

DDAS Accident Report

Accident details

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|--|---|
| Report date: 06/03/2011 | Accident number: 670 |
| Accident time: 18:25 | Accident Date: 19/07/2009 |
| Where it occurred: MF 410, E 410, Al Turrah Village, Aramtha Province | Country: Jordan |
| Primary cause: Field control inadequacy (?) | Secondary cause: Management/control inadequacy (?) |
| Class: Excavation accident | Date of main report: Not recorded |
| ID original source: None | Name of source: Demining group |
| Organisation: [Name removed] | |
| Mine/device: M35 AP blast | Ground condition: grass/grazing area hard rocks/stones |
| Date record created: | Date last modified: 06/03/2011 |
| No of victims: 1 | No of documents: 2 |

Map details

| | |
|-----------------------------|------------------------------|
| Longitude: | Latitude: |
| Alt. coord. system: | Coordinates fixed by: |
| Map east: 36.02383 E | Map north: 32.65449 N |
| Map scale: | Map series: |
| Map edition: | Map sheet: |
| Map name: | |

Accident Notes

no independent investigation available (?)
standing to excavate (?)
use of rake (?)
visor not worn or worn raised (?)
long handtool may have reduced injury (?)

Accident report

An internal demining group accident report was made available. The conversion into a DDAS file has led to some of the original formatting being lost. Text in square brackets [] is editorial.

The internal report is reproduced below, edited for anonymity.

INCIDENT INVESTIGATION [Demining group] – MINE ACTION TEAM - JORDAN

TASK NAME AL TURRAH 3 (410), NORTH BORDER PROJECT, EAST SECTOR

GRID REF: 32.65449 N: 36.02383 E

MINEFIELD NO – 410, MINEFIELD TASK ID - E 410 AL TURRAH 3

INVESTIGATION CONDUCTED BY – [Demining group], [Name removed].

DEMINER: [The Victim]. DATE OF BIRTH: 05/06/1967, NIC NO (ID NUMBER): [removed]

SECTION COMMANDER: [Name removed]. TEAM LEADER: [Name removed].

TEAM: METAL DETECTOR 6.

TIME OF INCIDENT: 06:25 PM, DATE OF INCIDENT: 19 JULY 2009

NATURE OF INJURY: Superficial Wounds. TYPE OF MINE: Anti Personnel M 35

IMSMA DETAILED REPORT FOR MINE INCIDENT Sunday, 19 July 2009

Part 1 – Description of the incident

1. Organisation name: [Demining group], JORDAN Team No: Metal Detector 6.
2. Incident date: 19/07/2009: Time: 06:25 PM
3. Location of incident: NORTH EAST SECTOR, Province: ALRAMTHA, Village: AL TURRAH, Project or task No: E 410 AL-Turrah 3
4. Name of site manager or team leader: [Name removed].
5. Type of incident: M35 AP MINE uncontrolled detonation of a mine
6. Device was detonated by: deminer
7. Device detonated while: Raking with Light Rake
8. Device was found in an area classified as: a known hazardous area
9. Narrative (Describe how the incident happened. Attach additional pages and photographs or diagrams to assist in clarifying the circumstances surrounding the incident):

While the deminer was working in his lane by the end of the working day, he tried to move one AP (M35) mine partially covered in the ground against of the TL instructions using the light RAKE, the mine initiated 1.8 m away from the deminer and caused the wounds and the mentioned injures to the deminer that he wasn't wearing the visor in the proper way

Part 2 – Injuries

10. Did the incident result in any injuries? Yes
11. List people injured and nature of injury:

| Name | Occupation | Injury |
|--------------|------------|---|
| [The Victim] | Deminer | Multiple Superficial Wounds in his face, size of 1 cm wound in his Rt.Lower Eyelid. |

Part 3 – Equipment damages

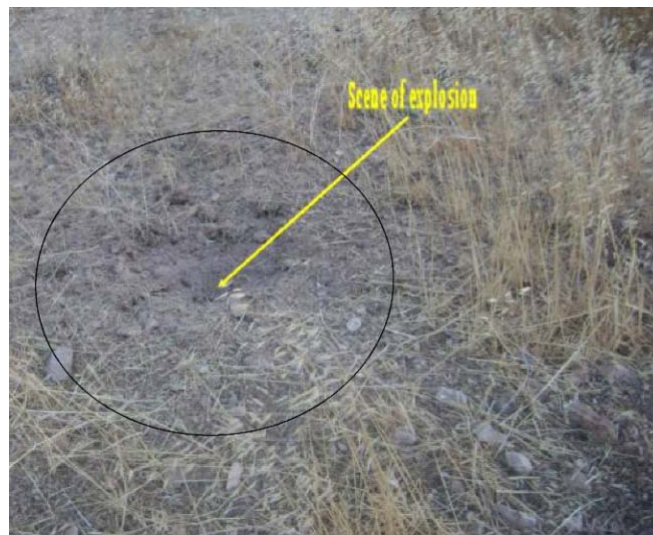
- 12. Did the incident result in any damage to equipment or property? Yes
 - 13. List any mine action equipment or property damage: Light Rake, Broken
 - 14. List damage to equipment or property owned by a member of the public or the government.
- Include contact details of the owner or responsible person. [None]

