Incident periodical

High Potential Incidents summary

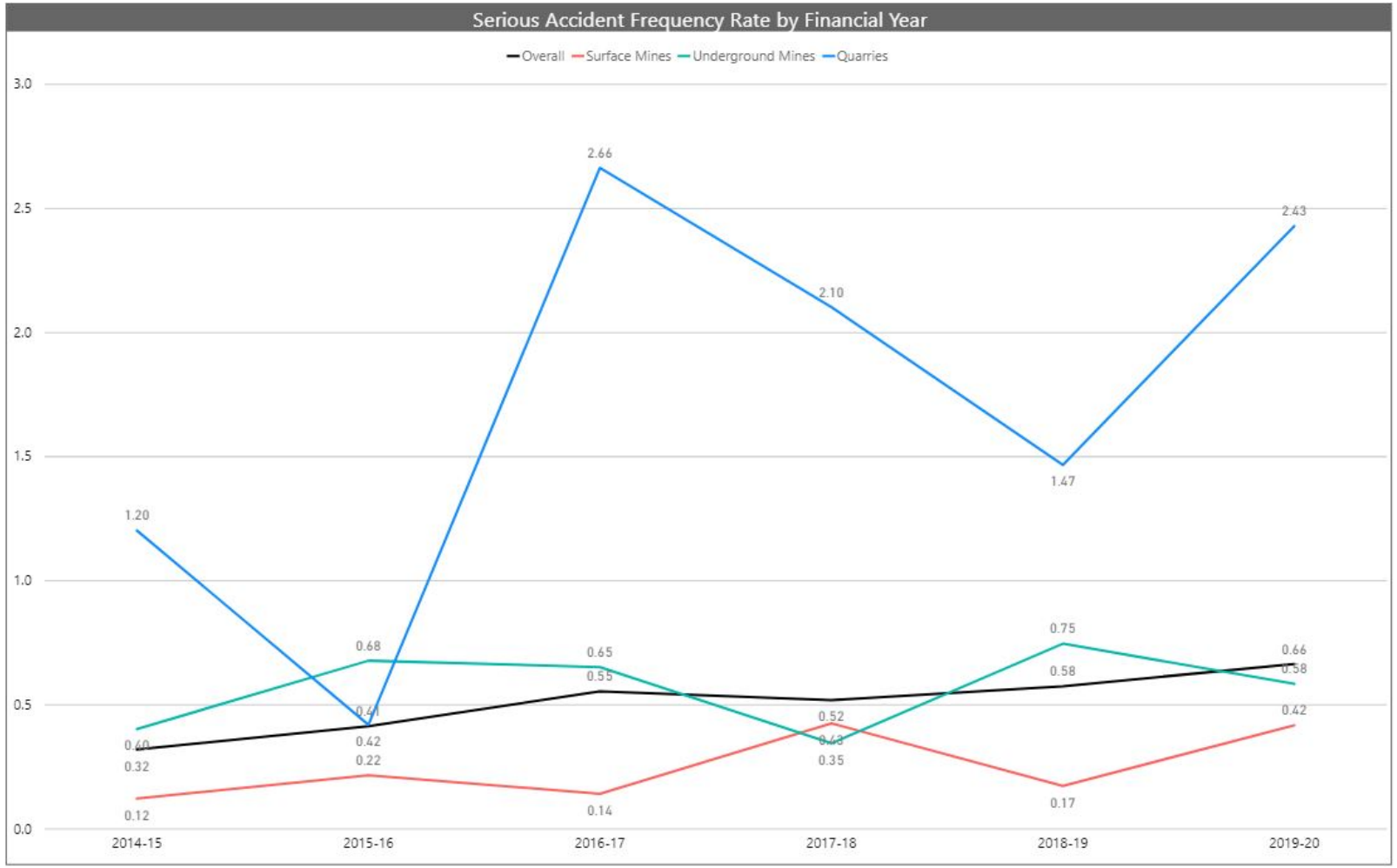
Queensland Mineral Mines & Quarries Inspectorate

