



Australian Government

RIINHB308D Conduct wireline core drilling

Release: 1

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Modification History

Not applicable.

Application

This unit describes a participant's skills and knowledge required to conduct wireline core drilling in the Resources and Infrastructure Industry.

This unit is appropriate for those working in operational roles.

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

Elements and Performance Criteria

1. Plan and prepare for wireline core drilling	1.1 Access, interpret and apply conduct wireline core drilling documentation and ensure the work activity is compliant 1.2 Obtain, read, interpret, clarify and confirm work requirements 1.3 Identify and address potential risks, hazards and environmental issues and implement control measures 1.4 Select and wear personal protective equipment appropriate for work activities 1.5 Communicate and coordinate activities with others throughout the work activity 1.6 Obtain and interpret emergency procedures, and be prepared for fire/accident/emergency
2. Operate core drill	2.1 Carry out pre-start and start up procedures 2.2 Identify, select and apply rig operational controls 2.3 Identify and use different drill rod and casing types, thread forms and thread make up parameters 2.4 Select appropriate drill bits and reamer shells 2.5 Adjust inner tube length to ensure appropriate fluid flow around the core 2.6 Use rod and casing handling equipment safely 2.7 Add/break out and remove drill rods/pipes and down hole equipment 2.8 Apply appropriate rotation speed, weight on the bit, drilling fluid flow rate and penetration rate applicable to the ground conditions 2.9 Measure drill string components and calculate depth of hole 2.10 Collar holes 2.11 Install casing
3. Operate drill	3.1 Identify hole conditions requiring the use of drilling fluids and

fluid system	chemicals 3.2 Select, prepare, apply, test and monitor suitable fluids and additives 3.3 Monitor fluid return and solids content and implement control measures 3.4 Monitor fluid and cuttings specific gravity and up hole velocity to ensure efficient hole clearing 3.5 Monitor causes of pressure in fluid systems 3.6 Select the appropriate fluid pumping rate for the hole size
4. Operate wireline	4.1 Use overshot retrieval and dry release system 4.2 Assemble and maintain wireline overshot 4.3 Use pump in and dry hole lowering devices
5. Use hole survey and core orientation equipment	5.1 Use survey tool, as required 5.2 Assemble and maintain survey and core orientation devices 5.3 Read and record survey data 5.4 Operate core orientation devices as required
6. Take core samples	6.1 Implement control measures for minimising core loss 6.2 Identify core blockages affecting sample quality
7. Respond to problems	7.1 Identify possible problems in equipment or process 7.2 Determine problems needing action 7.3 Determine possible fault causes 7.4 Rectify problem using appropriate solution within area of responsibility 7.5 Follow through items initiated until final resolution has occurred 7.6 Report problems outside area of responsibility to designated person
8. Complete equipment maintenance and housekeeping	8.1 Carry out shutdown and secure equipment 8.2 Strip impregnated bits according to manufacturer/company procedures 8.3 Dismantle and service backend assembly 8.4 Dismantle core barrels, service and replace worn/damaged components 8.5 Dismantle wireline retrieval components service and replace

	worn/damaged components if required
8.6	Maintain drill string
8.7	Maintain bit management, record required information and store bits correctly
8.8	Ensure housekeeping activities are completed
8.9	Process records

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

RIINHB308A Conduct wireline core drilling

Links

SkillsDMC RII Companion Volumes - <http://www.skillsdmc.com.au/>