



Level 2 Diploma in Drilling Operations

Qualification Specification

This specification should be read in conjunction with two sector-specific guidance documents for delivery and assessment of the qualification:

- **MP Futures SSO Assessment Strategy 2018**
- **ProQual Drilling Operations Qualification Directives v1 November 2018**

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Introduction

The ProQual Level 2 Diploma in Drilling Operations is designed for those individuals involved in the operation of a wide range of drilling equipment across a range of environments.

There are six pathways that cover specific activities/roles for Extractives Drilling, Directional Drilling and Land Drilling. The qualification is accompanied by a set of Directives to provide more details and additional requirements to be included in some applications.

The awarding body for this qualification is ProQual Awarding Body (www.proqualab.com) and the regulatory body is the Office of Qualifications and Examinations Regulation (Ofqual). The qualification has been accredited onto the Regulated Qualifications Framework (RQF) and is published on Ofqual's Register of Qualifications.

This specification should be read in conjunction with two sector-specific guidance documents for delivery and assessment of the qualification:

1. **MP Futures SSO Assessment Strategy 2018**
2. **ProQual Drilling Operations Qualification Directives v1 November 2018**

Qualification Profile Level 2 Diploma in Drilling Operations

Qualification title	ProQual Level 2 Diploma in Drilling Operations
Ofqual qualification number	603/3906/8
Level	2
Total Qualification Time	370 hours (182 GLH)
Assessment	Pass or fail Internally assessed and verified by centre staff External quality assurance by ProQual verifiers
Qualification start date	1/1/2019
Qualification end date	31/7/2026

Entry Requirements

There are no formal entry requirements for this qualification.

Centres should carry out an **initial assessment** of candidate skills and knowledge to identify any gaps and help plan the assessment.

Qualification Structure

To achieve the qualification candidates must:

- complete the **two Mandatory** units
- complete the **Mandatory/Optional Units from one of the pathways**
- select an **endorsement** to reflect the candidate's working environment
- select a **category** if particular equipment was used in the assessment

Candidates may also complete any of the Additional Units.

An **Endorsement** must be selected to reflect the working environment in which the assessment has been delivered with evidence available to confirm this. If more than one is selected then clear evidence relating to each endorsement must be provided to meet the qualification requirements

Endorsement			
Extractives	Ground Investigation	Geothermal	Water Well
Landfill	Grouting	Marine	Anchoring
Soil Nailing	Dewatering	Horizontal Directional	

Where a particular equipment type was operated by the candidate during assessment (not relevant in all Pathways) a **Category** must also be selected for inclusion on certification. If more than one is selected then clear evidence relating to each category must be provided to meet the qualification requirements

Category			
Rotary	Cable Percussion	Dynamic Sampling	Sonic

Mandatory units for all Pathways:

Mandatory Units – complete BOTH units			
Unit Ref.	Title	Level	GLH
F/617/3255	Contribute to maintaining health, safety and the environment in the drilling workplace	2	30
J/617/3256	Conform to efficient working practices in the workplace	2	10

Pathways:

- Pathway 1: Extractives Drilling
- Pathway 2: Directional Drilling - Drill Rig Operator
- Pathway 3: Directional Drilling – Drill Fluid Operator
- Pathway 4: Directional Drilling – Locator Operator
- Pathway 5: Land Drilling – Lead Driller
- Pathway 6: Land Drilling – Support Operative

Pathway 1: Extractives Drilling

Mandatory Units – complete ALL			
Unit Ref.	Title	Level	GLH
L/617/3257	Contribute to the specified drilling programme	2	90
R/617/3258	Operate and control drilling-related powered plant and machinery	2	90
Y/617/3259	Drill holes to specification and operational requirements	2	143
L/617/3260	Carry out operator maintenance on drilling plant and equipment	2	10

Pathway 2: Directional Drilling – Drill Rig Operator

Mandatory Units – complete ALL			
Unit Ref.	Title	Level	GLH
L/617/3257	Contribute to the specified drilling programme	2	90
R/617/3258	Operate and control drilling-related powered plant and machinery	2	90
R/617/3261	Set up protection and safety equipment for the work area	2	40
Y/617/3262	Receive and organise materials and equipment for the drilling activity	2	12
Y/617/3259	Drill holes to specification and operational requirements	2	143
L/617/3260	Carry out operator maintenance on drilling plant and equipment	2	10
D/617/3263	Locating and identifying underground services	2	40

Pathway 3: Directional Drilling – Drill Fluid Operator

Mandatory Units – complete All			
Unit Ref.	Title	Level	GLH
L/617/3257	Contribute to the specified drilling programme	2	90
R/617/3261	Set up protection and safety equipment for the work area	2	40
Y/617/3262	Receive and organise materials and equipment for the drilling activity	2	12
H/617/3264	Undertaking mud, slurry or fluid plant operations in the workplace	2	87
K/615/3265	Operate plant to construct or form	2	83

Pathway 4: Directional Drilling – Locator Operator

Mandatory Units – complete ALL			
Unit Ref.	Title	Level	GLH
L/617/3257	Contribute to the specified drilling programme	2	90
M/617/3266	Operate guidance systems to form holes	2	23
K/617/3265	Operate plant to construct or form	2	83
R/617/3261	Set up protection and safety equipment for the work area	2	40
D/617/3263	Locating and identifying underground services	2	40

Pathway 5: Land Drilling – Lead Driller

Mandatory Units – complete ALL			
Unit Ref.	Title	Level	GLH
R/617/3261	Set up protection and safety equipment for the work area	2	40
R/617/3258	Operate and control drilling-related powered plant and machinery	2	90
Y/617/3259	Drill holes to specification and operational requirements	2	143
L/617/3260	Carry out operator maintenance on drilling plant and equipment	2	10
D/617/3263	Locating and identifying underground services	2	40
Optional Units – ONE must be completed			
Unit Ref.	Title	Level	GLH
Y/617/3262	Receive and organise materials and equipment for the drilling activity	2	12
T/617/3267	Measure and set out dimensional control for the drilling requirement	3	10
A/617/3268	Reinstate the drilling area of operations and complete works	2	18
F/617/3269	Unload and load mobile plant and equipment from transportation	3	24
H/617/3264	Undertaking mud, slurry or fluid plant operations in the workplace	2	87

Pathway 6: Land Drilling – Support Operative

Mandatory Units – complete ALL			
Unit Ref.	Title	Level	GLH
R/617/3261	Set up protection and safety equipment for the work area	2	40
L/617/3257	Contribute to the specified drilling programme	2	90
Y/617/3262	Receive and organise materials and equipment for the drilling activity	2	12
Optional Units – ONE must be completed			
Unit Ref.	Title	Level	GLH
A/617/3268	Reinstate the drilling area of operations and complete works	2	18
L/617/3260	Carry out operator maintenance on drilling plant and equipment	2	10
T/617/3270	Prepare and operate powered units, tools, pedestrian plant, machinery or equipment	2	23
D/617/3263	Locating and identifying underground services	2	40

Additional Units			
Unit Ref.	Title	Level	GLH
F/617/3269	Unload and load mobile plant and equipment from transportation	3	24
A/617/3271	Use of technologies to support drilling operations	3	20
F/617/3272	Conduct a health, safety and environmental risk assessment of the drilling operation	3	35

Centre Requirements

Centres must be approved to offer this qualification. If your centre is not approved please complete and submit form **ProQual Additional Qualification Approval Application**.

Staff

Staff delivering this qualification must be appropriately qualified and/or occupationally competent.

Assessors/Internal Quality Assurance

Assessors for each unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge.

Assessors and internal quality assurance verifiers for competence-based units or qualifications will normally need to hold appropriate assessor or internal quality assurance qualifications.

Refer to the **MP Futures SSO Assessment Strategy 2018** for detailed guidance.

Support for Candidates

Materials produced by centres to support candidates should:

- enable them to track their achievements as they progress through the learning outcomes and assessment criteria;
- provide information on where ProQual's policies and procedures can be viewed;
- provide a means of enabling Internal and External Quality Assurance staff to authenticate evidence

Assessment

This qualification is competence-based, candidates must demonstrate the level of competence described in the units. Competence must be demonstrated by repeatable performance in the workplace over a minimum period of **10 weeks**. This timeframe should be measured from the first to the last assessment and **must include a minimum of 2 assessments on different dates**.

The qualification must be assessed in a work environment and in accordance with the **MP Futures SSO Assessment Strategy 2018**, and it must be internally assessed by an appropriately experienced and qualified assessor.

Assessors must use a combination of assessment methods as defined in the **ProQual Drilling Operations Qualifications Directives November 2018**.

Each candidate is required to produce a portfolio of evidence which demonstrates their achievement of all of the learning outcomes and assessment criteria for each unit.

- Evidence can include:
- observation report by assessor
 - assignments/projects/reports
 - professional discussion
 - witness testimony
 - candidate product
 - worksheets
 - record of oral and written questioning
 - Recognition of Prior Learning

Learning outcomes set out what a candidate is expected to know, understand or be able to do.

Assessment criteria specify the standard a candidate must meet to show the learning outcome has been achieved.

Learning outcomes and assessment criteria can be found from page 10.

Internal Quality Assurance

An internal quality assurance verifier confirms that assessment decisions made in centres are made by competent and qualified assessors, that they are the result of sound and fair assessment practice and that they are recorded accurately and appropriately.

Adjustments to Assessment

Adjustments to standard assessment arrangements are made on the individual needs of candidates. ProQual's Reasonable Adjustments Policy and Special Consideration Policy sets out the steps to follow when implementing reasonable adjustments and special considerations and the service that ProQual provides for some of these arrangements.

Centres should contact ProQual for further information or queries about the contents of the policy.

Results Enquiries and Appeals

All enquiries relating to assessment or other decisions should be dealt with by centres, with reference to ProQual's Enquiries and Appeals Procedures.

Certification

Candidates who achieve the requirements for this qualification will be awarded:

- A certificate listing all units achieved, and
- A certificate giving the full qualification title -

ProQual Level 2 Diploma in Drilling Operations

Claiming certificates

Centres may claim certificates for candidates who have been registered with ProQual and who have successfully achieved the qualification. All certificates will be issued to the centre for successful candidates.

