



Australian Government

SISOCVE001 Traverse caves

Release: 1

SISOCVE001 Traverse caves

Modification History

Not applicable.

Application

This unit describes the performance outcomes, skills and knowledge required to travel through caves which feature frequently travelled tracks and a range of formations and features that may or may not be reliably marked on maps. It requires the ability to safely negotiate a range of terrain obstacles, hazards and cave formations using techniques that minimise environmental damage to the cave.

It applies to leaders, guides or instructors who use these skills when leading participants during caving activities. Leadership skills are provided in complementary units. The unit can also apply to assistants and or support staff.

This unit applies to any type of organisation that delivers outdoor recreation activities including commercial, not-for-profit and government organisations.

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

Pre-requisite Unit

Nil

Competency Field

Caving

Unit Sector

Outdoor Recreation

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes

1. Prepare for horizontal caving activities.

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1. Obtain information on the features, formations and particular hazards for local caves.
- 1.2. Obtain and become familiar with cave maps, as available, and identify features that will assist with navigating the cave.

- 1.3. Plan a route and determine contingency routes and emergency escapes.
 - 1.4. Select clothing, footwear and personal protective equipment suitable for caving conditions and activities.
 - 1.5. Confirm activity safety and emergency response procedures, and minimal impact caving codes to ensure compliance during activities.
 - 1.6. Confirm protocols for communications between party members.
 - 1.7. Complete equipment safety checks prior to caving activities.
2. Navigate in caves.
 - 2.1. Follow a route in a cave using a map, compass and underground navigation aids.
 - 2.2. Use techniques to estimate distance travelled.
 - 2.3. Identify features in the cave using map and compass to maintain route.
 - 2.4. Make minor adjustments to route according to prevailing conditions, and navigate using aids, map and compass as required.
3. Travel through caves.
 - 3.1. Maintain close contact and effective communication with party members throughout all activities.
 - 3.2. Safely approach, and negotiate obstacles, hazards and cave terrain to minimise risk of injury.
 - 3.3. Select and use caving techniques suitable to circumstances to move efficiently through caves.
 - 3.4. Utilise a range of climbing techniques to explore caves.
 - 3.5. Use techniques that minimise damage to equipment and the cave environment throughout all activities.

Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

SKILLS	DESCRIPTION
Reading skills to:	• interpret detailed and familiar organisational safety and emergency response procedures • interpret complex and potentially unfamiliar technical information about routes and environmental features.
Oral communications	• use clear and unambiguous verbal and non-verbal communications to make intent known.

skills to:

- | | |
|------------------------------------|---|
| Numeracy skills to: | • interpret and calculate detailed numerical data involving, distances, times, depths, gradients and degrees. |
| Problem-solving skills to: | • readily adapt to changing situations and terrain by selecting appropriate techniques and equipment to traverse caves efficiently. |
| Planning and organising skills to: | • manage own timing to complete activities within planned timeframes. |

Unit Mapping Information

No equivalent unit.

Links

Companion Volume Implementation Guides -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1ca50016-24d2-4161-a044-d3faa200268b>

Assessment Requirements for SISOCVE001 Traverse caves

Modification History

Not applicable.

Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- complete three caving trips and collectively:
 - navigate three pre-planned routes using maps, compass and underground navigation aids
 - utilise options provided in Assessment Conditions to determine two minor adjustments to routes
 - across the three trips, use at least three of the following techniques when traversing caves:
 - squeezing
 - crawling
 - rock scrambling
 - stooping
 - chimneying
 - bridging
 - walking through stream passages
- during each caving trip, consistently:
 - follow safety procedures and safely negotiate hazards
 - comply with minimal impact caving codes.

Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- organisational safety and emergency response procedures for caving activities
- the key contents of caving codes, in particular those issued by the Australian Speleological Federation (ASF) including:
 - minimal impact caving code
 - code of ethics
- minimal impact techniques specific to the caving environment and why these are important to cave conservation:
 - avoiding sensitive areas and not accessing restricted areas
 - keeping to well used or marked tracks
 - avoiding disturbance to cave fauna, nests and bones

- taking care with hand and foot placement
- avoiding or minimising eating in caves, or eating over containers to avoid spillage
- removing all general and human (toileting) waste
- features of different types of local caves and cave formations sufficient to understand the overall characteristics of the cave setting and its particular hazards
- trusted sources and technologies used to access cave maps and guides for the region or locality
- characteristics of different types of cave maps, their different uses and advantages and disadvantages:
 - detailed cave maps
 - developed long sections
 - maps with wall details and labels
- symbols contained on cave maps and what they represent, and other information found on maps:
 - scale
 - map legend
 - magnetic declination
 - markers
 - gradient
 - distance
 - tracks
 - water depth
 - cross sections
 - significant cave features including speleothems
- map and compass techniques used to:
 - calculate bearings
 - orientate map to surroundings
 - determine location and maintain a designated route
- techniques used to estimate distance travelled within caves
- types of navigation aids found in caves and how these can assist with navigation:
 - track markers
 - built infrastructure
 - natural cave features including speleothems, water direction and air flow
- purpose, features, and correct fit for safety, of personal protective equipment for cavers to include:
 - clothing
 - footwear
 - gloves
 - caving helmets
 - headlamps
- techniques used during cave traverses to include those for:

- squeezing
- crawling
- rock scrambling
- stooping
- chimneying
- bridging
- walking through stream passages
- communication protocols used between cavers to include:
 - calls
 - hand signals
 - whistles
- typical hazards associated with horizontal caving activities, and techniques used to safely negotiate these:
 - falling rocks, water, debris
 - slippery or unstable terrain
 - narrow passages
 - sharp edges
 - vertical squeezes
 - darkness
 - unstable roof and floor
 - rising waters
 - elevated carbon dioxide levels.

Assessment Conditions

Skills must be demonstrated in natural caves which feature frequently travelled tracks and a range of formations and features which may or may not be reliably marked on maps.

The following resources must be available to replicate industry conditions of operation:

- first aid equipment
- communication equipment for emergency response
- rescue equipment.

Assessment must ensure use of:

- a group of participants with whom the individual interacts during caving activities
- real workplace situations, or simulated activities, or case study scenarios that test aspects of this unit that involve adjusting planned routes
- personal protective equipment to include:
 - gloves
 - caving helmets
 - headlamps

- compasses
- containers for the removal of liquid and solid waste including those for human waste
- cave maps and guides
- caving codes including those issued by the Australian Speleological Federation (ASF):
 - minimal impact caving code
 - code of ethics
- template safety checklists
- organisational safety and emergency response procedures for caving activities.

Assessors must satisfy the Standards for Registered Training Organisations requirements for assessors, and:

- have a collective period of at least three years' experience as a caving leader, guide or instructor, where they have applied the skills and knowledge covered in this unit of competency; the three years' experience can be part time or full time experience.

Links

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