

DDAS Accident Report

Accident details

Report date: 14/01/2008	Accident number: 474
Accident time: 09:15	Accident Date: 20/12/2006
Where it occurred: MF ID - S 46: Wadi Araba, Aqaba	Country: Jordan
Primary cause: Unavoidable (?)	Secondary cause: Unavoidable (?)
Class: Excavation accident	Date of main report: 24/12/2006
ID original source: S-46:20/12/06	Name of source: JES
Organisation: [Name removed]	
Mine/device: PRB M35 AP blast	Ground condition: dry/dusty hard
Date record created: 14/01/2008	Date last modified: 14/01/2008
No of victims: 1	No of documents: 2

Map details

Longitude:	Latitude:
Alt. coord. system:	Coordinates fixed by: GPS
Map east: E 29.566347	Map north: N 34.978414
Map scale:	Map series:
Map edition:	Map sheet:
Map name:	

Accident Notes

long handtool may have reduced injury (?)
no independent investigation available (?)
non injurious accident (?)
standing to excavate (?)
use of rake (?)

Accident report

The report of this accident was made available in August 2007 as a PDF file. Its conversion to a text file for editing means that some of the formatting has been lost. The substance of the report is reproduced below, edited for anonymity. The original PDF file is held on record.

ACCIDENT INVESTIGATION FOR [Demining group] – MINE ACTION TEAM - JORDAN
ISRAELI MINEFIELD NO. (69270024)
SOUTH SECTOR, AQABA, WADI ARABA
GRID REF: N 34.978414: E 29.566347
20th DECEMBER 2006

INCIDENT REPORT

ISRAELI MINEFIELD NO - 69270024
MINEFIELD TASK ID- S 46
SECTOR- SOUTH
PLACE- AQABA
REGION - WADI ARABA
INVESTIGATION CONDUCTED BY [Name removed]
SECTION COMMANDER and TEAM LEADER: [Names removed]
TEAM: SITE PREPARATION TEAM 2
TIME OF ACCIDENT: 09:15 AM
DATE OF ACCIDENT: 20 DECEMBER 2006
NATURE OF INJURY: MINOR INJURY AT THE LEFT SIDE OF THE FACE
TYPE OF MINE : M-35 ANTI PERS MINE

Demining incident– IMAS report

Narrative

The deminer was clearing a lane of the minefield (69270024) when he initiated a mine with his Heavy rake and the solidified layer of soil [crust] slid onto the mine. He did this by raking in the site and trying to remove the solidified layer. The mine was approximately 5cm deep and set into hard baked soil.

The Victim was wearing a protective Vest and goggles. He suffered light fragmentation injury to his lower face and ear.

The mine was a PRB M35 AP blast mine. The crater depth was approx. 15cm and its width approx. 30cm.

The accident site is shown below.



The wooden handle of the Heavy rake was broken.

Site details

Conditions at the site were flat and hard ground, clear and mild weather. The vegetation was described as “medium, bush”.

The demining team had been at the site for 170 days and working on that particular Task for four days. Work had been occurring at the site for two hours on the day of the accident.

Medical & First Aid

The Victim was at the Section Medical Point five minutes after the accident. He was treated at the site (time not recorded) before leaving by ambulance to Aqaba hospital, a journey of ten minutes. At the hospital, he was treated for 45 minutes. [A total evacuation time of 30 minutes is assumed.]

Reporting procedures

This investigation was conducted by [Name removed], who also compiled and translated this report. [The date being close to Christmas, the Operations Manager was not in-country.]

Date: 24/12/2006

Attachments

Statements by Injured Members

Statements by Witnesses

Victim Report

Victim number: 634

Name: [Name removed]

Age: 37

Gender: Male

Status: deminer

Fit for work: yes

Compensation: Not made available

Time to hospital: 30 minutes

Protection issued: Frontal apron
Goggles

Protection used: Frontal apron, Goggles

Summary of injuries:

minor Face

minor Head

COMMENT: See Medical report.

Medical report

No formal Medical report was made available. The following Medic's record has been edited for anonymity.

MEDICAL DATA SHEET

Photographs show light fragmentation injury to the Victim's face and ear.



Blood group: AB +

BP: 120/80

Pulse: 80

Breathing: 20 per minute.

"Minimal laceration of the left side of the face and the ear."

A chest X-ray was ordered and conducted immediately. The report reads:

CXR:

Normal cardio-thoracic ratio.

No active lung lesion is seen.

Both C.P. angles are clear.

Signed [Radiologist]

"Medical examination done and [the Victim] have not any other complication related to the explosion. He can get back to the working.

Signed: [Medical Doctor].

STATEMENTS

Statement No.1: Sector Administrator

Date: 20 Dec 2006

I was working with the mapping officer at minefield 013-017 at that time, and didn't hear any thing about an accident until after receiving a phone call from Amman at 11:00

Statement No.2: Section Commander

Date: 20 Dec 2006

I was at Mine Field 23, then I heard the blast. I informed the team leader I was 40 meters away from the blast location. I came to the location and checked it up, and brought the deminer out of the field to a secure place, and sent the deminer [the Victim] to the medic.

Statement No.3: Team Leader

Date: 20 Dec 2006

I was at minefield 21, I heard the blast, and then I informed immediately by the section commander [Name removed] that an accident happened in the minefield 24. I stopped the work at all sectors', and informed all the deminers to set out of the minefields in a secure place, and then called the medic.

Statement No.4: Site medic

Date: 20 Dec 2006

I was contacted by Radio by the team leader [Name removed] at 9:20 and was told by him that the deminer [the Victim] set a mine off and injured his face. He walked to the control point with the help of another deminer where I gave him a brief check-up. He was with injury in the left side of his face, mouth and ear, and I gave him the suitable first aid.

Statement No.5: deminer

Date: 20 Dec 2006

I was working in the same minefield on the left side of deminer [the Victim], then I heard the blast. I stopped the work and went to him immediately. I found him away from the blast site sitting on the ground, and he talked to me, then the section commander came immediately.

Statement No.6: Victim

Date: 20 Dec 2006

I was raking in the lane of the minefield number 24 using the heavy rake. The ground was so solid and the mine was under the soil. I tried to remove the first solidified layer but it slides over the mine, then it blasts. I walked out of my lane and sat on the ground, then deminer [name removed] came,

I told him that I am fine, and then section commander came and sent me to the medic.

Analysis

The primary and secondary causes of this accident are listed as “Unavoidable” because the hard crust on the ground surface could only be broken by using force. In this case, that force was enough to detonate the mine. The demining group had put in place the use of a long tool (rake) that kept the Victim far enough away from a blast to avoid injury, and his PPE was effective at protecting him from any severe injury from the risk remaining at that distance. Had he been using conventional short hand-tools, some injury would have been expected.

This demining group acknowledge the fact that stand-off (distance from the detonation) is the most effective PPE and their Rake Excavation system makes use of this. It is possible that the extreme length of the tool makes initiation of small AP blast mines with the Heavy rake more likely, but any increased risk of initiation is offset by the reduced chance of that initiation resulting in injury. The accident is a good example of balancing an effective demining process and PPE to result in a very low risk of severe injury.