Unit certificates

If a candidate does not achieve all of the units required for a qualification, the centre may claim a unit certificate for the candidate which will list all of the units achieved.

Replacement certificates

If a replacement certificate is required a request must be made to ProQual in writing. Replacement certificates are labelled as such and are only provided when the claim has been authenticated. Refer to the Fee Schedule for details of charges for replacement certificates.

Learning Outcomes and Assessment Criteria

Unit Number:	F/617/3255
Title:	Contribute to Maintaining Health, Safety and the Environment in the Drilling Workplace
Level:	2
Credit value:	5
Guided Learning Hours	30
Learning outcomes <i>The learner will:</i>	Assessment criteria <i>The learner can:</i>
1. Be able to contribute to maintaining health, safety and the environment in the drilling workplace.	<p>1.1 Carry out drilling work activities to comply with site health, safety and environmental requirements, using methods that avoid creating hazardous situations.</p> <p>1.2 Check for and identify potential health, safety and environmental hazards in the working area.</p> <p>1.3 Communicate information or instruction to and from relevant persons and confirm that it is understood, (supervisors, work colleagues, maintenance engineers, designated persons and/or those affected by the work activity).</p> <p>1.4 Check, clean, use and store tools and equipment appropriately.</p> <p>1.5 Select, use and store materials and components as required for the work activity.</p> <p>1.6 Demonstrate the use of approved manual handling techniques.</p> <p>1.7 Check, use and store personal protective equipment appropriately.</p> <p>1.8 Comply at all times with site security arrangements.</p> <p>1.9 Carry out drilling activities in accordance with approved policies, procedures and practice (legislative/regulatory, organisational, operational, accident or emergency, health and safety, first aid, and environmental) as appropriate to the work activity.</p>
2. Understand how to contribute to maintaining health, safety and the environment in the drilling workplace.	<p>2.1 The approved policies, procedures and practices that are relevant to the drilling activity and the site.</p> <p>2.2 Own personal responsibilities under the health, safety and environmental statutory requirements.</p> <p>2.3 Health, safety and environmental hazards and risks associated with the following:</p> <ul style="list-style-type: none"> • drilling operations; • the drilling working environment; • drilling plant, equipment and tools; • materials and substances associated with drilling activities. <p>2.4 The procedure for the identification of potential hazards.</p> <p>2.5 Actions to be taken should a risk from a potential hazard be identified.</p> <p>2.6 The types of tools and equipment to be used for the drilling activity, and how they should be checked, used, cleaned and stored.</p> <p>2.7 Typical faults and defects that occur with drilling tools and equipment.</p> <p>2.8 Actions to take should faulty or defective tools or equipment be identified.</p> <p>2.9 The requirements for guarding of drilling plant, tools and equipment and why it is important to maintain it.</p>

	<p>2.10 Types of materials and substances associated with the drilling activity.</p> <p>2.11 The emergency situations that could arise when drilling or on the operational site and how to respond to them.</p> <p>2.12 The range of equipment available for dealing with emergency situations.</p> <p>2.13 Common forms of personnel incidents associated with drilling operations, and the actions to be taken should these arise.</p> <p>2.14 The security arrangements in place for the organisation, site and drilling activity.</p> <p>2.15 The action to take in cases of breaches of security including:</p> <ul style="list-style-type: none"> • trespass; • unauthorised persons; • vandalism; • theft. <p>2.16 The risks and requirements for working at height.</p> <p>2.17 The relevant persons with responsibility for:</p> <ul style="list-style-type: none"> • providing site or drilling activity health, safety and environmental information and inductions; • investigating potential hazards and risks; • supervision; • site security; • first aid; • emergency response. <p>2.18 The site welfare arrangements and facilities.</p> <p>2.19 Methods of communication available for use in the workplace.</p> <p>2.20 The reporting arrangements for hazards, incidents, first aid and breaches of security.</p> <p>2.21 The arrangements for the disposal of waste.</p> <p>2.22 The limits of own personal responsibility and authority in relation to maintaining health, safety and the environment.</p>
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Additional information about the unit	
Unit purpose and aim	<p>This unit states the skills, knowledge and understanding required to demonstrate competence to contribute to maintaining health, safety and the environment in the drilling activity and the drilling working environment. This includes being aware of hazards and, when identified, reporting and dealing with them as appropriate. It also includes awareness of personal responsibilities in respect of health and safety at work and protecting the environment, and the practices and procedures which help to maintain these for themselves and others. It includes an understanding of first aid arrangements, emergency situations, services and procedures, and security procedures with regard to trespassing and breaches of security involving damage or theft of plant, equipment, materials and property. During this work account must be taken of the relevant operational requirements and safe working practices.</p> <p>This unit is applicable to anyone whose work activity involves land drilling, directional drilling, extractives drilling or similar drilling activities.</p>
Details of relationship between the unit and relevant NOS or other professional standards	<p>This unit is based on NOS Unit MPQDO02 Contribute to Maintaining Health, Safety and the Environment in the Drilling Workplace covering it in full.</p>
Assessment requirements or guidance specified by sector or regulatory body	<p>Must be assessed in accordance with the MP Futures SSO Assessment Strategy and ProQual Drilling Operations Qualification Directives v1 November 2018.</p>
Location of the unit within the subject/sector classification system	<p>4.2</p>

Unit Number:	J/617/3256
Title:	Conform to Efficient Working Practices in the Workplace
Level:	2
Credit value:	3
Guided Learning Hours	10
Learning outcome <i>The learner will:</i>	Assessment criteria <i>The learner can:</i>
1. Be able to conform to efficient working practices.	1.1 Carry out the work activities allocated within agreed timescales. 1.2 Carry out responsibilities in accordance with approved policies, procedures and practices as appropriate to the work activity, materials, plant or machinery including: <ul style="list-style-type: none"> • legislative; • organisational; • operational; • emergency; • waste disposal; • health and safety; • environmental. 1.3 Communicate with management and work colleagues to ensure that the work is carried out efficiently. 1.4 Work in conjunction with others to achieve work objectives. 1.5 Report in accordance with organisational procedures.
2. Understand how to conform to efficient working practices.	2.1 The lines of authority related to the work activity. 2.2 The methods of communication available for use in the work area. 2.3 What health, safety and environmental legislation applies to own work activity and working environment. 2.4 The organisational and operational policies, procedures and practices that apply to own work activity and working environment. 2.5 The specific health and safety policies, procedures and practices applying to own work area. 2.6 The incident and emergency policies, procedures and practices applying to own work activity and working environment. 2.7 How first aid policies, procedures and practices apply to own work activity and working environment. 2.8 The policies, procedures and practices in place for waste disposal and the management of waste. 2.9 How the allocation and sequencing of work is organised on site. 2.10 The methods of work to be followed for activities undertaken and the importance of adhering to them. 2.11 How to access the resources required to carry out the work activity. 2.12 How to maintain effective working relationships and the benefits of doing this to individuals and the organisation. 2.13 The standards of conduct that are expected to be maintained by the company. 2.14 The sources of documentation and data used in the organisation that relate to the work activity. 2.15 The limits of own responsibilities and authority. 2.16 The procedure for reporting issues within own organisation.

Additional information about the unit	
Unit purpose and aim	This Unit contains the skills, knowledge and understanding required to demonstrate competence in conforming to efficient working practices within the relevant sector of industry.
Details of relationship between the unit and relevant NOS or other professional standards	This unit is based on NOS standard MPQMA09 (MPQPO2) Conform to efficient working practices , covering it in full.
Assessment requirements or guidance specified by sector or regulatory body	Must be assessed in accordance with the MP Futures SSO Assessment Strategy and ProQual Drilling Operations Qualification Directives v1 November 2018
Location of the unit within the subject/sector classification system	4.2

Unit Number:	L/617/3257
Title:	Contribute to the Specified Drilling Programme
Level:	2
Credit value:	12
Guided Learning Hours	90
Learning outcome <i>The learner will:</i>	Assessment criteria <i>The learner can:</i>
1. Be able to contribute to the specified drilling programme.	1.1 Obtain and interpret information on the work activity required. 1.2 Agree with others the work to be carried out. 1.3 Check the availability and suitability of the resources required for the operation of the work activity, and completion of the work. 1.4 Communicate with others using organisational procedures and the agreed communication method. 1.5 Confirm the location for the work activity. 1.6 Check that the work activity can be completed as specified. 1.7 Select and prepare the resources for the work activity. 1.8 Carry out the work minimising risks to self, others, plant and machinery and the work environment in compliance with the organisational approved policies, procedures and practices. 1.9 Make adjustments to the work plan as required to complete the work within the limits of own responsibilities, reporting any variations from the specified work activity. 1.10 Check, clean and store resources after use. 1.11 Report according to organisational requirements.
2. Understand how to contribute to the specified drilling programme.	2.1 The organisational approved policies, procedures and practices as appropriate to the work activity. 2.2 Organisational information, communications and reporting arrangements relating to the work activity. 2.3 How to interpret the organisational information for the work activity. 2.4 Types of tools and equipment required for the work activity, how to check and use them, and their limitations. 2.5 Defects or faults that can occur with the tools and equipment required for the work activity. 2.6 Resources required to support the work activity, their uses, how to check them, and how to secure, store or dispose of them after use. 2.7 How to set up, secure, measure, mark, calculate and set out for the work activity. 2.8 The hazards and risks associated with the work activity, how they affect self, others and the work environment, and how they are controlled. 2.9 The problems that can occur with the work activity, and how to respond to them. 2.10 The limits of own role and responsibilities. 2.11 Actions to be taken in the event of damage, breakdown or unsatisfactory performance of resources. 2.12 The reporting procedures on completion of the work.