August 2020

Mineral Mines & Quarries Inspectorate

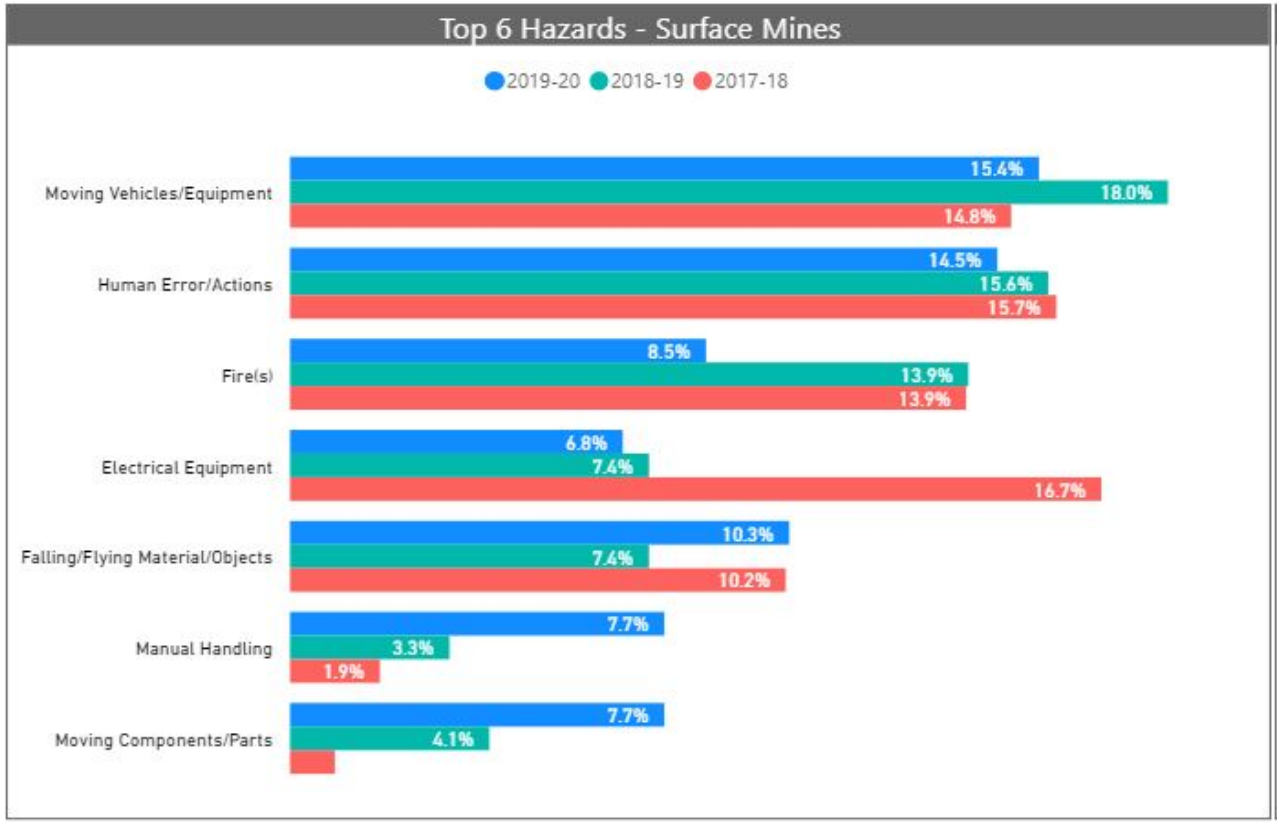
Resources Safety & Health
Queensland

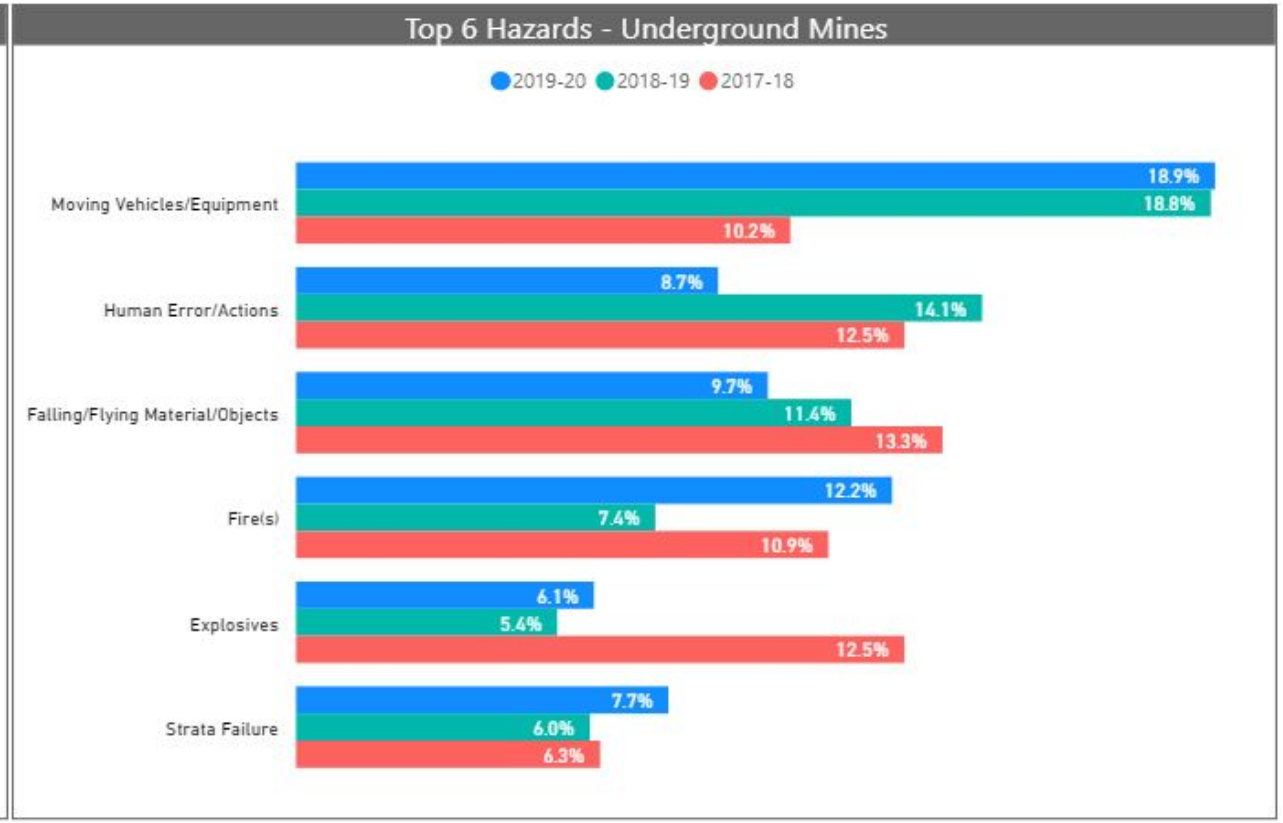
Serious Injury Frequency Rate by industry



Top 6 hazards

These graphs compare annual data of the top 6 hazards involving Serious Injuries by mine type.





