizontal directional drilling.
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Classification	Infrastructure Works > Pipeline Construction and Maintenance
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Available grade	Achieved
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Guidance Information

- 1 Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with applicable legislative and industry requirements.
- 2 Legislation relevant to this unit standard includes: Health and Safety at Work Act 2015 and any subsequent amendments.
- 3 Definitions
Drill pipes may be referred to as drill rods.
Forces may be referred to as loads.
Industry requirements refer to relevant policies, processes, methodologies, industry codes of practice, site specific health and safety plans, standard operating procedures, site safety plans, quality plans, work plans, traffic management plans, contract work programmes, job safety analysis, safe work method statements, job instructions, manufacturer's requirements, contract specifications, manuals, procedural documents, Waka Kotahi New Zealand Transport Agency specifications and guidelines.
Piloting may be referred to as steering.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of horizontal directional drilling.

Performance criteria

- 1.1 The selection of horizontal directional drilling equipment is described.

Range equipment includes – drill pipes, drill bits, mud recyclers, mud motors, reamers, swivels, locators, lubricants.

1.2 The application of drill rigs and water or fluid mixing tanks is described.

Range drill rigs – small, medium, mid-range, maxi.

1.3 Piloting for horizontal directional drilling is described.

Range setting out grade, alignment, strike avoidance, rod and pipe bending, radii tolerances.

1.4 Causes and effects of locating and tracking interference are identified and explained.

Range three causes and three effects.

1.5 Reaming for horizontal drilling is described.

Range types and application of reaming tools, assessment of ground conditions, bore log information.

1.6 Pull back is described in terms of speed, forces, and disposal of returns.

1.7 The types of drill fluid required for different ground conditions are identified and described according to their purpose and application.

Range ground conditions include – clay, sandy formations, hard rock.

Planned review date	31 December 2026
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	19 February 2015	31 December 2023
Review	2	26 August 2021	N/A

Consent and Moderation Requirements (CMR) reference	0101
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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 Connexis - Infrastructure Industry Training Organisation qualifications@connexis.org.nz if you wish to suggest changes to the content of this unit standard.