Additional information about the unit	
Unit purpose and aim	This unit is about the skills, knowledge and understanding required to demonstrate competence to contribute to specified drilling programmes, using specialised drilling powered plant or equipment. It involves correctly interpreting information and instruction in preparation for the drilling activity, including preparation of equipment, implementation and maintenance of the work to specification in the context of the work required. Throughout, work will be carried out with due regard to safety and the environment according to established procedures.
Details of relationship between the unit and relevant NOS or other professional standards	This unit is based on NOS Unit MPQMG19 Contribute to the Specified Drilling Programme covering it in full.
Assessment requirements or guidance specified by sector or regulatory body	Must be assessed in accordance with the MP Futures SSO Assessment Strategy and ProQual Drilling Operations Qualification Directives v1 November 2018.
Location of the unit within the subject/sector classification system	4.2

Unit Number:	R/617/3258
Title:	Operate and Control Drilling-Related Powered Plant or Machinery
Level:	2
Credit value:	12
Guided Learning Hours	90
Learning outcome <i>The learner will:</i>	Assessment criteria <i>The learner can:</i>
1. Be able to operate and control drilling-related powered plant or machinery.	1.1 Agree with others the work to be carried out. 1.2 Check the availability and suitability of the resources required for the operation of the plant or machinery, and completion of the work. 1.3 Identify the working area and check that it is safe and prepared for the work activity. 1.4 Check and confirm that the plant or machinery is safe and ready to operate. 1.5 Follow start up procedures according to organisational and safety requirements. 1.6 Set up the plant or machinery to drill to specification. 1.7 Set up operational safeguards for the work activity. 1.8 Operate the plant or machinery in accordance with approved policies, procedures and practices. 1.9 Monitor the performance of the plant or machinery. 1.10 Make adjustments to the plant or machinery. 1.11 Make adjustments to the work plan as required to complete the work within the limits of own responsibilities. 1.12 Carry out the work minimising risks to self, others, plant or machinery and the work environment. 1.13 Follow shut down procedures according to organisational and safety requirements. 1.14 Report according to organisational requirements.
2. Understand how to operate and control drilling-related powered plant or machinery.	2.1 The organisational approved policies, procedures and practices as appropriate to the work activity. 2.2 Organisational information, communications and reporting arrangements relating to the work activity. 2.3 The resources required to support the work activity, their uses, how to check them, and how to secure, store or dispose of after use. 2.4 How to carry out pre-start checks of the plant or machinery. 2.5 How to set up the plant or machinery for work activities. 2.6 The operational safeguards that should be in place, and their purpose. 2.7 The operational instructions for starting, operating, monitoring, adjusting, shutting down (in routine and emergency situations), and securing after use the plant or machinery. 2.8 The operational parameters, characteristics, capacity and limitations of the plant or machinery. 2.9 When and why adjustments to the plant or machinery, and the work activity may be required. 2.10 Hazards and risks associated with the work activity, how they affect self, others and the work environment, and how they are controlled. 2.11 Problems that can occur with the work activity, and how to respond to them. 2.12 The limits of own role and responsibilities.

	<p>2.13 Actions to be taken in the event of damage, breakdown or unsatisfactory performance of plant, machinery, equipment or resources.</p> <p>2.14 The organisational reporting arrangements for the work activity.</p>
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Additional information about the unit	
Unit purpose and aim	This unit is about the skills, knowledge and understanding required to demonstrate competence to operate and control powered drilling plant or machinery. It confirms learners' ability to prepare the plant and machinery and to check that the equipment is safe and fully operational. It includes operating the plant or machinery ensuring safety and security in the work environment, including the need to be aware of work personnel or members of the public, who may have contact with the activity. Throughout the range of activities there is the need to communicate with others and learners should be seen to be able to do this. During this work the learner must communicate with others and take account of the relevant operational requirements and safe working practices.
Details of relationship between the unit and relevant NOS or other professional standards	This unit is based on NOS Unit MPQMG20 Operate and Control Drilling-related Powered Plant or Machinery covering it in full.
Assessment requirements or guidance specified by sector or regulatory body	Must be assessed in accordance with the MP Futures SSO Assessment Strategy and ProQual Drilling Operations Qualification Directives v1 November 2018.
Location of the unit within the subject/sector classification system	4.2

Unit Number:	Y/617/3259
Title:	Drill Holes to Specification and Operational Requirements
Level:	2
Credit value:	43
Guided Learning Hours	143
Learning outcome <i>The learner will:</i>	Assessment criteria <i>The learner can:</i>
1. Be able to drill holes to drilling specification.	1.1 Agree with others the work to be carried out. 1.2 Check and confirm the drilling specification is correct and complete for the working area and work activity. 1.3 Check the availability and suitability of the resources (tools, equipment, utilities, services, consumables, attachments, replaceable parts etc.) required for the work activity. 1.4 Ensure that the drilling site conditions are safe and suitable for the positioning, orientation and stabilising of the drill rig and drilling the specified holes. 1.5 Confirm the position of the drill holes are to specification and conform to operational requirements. 1.6 Set up the drill at the specified positions, inclinations and orientations. 1.7 Check monitoring and/or warning devices are set and operational. 1.8 Drill hole lengths and/or depths, direction and angles to drilling specification (including if specified taking and recording samples and carrying out in-situ testing). 1.9 Monitor the drilling of the drill holes. 1.10 Check and control dust and/or waste from drilling activity. 1.11 Carry out the work minimising risks to yourself, others, plant and machinery and the work environment. 1.12 Make adjustments to the work plan as required to complete the work within the limits of your responsibilities. 1.13 Identify changes in ground conditions and strata. 1.14 Record changes in hole conditions and strata, and all variations from drilling specification. 1.15 Follow shut down procedures according to organisational and safety requirements. 1.16 Ensure that the drill hole is left in a safe condition or suitable protection is in place. 1.17 Report according to organisational requirements. 1.18 Carry out the work activity in accordance with approved policies, procedures and practices.
2. Understand how to drill holes to drilling specification.	2.1 The organisational approved policies, procedures and practices as appropriate to the work activity. 2.2 The organisational information, communications and reporting arrangements relating to the work activity. 2.3 Drilling specifications and logs, plans, sketches, symbols and terminology used in relation to the work activity. 2.4 Different types of drilling action. 2.5 How to check and confirm that the area for the drilling activity is as specified and in a safe and suitable condition for the specified work activity.

	<p>2.6 The resources required to support the work activity, their uses, how to check them, and how to secure, store or dispose of after use.</p> <p>2.7 How to measure, set out and mark the positions of drill holes.</p> <p>2.8 The acceptable tolerances for measuring, setting out, marking and drilling holes in the context of the work activity.</p> <p>2.9 How to position, set up, stabilise, start up, drill holes, monitor, adjust and shut down (in routine and emergency situations).</p> <p>2.10 Drilling monitoring, safety and/or warning devices and their purpose.</p> <p>2.11 The wear factors, tolerances and clearance requirements for in-hole drilling equipment.</p> <p>2.12 Drilling action varying feed requirements.</p> <p>2.13 The hazards and risks associated with the work activity, how they affect themselves, others and the work environment, and how they are controlled.</p> <p>2.14 At least four problems that can occur when drilling holes, and how to respond to them.</p> <p>2.15 How to verify that holes are drilled to specification.</p> <p>2.16 Explain the purpose of the completed drill hole/s: <ul style="list-style-type: none"> • if the purpose of the hole is to obtain a sample describe the techniques for recovering, preserving and transporting; • if the purpose of the hole is to install a utility pipe or cable explain how the installing forces are kept within manufacturer's guidance. </p> <p>2.17 The possible consequences of drilling holes that are not to specification.</p> <p>2.18 The techniques for removal of cuttings/arising's.</p> <p>2.19 Tools, equipment, techniques and procedures for the retrieval of tools and equipment (damaged or undamaged) from drilled holes.</p> <p>2.20 Why and how to control drilling dust and/or waste.</p> <p>2.21 The possible effects of adverse environmental or site conditions on positioning or stabilising drill rigs, and the drilled holes.</p> <p>2.22 The site environmental and waste disposal arrangements.</p> <p>2.23 The limits of their own role and responsibilities.</p> <p>2.24 Actions to be taken in the event of damage, breakdown or unsatisfactory performance of plant, machinery, equipment or resources.</p> <p>2.25 The actions to be taken on conclusion of the work activity.</p> <p>2.26 The recording and reporting arrangements for the work activity.</p> <p>2.27 The importance of the accuracy of drill/driller's logs and other records.</p>
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Additional information about the unit	
Unit purpose and aim	This unit is designed to enable the learner to demonstrate they have the skills, knowledge and understanding required to be competent in drilling holes in rock or ground to specification. This includes determining the position of the holes, the orientation of the drilling equipment and the monitoring of the operation during drilling of the holes.
Details of relationship between the unit and relevant NOS or other professional standards	This unit is based on NOS Unit MPQMG21 Drill Holes to Drilling Specification covering it in full.
Assessment requirements or guidance specified by sector or regulatory body	Must be assessed in accordance with the MP Futures SSO Assessment Strategy and ProQual Drilling Operations Qualification Directives v1 November 2018.
Location of the unit within the subject/sector classification system	4.2

Unit Number:	H/617/3260
Title:	Carry Out Operator Maintenance on Drilling Plant and Equipment
Level:	2
Credit value:	2
Guided Learning Hours	10
Learning outcome <i>The learner will:</i>	Assessment criteria <i>The learner can:</i>
1. Be able to carry out routine maintenance on drilling plant and equipment.	1.1 Establish the routine maintenance requirements. 1.2 Select the type, quality and quantity of materials, substances, tools and equipment required to complete the maintenance. 1.3 Select and use the personal protective equipment and security measures which apply to the maintenance activities. 1.4 Demonstrate that the drilling plant and equipment is in a safe condition before commencing and throughout the maintenance activity. 1.5 Carry out the maintenance activities safely and efficiently. 1.6 Return or dispose of the following in accordance with organisational procedures: <ul style="list-style-type: none"> • tools and/or equipment; • waste; • surplus materials; • substances. 1.7 Report and record maintenance completed, and any problems or faults identified. 1.8 Carry out the maintenance work in compliance with the approved policies, procedures and practices (legislative/regulatory, organisational, operational, accident or emergency, health and safety, first aid, and environmental) for the work activity, plant and working environment.
2. Understand how to carry out routine maintenance on drilling plant and equipment.	2.1 The different sources for information and instruction relative to: <ul style="list-style-type: none"> • the routine maintenance requirements for the drilling plant and equipment; • the type, purpose, quality and quantities of resources required. 2.2 Actions to be taken if information or resources are insufficient or unavailable. 2.3 The purpose and scope of the maintenance activity. 2.4 The method of application for the materials and substances during the maintenance activity. 2.5 The potential hazards and risks associated with the following: <ul style="list-style-type: none"> • the maintenance activity; • the use of tools; • the materials and substances used. 2.6 The appropriate personal protective equipment for the maintenance activities. 2.7 The requirements for the use of personal protective equipment and security measures when carrying out maintenance activities. 2.8 The methods of ensuring the drilling plant or equipment is in a safe condition for the maintenance activity. 2.9 How the required maintenance tasks are undertaken.

