
Quarterly safety report

October to December 2022

resourcesregulator.nsw.gov.au

About this report

This quarterly health and safety performance report has been prepared by the NSW Resources Regulator for mine and petroleum site operators in NSW. It contains industry and sector specific information, in addition to information regarding hazards. Wherever possible, trends and patterns have been identified.

The report references sector information about the number of 'active' mines. Active mines have the status: open, intermittent, mines under care and maintenance, open tourist mines, planned and small-scale titles that are current or pending.

The report also contains information on matters of concern to the Regulator including controls and actions that may be implemented to prevent or reduce the likelihood of future safety incidents.

Operators should use the sector specific information, emerging issues and good practice examples presented in this report to assist them in improving safety management systems and undertaking risk assessments at their sites. This report refers to the date the incident was notified rather than the date the incident took place.

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Executive summary

This report is prepared to assist mine and petroleum site operators meet their obligations under relevant work health and safety legislation, including the *Work Health and Safety (Mines and Petroleum Sites) Act 2013*. It is also a way in which the NSW Resources Regulator monitors progress in implementing our risk-based compliance and enforcement strategy.

As a high-hazard regulator, we focus on compliance with legislative requirements associated with principal and other high-risk hazards, including mechanical and electrical energy and explosives. This report highlights dangerous and high potential incidents, in addition to incidents where a fatal or serious injury occurred. 'Roads or other vehicle operating areas' and 'fire or explosion' are principal hazard classifications that feature regularly in incident notifications to the Regulator.

As well as providing an overview of incidents across the mining industry, this report looks at the safety performance and regulatory activities of 6 sectors: coal, large (non-coal) mines and quarries, small mines and quarries (including gemstones), opal mines, petroleum and geothermal sites, and exploration sites.

This report also provides information on significant mining events in Australia and globally, and summarises safety incident notifications, compliance activities and outcomes for the quarter of October to December 2022 (FY2023 Q2). For selected measures, data is analysed over a 15-month period from October 2021 to December 2022.

There were no mining-related fatalities in NSW during the quarter.

In this quarter there was an 11% increase in safety incident notifications received by the Regulator, compared to the previous quarter.

Of note, the number of serious injuries and illnesses notified by large mines and quarries increased by 35% and almost tripled in the coal mines sector (7 to 20). Medical treatment/lost time/restricted duty injuries and illnesses in the large mines and quarries sector increased by 94% following a decrease in the previous quarter.

Notifications increased for the principal hazards of ground or strata failure (105%), air quality or dust or other airborne contaminants (44%) and roads or other vehicle operating areas (22%). There was also an increase in notifications of ventilation control plan incidents (2 to 11).

Decreases were observed in incident notifications related to mechanical engineering control plans (58 to 39) following a substantial increase in FY2023 Q1, and electrical engineering control plans (23 to 19) for the second consecutive month.

