



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **RIIEGS306A Prepare drill site**

**Release: 1**

## RIIEGS306A Prepare drill site

### Modification History

Not applicable.

### Unit Descriptor

This unit covers the preparation of a drill site in the metalliferous mining industry. It includes planning for drill site preparation, creating access to the drill site, preparing the drill site, minimising impact of contaminated groundwater, and managing rare flora. Licensing, legislative, regulatory and certification requirements that apply to this unit can vary between states, territories, and industry sectors. Relevant information must be sourced prior to application of the unit.

### Application of the Unit

This unit is appropriate for those working in an operational role at worksites within:

- Metalliferous mining

### Licensing/Regulatory Information

Refer to Unit Descriptor.

### Pre-Requisites

Not applicable.

### Employability Skills Information

This unit contains employability skills.

### Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
---	--

## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan for drill site preparation	1.1. Access, interpret and apply <b><i>compliance documentation</i></b> relevant to the work activity 1.2. Access the drill site layout plan to confirm the location, size and configuration of the proposed drill site 1.3. Identify, address and report <b><i>potential hazards</i></b> and risks 1.4. Select and wear appropriate <b><i>personal protective equipment</i></b> 1.5. Establish communication system and protocols 1.6. Carry out <b><i>plant and equipment</i></b> pre-start checks
2. Create access to drill site	2.1. Identify existing tracks and use for entry to drill site 2.2. If necessary, create <b><i>new tracks</i></b> which minimises water flows and erosion by following the <b><i>natural contours</i></b> of the land 2.3. Create new tracks to drill site which minimise the clearing of vegetation by avoiding large trees and preserving root stocks 2.4. Raise blades to a minimum of 150mm when using machinery to prepare access blade 2.5. Cut or <b><i>trim larger trees</i></b> if unavoidable 2.6. Stockpile or windrow cleared vegetation for use during site rehabilitation
3. Prepare drill site	3.1. Clear drill site removing minimum vegetation 3.2. Seek permission from appropriate person to move hole location if vegetation significantly impedes access to the proposed drill site 3.3. Manually clear <b><i>ground cover</i></b> to prevent fire hazards to drill rig 3.4. Leave mature trees undisturbed 3.5. Build sumps and bunds on the downside of the hole collar location
4. Minimise impact of	4.1. Identify the possible presence of

contaminated groundwater	<p>groundwater which may be a threat to vegetation during drilling operations</p> <p>4.2.If groundwater is discovered, construct appropriate number of <i><b>sumps</b></i> to recommended configuration and distances from the drill rig location</p> <p>4.3.Store topsoil removed from sump construction separately to facilitate more effective rehabilitation</p>
5. Manage rare flora	<p>5.1.Determine the presence and type of rare flora before clearing vegetation,</p> <p>5.2.Seek advice on the <i><b>action to be taken</b></i> where rare flora are identified</p>

## Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

### Required skills

Specific skills are required to achieve the Performance Criteria of this unit, particularly for its application in the various circumstances in which this unit may be used. This includes the ability to carry out the following, as required to prepare a drill site:

- apply legislative, organisation and site requirements and procedures for preparation of a drill site
- apply communication and recording skills
- perform manual and mechanical handling
- perform basic maintenance skills
- acquire required licences and permits
- apply diagnostic and troubleshooting procedures
- use hand tools
- solve problems

### Required knowledge

Specific knowledge is required to achieve the Performance Criteria of this unit, particularly for its application in the various circumstances in which this unit may be used. This includes knowledge of the following, as required to prepare a drill site:

- provisions of the Workplace Health and Safety Acts, their regulations and code of practice
- particular state or territory regulations relating to vegetation clearing
- drill site layout plans
- environmental work procedures
- hazards associated with drill site preparation work
- types and operational characteristics of plant/equipment used in creating access tracks and for drill site preparation operations
- basic maintenance
- fire control methods
- environmental principles and practices
- types and identification of rare flora
- type and identification of contaminated groundwater
- re-vegetation methods
- recording and reporting

## Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

<b>Overview of assessment</b>	
<b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b>	<p>The evidence required to demonstrate competency in this unit must be relevant to worksite operations and satisfy all of the requirements of the performance criteria, required skills and knowledge and the range statement of this unit and include evidence of the following:</p> <ul style="list-style-type: none"> <li>• knowledge of the requirements, procedures and instructions for preparation of a drill site</li> <li>• implementation of requirements, procedures and techniques for the safe, effective and efficient preparation of a drill site</li> <li>• working with others to undertake and complete the preparation of a drill site that meets all of the required outcomes</li> <li>• consistent timely preparation of a drill site that safely, effectively and efficiently meets the required outcomes</li> </ul>
<b>Context of and specific resources for assessment</b>	<ul style="list-style-type: none"> <li>• This unit must be assessed in the context of the work environment. Where personal safety or environmental damage are limiting factors, assessment may occur in a simulated environment provided it is realistic and sufficiently rigorous to cover all aspects of workplace performance, including task skills, task management skills, contingency management skills and job role environment skills.</li> <li>• Assessment of this competency requires typical resources normally used in a resources and infrastructure sector environment. Selection and use of resources for particular worksites may differ due to the site circumstances.</li> <li>• The assessment environment should not disadvantage the participant. For example, language, literacy and numeracy demands of assessment should not be greater than those required on the job.</li> <li>• Customisation of assessment and delivery environment to sensitively accommodate</li> </ul>

