



Australian Government

SISOCAY003 Abseil in intermediate to advanced canyons

Release: 1

SISOCAY003 Abseil in intermediate to advanced canyons

Modification History

Not applicable.

Application

This unit describes the performance outcomes, skills and knowledge required to abseil in intermediate to advanced wet or dry canyons. It also requires the ability to belay abseilers and to self-belay.

This unit covers the skills required to abseil in canyon conditions featuring multiple vertical pitches of variable length.

It applies to leaders, guide or instructors who use these skills when leading participants during canyoning activities. Leadership skills are provided in complementary units.

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

Canyoning

Unit Sector

Outdoor Recreation

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes

1. Prepare for the canyon abseil.

PERFORMANCE CRITERIA

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

- 1.1. Select clothing, footwear and personal protective equipment suitable for the canyon abseil and conditions.
- 1.2. Waterproof food, clothing, equipment and resources for wet canyons.
- 1.3. Confirm activity safety and emergency response

- procedures to ensure compliance during activities.
- 1.4. Confirm protocols for communications between abseiler and belayer.
 - 1.5. Interpret route description; identify position of natural features and the abseil route.
 - 1.6. Attach descending device to abseil rope and tie knots suitable for the established belay system.
 - 1.7. Complete equipment safety checks prior to abseiling or belaying.
2. Abseil in canyons using multi pitch descent techniques.
 - 2.1. Use safety procedures at top of and throughout all descents to minimise risk to self and others present.
 - 2.2. Use appropriate posture and abseiling techniques to execute descents to each station.
 - 2.3. Safely approach, avoid or negotiate hazards to descend to stations in a controlled manner.
 - 2.4. Maintain effective communication with belayer throughout all descents.
 - 2.5. Retrieve ropes at bottom of each pitch, as last person down.
 - 2.6. Use techniques that minimise damage to equipment and the surface during abseil.
 3. Change over safely at belay stations.
 - 3.1. Maintain continuous attachment to anchor points, traverse line or belay system.
 - 3.2. Changeover personal equipment from one rope system to another at belay stations, tie suitable knots and handle ropes without entanglement.
 - 3.3. Complete safety checks prior to loading belay system and before completing subsequent descents.
 4. Belay abseilers during multi pitch descents in canyons.
 - 4.1. Avoid or negotiate hazards and use safety procedures to minimise risk to self and others present.
 - 4.2. Establish belaying position and attach self to anchor, as required, to allow effective and safe use of belay system.
 - 4.3. Maintain rope tension to minimise fall distance and ensure abseiler movement is not unduly restricted.
 - 4.4. Monitor abseiler progress constantly, and maintain clear communication with abseiler.
 - 4.5. Arrest falls promptly using technique suitable to belaying device and situation.
 - 4.6. Safely and efficiently secure abseiler using tie off techniques; release tie off and allow abseiler to continue.
 5. Self-belay during multi pitch canyon descents.
 - 5.1. Attach self to suitable belay device for descent with back up to maintain safety in the event of a fall.
 - 5.2. Use appropriate posture and abseiling techniques to

- execute self-belayed descents.
- 5.3. Control self-belay system to execute safe and controlled descents.
- 5.4. Utilise features of back up belay system in the event of a fall to self-arrest, self-rescue and complete descent.

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.
Oral communications skills to:	use clear and unambiguous verbal and non-verbal communications to make intent known.
Numeracy skills to:	visually estimate angles, estimate load on ropes to determine appropriate tension for abseiling and belaying.
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 SISOCAY003 Abseil in intermediate to advanced canyons

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 abseiling sessions in canyons, with at least two in a wet canyon
- across the three sessions collectively complete the following abseils on at least two different routes:
 - a total of four descents with a belayer
 - a total of three self-belayed descents with one of those descents as last person down using a doubled rope descent
- during each of the above abseils, consistently:
 - follow safety procedures and safely negotiate hazards to descend in a controlled manner
 - connect self to abseil and belay system using appropriate device and or knots
- complete two additional self-belayed descents, simulating a self-arrest and self-rescue to complete the descent
- belay abseilers according to safety procedures, and complete the following:
 - three top rope, top belayed descents
 - one bottom braked descent
 - two simulated abseiler falls, and safely and efficiently secure and release abseilers to continue.

