

# Drilling



## Non-hydrocarbon Drilling (Level 4)

### Training guide

Learner name .....

MITO ID number .....

Workplace supervisor .....

Name of business .....

If found, please return to MITO. This is a unique record of the learner's work experience.

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# Welcome

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Congratulations on taking the first step towards qualifying your future with MITO. MITO supports people and businesses through on-the-job training helping people become qualified while working in the automotive, commercial road transport, extractives, drilling, gas, and logistics industries. You're now enrolled in the MITO programme to achieve the:

New Zealand Certificate in Drilling (Level 4)

Let's start with information about the qualifications, your programme of study, the resources you will use and how to successfully complete the qualifications.



# Qualifications overview

These qualifications provide you with the required core skills and knowledge to work as a driller under broad supervision in all sectors of the non-hydrocarbon drilling industry. They provide the perfect career pathway for those starting out in the drilling industry to progress to more senior roles.

When you complete the requirements of the programme, MITO will arrange for the qualifications to be awarded to you. Your MITO Training Advisor (TA) will personally deliver your framed qualification certificates.



The qualifications you will complete as part of this programme fit into the qualification pathway as follows.

## Qualification pathway

You are here



### Level 3

New Zealand Certificate  
in Drilling (Level 3)

### Level 4

New Zealand Certificate  
in Drilling (Level 4)

### Level 5

New Zealand Certificate  
in Drilling (Level 5)

# How the programme works

Your programme is divided into sections of learning and assessment that cover the unit standards required to complete the New Zealand Certificates.

The programme is a blend of distance learning, off-job training courses and practical workplace assessments. Learning and assessment materials will be supplied by MITO or a specialist training provider. MITO will facilitate the entire programme so you can achieve your New Zealand Certificates.

## Distance learning

You will access your distance learning materials and theory and practical assessments online from MITO eLearning. You will receive an email with instructions on how to access MITO eLearning.

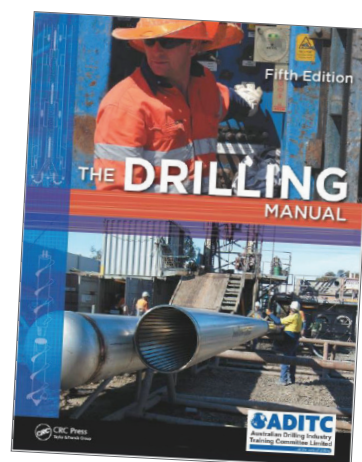
The drilling-specific theory learning and assessment in this programme is covered in the Drilling Industry Certification Assessment and Training (DICAT) course from the Australian Drilling Industry Association (ADIA). You will access the DICAT modules and assessments online from MITO eLearning. You will also receive *The Drilling Manual* (fifth edition) as reference material for the programme.

## Off-job training courses

MITO will organise off-job training courses through specialist training and assessment providers.

## Learning progression

You must complete the sections in the order they are listed in the training plan and finish one section before moving on to the next one. You can complete the practical assessments within each section in any order.



| Training plan   |          |
|---|----------|
| <b>Non-hydrocarbon Drilling (Level 3–4)</b>   |          |
| <b>Introduction to the drilling industry and drilling methods</b><br>(DICAT theory modules) |          |
| <b>Module 1</b> Introducing the drilling industry and drilling methods                      |          |
| <b>Module 2</b> Workplace health, safety and environment                                    |          |
| <b>Module 3</b> Working effectively in the drilling industry                                |          |
| <b>Health and safety at work – 1</b>  |          |
| Demonstrate and apply knowledge of safe manual handling practices in the workplace          | US 11459 |
| Undertake job safety analysis   | US 16622 |
| Apply health and safety risk assessment to a job role                                       | US 30265 |
| Provide first aid ●   | US 6401  |
| Provide basic life support ●  | US 6402  |
| Suppress fire with hand extinguishers and fixed hose reels                                  | US 3271  |
| Assist in maintaining rig safety and emergency procedures in a drilling environment         | US 2831  |
| <b>Assist in drilling operations (DICAT theory modules)</b>                                 |          |
| <b>Module 4</b> Mobilising, setting up and packing up                                       |          |
| <b>Module 5</b> Supporting the drilling process   |          |
| <b>Module 6</b> Assisting drilling methods  |          |
| <b>Drilling assessments – Set 1: Compulsory</b>   |          |
| Load, secure, and unload drilling equipment and materials                                   | US 22460 |
| Set up and pack up a drill site   | US 22461 |
| Support drilling process  | US 22462 |
| Handle and store cargo in a drilling environment  | US 23212 |
| Prepare and operate drilling fluid systems  | US 23176 |
| Contribute within a team or group which has an objective ▲                                  | US 9681  |