	<p>2.10 The organisational procedure for the storage and handling of tools, equipment, materials and substances.</p> <p>2.11 The site environmental and waste disposal procedures.</p> <p>2.12 The typical problems that can occur whilst completing maintenance.</p> <p>2.13 Types of faults that may be encountered whilst maintaining drilling plant and equipment.</p> <p>2.14 The importance of avoiding waste of materials and substances.</p> <p>2.15 The organisational reporting and recording requirements for carrying out maintenance activities.</p> <p>2.16 The limits of own personal responsibilities and scope of maintenance activity.</p> <p>2.17 The approved policies, procedures and practices for the maintenance activity and completing the work (legislative/regulatory, organisational, operational, incident or emergency, health and safety, first aid, and environmental) as appropriate.</p>
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Additional information about the unit	
Unit purpose and aim	<p>This unit states the skills, knowledge and understanding required to demonstrate competence to carry out routine maintenance on drilling plant and equipment. It includes following instructions and adopting healthy, safe and environmentally responsible working practices to prepare for and carry out routine maintenance operations to drilling plant and equipment in general use.</p> <p>This unit applies to operatives who have responsibility for carrying out basic and routine maintenance of drilling plant and equipment. It does not apply to engineers, technicians or fitters, who would be required to complete more complex and technical maintenance tasks.</p>
Details of relationship between the unit and relevant NOS or other professional standards	<p>This unit is based on NOS Unit MPQDO16 Carry out Routine Maintenance on Drilling Plant and Equipment covering it in full.</p>
Assessment requirements or guidance specified by sector or regulatory body	<p>Must be assessed in accordance with the MP Futures SSO Assessment Strategy and ProQual Drilling Operations Qualification Directives v1 November 2018.</p>
Location of the unit within the subject/sector classification system	<p>4.2</p>

Unit Number:	R/617/3261
Title:	Set up Protection and Safety Equipment for the Work Area
Level:	2
Credit value:	12
Guided Learning Hours	40
Learning outcome <i>The learner will:</i>	Assessment criteria <i>The learner can:</i>
1. Be able to set up protection and safety equipment for the work area.	1.1 Obtain instructions to carry out the area protection work. 1.2 Identify the work area requiring protection. 1.3 Obtain the protection and safety equipment (e.g. barriers, bunds, gates, tapes, cones, warning signs, notices, lighting or other specialist protection or safety equipment) as appropriate to the location and work activity. 1.4 Obtain resources required to move and set up protection and safety equipment (e.g. tools; equipment; utilities and services; consumables; attachments; replaceable parts; other resources) as appropriate to the work activity. 1.5 Check the condition and suitability of resources, protection and safety equipment. 1.6 Demonstrate the use of safe techniques to move and handle protection and safety equipment. 1.7 Check the work area for potential hazards in accordance with organisational procedures. 1.8 Set up work area protection and safety equipment appropriately. 1.9 Check and maintain the work area protection and safety equipment. 1.10 Demonstrate the process to be undertaken on completion of the work activity, including the removal or repositioning of protection and safety equipment. 1.11 Demonstrate the process to be undertaken to check the protection and safety equipment for damage and return to specified storage facility or location. 1.12 Confirm the completion of the area protection work in accordance with procedures. 1.13 Carry out the work in compliance with the approved policies, procedures and practices (legislative/regulatory, organisational, operational, incident or emergency, health and safety, first aid, and environmental) as appropriate for the location, protection system and work activity.
2. Understand how to set up protection and safety equipment for the work area.	2.1 The types of protection and safety equipment available for use. 2.2 The instructions and specifications for setting up, maintaining and removing work area protection and safety equipment. 2.3 Own personal responsibilities under the health, safety and environmental statutory requirements. 2.4 Why work area protection is required. 2.5 The potential hazards and risks associated with setting up and removing work area protection and safety equipment. 2.6 The actions that can be taken to reduce the risks to self and others whilst setting up, maintaining or removing work area protection and safety equipment. 2.7 How to check the suitability and condition of resources and protection and safety equipment. 2.8 The methods of protecting the work area.

	<p>2.9 How to move, handle, set up and remove protection and safety equipment.</p> <p>2.10 The methods of using the resources required to set up, maintain and remove the protection and safety equipment.</p> <p>2.11 The reporting arrangements for the location and work activity.</p> <p>2.12 The problems that can occur when setting up or removing work area protection and safety equipment.</p> <p>2.13 The limits of own personal responsibilities and authority.</p> <p>2.14 Actions to be taken in the event of problems occurring that are outside the limits of own responsibilities and authority.</p> <p>2.15 Actions to be taken with unsuitable or damaged resources or protection and safety equipment, or if equipment is lost, stolen or otherwise mislaid.</p> <p>2.16 The approved policies, procedures and practices for setting up, maintaining and removing protection and safety equipment applicable to the location, protection system and work activity.</p>
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Additional information about the unit	
Unit purpose and aim	This unit specifies the skills, knowledge and understanding required to demonstrate competence in setting up protection and safety equipment for a work area. It includes following instructions to establish and maintain safe enclosures and carrying out approved procedures for removal of equipment at end of work. During this work, account must be taken of the relevant operational requirements and safe working practices, paying attention to traffic, pedestrians and other work activities in and around the work area. This unit is appropriate for any person with responsibility for setting up a protected work area.
Details of relationship between the unit and relevant NOS or other professional standards	This unit is based on NOS Unit MPQDO04 Set up Protection and Safety Equipment for the Work Area covering it in full.
Assessment requirements or guidance specified by sector or regulatory body	Must be assessed in accordance with the MP Futures SSO Assessment Strategy and ProQual Drilling Operations Qualification Directives v1 November 2018.
Location of the unit within the subject/sector classification system	4.2

Ofqual Ref:	Y/617/3262
Title:	Receive and Organise Materials and Equipment for the Drilling Activity
Level:	2
Credit value:	3
Guided Learning Hours	12
Learning outcome <i>The learner will:</i>	Assessment criteria <i>The learner can:</i>
1. Be able to receive and organise materials and equipment for the operational activity.	<p>1.1 Demonstrate how to check and confirm the materials and equipment received meet the operational requirement.</p> <p>1.2 Check and confirm the condition of materials and equipment are of the required standard.</p> <p>1.3 Complete records of materials and equipment appropriately in accordance with organisational requirements.</p> <p>1.4 Move materials and equipment to their respective designated locations in accordance with the operational requirements.</p> <p>1.5 Demonstrate how to move, handle and store materials and equipment in a way that would prevent damage to the following:</p> <ul style="list-style-type: none"> • the operator; • other persons; • plant and equipment; • work area; • the environment. <p>1.6 Maintain a tidy work area.</p> <p>1.7 Co-ordinate the movement and organisation of materials and equipment with the relevant persons, (supervision, work colleagues, maintenance engineers, designated persons and/or those affected) as appropriate to the work activity.</p> <p>1.8 Receive and organise materials and equipment in compliance with approved policies, procedures and practices (legislative/regulatory, organisational, operational, incident or emergency, health and safety, first aid, and environmental) as appropriate to the work activity.</p>
2. Understand how to receive and organise materials and equipment for the operational activity.	<p>2.1 The approved policies, procedures and practices for the site and operational activity.</p> <p>2.2 The types of materials and equipment required for undertaking operational activities in a safe and efficient manner.</p> <p>2.3 Checks that are required to confirm the materials received and equipment are as required and in good condition.</p> <p>2.4 Actions to be taken with discrepancies or damaged equipment and materials.</p> <p>2.5 The common symbols and markings used on packaging and the relevance of use by dates.</p> <p>2.6 Techniques for handling and storage of different types of equipment and materials used for the operational activity.</p> <p>2.7 Methods for transferring materials and equipment to the required location.</p> <p>2.8 Reporting and recording requirements in relation to materials and equipment used for the operational activity.</p> <p>2.9 The reasons for preventing damage to the environment and how this can be achieved.</p> <p>2.10 Typical problems that can occur when receiving and organising materials and equipment for the operational activity.</p>

Additional information about the unit	
Unit purpose and aim	<p>This unit states the skills and knowledge required to demonstrate competence in receiving and organising materials and equipment required to support the operational activity. This includes interpreting instructions, plans and specifications for the work to be done. It will require the acceptance and organising of the materials and equipment, including any storage needs to support the operations. During this work the candidate must take account of the relevant operational requirements and safe working practices.</p> <p>This unit would apply to anyone with responsibility for receiving and organising materials and equipment for operational activities, such as drilling or setting out a work area.</p>
Details of relationship between the unit and relevant NOS or other professional standards	<p>This unit is based on NOS Unit MPQDO11 Receive and Organise Materials and Equipment for the Operational Activity covering it in full.</p>
Assessment requirements or guidance specified by sector or regulatory body	<p>Must be assessed in accordance with the MP Futures SSO Assessment Strategy and ProQual Drilling Operations Qualification Directives v1 November 2018.</p>
Location of the unit within the subject/sector classification system	<p>4.2</p>

Unit Number:	D/617/3263
Title:	Locating and Identifying Underground Services
Level:	2
Credit value:	12
Guided Learning Hours:	40
Learning outcome <i>The learner will:</i>	Assessment criteria <i>The learner can:</i>
1. Be able to locate and identify underground services.	1.1 Identify and interpret company work instructions and supporting documentation relevant to the activity. 1.2 Determine the work location using company documentation and work instructions. 1.3 Conduct systems checks in accordance with the operation and organisational procedures. 1.4 Determine the content and sequence of tasks needed to complete work activity. 1.5 Inform parties of the work plan that are directly and indirectly responsible for completing the work activity. 1.6 Plan and carry out work in line with company policy and work procedures. 1.7 Inspect and prepare tools and equipment to complete work activity in accordance with work instructions and equipment specifications. 1.8 Select and wear required personal protective equipment to complete work activities in accordance with risk assessment and method statement (RAMS). 1.9 Follow and maintain safe working and environmental practices in accordance with relevant legislation throughout the duration of the work. 1.10 Report unavailable or defective tools, equipment and resources. 1.11 Store tools and equipment on completion of work activity in accordance with organisational procedures. 1.12 Dispose of waste materials and hazardous substances in accordance with organisational procedures. 1.13 Leave the work area in a condition which is in line with good housekeeping practice. 1.14 Report the completion of work activities in accordance with company policy and procedures. 1.15 Demonstrate how to deal with problems within the limits of own job role responsibility. 1.16 Demonstrate the reporting of problems outside own responsibility to designated personnel. 1.17 Work in a manner which recognises and acts when others need support.
2. Understand how to locate and identify underground services.	2.1 The main principles of health and safety and environmental legislation and regulations. 2.2 The company reporting lines and authorisation roles and responsibilities. 2.3 The company policies and procedures that directly impact on the work to be undertaken. 2.4 How to report problems with tools and equipment. 2.5 How to confirm that tools and equipment are fit for purpose and safe to use.