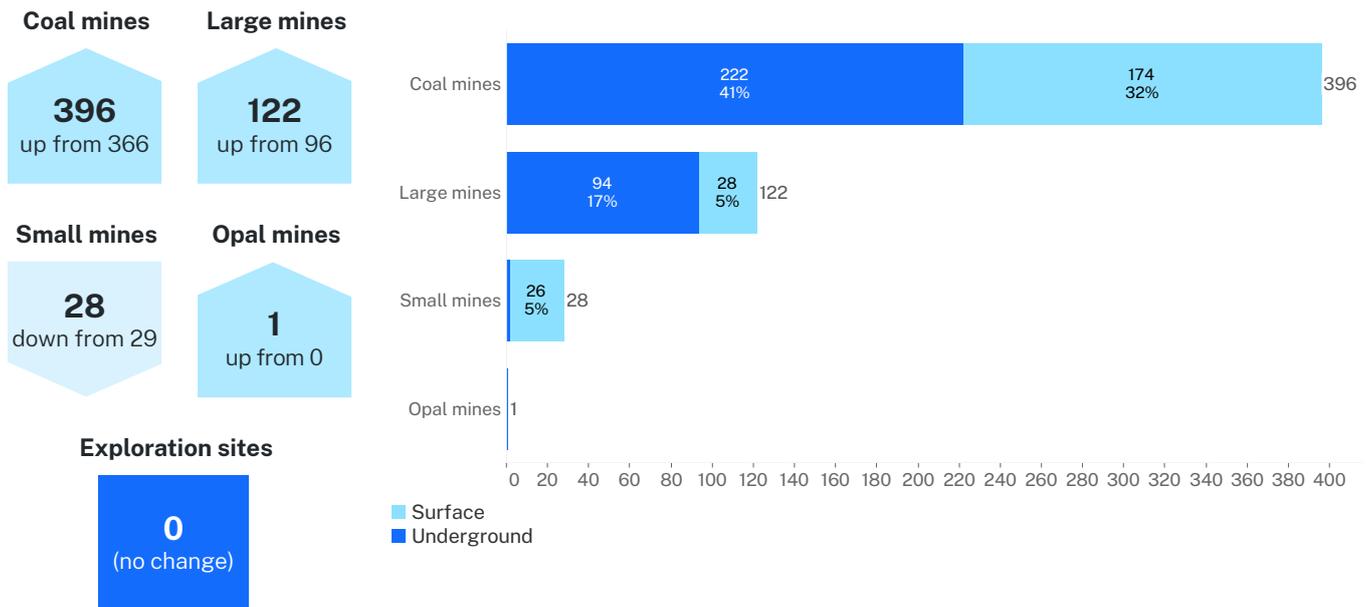


Quarterly snapshot

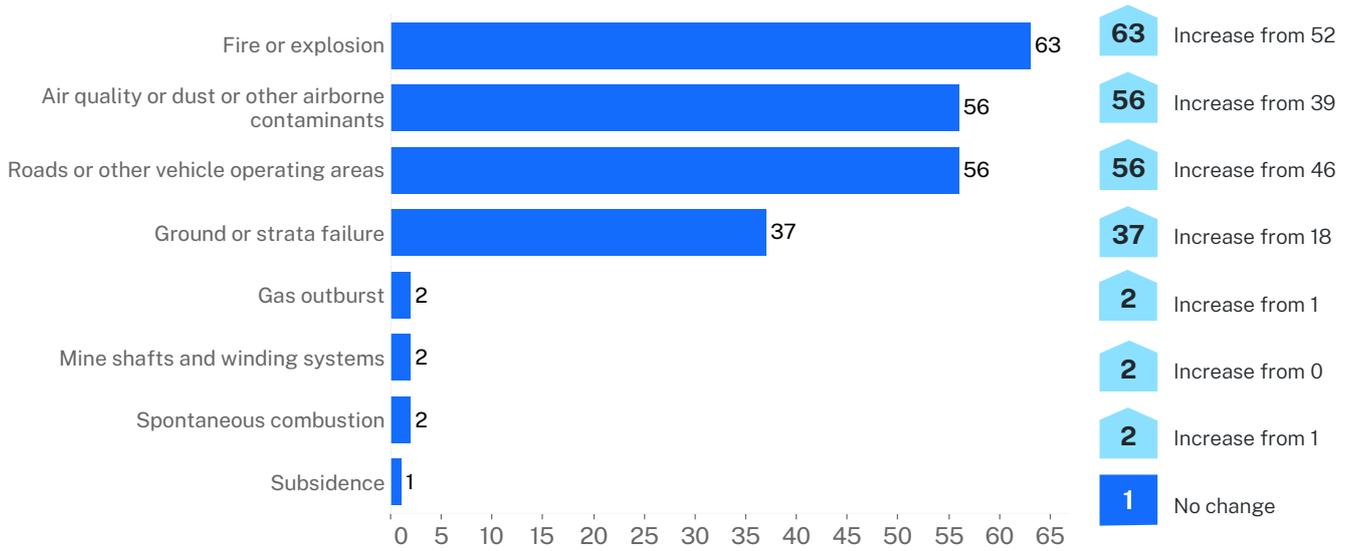
0 Work-related deaths	547 Incident notifications received	173 Other high potential incidents
30 Serious injuries or illnesses		44 Medical treatment injuries or illnesses
94 Dangerous incidents		93 Lost time/restricted duty injuries or illnesses
110 Potentially dangerous incidents		3 Explosives Reg incidents

*By requirement to report as notified by mines.
The actual number of incidents, injuries and illnesses recorded may differ from original incident notifications following assessment of the notified event.