Part 4 – Explosive hazard

- 15. Provide details of mines/UXO/ other devices that were involved in the incident.
- Device Type: Method: Determined by:
- AP (blast) Mine Surface RAKING
- 16. State specific device (if known): M35 AP Mine
 - 17. Comments (include measurements of any crater resulting from the explosion): Depth: approx.15cm / Width: approx 40cm

Part 5 - Site conditions

- 18. Describe the conditions at the site at time of the incident
- Ground/Terrain: Hard, flat
- Weather: Clear, Hot
- Vegetation: Medium, Bush



[The accident site showing dry grass and stony ground.]

Part 6 – Team and task details

- 20. Qualifications of Member(s) involved in the incident:

| Name | Position in Location | Occupation |
|--------------|----------------------|------------------|
| [the Victim] | Deminer | Metal Detector 6 |

21. How long had this team been?
- a. At this site? 2 months
 - b. working on this task? 2 months
 - c. working on the day? 4:25 hours
22. Detector type: N/A Tripwire feeler used? No
23. Hand tool: LIGHT RAKE
24. PPE: Vest, Mask Visor, [Blast boots]
25. Comments: [None]

Part 7 - Medical & First Aid

Medical treatment required? yes

26. Medical Support at Incident Site: Medic 1st Aid Kit Stretcher Ambulance, Safety vehicle, Radio to call forward medic

27. Was a Mine Incident Drill carried out? Yes No

25. Time and distance data

- a. Time from incident to SECTION MEDICAL POINT: (01) minutes
- b. Time spent at site administering treatment: (08) minutes
- c. Time from evacuation FROM to arrival King Abdullah Hospital: 21 minutes

Part 8 – Reporting procedures

Reported by: [Name removed], [Demining group] Amman Office to: [Demining group] Offices & NCDR

Investigation conducted by: [Name removed], [Name removed]

Report compiled/translated by: [Name removed], [Name removed]

Verified by: [Name removed]

Observations and Recommendations

The incident happened due to an individual mistake that the instruction given by the TL that the AT centre mine have to be recovered first then the AP mines around the centre can be approached , but the deminer was curious and he tried to move one AP mine (M35) 1.8 m out of the safe lane (cleared centre lane) which caused the mine to be initiated and sent some secondary fragmentations and because the deminer wasn't wearing the visor (the face mask protector) in the proper way (his face uncovered),and all of this considered to be a major violation for the safety and for the SOP.

Signed: Operations Coordinator: 19 JULY 2009

Attachments:

Statement by Witness

Photographs of Injuries

Photographs of Incident Site

Victim Report

| | |
|--|--|
| Victim number: 853 | Name: [Name removed] |
| Age: 42 | Gender: Male |
| Status: deminer | Fit for work: yes |
| Compensation: Not made available | Time to hospital: 30 minutes |
| Protection issued: Frontal apron Mask Visor blast boots | Protection used: Frontal apron, blast boots |

Summary of injuries:

INJURIES: minor Face

COMMENT: No Medical report was made available. A photograph showed facial injuries but eyes apparently undamaged.

Statements

Statement 1: Team Leader

I heard and saw the explosion as I was in lane 49 when the section commander informed me about an accident through the radio and I informed the medic team and then went to the accident place, when I reached the accident site the ambulance was there and they evacuated the injured and gave him a first aid then sent him to the hospital, I ordered all the people in the mine field to get out and stop working.

Answers to Investigator Questions:

I gave a lecture to the team before they started working and they were instructed how to get closer to the mines.

I and the team leader visited the injured deminer in the fifth round at 05:20 pm and we gave him some instructions about the mines in front of him on the center lane sides.

We informed him just to get closer to the AT mines and not to clear them.

The section commander visited the injured in the 6th round and told him to close all the lanes near the AT mines.

After delivering the mines all the team stops clearing according to the instructions we have.

Analysis

The primary cause of this accident is listed as a *Field Control Inadequacy* because the deminer was working without wearing the Mask Visor (which cannot be worn raised) and his error was not corrected. The Secondary cause is listed as a *Management Control Inadequacy* because it seems that the field supervisor gave the deminer the wrong instructions about the sequence of clearing a mine-cluster as required in the demining group's SOPs. This implies that the field supervisor was poorly selected or poorly trained, which is a management failing.

This is the first accident to occur when raking with the *Light rake*, which is generally believed to be less likely to initiate mines. The light rake has very flexible tines so is not suitable for “hooking” a mines from the ground. It is likely that the Victim struck the mine with the rake near the handle while trying to get the tines to dig into the hard, rocky ground.

The demining group who made this report available is thanked for its transparency and its professional concern to share lessons that can be learned from accidents. This record, along with several other records where rakes were used, provide compelling evidence that the controlled use of rakes can be both effective and tolerably safe (reducing risk of severe injury to tolerable levels).