	<p>2.6 How to interpret instructions and guidance on safe use of tools and equipment and the requirements for routine checks.</p> <p>2.7 The personal protective equipment that is to be used for the given work activity.</p> <p>2.8 How to use cable avoidance tools and equipment to locate buried apparatus and services in accordance with work instructions and equipment specifications.</p> <p>2.9 How to record position of buried apparatus and services on utility plans and documentation in accordance with work instructions and documentation.</p> <p>2.10 The materials and substances used during the work activity that are potentially dangerous and hazardous to health.</p> <p>2.11 How to maintain safe working practices and comply with environmental regulations throughout the duration of the work.</p> <p>2.12 How to minimise risks to self and others relating to the following:</p> <ul style="list-style-type: none"> • those responsible for undertaking the work activity; • those associated with the work activity. <p>2.13 The process and procedures for reporting work activity and problems that may occur.</p> <p>2.14 The company work instruction and documentation systems and processes.</p> <p>2.15 The different types and categories of emergency situations that can occur during the work activity.</p> <p>2.16 The tools, methods and techniques used to locate underground services and utilities.</p>
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Additional information about the unit	
Unit purpose and aim	The unit is about locating and identifying underground services in the working environment. It involves the use of cable and other avoidance tools and equipment to reduce the risk of damage to existing underground cables and services. It also involves following procedures designed to protect yourself and others from harm and to safeguard the supply of services.
Details of relationship between the unit and relevant NOS or other professional standards	This unit is based on NOS Unit EUSEPUS044 Location and identification of underground utility services in the electricity power utilities covering it in full.
Assessment requirements or guidance specified by sector or regulatory body	Must be assessed in accordance with the MP Futures SSO Assessment Strategy and ProQual Drilling Operations Qualification Directives v1 November 2018.
Location of the unit within the subject/sector classification system	4.2

Unit Number:	H/617/3264
Title:	Undertaking Mud, Slurry or Fluid Plant Operations in the Workplace
Level:	2
Credit value:	26
Guided Learning Hours	87
Learning outcome <i>The learner will:</i>	Assessment criteria <i>The learner can:</i>
1. Be able to undertake mud, slurry or fluid plant operations in the workplace.	<p>1.1 Use information from drawings, instructions, method statements, specifications, schedules and manufacturers' information.</p> <p>1.2 Comply with information and/or instructions derived from risk assessments and method statements.</p> <p>1.3 Use appropriate personal protective equipment (PPE) to carry out the activity in accordance with legislation and organisational requirements.</p> <p>1.4 Select resources associated with own work in relation to materials, components, fixings, tools, plant and ancillary equipment.</p> <p>1.5 Protect the work and its surrounding area from damage.</p> <p>1.6 Minimise damage and maintain a clean work space.</p> <p>1.7 Dispose of waste in accordance with legislation.</p> <p>1.8 Demonstrate completion of the work within the allocated time.</p> <p>1.9 Demonstrate the following work skills when carrying out mud, slurry or fluid plant operations:</p> <ul style="list-style-type: none"> • preparing, setting up, connecting, checking, maintaining, mixing, monitoring, testing, pumping, cleaning, adjusting, and recording. <p>1.10 Install, operate and maintain mud, slurry or fluid plant to given working instructions for drilling operations.</p>
2. Understand how to undertake mud, slurry or fluid plant operations in the workplace.	<p>2.1 The organisational procedures to report and rectify inappropriate information and unsuitable resources and how they are implemented.</p> <p>2.2 How different types of information are located and interpreted in relation to:</p> <ul style="list-style-type: none"> • drawings; • instructions; • specifications; • method statements; • schedules; • manufacturers' information. <p>2.3 Their responsibilities under current legislation and official guidance whilst working in the workplace:</p> <ul style="list-style-type: none"> • below ground level; • at height; • with tools and equipment; • with materials and substances; • with movement/storage of materials; • by manual handling and mechanical lifting. <p>2.4 The organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.</p>

	<p>2.5 The accident reporting procedures and who is responsible for making reports.</p> <p>2.6 Why and when personal protective equipment (PPE) should be used, relating to carrying out mud, slurry or fluid plant operations and the types, purpose and limitations of each type.</p> <p>2.7 How emergencies should be responded to in accordance with organisational requirements when involved with the following:</p> <ul style="list-style-type: none"> • fires; • spillages; • injuries; • other task-related hazards. <p>2.8 How the resources should be used correctly and how problems associated with the resources are reported.</p> <p>2.9 The methods of work to be followed for activities undertaken and the importance of adhering to them.</p> <p>2.10 Potential hazards associated with the resources and methods of work.</p> <p>2.11 How to calculate quantity, length, area and wastage associated with the method/procedure to carry out mud, slurry or fluid plant operations.</p> <p>2.12 How to protect work from damage and the purpose of protection in relation to:</p> <ul style="list-style-type: none"> • general workplace activities; • others involved with the work; • adverse weather conditions. <p>2.13 Why the disposal of waste should be carried out in relation to the work.</p> <p>2.14 The purpose of the work programme and why deadlines should be kept in relation to:</p> <ul style="list-style-type: none"> • types of progress charts, timetables and estimated times; • organisational procedures for reporting circumstances which will affect the work programme. <p>2.15 How to apply safe work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> • prepare the area allocated for the plant and ancillary equipment; • set up, assemble and check the integrity of plant and ancillary equipment, including the connection of hoses, valves and items of plant for delivery, extraction, recycling and disposal of mud, slurry or fluids; • mix mud, slurry or fluids in accordance with manufacturer's recommendations; • monitor the pumping process and make appropriate adjustments in order to maintain operational efficiency; • test the viscosity and density of the mud, slurry or fluid; • complete records of the process; • use hand tools, power tools, plant and ancillary equipment. <p>2.16 The needs of other occupations and how to communicate within a team when carrying out mud, slurry or fluid plant operations.</p> <p>2.17 How to maintain the tools, plant and equipment used during the work activity.</p>
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Additional information about the unit	
Unit purpose and aim	This Unit contains the skills, knowledge and understanding required to demonstrate competence in undertaking mud, slurry or fluid plant operations within the relevant sector of industry.
Details of relationship between the unit and relevant NOS or other professional standards	This unit is based on NOS Unit COSVR233 Carry Out Mud, Slurry or Fluid Plant Operations, covering it in full.
Assessment requirements or guidance specified by sector or regulatory body	Must be assessed in accordance with the MP Futures SSO Assessment Strategy and ProQual Drilling Operations Qualification Directives v1 November 2018
Location of the unit within the subject/sector classification system	4.2

Unit Number:	K/617/3265
Title:	Operate Plant to Construct or Form
Level:	2
Credit value:	25
Guided Learning Hours	83
Learning outcome <i>The learner will:</i>	Assessment criteria <i>The learner can:</i>
1. Be able to operate plant to construct or form.	<p>1.1 Interpret the given operating information (specifications, schedules and manufacturers' information) relating to the use of plant and confirm its relevance.</p> <p>1.2 Organise with others the sequence in which the work is to be carried out.</p> <p>1.3 Comply with the relevant, current legislation, official guidance and organisational procedures to avoid risk and maintain safe, healthy and environmentally responsible work practices relating to at least four of the following:</p> <ul style="list-style-type: none"> • methods of work; • safe use of Personal Protective Equipment; • safe use and storage of plant; • safe use and storage of tools and equipment; • specific risks to health. <p>1.4 Request and/or select plant resources for the methods of work and operations to be carried out (e.g. tools, materials, consumables, ancillary equipment and other resources associated with the work activity).</p> <p>1.5 Comply with organisational procedures to protect the work and surrounding area, prevent damage, maintain a clean work space and dispose of waste.</p> <p>1.6 Comply with the given information to complete the work activity to the required specification as follows:</p> <ul style="list-style-type: none"> • check, adjust, communicate, start, operate, manoeuvre, position, construct or form, shut down and secure after use; • use, maintain and store or dispose of resources; • operate plant to construct or form to given working instructions related to one of the following categories of plant: <ul style="list-style-type: none"> ○ graders; ○ drilling rigs; ○ dozers.
2. Understand how to operate plant to construct or form.	<p>2.1 The organisational procedures to report and rectify inappropriate information and unsuitable resources and how they are implemented.</p> <p>2.2 How different types of information are located and interpreted in relation to:</p> <ul style="list-style-type: none"> • drawings and diagrams; • specifications and schedules; • method statements; • risk assessments; • manufacturers' information; • current regulations governing the operation of plant and the use of equipment. <p>2.3 The organisational procedures to solve problems with the information and why it is important they are followed in relation to:</p>