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 canyoning activities
- purpose, features, and correct fit for safety, of personal protective equipment for abseiling in canyons to include:
 - clothing
 - footwear
 - gloves, advantages and disadvantages
 - abseiling/climbing helmets
 - harnesses of different types, advantages and disadvantages

- waterproofing and stowing techniques used to keep clothing, equipment and resources dry during wet canyon activities
- features, functions and operation of abseiling equipment used in canyons:
 - carabiners
 - static and dynamic rope and when each might be used
 - tape
 - sewn sling
 - personal attachment systems, including cow's tails
 - Prusik cord
 - descending devices:
 - assisted locking
 - inline
 - plate
 - figure 8
 - tubular
 - improvised
 - belay systems:
 - top rope top belay
 - bottom brake
 - hanging belay
 - self-belay
 - belay devices:
 - assisted locking
 - inline
 - plate
 - figure 8
 - tubular
 - improvised
- types of equipment and knots used, and how to tie them, when:
 - attaching descending devices to abseil ropes
 - attaching belay system to anchors
 - attaching self to back up belay system for self-belays
 - attaching self to anchor
- types of personal and equipment safety checks completed prior to abseiling and belaying
- canyoning abseiling techniques and appropriate posture for intermediate to difficult descents to include those for:
 - walking backwards on dry and wet surfaces
 - lowering
 - self-belayed descents
 - changing over at re-belays and using personal attachment system

- self-belayed descent as last person down, doubled rope
- disconnecting self from belay in a pool of water
- techniques for belaying others during intermediate to difficult canyon abseils to include those for:
 - establishing belaying position for effective and safe use of belay system
 - rope handling and maintaining adequate rope tension
 - controlling bottom brake system
 - arresting abseiler falls
 - securing abseiler, tying off belay system and releasing
- reasons for attaching belayer to anchor system when belaying others including:
 - minimising belayer movement to retain stable position and stance
 - minimising effects of force of abseiler fall and risk of injury to belayer
 - minimising risks of belayer fall
- communication protocols used between abseilers and belayers to include:
 - calls
 - hand signals
 - whistles
 - radio
- typical hazards for abseiling in canyons, and techniques used to safely negotiate these:
 - falling rocks, water, debris, gear
 - abrasion points
 - sharp edges
 - squeezes and overhangs
 - ledges
 - traverses
 - slippery or unstable terrain
 - dense vegetation and trees
 - strong breezes
 - tangled rope
 - rope catches or jams on natural features
 - abseiling past a belay station
 - limited space at belay station
 - uneven landing at belay station
 - rising water levels
 - cold water, immersion for extended periods
- how to care for abseiling equipment during canyoning activities to avoid damage, and promote long lifespan
- techniques used to minimise damage to canyon surfaces when abseiling in canyons.

Assessment Conditions

Skills must be demonstrated in intermediate to advanced canyons which may feature the following:

- pitches greater than 30 metres high
- anchors that can be difficult to reach
- pitches with obscure sections and or landing pools
- limited standing areas for multi pitch abseils or for hanging re-belay stations
- canyon escapes can take 2 to 4 hours.

Wet canyons may feature:

- moderate to high vertical flow
- landing pools with a current
- pools that require jumps between 5 to 10 metres
- jumps that have a difficult trajectory
- current strong enough to affect swimmer's path
- siphons
- white water features up to white water Grade 2 for short periods of time.

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:

- participants with whom the individual interacts during canyoning activities
- personal protective equipment to include:
 - abseiling or climbing helmets
 - harnesses
 - gloves, as required
- anchors which can include:
 - fixed artificial
 - naturally occurring
 - artificial removable
- abseiling equipment to include:
 - carabiners
 - rope which can include static and or dynamic rope
 - rope protectors
 - tape or sewn sling

- personal attachment systems, including cow's tails
- Prusik cords
- descending devices
- belay devices
- template safety checklists
- organisational safety and emergency response procedures for canyoning 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 canyoning leader, guide or instructor, where they have applied the skills and knowledge covered in this unit of competency; the three years' experience can incorporate full and or part time experience.

Links

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