

Fatal 5 - Quarry face collapse during drilling operation

WHAT HAPPENED

A drilling contractor was on-site at a quarry and whilst drilling the first row of holes, the face collapsed with approx. 100 tonnes of material falling to the quarry floor.

Fortunately, the drill rig and operator managed to get to a place of safety quickly and sufficient bunds were in place at the bottom of the face which contained all of the material that fell.

Upon investigation, it was found that there was a seam of dark brittle material which when drilled caused a plane failure. This had been highlighted in the most recent geotechnical assessment and had been placed on a site specific geotechnical action plan, but neither of these documents had been checked prior to the drilling being carried out. The image below shows the face collapse.



LEARNING POINTS / ACTIONS TAKEN

Actions for managers (in conjunction with blast and drilling supervisors):

- Ensure all safety control measures are in place before drilling begins (i.e. suitable rock traps, safe stand off at drilling area etc.)
- Ensure the most recent geotechnical assessment report and action plan are available and have been checked for any areas of instability or potential areas of failure where drilling is taking place.
- Ensure a suitable standoff is maintained by the drill rig operator from the crest of the face and that the drill rig can be moved to a suitable place of safety in the event of an emergency.
- If in any doubt about the area to be drilled, STOP, and get specialist advice before proceeding.

LOCATION:

QUARRY

ACTIVITY:

QUARRYING AND FACE ACTIVITY

SUB ACTIVITY:

NO SUB ACTIVITY AVAILABLE

ALERT STATUS:

Normal

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