	<ul style="list-style-type: none"> • those arising from information; • resources; • the method of work; • circumstances that affect the work activity (those rectifiable under own authority); • limits of own authority; • organisational reporting procedures. <p>2.4 The methods of communication between team members, to include:</p> <ul style="list-style-type: none"> • discussions; • diagrams; • briefings. <p>2.5 How resources are organised in conjunction with the progress of the work to include:</p> <ul style="list-style-type: none"> • the types, quality and quantities of consumables, lubricants, fuels, tools; • ancillary equipment associated with the method of work; • organisational procedures to operate plant to construct or form. <p>2.6 The core skills required to undertake the work activity.</p> <p>2.7 The level of understanding required by operatives of information on the relevant current legislation, approved codes of conduct and official guidance, and how it is applied.</p> <p>2.8 How and who should respond to emergencies, to include:</p> <ul style="list-style-type: none"> • fire; • spillages; • injuries; • emergencies related to the work activity and working environment. <p>2.9 The organisational security procedures for plant, tools, equipment and personal belongings related to the:</p> <ul style="list-style-type: none"> • site; • workplace; • company; • operative. <p>2.10 The organisational incident reporting procedures.</p> <p>2.11 Why, when and how personal protective equipment must be used, including the types identified for the work activity and work area, their purpose, and how they are used and maintained .</p> <p>2.12 How to comply with environmentally responsible work practices.</p> <p>2.13 The organisational procedures for requesting consumables and other resources, how they are used and problems reported.</p> <p>2.14 Outline the characteristics, quality, uses, sustainability, limitations and defects associated with the plant resources, and how defects should be rectified.</p> <p>2.15 Outline the hazards associated with the resources and the method of work, and how they are overcome.</p> <p>2.16 State how to protect work from damage, and the purpose of the protection relating to:</p> <ul style="list-style-type: none"> • workplace activity; • other occupations; • adverse weather.
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	<p>2.17 Why disposal of waste should be carried out safely, and how it is achieved to include:</p> <ul style="list-style-type: none"> • environmental responsibilities; • organisational procedures; • manufacturers' information; • statutory regulations; • official guidance. <p>2.18 How methods of work to meet the specification are carried out and problems reported relating to the following:</p> <ul style="list-style-type: none"> • identifying the characteristics of the plant; • carrying out function checks for the construction or formation operation; • identifying the area for the construction or formation work; • carrying out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area; • identifying geological, environmental and material changes and reporting; • checking to avoid damage to structures and utility services; • recognising when specific skills and knowledge are required and reporting accordingly; • completing construction and formation work; • operating outside the normal work area; • shutting down and securing plant; • use of hand tools and ancillary equipment; • communicating and working with a team; • appreciating the needs of other occupations associated with the operation of plant to construct or form. <p>2.19 How maintenance of plant, tools and equipment is carried out.</p> <p>2.20 How the programme for the work to be carried out in the estimated, allocated time, and why deadlines should be kept.</p>
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Additional information about the unit	
Unit purpose and aim	This unit contains the skills, knowledge and understanding required to demonstrate competence in the operation of mobile plant designed to construct or form. It includes interpretation of information, adopting safe, healthy and environmentally responsible work practices to start the plant, operate it to construct or form structures and shut down the plant. It can apply to any person operating plant to construct or form within the relevant sector of industry.
Details of relationship between the unit and relevant NOS or other professional standards	This unit is based on NOS Unit MPQPL390 Operate Plant to Construct or Form , covering it in full.
Assessment requirements or guidance specified by sector or regulatory body	<p>Must be assessed in accordance with the MP Futures SSO Assessment Strategy and ProQual Drilling Operations Qualification Directives v1 November 2018.</p> <p>The Learner must produce performance and knowledge evidence in relation to one or more of the following categories of plant to construct or form to given working instructions:</p> <ul style="list-style-type: none"> • graders; • drilling rigs; • dozers. <p>Certificates will be endorsed accordingly with those categories where the assessment criteria have been met in full.</p>
Location of the unit within the subject/sector classification system	4.2

Unit Number:	M/617/3266
Title:	Operate Guidance Systems to Form Holes
Level:	2
Credit value:	7
Guided Learning Hours	23
Learning outcomes <i>The learner will:</i>	Assessment criteria <i>The learner can:</i>
1. Be able to operate guidance systems to form holes.	1.1 Obtain and interpret information on the required work activity. 1.2 Agree with others the work to be carried out. 1.3 Confirm sufficient resources are available to support the work activity. 1.4 Check the suitability of the available resources. 1.5 Organise the work to minimise risks. 1.6 Communicate with others using organisational procedures and the agreed communication method. 1.7 Prepare and set up the guidance system for the work activity. 1.8 Operate the guidance system according to manufacturer's and organisational instructions to achieve work activity specification. 1.9 Make adjustments to the work plan within limits of own responsibilities as required to complete the work. 1.10 Check and store resources. 1.11 Report according to organisational requirements. 1.12 Carry out the work activity in compliance with approved policies, procedures and practices.
2. Understand how to operate guidance systems to form holes.	2.1 The organisational approved policies, procedures and practices as appropriate to the work activity. 2.2 The organisational information, communications and reporting arrangements relating to the work activity. 2.3 The types of communication systems used in the work area. 2.4 Hazards and risks associated with the work activity, how they can affect self, others or the environment, and how they are controlled. 2.5 The resources required to complete or support the work activity, their uses, how to check them, and how to secure, store or dispose of them after use. 2.6 The organisational procedures in the event of resources being unsuitable or defective. 2.7 The precautions to be taken whilst operating guidance systems. 2.8 Problems that can occur when operating guidance systems, and how to respond to them. 2.9 How to confirm or calculate that the work activity is or has achieved the required specification. 2.10 Actions to be taken if the work is not achieving specification. 2.11 The limits of own personal responsibility. 2.12 The reporting procedures on completion of the work.

Additional information about the unit	
Unit purpose and aim	This unit is designed to enable the learner to demonstrate they have the skills, knowledge and understanding required to be competent in operating guidance systems and interpreting information to bore, drive or drill holes to the given working instructions. This will require the learner to measure, mark out, set up, connect, calibrate, locate, mark, record and recover. It also includes the use of hand tools and ancillary equipment associated with the operation of guidance systems to form holes. During this work account must be taken of the relevant operational requirements and safe working practices.
Details of relationship between the unit and relevant NOS or other professional standards	This unit is based on NOS Unit MPQMG23 Operate Guidance Systems to Form Holes covering it in full.
Assessment requirements or guidance specified by sector or regulatory body	Must be assessed in accordance with the MP Futures SSO Assessment Strategy and ProQual Drilling Operations Qualification Directives v1 November 2018.
Location of the unit within the subject/sector classification system	4.2

Unit Number:	T/617/3267
Title:	Measure and Set Out Dimensional Control for the Drilling Requirement
Level:	3
Credit value:	2
Guided Learning Hours:	10
Learning outcome <i>The learner will:</i>	Assessment criteria <i>The learner can:</i>
1. Be able to measure and set out dimensional control for the drilling requirement.	<p>1.1 Identify and locate the area for the drilling activity.</p> <p>1.2 Assess the condition of the work area relating to its:</p> <ul style="list-style-type: none"> • suitability; • safety; • security. <p>1.3 Interpret information and instructions for the drilling dimensional control.</p> <p>1.4 Select and check tools and equipment for the specified measuring and dimensional control activity.</p> <p>1.5 Measure, set out and mark the dimensional control requirements from given reference points.</p> <p>1.6 Check, clean and store tools and equipment used in accordance with organisational procedures.</p> <p>1.7 Carry out the work in accordance with the approved policies procedures and practices for the work activity and location (legislative/regulatory, organisational, operational, incident or emergency, health and safety, first aid, and environmental) as appropriate to the work activity.</p>
2. Understand how to measure and set out dimensional control for the drilling requirement.	<p>2.1 The purpose and importance of dimensional control of drilling activities.</p> <p>2.2 Sources of information and instruction for the required measuring and dimensional control, and how to interpret them.</p> <p>2.3 Actions to be taken should there be inaccuracies, uncertainties or discrepancies with the information or instruction related to work activity.</p> <p>2.4 The potential hazards and risks associated with the work activity.</p> <p>2.5 Personal protective equipment requirements and security arrangements for the work activity.</p> <p>2.6 Their personal responsibilities for the quality, safety and environmental compliance of the work activity.</p> <p>2.7 The purpose and technique for assessing the work area in accordance with organisational requirements.</p> <p>2.8 Acceptable standards for the work activity, and actions to be taken should the area not meet the standard.</p> <p>2.9 The types, purpose and use of tools and equipment required for measuring and setting out, including methods of checking, cleaning and storing.</p> <p>2.10 The types of defects that can occur with measuring, setting out and dimensional control tools and equipment.</p> <p>2.11 Actions to be taken should tools and equipment be damaged or defective.</p> <p>2.12 The techniques for measuring, setting out and marking dimensional controls for drilling activities.</p> <p>2.13 How to make use of reference points for the work activity.</p> <p>2.14 Typical problems that can occur when measuring, setting out or marking dimensional controls for drilling activities.</p>

	2.15 The approved policies, procedures and practices for measuring and setting out dimensional controls for drilling requirements in the work environment.
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Additional information about the unit	
Unit purpose and aim	This unit states the skills and knowledge required to demonstrate competence to measure and set out dimensional control for the drilling requirement. It involves correctly interpreting information and instructions to set out the work area and enable the accurate transfer of measurement and dimensional positioning for the work to be carried out. During this work account must be taken of the relevant operational requirements and healthy, safe and environmentally responsible working practices. This unit can apply to anyone with responsibility for measuring and setting out the dimensional controls for drilling operations.
Details of relationship between the unit and relevant NOS or other professional standards	This unit is based on NOS Unit MPQDO13 Measure and Set Out Dimensional Control for the Drilling Requirement covering it in full.
Assessment requirements or guidance specified by sector or regulatory body	Must be assessed in accordance with the MP Futures SSO Assessment Strategy and ProQual Drilling Operations Qualification Directives v1 November 2018.
Location of the unit within the subject/sector classification system	4.2

