



Australian Government

RIINHB306E Conduct large diameter auger drilling

Release: 1

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Modification History

Release	Comment
1	This unit replaces RIINHB306D Conduct large diameter auger drilling. Knowledge evidence amended.

Application

This unit describes a participant's skills and knowledge required to conduct large diameter auger drilling in civil construction and drilling.

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.

Unit Sector

Civil construction

Drilling

Elements and Performance Criteria

1. Plan and prepare for large diameter auger drilling	1.1 Access, interpret and apply conduct large diameter auger 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 large diameter auger drill	2.1 Carry out pre-start and start up procedures 2.2 Identify, select and apply rig operational controls 2.3 Collar borehole, start hole, maintain hole alignment, take

	corrective action for deflections 2.4 Make up appropriate drill string 2.5 Handle additional drill stems, inserting them in the drill string 2.6 Use appropriate gears, rotation, feed and holdback so that flights or bucket are substantially full for the soil being drilled at any given depth 2.7 Interpret drilling factors to determine conditions at the bit 2.8 Make and break auger string and drive head connections 2.9 Maintain a clear hole and a clear bottom and deploy tools for cleaning hole bottom at completed depth 2.10 Interpret or calculate actual depth at any point during drilling, interpret depth of strata changes and identify fill depth in any bore 2.11 Select appropriate strategies for recovery of dropped augers 2.12 Recover drill string using winch and/or head/kelly 2.13 Insert surface casing and deepen hole using smaller diameter auger or bucket, if required 2.14 Disassemble drill string and change augers and bit components 2.15 Select bits for formation being drilled 2.16 Select appropriate augering method for situation 2.17 Maintain spoil removal from hole collar 2.18 Cover and secure bores 2.19 Prepare and submit paperwork for daily activities 2.20 Continually monitor hazards and risks, and ensure safety of self, other personnel, plant and equipment 2.21 Select and use water and drilling fluids as appropriate 2.22 Bell foundation piles, if required 2.23 Clean pile bases and insert reinforcement cages, if required 2.24 Deploy bucket augers through surface casing and when drilling under bentonite muds 2.25 Use spin off and side casting of spoil as appropriate 2.26 Record daily hole depths and progress
3. Respond to problems	3.1 Identify possible operational problems in equipment or process 3.2 Identify symptoms of problems needing remedial action 3.3 Determine possible fault causes 3.4 Rectify problem using appropriate solution within area of

	responsibility 3.5 Follow through items initiated until final resolution has occurred 3.6 Report problems outside area of responsibility to designated person
4. Complete equipment maintenance and housekeeping	4.1 Carry out shutdown and secure equipment 4.2 Monitor external wear in drill string, rotate string elements to ensure even wear 4.3 Interchange drill bits and/or drill bit elements to maintain free cutting ability 4.4 Check all string and equipment elements for wear and proper function 4.5 Replace worn elements in string, bits and equipment and recycle 'out of specification' equipment for repair or redundancy 4.6 Apply lubrication as appropriate 4.7 Ensure housekeeping activities are completed 4.8 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

Code and title current version	Code and title previous version	Comments	Equivalence status
RIINHB306E Conduct large diameter auger drilling	RIINHB306D Conduct large diameter auger drilling	Knowledge evidence amended	Equivalent

Links

Companion Volume implementation guides are found in VETNet -

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