	<p>cultural diversity.</p> <ul style="list-style-type: none"> <li>• Aboriginal people and other people from a non English speaking background may have second language issues.</li> <li>• Where applicable, physical resources should include equipment modified for people with disabilities. Access must be provided to appropriate learning and/or assessment support when required.</li> </ul>
<b>Method of assessment</b>	<p>This unit may be assessed in a holistic way with other units of competency. The assessment strategy for this unit must verify required knowledge and skill and practical application using more than one of the following assessment methods:</p> <ul style="list-style-type: none"> <li>• written and/or oral assessment of the candidate's required knowledge</li> <li>• observed, documented and/or first hand testimonial evidence of the candidate's: <ul style="list-style-type: none"> <li>• implementation of appropriate requirement, procedures and techniques for the safe, effective and efficient achievement of required outcomes</li> <li>• consistent achievement of required outcomes</li> </ul> </li> <li>• first hand testimonial evidence of the candidate's: <ul style="list-style-type: none"> <li>• working with others to undertake and complete the preparation of a drill site</li> </ul> </li> </ul>
<b>Guidance information for assessment</b>	<p>Consult the SkillsDMC User Guide for further information on assessment including access and equity issues.</p>

## Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<b>Relevant compliance documentation</b> may include:	<ul style="list-style-type: none"> <li>• legislative, organisational and site requirements and procedures</li> <li>• manufacturer's guidelines and specifications</li> <li>• Australian standards</li> <li>• Employment and workplace relations legislation</li> <li>• Equal Employment Opportunity and Disability Discrimination legislation</li> </ul>
<b>Potential hazards</b> may include:	<ul style="list-style-type: none"> <li>• disturbance or interruption of services</li> <li>• solar radiation</li> <li>• dust</li> <li>• noise</li> <li>• air- and soil-borne micro-organisms</li> <li>• chemicals and hazardous substances</li> <li>• sharp hand tools and equipment</li> <li>• manual handling</li> <li>• moving machinery and machinery parts</li> <li>• slippery and uneven surfaces</li> <li>• dehydration</li> <li>• stings</li> <li>• contaminated groundwater</li> </ul>
<b>Personal Protective Equipment</b> may include:	<ul style="list-style-type: none"> <li>• hat</li> <li>• boots</li> <li>• overalls</li> <li>• gloves</li> <li>• goggles</li> <li>• respirator or face mask</li> <li>• face guard</li> <li>• hearing protection</li> <li>• drinking water</li> <li>• sunscreen lotion</li> <li>• hard hat</li> </ul>
<b>Plant and equipment</b> may include:	<ul style="list-style-type: none"> <li>• hydraulic excavators</li> <li>• wheel loaders</li> </ul>



	<ul style="list-style-type: none"> <li>• crawler dozers</li> <li>• crawler loaders</li> <li>• motor graders and scrapers</li> <li>• backhoes</li> <li>• chainsaw</li> </ul>
<b>New tracks</b> should be cleared to a width no wider than three metres	
<b>Natural contours</b> should be followed; straight line clearing of tracks and gridlines is not to occur	
<b>Trim larger trees</b> should be carried out with a chainsaw rather than bulldozing	
<b>Ground cover</b> may include:	<ul style="list-style-type: none"> <li>• grass</li> <li>• spinifex</li> <li>• undergrowth</li> </ul>
<b>Sumps</b> should:	<ul style="list-style-type: none"> <li>• be located away from any significant vegetation to minimise disturbance to roots and to prevent horizontal transmission of saline water and potentially hostile material coming into contact with vegetation</li> <li>• have one side that is ramped at approximately 45° to allow animals that may fall into the sump to escape</li> </ul>
<b>Action to be taken</b> may include:	<ul style="list-style-type: none"> <li>• if a single or small number of plants are found: <ul style="list-style-type: none"> <li>• note location</li> </ul> </li> <li>• if work activity is planned for the area, relocate work activity <ul style="list-style-type: none"> <li>• report to regulator</li> </ul> </li> <li>• if a large community of plants is located: <ul style="list-style-type: none"> <li>• note location</li> </ul> </li> <li>• if work activity is planned for the area, contact regulator and determine course of action</li> <li>• if sustained communities of plants are located: <ul style="list-style-type: none"> <li>• note location</li> </ul> </li> <li>• if work activity is planned for the area, contact regulator and obtain concurrence to continue work program</li> </ul>

## **Unit Sector(s)**

Exploration and Field Work

## **Competency field**

Refer to Unit Sector(s).

## **Co-requisite units**

Not applicable.