Unit Number:	A/617/3268
Title:	Reinstate the Drilling Area of Operations and Complete Works
Level:	2
Credit value:	4
Guided Learning Hours	18
Learning outcome <i>The learner will:</i>	Assessment criteria <i>The learner can:</i>
1. Be able to reinstate the drilling area of operations and complete works.	1.1 Identify and establish the reinstatement work required. 1.2 Select the type, quality and quantity of plant, tools, equipment and resources for the work required. 1.3 Organise the reinstatement to minimise disruption to other work and damage to the environment. 1.4 Establish and/or maintain security arrangements for the work area. 1.5 Reinstate the ground to agreed specification and time schedules. 1.6 Dispose of waste in accordance with organisational requirements. 1.7 Clear the reinstated area on completion of the work. 1.8 Report to relevant persons (supervision, work colleagues, maintenance engineers, designated persons and/or those affected) as appropriate to the work activity. 1.9 Carry out the work in compliance with approved policies, procedures and practices (legislative/regulatory, organisational, operational, incident or emergency, health and safety, first aid, and environmental) as appropriate to the work activity.
2. Understand how to reinstate the drilling area of operations and complete works.	2.1 The types and purpose of information sources on reinstatement. 2.2 How plant, tools or equipment is used to reinstate the drilling area and complete the work. 2.3 Potential hazards and risks, and environmental aspects associated with reinstating the drilling area and completing the work. 2.4 Security arrangements for the reinstatement activities, including the security of tools and equipment. 2.5 The types and use of personal protective equipment required for, and during reinstatement activities. 2.6 The requirements for environmental compliance and protection in relation to the work activity. 2.7 The importance of completing the work to specified standards and timescales. 2.8 Actions to be taken if plant, tools or equipment are damaged, unavailable or unsuitable for the task. 2.9 Their personal responsibilities under the health and safety statutory and environmental requirements. 2.10 The organisational reporting requirements and arrangements to relevant persons. 2.11 The types of problems that can occur when reinstating ground, and the actions to be taken. 2.12 Own personal responsibilities for reporting problems to relevant persons (supervision, work colleagues, maintenance engineers, designated persons and/or those affected by the work activity). 2.13 The importance of leaving the work area clear and tidy. 2.14 The reasons for, and methods of waste disposal.

	2.15 The approved policies, procedures and practices for the reinstatement of the drilling work area and completing the work (legislative/regulatory, organisational, operational, incident or emergency, health and safety, first aid, and environmental) as appropriate.
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Additional information about the unit	
Unit purpose and aim	This unit states the skills, knowledge and understanding required to demonstrate competence in reinstating the area of operations and completing the drilling work activity. This covers reinstating the ground as appropriate and clearing the site of materials, waste and equipment. During this work account must be taken of the relevant operational requirements and healthy, safe and environmentally responsible working practices. This unit is applicable to anyone working with, or supporting the drilling work activity, with the responsibility for reinstating the work area on completion of operations.
Details of relationship between the unit and relevant NOS or other professional standards	This unit is based on NOS Unit MPQDO15 Reinstatement of the Drilling Area of Operations and Complete Works covering it in full.
Assessment requirements or guidance specified by sector or regulatory body	Must be assessed in accordance with the MP Futures SSO Assessment Strategy and ProQual Drilling Operations Qualification Directives v1 November 2018.
Location of the unit within the subject/sector classification system	4.2

Unit Number:	F/617/3269
Title:	Unload and Load Mobile Plant and Equipment from Transportation
Level:	3
Credit value:	4
Guided Learning Hours	24
Learning outcome <i>The learner will:</i>	Assessment criteria <i>The learner can:</i>
1. Be able to unload and load mobile plant and equipment from transportation.	1.1 Obtain approval for the unloading or loading operation from appropriate persons. 1.2 Check and confirm the area and ground conditions are suitable for the planned movement and loading or unloading operation. 1.3 Check and ensure that the transporter is positioned for the operation, shut down and securely braked. 1.4 Ensure all securing devices have been released, and obstructions removed from transportation when unloading. 1.5 Ensure the transportation loading surface is of the correct size and condition when loading. 1.6 Seek appropriate assistance and agree the unloading or loading procedure. 1.7 Complete prestart checks on the plant item/s to be unloaded or loaded. 1.8 Identify and relocate or secure loose equipment. 1.9 Configure/set-up plant components for unloading or loading. 1.10 Check ramps are suitable, correctly positioned and secured. 1.11 Check for obstructions, personnel and other plant before and throughout the moving operation. 1.12 Conduct the movement of the plant item/s. 1.13 Shut down and secure the plant in accordance with organisational requirements. 1.14 Ensure all components, tools and equipment are loaded and secured. 1.15 Complete unloading and loading in compliance with approved policies, procedures and practices (legislative/regulatory, organisational, operational, incident or emergency, health and safety, first aid, and environmental) as appropriate to the work activity.
2. Understand how to unload and load mobile plant and equipment from transportation.	2.1 The limits of own responsibilities for loading and unloading. 2.2 The dimensions of the mobile plant or equipment being unloaded or loaded. 2.3 The suitability and minimum dimensions and capacities for transportation equipment. 2.4 The acceptable standards for unloading or loading areas. 2.5 How it is established that ground conditions are suitable for the operation. 2.6 How to demark the loading/unloading area. 2.7 The potential hazards associated with loading and unloading activity. 2.8 The possible effects of adverse environmental conditions on loading/unloading. 2.9 The securing points for plant, equipment and components and methods of securing them. 2.10 The mobile plant operational procedures (including pre-start and shut-down).

	<p>2.11 The possible effects of different component configuration/set-up on the loading/unloading procedure.</p> <p>2.12 How communication is carried out with others involved in the process of loading/unloading.</p> <p>2.13 The typical problems that can occur during loading and unloading operations.</p> <p>2.14 How to resolve issues arising during loading and unloading operations.</p> <p>2.15 The reporting and recording arrangements for the operation and issues arising from it.</p> <p>2.16 The approved policies, procedures and practices for the loading, unloading, movement, parking and security of mobile plant as appropriate to the work activity.</p>
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Additional information about the unit	
Unit purpose and aim	<p>This unit states the skills and knowledge required to demonstrate competence in safely unloading mobile plant and equipment from transportation (usually a road going flat-bed/low loader trailer or lorry), and also to load the plant and equipment for removal from site. It recognises the operative's competence to follow instructions and adopt safe working practices to prepare for and carry out unloading/loading of plant and equipment.</p> <p>Mobile plant and equipment requires transportation from site to site periodically for operational or maintenance purposes. The driver of the transport has responsibility for safe transportation, unloading and loading. However, due to the specific operating requirements of many items of specialised/heavy mobile plant the transporter driver may not have the skills to drive it safely. On these occasions it may be considered that the best safe procedure is for the plant operator to drive the plant off/on to the transportation.</p> <p>This unit can apply to anyone who may be required to unload or load mobile plant and equipment from transportation.</p>
Details of relationship between the unit and relevant NOS or other professional standards	<p>This unit is based on NOS Unit MPQDO37 Unload and Load Mobile Plant and Equipment from Transportation covering it in full.</p>
Assessment requirements or guidance specified by sector or regulatory body	<p>Must be assessed in accordance with the MP Futures SSO Assessment Strategy and ProQual Drilling Operations Qualification Directives v1 November 2018.</p>
Location of the unit within the subject/sector classification system	<p>4.2</p>

Unit Number:	T/617/3270
Title:	Prepare and Operate Powered Units, Tools, Pedestrian Plant, Machinery or Equipment
Level:	2
Credit value:	7
Guided Learning Hours	23
Learning outcome <i>The learner will:</i>	Assessment criteria <i>The learner can:</i>
1. Be able to prepare and operate powered units, tools, machinery or equipment.	<p>1.1 Use information from drawings, instructions, method statements, specifications, schedules and manufacturers' information.</p> <p>1.2 Comply with information and/or instructions derived from risk assessments and method statements.</p> <p>1.3 Use appropriate personal protective equipment (PPE) to carry out the activity in accordance with legislation and organisational requirements.</p> <p>1.4 Select resources associated with the type of work in relation to fuel/power source, lubricants and consumables.</p> <p>1.5 Protect the work and its surrounding area from damage.</p> <p>1.6 Minimise damage and maintain a clean work space.</p> <p>1.7 Dispose of waste in accordance with legislation.</p> <p>1.8 Demonstrate compliance with given information and relevant legislation when using powered units, tools, pedestrian plant, machinery or equipment in relation to two or more of the following:</p> <ul style="list-style-type: none"> • safe use of access equipment; • safe handling of materials; • safe use and storage of materials, tools and equipment; • specific risks to health. <p>1.9 Demonstrate the following work skills when using powered units, tools or pedestrian plant, machinery or equipment:</p> <ul style="list-style-type: none"> • starting; • stopping; • replenishing; • controlling. <p>1.10 Use and maintain powered units, tools and ancillary equipment.</p> <p>1.11 Operate and monitor powered units and tools or pedestrian plant, machinery or associated equipment to given working instructions relating to:</p> <ul style="list-style-type: none"> • continual running; • closing down; • cleaning. <p>1.12 Return powered unit, tools or pedestrian plant, machinery or equipment to a safe operational condition on completion of work.</p> <p>1.13 Disassemble and/or clean powered unit, tools or pedestrian plant, machinery or equipment.</p> <p>1.14 Demonstrate completion of the work within the allocated time.</p>
2. Know and understand how to prepare and operate powered units, tools, machinery or equipment.	<p>2.1 The organisational procedures to report and rectify inappropriate information and unsuitable resources and how they are implemented.</p> <p>2.2 How different types of information are located and interpreted in relation to:</p> <ul style="list-style-type: none"> • drawings;

