MinEx
Health and Safety in NZ extractives

NZ Safety Alert

Let's work together to keep ourselves and our workers safe

May 2019

Fly rock incident

During a blast, fly rock was ejected approximately 300m, beyond the exclusion zone, and into an area where personnel were thought to be in the safe zone.

The blast was in an area of the quarry that had not been blasted for several years and it was prepared using proven design parameters previously used at the quarry. This included an exclusion zone of 80m, which was calculated from the design burden.

The contributing factors causing this incident were:

- change in geology (fractured and softer ground)
- potential drill deviation of some front face holes, resulting in a reduced burden.

MinEx data on incidents with the potential to cause harm over the 18 months to Dec 2018 shows that 8% of all incidents result from pressure release of which 33 incidents were explosive related.

You need to ensure that:

1. Blast exclusion zones are calculated for each shot taking into consideration minimum safe distances for plant and people and based on actual burdens.
2. Consideration is given to laser profiling of faces and bore tracking of the front row of holes, in order to establish accuracy of drilling and actual burdens prior to loading a shot.
3. You have sufficient knowledge of your site's geology to help inform blast design and calculation of relevant safe exclusion zones.
4. You maintain regular communication with your shotfirer throughout the drill and blast process to ensure the process is conducted safely.

Know of an incident or near miss? Please share the learnings with us.