Damaged H.V. Cable in a quarry

WHAT HAPPENED

The quarry had a 11KV cable running through the haul road which had been buried some 9 or 10 years ago. Due to the gradual degradation of the roadway caused by the weather conditions and vehicles traversing it over the years, the cable ducting and cable had become raised and unprotected from the depth they were initially buried.

Image of cable ducting beginning to be exposed.



Image of the haul road.



A shovel loader was loading a lorry from a stockpile, as he travelled towards the lorry, the driver heard a boom and saw a flash of smoke. Initially, he thought he had a mechanical problem with his vehicle.

National Grid believe that the shovel had run over a boulder in the quarry which had forced the boulder edge through the shallow, buried ducting. The boulder had pierced both the ducting and the cable, causing the damage and shorting out the power supply to the surrounding area.

LEARNING POINTS / ACTIONS TAKEN

If the electricity board are not notified within 10 minutes of a damaged cable, they presume it is an overload trip and start to try and re-energise the cable remotely.

- Ensure all emergency response plans are up to date and have the correct emergency response numbers in them for all sites and quarries.
- If we damage a national grid cable it is **imperative that we let the electricity board know straight away** - within 10 minutes if possible, as they will start switching networks to restore power.
- Ensure we have accurate underground service drawings for our sites with visual signage for the services. LMR department may be able to assist with this. These should be confirmed via CAT Scan or similar before any work is undertaken near them.
- If you are undertaking excavations use the appropriate permit to work.
- Know who is responsible for the services and ensure they are inspected as required.
- Maintain haul roads for both safe operation of vehicles and correct depth when they go over buried services.
- Ensure that any underground services are provided with clear signage or markings so it is obvious where services are run – example signs below.

Warning signs









LOCATION:	**QUARRY**	**ALERT STATUS:**	**Normal**
ACTIVITY:	**LOADING AND UNLOADING**	**DATE ISSUED:**	**11/06/2026 01:16:54**
SUB ACTIVITY:	**NO SUB ACTIVITY AVAILABLE**	**INCIDENT No:**	**04976**