	<ul style="list-style-type: none"> • instructions; • specifications; • method statements; • schedules; • manufacturers' information. <p>2.3 Own responsibilities under current legislation and official guidance whilst working in the workplace:</p> <ul style="list-style-type: none"> • below ground level; • at height; • with tools and equipment; • with materials and substances; • with movement/storage of materials; • by manual handling and mechanical lifting. <p>2.4 The organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.</p> <p>2.5 The accident reporting procedures and who is responsible for making reports.</p> <p>2.6 Why and when health and safety control equipment should be used, the types, purpose and limitations of each, the work situation and general work environment, in relation to:</p> <ul style="list-style-type: none"> • collective protective measures; • personal protective equipment (PPE); • respiratory protective equipment (RPE); • local exhaust ventilation (LEV). <p>2.7 How emergencies should be responded to in accordance with organisational requirements when involved with the following:</p> <ul style="list-style-type: none"> • fires; • spillages; • injuries; • task-related hazards. <p>2.8 The characteristics, quality, uses, sustainability, limitations and defects associated with the resources, relating to:</p> <ul style="list-style-type: none"> • power source/fuels; • consumables; • lubricants. <p>2.9 How the resources should be used correctly and how problems associated with the resources are reported.</p> <p>2.10 The methods of work to be followed for activities undertaken and the importance of adhering to them.</p> <p>2.11 Potential hazards associated with the resources and methods of work.</p> <p>2.12 How to calculate quantity, length, area and wastage associated with the method/procedures to operate powered units, tools or pedestrian plant, machinery or equipment.</p> <p>2.13 How to protect work from damage and the purpose of protection in relation to:</p> <ul style="list-style-type: none"> • general workplace activities; • others involved with the work; • adverse weather conditions. <p>2.14 Why the disposal of waste should be carried out in relation to the work.</p>
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	<p>2.15 The purpose of the work programme and why deadlines should be kept in relation to:</p> <ul style="list-style-type: none"> • types of progress charts, timetables and estimated times; • organisational procedures for reporting circumstances which will affect the work programme. <p>2.16 How to apply safe work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> • prepare, position and set up for work; • secure accessories and tool attachments; • carry out pre-use and function checks to manufacturers' and suppliers' information and procedures; • complete pre-start and post stop checks; • recognise the characteristics of the plant, machinery and equipment; • identify specific operating and safety requirements for the task and work; • recognise and determine when specific skills and knowledge are required and report accordingly; • operate, use and control; • monitor and maintain; • replenish consumables; • close down and secure; • disassemble and clean; • use access equipment; • transport and store. <p>2.17 The needs of other occupations and how to communicate within a team when preparing for and using powered units, tools or pedestrian plant, machinery or equipment.</p> <p>2.18 How to maintain the hand tools, portable power tools, powered units, pedestrian plant, machinery and ancillary equipment used for the work.</p>
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Additional information about the unit	
Unit purpose and aim	This Unit contains the skills, knowledge and understanding required to demonstrate competence in preparing and operating powered units, tools, machinery or equipment within the relevant sector of industry.
Details of relationship between the unit and relevant NOS or other professional standards	This unit is based on NOS Unit COSVR400 Operate powered units, tools or pedestrian plant, machinery or equipment , covering it in full.
Assessment requirements or guidance specified by sector or regulatory body	Must be assessed in accordance with the MP Futures SSO Assessment Strategy and ProQual Drilling Operations Qualification Directives v1 November 2018
Location of the unit within the subject/sector classification system	4.2

Unit Number:	A/617/3271
Title:	Use of Technologies to Support Drilling Operations
Level:	3
Credit value:	6
Guided Learning Hours	20
Learning outcome <i>The learner will:</i>	Assessment criteria <i>The learner can:</i>
1. Be able to use technologies to support drilling operations.	<p>1.1 Obtain and interpret information on the technologies available on the drill rig.</p> <p>1.2 Initiate operation of the technologies covering at least three of the following:</p> <ul style="list-style-type: none"> • positioning the drill rig; • automatic re-positioning the drill rig; • carrying out prestart checks; • monitoring drilling performance; • adjusting drilling performance; • adjusting drilling direction; • monitoring drilling rig performance; • improving environmental performance (for example by carbon reduction or noise reduction); • fault diagnosis; • recording and reporting results. <p>1.3 Check that the technologies initiated in 1.2 are available and operational to designed parameters.</p> <p>1.4 Carry out drilling aided by the technologies.</p> <p>1.5 Monitor drilling and drill rig performance using the technologies.</p> <p>1.6 Monitor the performance of the technologies.</p> <p>1.7 Shut down the technologies in accordance with manufacturer's instructions.</p> <p>1.8 Carry out work activities in accordance with the approved policies, procedures and practices for the use of the technologies, the work activity and the working environment (legislative/regulatory, organisational, operational, incident or emergency, health and safety, first aid, and environmental) as appropriate to the work activity.</p>
2. Understand how to use technologies to support drilling operations.	<p>2.1 The sources of information available on the technologies.</p> <p>2.2 The range, quality and quantity of the information and services provided by the technologies for the following:</p> <ul style="list-style-type: none"> • positioning the drill rig; • automatic re-positioning the drill rig; • carrying out prestart checks; • monitoring drilling performance; • adjusting drilling performance; • adjusting drilling direction; • monitoring drilling rig performance; • improving environmental performance (for example by carbon reduction or noise reduction); • fault diagnosis; • recording and reporting results. <p>2.3 How to initiate, check operation, use, monitor and shut down the technologies used in criteria 1.2.</p> <p>2.4 The problems that can occur with the use of the technologies.</p>

	<p>2.5 The potential consequences of faulty or misused technologies.</p> <p>2.6 Actions to be taken should the technologies be non-operational, faulty or not working to expectations.</p> <p>2.7 Actions to be taken should the technologies fail to produce the specified outcomes.</p> <p>2.8 The methods of communication and reporting arrangements for the work activity, and the work area</p> <p>2.9 The approved policies, procedures and practices for the use of the technologies, the work activity and the working environment</p>
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Additional information about the unit	
Unit purpose and aim	<p>This unit states the skills and knowledge required to demonstrate competence in using technologies to support drilling operations. Technologies, based on information and communication technologies (ICT) are increasingly being used to support drilling operations by improving communications, accurate positioning and repositioning, controlling and monitoring drilling machine performance. The standard applies to new drill rigs incorporating the technological equipment, and older rigs that have had technological equipment and functions retro-fitted. The standard includes an understanding of the technologies and using them to provide information, set up the drill rig and perform drilling operations.</p> <p>This unit applies to operators of drill rigs that incorporate the technologies. They are likely to already have some competencies in drilling operations; they do not have to be competent in generic ICT skills and knowledge. The unit applies only to those technologies used on drill rigs.</p>
Details of relationship between the unit and relevant NOS or other professional standards	<p>This unit is based on NOS Unit MPQDO39 Use Advanced Technologies to Support Drilling Operations covering it in full.</p>
Assessment requirements or guidance specified by sector or regulatory body	<p>Must be assessed in accordance with the MP Futures SSO Assessment Strategy and ProQual Drilling Operations Qualification Directives v1 November 2018.</p>
Location of the unit within the subject/sector classification system	<p>4.2</p>

Unit Number:	F/617/3272
Title:	Conduct a Health, Safety and Environmental Risk Assessment of the Drilling Operation
Level:	3
Credit value:	6
Guided Learning Hours	35
Learning outcome <i>The learner will:</i>	Assessment criteria <i>The learner can:</i>
1. Be able to conduct a health, safety and environmental risk assessment of the drilling operation.	1.1 Identify and establish the location and scope of the required assessment. 1.2 Obtain appropriate information or advice in relation to the required assessment. 1.3 Carry out assessment in accordance with organisational procedures. 1.4 Identify potential health and safety hazards and environmental aspects likely to cause harm or loss. 1.5 Demonstrate how to quantify the risk. 1.6 Establish and confirm that appropriate control measures are in place. 1.7 Report and record significant findings in accordance with organisational procedures. 1.8 Conduct periodic review of assessments. 1.9 Maintain suitable and sufficient records. 1.10 Carry out activities in compliance with the approved policies, procedures and practices (legislative/regulatory, organisational, operational, incident or emergency, health and safety, first aid, and environmental) as appropriate to the work activity.
2. Understand how to conduct a health, safety and environmental risk assessment of the drilling operation.	2.1 The legal requirements for workplace risk assessment. 2.2 The drilling operations and workplace health and safety hazards that are likely to cause harm or loss. 2.3 The drilling operations and workplace environmental aspects that are likely to cause harm or loss. 2.4 The importance of remaining alert to the presence of health and safety hazards and environmental aspects in the workplace. 2.5 The methods of identifying potential hazards and aspects. 2.6 Techniques for assessing and evaluating risk. 2.7 The reporting and recording requirements for the activity and workplace. 2.8 The sources of information relating to the drilling activity and workplace for: <ul style="list-style-type: none"> • health and safety hazards; • environmental impacts; • risk assessments. 2.9 The importance of dealing with, or promptly reporting identified health, safety or environmental hazards and risks or inadequate control measures. 2.10 Own limitations, job responsibilities and capabilities. 2.11 The work areas and people for whom the assessment is being carried out. 2.12 The work activities of the people in the workplace where the risk assessment is being carried out. 2.13 The organisational communication methods used in the workplace.

	<p>2.14 The types of control measures for the risks associated with the work activity.</p> <p>2.15 The approved policies, procedures and practices that are relevant for the location and work activity.</p>
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Additional information about the unit	
Unit purpose and aim	<p>This unit states the skills, knowledge and understanding required to demonstrate competence in conducting dynamic risk assessments of the health, safety and environmental hazards and aspects associated with drilling operations. It includes identification, evaluation and reporting before and throughout the drilling operation.</p> <p>This unit is for people carrying out risk assessments related to drilling activities. This could be an employer, line manager, supervisor, safety representative or an individual involved in drilling operations.</p>
Details of relationship between the unit and relevant NOS or other professional standards	<p>This unit is based on NOS Unit MPQDO40 Conduct a Health, Safety and Environmental Risk Assessment of the Drilling Operation covering it in full.</p>
Assessment requirements or guidance specified by sector or regulatory body	<p>Must be assessed in accordance with the MP Futures SSO Assessment Strategy and ProQual Drilling Operations Qualification Directives v1 November 2018.</p>
Location of the unit within the subject/sector classification system	<p>4.2</p>



www.proqualab.com

enquiries@proqualab.com

Tel: +44 (0)1430 423822

ProQual AB Limited, ProQual House, Westbridge Court, Annie Med Lane, South Cave HU15 2HG
Company Registration Number: 07464445