Incident notifications received by sector and operation type

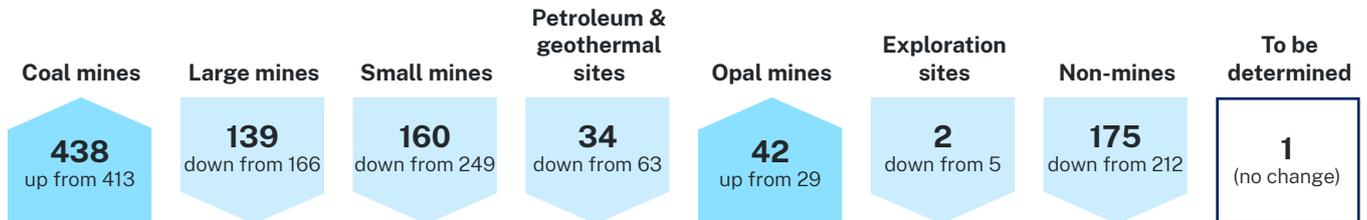
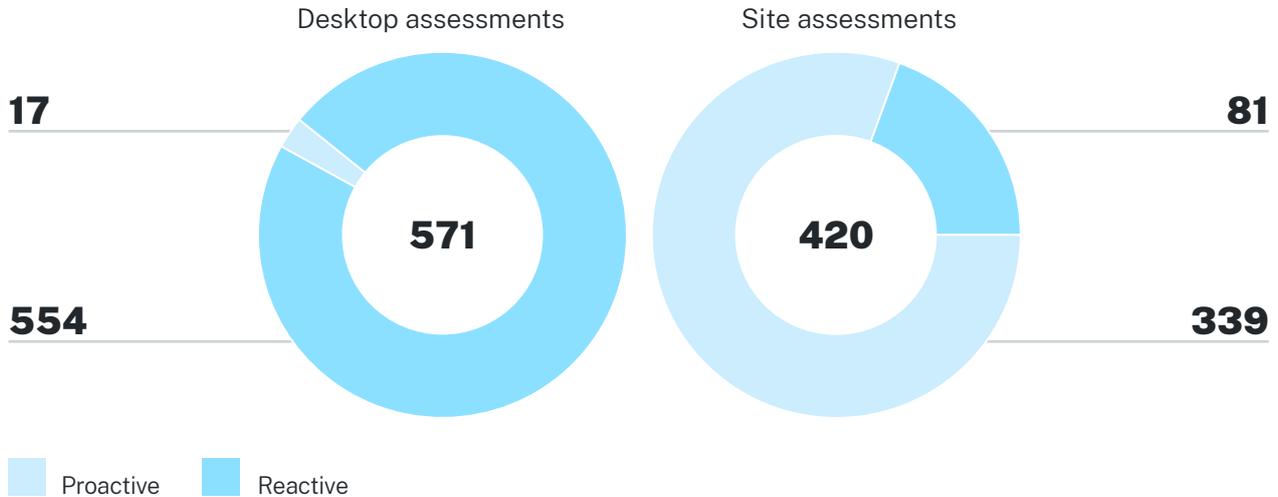


