



Australian Government

RIIOGN303D Operate mud systems

Release: 2

RIIOGN303D Operate mud systems

Modification History

Release	Comment
1	This unit replaces RIIOGN303A Operate mud systems
2	Required frequency and volume of evidence amended in Performance evidence. Substantial amendments made in Assessment Conditions field, including: references to Industry Sectors, assessor and subject matter expert experience requirements, how assessment should be conducted and what it should confirm.

Application

This unit describes a participant's skills and knowledge required to apply operate mud systems in Drilling.

This unit is appropriate for those working in operational roles.

No licensing or certification requirements apply to this unit at the time of publication.

Unit Sector

Drilling

Elements and Performance Criteria

1. Plan and prepare for operations	1.1. Access, interpret and apply Operate mud systems documentation and ensure the work activity is compliant 1.2. Obtain, read, interpret, clarify and confirm work requirements 1.3. Identify, address and report potential hazards, risks and environmental issues and implement control measures 1.4. Select and wear personal protective equipment appropriate to the work activities 1.5. Adhere to coordination requirements with others at the site prior to, during and on completion of work activities and ensure briefings/handover details are communicated 1.6. Confirm availability and status of necessary permits 1.7. Confirm availability of necessary third party utilities
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2. Operate mud system	2.1. Ensure good oilfield practice when operating equipment 2.2. Align valves in pits to ensure correct pit usage
3. Operate, maintain and repair mud conditioning equipment	3.1. Identify, confirm and adjust equipment as per supervisors or mud engineers instruction 3.2. Clean all equipment and visually inspect for leaks and proper operation, in accordance with specifications 3.3. Identify faults or potential faults, record and report to relevant personnel 3.4. Identify faults, record and report requirement for repair or maintenance 3.5. Replace screens or cones, on shakers, desilters and desanders 3.6. Perform periodic or scheduled preventative maintenance on all mud treatment units
4. Operate and service transfer (butterfly) valves in mud pits	4.1. Align valves 4.2. Lubricate valve stems of butterfly valves 4.3. Clean and inspect transfer valves 4.4. Replace or repair defective parts
5. Recognise warning signs of kicks	5.1. Monitor, adjust and report pit level 5.2. Monitor and report mud properties 5.3. Monitor and report size of cuttings 5.4. Monitor and report volume of mud returns

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit. Further information is available in the Resources and Infrastructure Industry Training Package Companion Volume.

Unit Mapping Information

RIIOGN303A Operate mud pumps

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

Assessment Requirements for RIIOGN303D Operate mud systems

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Performance Evidence

Evidence is required to be collected that demonstrates a candidate's competency in this unit. Evidence must be relevant to the roles within this sector's work operations and satisfy all of the requirements of the performance criteria of this unit and include that the candidate:

- locates and applies applicable documentation, policies and procedures
- implements the requirements, procedures and techniques for the safe, effective and efficient operating of mud systems including:
 - identifying, addressing and reporting potential hazards and risks
 - controlling identified hazards
 - identifying, addressing and reporting environmental issues
 - preparing written records and reports
 - rectifying and/or reporting faults and malfunctions
- works effectively with others to undertake the operating of mud systems that meets all of the required outcomes including:
 - complying with written and verbal reporting requirements and procedures
 - communicating clearly and concisely with others to receive and clarify work instructions
 - communicating clearly and concisely with others to resolve coordination requirements prior to commencing and during work activities
- demonstrates completion of operating of mud systems that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - recognise and report equipment malfunction or failure
 - work as directed by supervisor or mud engineer timely and efficiently
 - align, lubricate, inspect, replace and repair valves in pits

- operate mud condition equipment, including shakers, degasser, desilter, desander, mud cleaner and agitators
- maintain and repair mud conditioning equipment
- replace screens and cones on shakers and desilters/desanders

Knowledge Evidence

The candidate must demonstrate knowledge of the following in applying the operate mud systems through:

- accessing, interpreting and applying legislative, organisation and site requirements and procedures for:
 - setting up work activity
 - work health and safety
 - selecting and checking for faults, all plant, tools and equipment to carry out tasks
 - carrying out work to specifications
 - identifying and confirming availability of permits

Assessment Conditions

- An assessor of this unit must satisfy the requirements of the NVR/AQTF or their successors; and Industry regulations for certification and licensing; and,
- this unit must be assessed in the context of this sector's work environment; and,
- this unit must be assessed in compliance with relevant legislation/regulation and using policies, procedures, processes and operational manuals directly related to the industry sector for which it is being assessed; and,
- assessment may be conducted in conjunction with the assessment of other Units of Competency; and,
- assessment must confirm consistent performance can be applied in a range of relevant workplace circumstances; and,
- assessors must demonstrate the performance evidence, and knowledge evidence as outlined in this Unit of Competency, and through the minimum years of current* work experience specified below in an Industry sector relevant to the outcomes of the unit; or,
- where the assessor does not meet experience requirements a co-assessment or partnership arrangement must exist between the qualified assessor and an Industry subject matter expert. The Industry subject matter expert should hold the unit being assessed (or an equivalent unit) and/or demonstrate equivalence of skills and knowledge at the unit level. An Industry technical expert must also demonstrate skills and knowledge from the minimum years of current work experience specified below in the Industry sector, including time spent in roles related to the unit being assessed; and,
- assessor and Industry subject matter expert requirements differ depending on the Australian Qualifications Framework Level (AQF) of the qualification being assessed and/or Industry Sector as follows:

Industry sector	AQF** Level	Required assessor or Industry subject matter expert experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Construction	1	1 Year
	2	2 Years
Drilling, Coal Mining and Extractive (Quarrying)	3-6	3 Years
Metalliferous Mining and Civil Construction	3-6	5 Years
Other sectors	Where this Unit is being assessed outside of the Resources and Infrastructure Sectors assessor and/or Industry subject matter expert experience should be in-line with industry standards for the sector in which it is being assessed and where no Industry standard is specified should comply with any relevant regulation.	

*Assessors can demonstrate current work experience through employment within Industry in a role relevant to the outcomes of the Unit; or, for external assessors this can be demonstrated through exposure to Industry by conducting frequent site assessments across various locations.

**Where a unit is being delivered outside of a Qualification the first numeric character in the Unit code should be considered to indicate the AQF level

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