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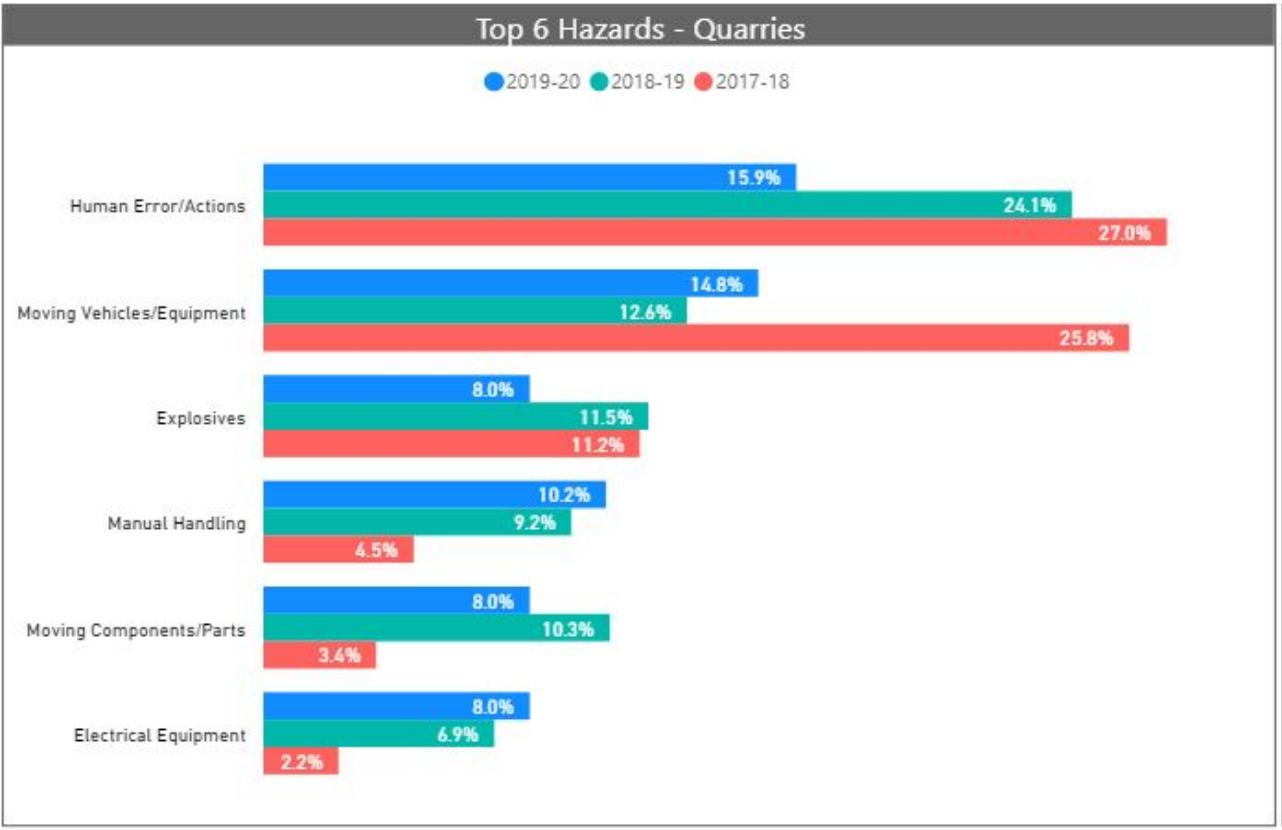
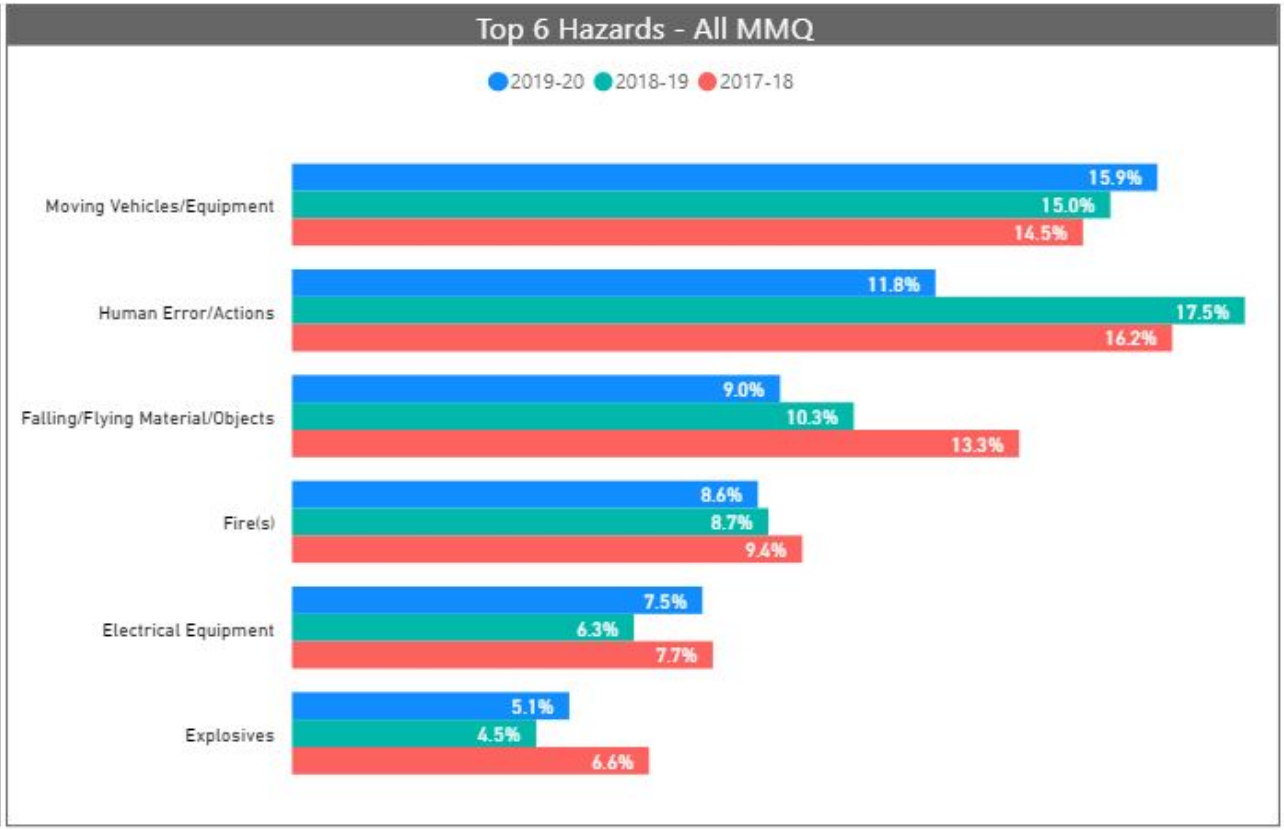