Incident notifications classified by principal hazard

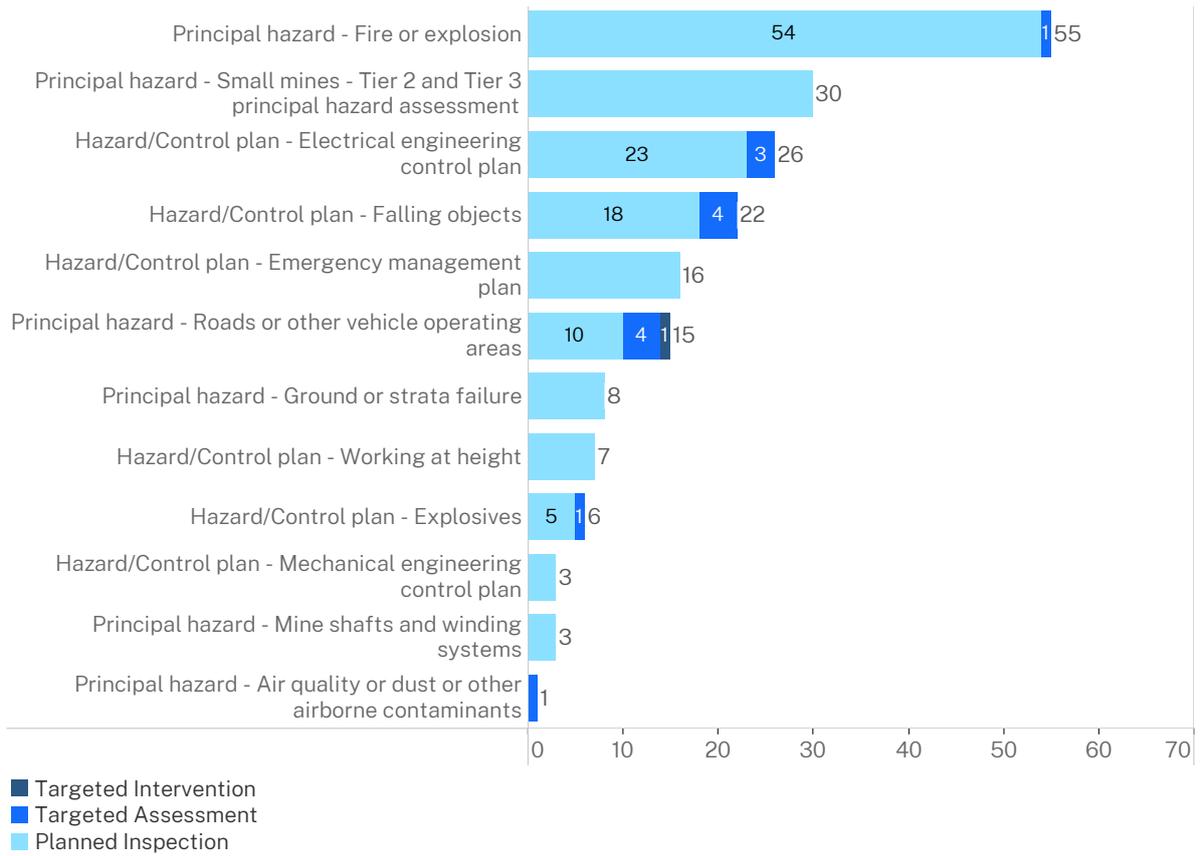


Note: Inundation or inrush of any substance decreased from 1 to 0.

991 Assessments commenced



Programmed site assessments conducted



418 Notices issued



4

WHS s198 non-disturbance notices



38

WHS s195 prohibition notices



204

WHS s191 improvement notices



172

WHS(MPS)A s23 notices of concern

National and international significant events

The Regulator is committed to sharing safety information about significant mining-related events and fatalities to increase industry awareness.

The following list includes safety alerts (including fatalities) and bulletins released between 1 October and 31 December 2022.

The incidents selected were based on their relevance to equipment and processes commonly used across the NSW mining industry.

Fatal injuries

Australia

- On 13 October 2022, Capricorn Metals Ltd confirmed that a significant event had occurred at the Karalwinda Gold Mine in Western Australia, resulting in the fatality of an employee of mining contractor MACA Ltd. Refer to [link](#).
- Gold Fields Ltd shared on their website that a worker had died at the Hamlet Underground Mine near Kambalda in Western Australia on 11 October 2022. No further information has been provided. Refer to [link](#).

International

United States of America

There were 6 mining or quarry related fatality alerts recorded (published) by the USA's Mine Safety and Health Administration (MSHA), during the quarter:

- On 1 October 2022, a miner died while using a crane to remove a haul truck engine. The auxiliary line broke, causing the hook and ball assembly to fall and strike the miner. Refer to [fatality alert](#).
- On 7 October 2022, a miner was fatally injured when he entered an air classifier and was engulfed by material. Refer to [preliminary report](#).
- On 17 October 2022, a fatality occurred when a miner fell approximately 90 feet from a walkway outside the plant's mill building. Refer to [fatality alert](#).
- On 22 October 2022, a miner drowned in an underground sump at the Acosta Deep Mine. The employee was found unresponsive by co-workers during routine maintenance activities. Refer to [fatality alert](#).
- On 5 November 2022, a worker was killed after a coal pile collapsed. Police said it took several hours for fire department crews to excavate and recover the worker's body. Refer to [fatality alert](#).
- On 6 December 2022, a miner received fatal injuries when the diesel tractor they were operating hit a rib. The miner was thrown from the tractor and was crushed under a rear tire of the tractor. Refer to [fatality alert](#).