## Assessments

This programme is made up of theory and practical assessments. You can download electronic copies of the assessments from MITO eLearning.

*Theory assessments* are written tests or tasks. When you complete a theory assessment (including the DICAT assessments at the end of each module), email it to [assessments@mito.org.nz](mailto:assessments@mito.org.nz). You can complete the assessments by either:

- typing your answers into the PDF document (there are instructions on how to do this on MITO eLearning)
- printing the assessment document and handwriting your answers, then scanning the completed assessment.

22494 v2 Conduct down hole harn  
Theory Assessment v1  
Applicant Name: \_\_\_\_\_  
Company Name: \_\_\_\_\_  
Assessor Name: \_\_\_\_\_

22460 v2 - Load, secure, and unload drilling equipment and materials  
Practical Assessment v1  
Applicant Name: \_\_\_\_\_ Date: \_\_\_\_\_  
Company Name: \_\_\_\_\_  
Assessor Name: \_\_\_\_\_  
Supervisor Name (if used): \_\_\_\_\_  
Technical Expert Name (if used): \_\_\_\_\_

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*Practical assessments* may also include written tasks and oral questions. They may ask you to either:

- demonstrate to the assessor at your worksite or course that you can perform the task to the required standard
- gather evidence from your workplace and/or have your workplace verifier confirm that you have the practical skills to achieve the unit standard being assessed.

Some assessments have both theory and practical components.

If you need to be reassessed in relation to any task or question in a practical assessment, your assessor will give you feedback. This will include guidance around what you need to do to provide further evidence and/or to learn more about the subject.

## Appeals procedure

If you don't agree with the result of an assessment, talk to your assessor about it.

If you still disagree, you can talk to MITO's National Assessor by calling 0800 88 21 21.

If the issue is not resolved, you can then make a formal appeal to MITO. This must be sent to MITO within 20 working days from when you received the result by emailing [assessment.appeals@mito.org.nz](mailto:assessment.appeals@mito.org.nz).

## Reporting results

When you have successfully completed an assessment, MITO will automatically register the completion of each unit standard with the New Zealand Qualifications Authority (NZQA).

# Support

## Who is involved with my training and who should I ask for help?

| Who?                      | How do they help?  | Talk to them about   |
|---------------------------|--|--|
| Workplace supervisor      | They will help you develop your skills on the job. Your supervisor will also verify that you can perform the tasks in the practical assessments. Ask your supervisor for help and support first.   | Anything to do with your training, particularly practical tasks. |
| MITO Training Advisor     | Your MITO Training Advisor will explain how your qualification works. They will meet with you at least every 12 weeks to help you plan your study and check on your progress. They will organise any off-job training courses that you need to take as well. | Setting and managing your goals.                                 |
| Technical verifier        | They may also be your workplace supervisor. Your technical verifier is responsible for observing you as you perform required tasks for practical assessments and recording these.  | Anything to do with your practical assessments.                  |
| MITO Registered Assessor  | They will assess you by observing you as you perform practical tasks and/or reviewing your practical evidence after it has been verified by your technical verifier.   | Anything to do with your practical assessments.                  |
| Off-job training provider | They will provide training and assessment materials for particular sections of the programme.  | Any queries about your training and assessment for that section. |

## Supporting literacy and numeracy in the workplace

While many of us think of just reading and writing when we think about literacy skills, they cover more than that. They also include things like listening, speaking, using numbers and critical thinking. All of us have these skills to different levels.

