



Australian Government

RIIWSV401E Rig up and rig down for well servicing operations

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with RII Resources and Infrastructure Industry Training Package Version 5.0.

Application

This unit describes the skills and knowledge required to applying rig up and rig down for well servicing in drilling. It prepares individuals to rig up, prepare for well servicing operations, prepare start operations, conduct operations according to instructions and rig down.

It applies to those working in supervisory or technical specialist roles. They generally perform tasks involving a broad range of varied activities most of which are complex and non-routine and are responsible for the quantity and quality of the output of others.

Licensing, legislative and certification requirements that may apply to this unit can vary between states, territories, and industry sectors. Users must check requirements with relevant body before applying the unit.

Unit Sector

Drilling (Well Servicing)

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan and prepare for operations	1.1 Obtain, interpret and confirm and apply work instructions 1.2 Access, interpret and apply compliance documentation and legislation and confirm work activity is compliant 1.3 Identify and minimise environmental issues and potential hazards, and assess and address risks within scope of own role and according to workplace procedures 1.4 Carry out gas testing according to site requirements 1.5 Confirm well bore stability 1.6 Confirm personnel coordination requirements at the site are met prior to commencement of work activities

ELEMENT	PERFORMANCE CRITERIA
	1.7 Carry out pre rig-up procedure inspections within scope of own role and according to standards for individual rigs 1.8 Coordinate movement of load and sequence of installation and location according to rig movement plan 1.9 Check equipment for damage and loss by moving contractor and report and BI according to requirements
2. Rig up	2.1 Receive, acknowledge and action rig manager authorisation to commence rig-up operations 2.2 Receive detailed instructions on use and type of mud, fluid or air from the operator and distribute as required and to required specifications 2.3 Identify potential rig-up problems and take corrective action as required and within scope of own role 2.4 Keep rig manager informed of operations according to legislative and company requirements
3. Prepare for well servicing operations	3.1 Check rig and hoist equipment, report damage to rig manager and record according to company policies and procedures as required 3.2 Conduct equipment checks for nippling-up or cross-checked with required procedures 3.3 Confirm and check handling equipment for required sizing and if fit for purpose 3.4 Confirm availability of and inspect, clean, calibrate and record tubulars according to requirements 3.5 Check well control equipment against work program requirements 3.6 Identify special tool requirements and check if fit for purpose and approved for use
4. Prepare start operations	4.1 Load rod racks with rod/down hole production equipment tubulars and position drill collars for immediate use 4.2 Inspect /tubulars down hole running tools and prepare for operation 4.3 Record in writing casing/tubular/down hole tallies and report to appropriate company officer
5. Conduct operations according to instructions	5.1 Determine optimum circulating rates and operational penetration rates and check deviations are in accordance with operators' program 5.2 Check circulating equipment for immediate operation 5.3 Check fluid quantity requirements with sufficient being in reserve to kill well and keep hole on full trip 5.4 Record in writing fluid properties in tally book 5.5 Operate all equipment according to manufacturer regulations and company procedures 5.6 Maintain a sound working relationship with third party contractors

ELEMENT	PERFORMANCE CRITERIA
6. Rig down	6.1 Receive and action rig manager authorisation to commence rig-down operations 6.2 Identify potential rig-down problems and take corrective action as required and within scope of own role 6.3 Keep rig manager informed of operations

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

SKILL	DESCRIPTION
Numeracy	Interprets numerical information relating to fluid quantity requirements
Reading	Identifies and interprets complex information from workplace procedures, documentation, legislation, regulations, and team member training needs assessments

Unit Mapping Information

Supersedes and is equivalent to RIIWSV401D Rig up and rig down for well servicing.

Links

Companion Volume implementation guides is found on VETNet -

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

Assessment Requirements for RIIWSV401E Rig up and rig down for well servicing operations

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Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- rig up and rig down for well servicing operations on at least two occasions, including:
 - carrying out gas testing, rig-up and rig-down procedures
 - monitoring and confirming well bore stability
 - coordinating load movements
 - conducting inspections on equipment, reporting faults and implementing corrective actions
 - loading, inspecting and recording rod racks with tubulars
 - identifying circulating and penetration rates
 - operating required plant and equipment
 - processing written records and reports.

During the above, the candidate must:

- locate and apply legislation, documentation, policies and procedures required to rig up and rig down for well servicing operations
- work with others to undertake and complete the rig up and rig down for well servicing operations that meets required outcomes, including:
 - complying with written and verbal reporting requirements and procedures
 - communicating with others to receive and clarify work instructions
 - communicating with others to determine coordination requirements throughout work activities.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- key legislation required to rig up and rig down for well servicing operations
- key policies, procedures and established requirements to rig up and rig down for well servicing operations, including those for:
 - gas testing
 - applying unit rigging and slinging
 - identifying rig specifications and measurements
 - performing metric-imperial conversion
 - determining the program to pre-start operations
 - identifying and resourcing equipment
 - carrying out and managing rig up procedures
 - maintaining fluid systems
 - performing routine well servicing operations
 - environmental issues.

Assessment Conditions

Mandatory conditions for assessment of this unit are stipulated below. The assessment must:

- include access to:
 - personal protective equipment
 - equipment required to rig up and rig down for well servicing operations
- be conducted in a safe environment; and,
- be assessed in the context of this sector's work environment; and,
- be assessed in compliance with relevant legislation/regulation and using policies, procedures and processes directly related to the industry sector for which it is being assessed; and,
- confirm consistent performance can be applied in a range of relevant workplace circumstances.

Where personal safety or environmental damage are limiting factors, assessment may occur in a simulated work environment* provided it is realistic and sufficiently rigorous to cover all aspects of this sector's workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.

Assessor requirements

Assessors must be able to clearly demonstrate current and relevant industry knowledge and experience to satisfy the mandatory regulatory standards as set out in the Standards for Registered Training Organisations 2015/Australian Quality Training Framework mandatory requirements for assessors current at the time of assessment and any relevant licensing and certification requirements. This includes:

- vocational competencies at least to the level being delivered and assessed
- current industry skills directly relevant to the training and assessment being provided
- current knowledge and skills in vocational training and learning that informs their training and assessment
- formal relevant qualifications in training and assessment

- having knowledge of and/or experience using the latest techniques and processes
- possessing the required level of RII training product knowledge
- having an understanding and knowledge of legislation and regulations relevant to the industry and to employment and workplaces
- demonstrating the performance evidence, and knowledge evidence outlined in this unit of competency, and
- the minimum years of current** work experience after competency has been obtained as specified below in an industry sector relevant to the outcomes of the unit.

It is also acceptable for the appropriately qualified assessor to work with an industry expert to conduct assessment together and for the industry expert to be involved in the assessment judgement. The industry expert must have current industry skills directly relevant to the training and assessment being provided. This means the industry subject matter expert must demonstrate skills and knowledge from the minimum years of current work experience after competency has been obtained as specified below, including time spent in roles related to the unit being assessed:

Industry sector	AQF indicator level***	Required assessor or industry subject matter expert experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Infrastructure	1	1 year
	2	2 years
Drilling, Coal Mining, Extractive (Quarrying), Metalliferous Mining and Civil Infrastructure	3-6	3 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.	

*Guidance on simulated environments has been stipulated in the RII Companion Volume Implementation Guide located on VETNet.

**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 a minimum number of site assessments as determined by the relevant industry sector, across various locations.

*** While a unit of competency does not have an AQF level, where a unit is being delivered outside of a qualification the first numeric character in the unit code should be considered as the AQF indicator level for assessment purposes.

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