

DDAS Accident Report

Accident details

Report date: 17/05/2006	Accident number: 155
Accident time: 08:05	Accident Date: 24/03/1999
Where it occurred: Kapfudze village, Mukumbura	Country: Zimbabwe
Primary cause: Field control inadequacy (?)	Secondary cause: Field control inadequacy (?)
Class: Excavation accident	Date of main report: [No date recorded]
ID original source: none	Name of source: KMS
Organisation: Name removed	
Mine/device: R2M2 AP blast	Ground condition: hard
Date record created: 13/02/2004	Date last modified: 13/02/2004
No of victims: 1	No of documents: 2

Map details

Longitude:	Latitude:
Alt. coord. system:	Coordinates fixed by:
Map east:	Map north:
Map scale: not recorded	Map series:
Map edition:	Map sheet:
Map name:	

Accident Notes

no independent investigation available (?)
inconsistent statements (?)
long handtool may have reduced injury (?)
partner's failure to "control" (?)
squatting/kneeling to excavate (?)
inadequate area marking (?)
disciplinary action against victim (?)

Accident report

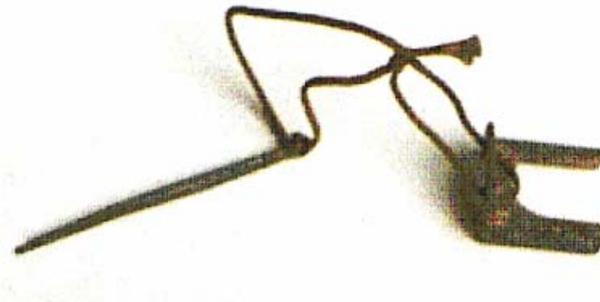
At the time of this accident the demining company operated in two-man teams using a one-man drill. One deminer looked for tripwires, cut undergrowth, used the detector and excavated finds while the other watched from a safe distance and "controlled" him. The group issued frontal protection and their drills assumed that the deminer would kneel or squat while excavating.

An undated internal accident report was prepared by the Site Supervisor and made available by the managers of the demining group in April 1999. Another report compiled by the Site safety officer was made available in December 1999.

Both reports agreed that the victim had located a signal with a Vallon detector and was investigating it with his prodder when the mine detonated at 08:05. The victim walked unaided to the base line where he was treated first by the team medic and then by the site doctor.

The Site Supervisor stated that the victim was wearing his protective equipment correctly (indicated by the extent of injury and the pattern of mud splashes) and was using water to soften the ground as directed. He believed that the mine was lying on its side (as indicated by flash burns on one side of the crater).

The Supervisor observed that the victim may have been prodding too close to the marker and that the Team Leader failed to notice or correct any breaches of SOPs [there was no suggestion that his partner should have corrected him]. His report stated that the team had stopped work and would undergo retraining before starting work again. Also that the Team Leaders would also undergo training in their respective supervision drills.



The Site supervisor recommended that the group find alternative methods for investigating signals where the ground was hard or mines deeply buried. He observed that the steel safety clip [galvanised, shown above] was being found away from the mine, so masking the exact location of the mine.

Deminers could start investigating a signal thinking they were 15cm behind a mine and then find that they were actually prodding directly onto it. He recommended that prodding should start 20-25cm behind a signal in future.

The Site safety officer's team found that the victim's water carriers were at the end of his lane and unused, his apron and visor were dusty, his "marker triangle" [used to ensure that prodding started at the correct distance from a detector signal] was not used, that the crater was dry, shallow and "showed no signs that mine might have been tilted". The team checked the victim's working lane and found seven detector readings that had not been investigated. They found that the victim was not carrying out drills correctly and believed that the mine was outside the "row" so the victim had not treated the detector reading seriously and had not used water to soften the hard ground.

Conclusion

The Site safety officer's team concluded that the victim was negligent. They observed that his partner did not correct him, and neither did the Team Leader. They added that the fact that he was wearing his PPE correctly prevented serious injury.

Actions

The victim, his partner and the Team Leader were all dismissed "to make it very clear that violations of drills will not be tolerated".

Victim Report

Victim number: 199	Name: Name removed
Age:	Gender: Male
Status: deminer	Fit for work: yes
Compensation: not made available	Time to hospital: not applicable
Protection issued: Frontal apron Long visor	Protection used: Frontal apron, Long visor

Summary of injuries:

INJURIES

minor Arm

COMMENT

See medical report.

Medical report

A brief report written by the doctor on site, dated 24th March 1999, was made available. The doctor stated that he attended the victim at 08:32 for "L. arm lacerations and contusions of a minor degree". He also stated that the victim was recovering well at camp and that he would be ready to return to work on 25th March 1999.

Analysis

The primary cause of this accident is listed as a "*Field control inadequacy*" because the victim appears to have been working in breach of SOPs when the mine detonated.

The victim's 18" (15cm) prodder (made locally) was bent by the accident but remained in one piece as it was designed to do.



Several other excavating accidents occurred in this mined area within weeks of this one. The area being cleared was a dense minefield with over 3000 AP mines per kilometre and as many as 200 mines being found each working day.

The inconsistencies between the investigations (both by ex-pat senior staff) reveals an attempt to disguise the failings that led to the accident which is a management failing that the second investigation – by the Site safety officer – appears to correct.

The dismissal of the Field supervisor shows that his responsibility was recognised by the group's managers.

Related papers

A covering letter dated 25th March 1999 stated that the victim was injured on his upper left arm and that he was treated in their "field hospital container".

A notification form to the Zimbabwe Ministry of Defence, undated but signed on behalf of the demining group, stated that the accident occurred in an "unmarked" area at 08:30. The area was described as rural woodland. [It was part of the "Ploughshear minefield".]