Canada

- Newcrest Mining Limited confirmed a fatality in an "isolated incident" at the Brucejack mine in British Columbia on 22 October 2022, however did not provide further details. Refer to [link](#).
- Alamos Gold confirmed that a fatality had occurred on 29 November 2022 at their Young-Davidson mine in Ontario. Media reports noted that the worker had been struck by a vehicle underground. Refer to [link](#).

South Africa

- Harmony Gold Mining Company Limited confirmed a fatality at their Tshepong North Mine in the Free State province on 8 November 2022 following a fall of ground incident. Refer to [link](#).
- Harmony Gold Mining Company Limited confirmed a fatality at their Kusasaletu Mine in the Gauteng region on 15 December 2022 following a fall of ground caused by a seismic event of South Africa. Refer to [link](#).

Alerts, bulletins, fact sheets and incident information releases

New South Wales

Safety alerts and bulletins

- [SA22-04 – Dangers of lifting and pulling activities revealed](#)
- [SA22-05 – Service brakes fail on moving articulated dump truck](#)
- [SA22-06 – Operator unable to activate fire suppression system during emergency](#)
- [SB22-13 – Workers sucked onto end of auxiliary ventilation ducting](#)
- [SB22-14 – Lifting incidents increase](#)
- [SB22-15 – Safety is the key to a happy festive season](#)
- [SB22-16 – Wet weather to continue](#)
- [SB22-17 – Fires on battery powered tools increase](#)

Fact sheets

- [Electrical energy assessment program – metalliferous mines and tier-1 quarries](#)
- [Mine and Petroleum Site Safety Levy](#)

Reports

- [Investigation report – Dangerous incident involving a worker at Attunga Limestone Mine](#)
- [Consolidated report – Ground or strata failure – slope stability of stockpiles – open cut coal mines](#)
- [Consolidated report – Ground or strata failure – slope stability – small mines](#)
- [Targeted intervention program report – Underground coal – ground or strata failure](#)
- [Position paper – Use of alternative component parts in design registered plant \(fit form function\)](#)

Investigation information releases

- [IIR22-04 – Mills Gravel Quarry – Teenagers injured in a vehicle rollover](#)
- [IIR22-05 – Worker seriously injured using crowbar](#)
- [IIR22-06 – Worker seriously injured during lifting activity](#)
- [IIR22-07 – Outburst at NSW underground coal mine](#)
- [IIR22-08 – Loader falls into stope](#)

Queensland

- **Tyre explosion on rear dump truck following lightning strike**
A storm passed across a mine during day shift operations. Personnel were transported to crib and office facilities until the storm passed. Upon returning to the parking areas workers discovered the tyres on a rear dump truck had exploded. The explosion caused tyre fragments to project into the general park up area and nearby mine road, and a rock ejector was found approximately 10 m away from the machine. It is believed a lightning strike during the storm caused internal pyrolysis on the tyres leading to the explosions. Refer to [safety alert](#).
- **Bulldozer drops into a void above a conveyor feed valve point**
A bulldozer working on a coal stockpile dropped into a void above a conveyor feed valve point. During preparation of the stockpile for train loading, the location of the feed valve was miscalculated. The feed valve location was not available on the GPS system in the bulldozer. External reference points used by bulldozer operators to locate the feed valves were inaccurate. Coal taken through the feed valve to the load out bin created a rathole, because the void did not reach the stockpile surface. The coal bridge above the void failed beneath the weight of the bulldozer. Refer to [safety alert](#).
- **Electrical component failure on ammonium nitrate handling and transfer equipment**
Recent instances of corroded electrical components have resulted in a fire on a Mobile Processing Unit (MPU) and a no-flow condition of an ammonium nitrate emulsion (ANE) pump. Damaged electrical components in the vicinity of ammonium nitrate product were subject to corrosion. In one instance, a wiring harness with damaged insulation on a MPU bin lid actuator energized resulting in a small fire. In another incident, an internally corroded actuator energized and started a NAPCO™ ANE pump while the mine re-load was unattended. Refer to [safety alert](#).
- **Impact sensitive explosives damaged during delivery**
A pallet of Class 1 explosives fell approximately 1.2 m from the rear of a delivery vehicle while being unloaded at a mine site. The operator lost control of the pallet jack while manoeuvring a heavy pallet of detonating cord towards the rear of the vehicle for unloading. Class 1 explosives are impact sensitive and the impact of a fall could cause unplanned detonation or damage to the explosives. Refer to [safety alert](#).
- **Managing heat exposure in coal mines**
Resources Safety & Health Queensland release safety bulletin stating that persons with safety and health obligations must ensure that exposures to heat are being effectively managed to an acceptable level of risk at their mine sites. The mine's safety health management system (SHSMS) must incorporate processes to recognise and effectively manage heat exposure and to protect coal mine workers (CMW) from heat related illness. Refer to [safety bulletin](#).