All MITO learners will complete a literacy and numeracy assessment. The assessment will show areas where one-on-one support will help you with your programme and your future career development. A tutor will help you if you need it.

You can also talk to your MITO TA about getting literacy and numeracy support. Your enquiry will be kept confidential.

Remember that strong literacy and numeracy skills help you to do your job well. They allow you to develop higher-level technical skills and cope with a rapidly changing workplace.

# Training plan

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## Non-hydrocarbon Drilling (Level 4)

### Health and safety at work

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|   |          |
|---|----------|
| Implement a health and safety plan for a workplace                                | US 15189 |
| Identify and minimise environmental hazards in a drilling environment             | US 28313 |
| Identify and assess environmental and heritage concerns in a drilling environment | US 28314 |
| Respond to local emergencies and incidents in a drilling environment              | US 28315 |

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### Run on-site drilling operations (DICAT theory modules)

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**Module 7** Geology and mapping for drillers

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**Module 8** Running on-site operations

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**Module 9** Rig mechanics and operational maintenance

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**Module 10** Hole stabilisation and design

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### Drilling assessments – Set 2

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|   |          |
|---|----------|
| Set up and prepare for drilling operations  | US 22475 |
| Run on-site operations in a drilling environment  | US 22476 |
| Carry out drilling industry operational maintenance in a non-hydrocarbon drilling environment | US 22477 |

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### Carry out drilling operations (DICAT theory modules)

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**Module 11** Conducting drilling applications and methods

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### Drilling assessments – Set 3 (Select two of the following unit standards:)

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|   |          |                   |
|---|----------|-------------------|
| <input type="checkbox"/> Conduct mud rotary drilling              | US 22491 | <b>20 Credits</b> |
| <input type="checkbox"/> Conduct air drilling                     | US 22482 | <b>20 Credits</b> |
| <input type="checkbox"/> Conduct wireline core drilling           | US 22486 | <b>20 Credits</b> |
| <input type="checkbox"/> Conduct continuous flight auger drilling | US 22483 | <b>20 Credits</b> |
| <input type="checkbox"/> Conduct cable tool drilling              | US 22493 | <b>20 Credits</b> |
| <input type="checkbox"/> Conduct down-hole hammer drilling        | US 22494 | <b>20 Credits</b> |
| <input type="checkbox"/> Conduct large diameter auger drilling    | US 22484 | <b>20 Credits</b> |
| <input type="checkbox"/> Conduct top-hole hammer drilling         | US 22495 | <b>20 Credits</b> |

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## Drilling assessments – Set 4 (Select unit standards to a total of 20 credits:)

|                          |  |          |                   |
|--------------------------|--|----------|-------------------|
| <input type="checkbox"/> | Construct and complete single aquifer production bores                     | US 22480 | <b>20</b> Credits |
| <input type="checkbox"/> | Construct monitoring bores (instrumentation)                               | US 22479 | <b>20</b> Credits |
| <input type="checkbox"/> | Construct multiple aquifer production bores                                | US 22481 | <b>20</b> Credits |
| <input type="checkbox"/> | Carry out grouting or cementing operations in a drilling environment       | US 28319 | <b>10</b> Credits |
| <input type="checkbox"/> | Apply blow out prevention operational procedures in a drilling environment | US 28333 | <b>5</b> Credits  |
| <input type="checkbox"/> | Conduct drilling operations at a surface extractive site                   | US 8915  | <b>20</b> Credits |
| <input type="checkbox"/> | Attach, lift, move, and place loads using mobile plant                     | US 17695 | <b>10</b> Credits |
| <input type="checkbox"/> | Examine problem-solving models and explain associated techniques           | US 9695  | <b>3</b> Credits  |

## Mentoring and on-job training to drill crew

|  |          |
|--|----------|
| Train colleagues in the workplace                                | US 27565 |
| Determine and co-ordinate training and/or development for a team | US 18337 |
| Plan and monitor performance of others                           | US 23397 |

# Congratulations!

You can now be awarded the New Zealand Certificate in Drilling (Level 4).

# Notes

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