1000 tonne rockfall

On 30 August 2020, an excavator operator had scaled a face and was loading the resultant material into a truck when approximately 1000 tonne of ground fell and partially buried the excavator and the truck.

Displacement was identified in the area a few days earlier by a radar scanner

The operators were uninjured and exited the area without assistance.

1000 tonne rockfall

The excavator operator has inadvertently removed the key-block that triggered the rockfall.

Several factors may have contributed to this rockfall arising either individually or in combination over time:

- Presplit blasting
- The degradation of the effectiveness of the crest pins
- Water ingress

1000 tonne rockfall

Recommendations

- Ensure geotechnical input is included in risk assessments carried out by operators when they are going to perform scaling of this nature. [Administration]
- Catch bunds must be constructed based on information about the kinetic energy and predicted location of impact on a barrier. This information must also be used to determine the optimal capacity, size and location of barriers. [Engineering]
- Use engineering methods to reduce the kinetic energy so that catch bunds are effective. These methods include but are not limited to drape meshing, rock deflectors and engineered edge protection. [Engineering]
- Design the pit presplit so that it does not induce instability.[Engineering]
- Use methods of maintaining rock stability in the pit design that will be remain effective for the life of the mine. [Administration]
- A worker within the management structure is responsible to ensure that slope stability is continually reviewed as per the requirements of the Ground Control Management Plan. [Administration]

Loader rolls 360 degrees and then onto its side.

On 31 August 2020 a loader was stockpiling road base and travelling up the stockpile ramp nearing the top when it veered to the left, tipped over and rolled down the side of the stockpile.

The investigation by the quarry found that the loaded bucket was raised and the loader was articulated.

Loader rolls 360 degrees and then onto its side.

The loader operator had been trained and assessed as being competent and had been operating loaders for over 30 years.

The operator was not wearing the seat belt even though he had signed off on the requirement on two recent occasions. The seat belt was fastened and then sat on so that the reminder indicator and recording system were defeated.

It is more than extremely fortunate that the operator only required three stitches to the back of his head.

Loader rolls 360 degrees and then onto its side.

Recommendations

- Loaders should travel with the bucket low so that good visibility and stability are maintained. [Administration]

- Training and being signed off as being competent should be followed up by periodic observations by supervisors to ensure safe methods of operation and critical safety features are adhered to. [Administration]

Note - All workers have a part to play when they notice unacceptable practices and should be encouraged to speak up. It should be recognised that workers accept different levels of risk.

Drill rod breaks through into active mining level

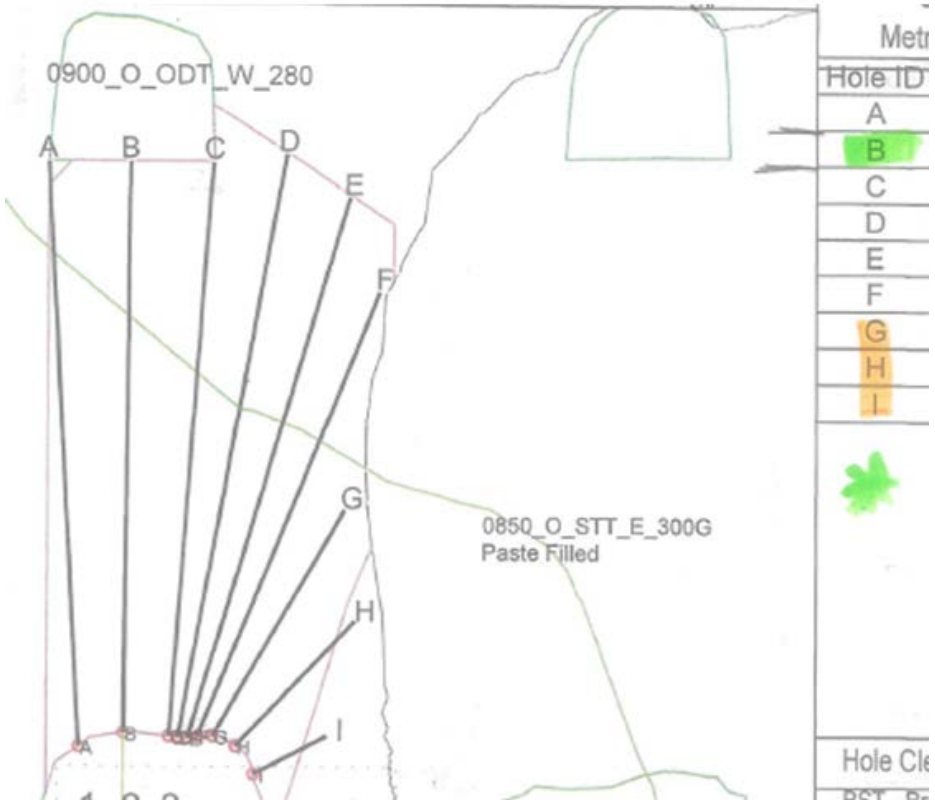
On 26 August 2020 a production uphole was being drilled from one level to an upper level. A truck operator was about to move off when he saw a drill rod break through into the drive 7 metres ahead of his planned travel route.

Drill rod breaks through into active mining level

Mine Technical Services issued a drill plan showing the whole drill pattern, which included breaking through to the upper level. Later the plan was marked up intending to show that only the wall fan holes G, H and I were to be drilled.

The drillers attended the shift prestart meeting but the interaction between the mining on the upper level and the drilling was not raised and the change of plan was missed.

The drillers were working to the drill plan that was not marked up and knew they would break through into the upper level drilling hole B. The drillers thought that the cross shifts had put the barricading in place and did not check it themselves.



Drill rod breaks through into active mining level

Recommendations

- Mine Technical Services to only issue the drill pattern to be drilled. [Administration]
- Interactions between different groups of workers should be flagged and communicated at prestart meetings. [Administration]
- Responsibility for actions to be taken to prevent unintended interactions should be clearly assigned. [Administration]
- The erection and confirmation that barricading is in place is crucial and must be in place even if the drillers do have a correctly marked up plan. [Engineering]
- Barricading should be in place even when there is no planned interaction. [Engineering]

Contact us

Mineral Mines and Quarries Inspectorate

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- Contact your regional inspectorate staff

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