South Australia

- **Information sheet – working with mobile plant**
A new safety information sheet has been developed for the South Australian construction industry to minimise the risks associated with mobile plant in the workplace. The South Australian Construction Safety Alliance (SACSA) has developed a safety essentials flyer with support from SafeWork SA containing information to minimise risks associated with mobile plant in the workplace that will be shared and posted at their members worksites. Refer to [safety alert](#).

Western Australia

- **Mine 'traffic management fundamentals'**
WA Department of Mines, Industry Regulation and Safety released an updated 'Traffic management fundamentals audit guide' to encourage mine sites to assess their business practices and identify areas for improvement. Refer to [link](#).
- **Temporary shutdown of John Brookes Platform**
Santos advises that a small gas leak has been identified in a subsea flange on the main gas trunkline from the John Brookes platform, offshore Western Australia to the Varanus Island gas processing facilities. The observation of the leak occurred during routine activities on the normally un-staffed facility. The platform and pipeline were immediately shutdown and depressurised and all personnel demobilised. Refer to [link](#).

New Zealand

- **Digger contacts electrical transformer**

An operator was asked to clean up around the fixed plant with a digger. As the small digger wouldn't start, he opted for a larger digger to perform the task. He was operating the digger when he swivelled around and the counterbalance contacted the plant electrical transformer. The digger was moved away from the transformer and the electrician and electrical power supplier were contacted to inspect the transformer. This was found to still be safe for operation. Refer to [safety alert](#).
- **Uncontrolled movement of tip truck**

A customer was entering the quarry to pick up a load when he stopped to visit the bathroom. He parked the vehicle on the edge of the haul road, turned it off and pulled up the handbrake. Upon his return, the vehicle had travelled approximately 75 m across the road, and stopped against the bushes on the opposite side of the road. Refer to [safety alert](#).
- **Tyre and rim detach from dump truck**

While operating a dump truck on a haul road, the position 3 tyre and rim detached from dump truck. The truck was hauling waste on a flat haul road and was approximately 2.5 hours into night shift. No one was injured. A post-incident mechanical inspection on the truck confirmed that the replacement tyre rim was not prepared correctly by the tyre fitter/mechanics. Grease left on the rim enabled the 52 nuts to come loose from the bolts, causing the tyre and rim to fall off the truck. Refer to [safety alert](#).
- **Truck contacts stationary vehicle**

En route to deliver a load, a truck driver veered to the left of the road and contacted a stationary vehicle on the side of the road. Upon reviewing the incident footage, it could be seen that the driver suffered a micro-sleep event which caused him to veer to the left. No one was injured and there was no major damage to either vehicle. Refer to [safety alert](#).
- **Injury from bench top buffer**

A worker was buffing a bolt on the bench wire wheel when the bolt got jammed by the tool rest and the bolt ended up spinning downwards toward his leg. The worker was wearing overalls and boots which helped protect him from serious injury but sustained minor bruising to his leg. First aid was administered on site. Refer to [safety alert](#).
- **Worker injured during screen change**

Three workers were changing a screen mesh inside a mobile screen. Worker A was inside the screen box supporting the bottom end of the screen whilst worker B was at the opposite end prying the screen out of the seat rail the mesh sits in. As worker B pried the screen forward out of the seat, the end worker A was supporting slipped off the screen tube causing him to fall forward and knock his head, which resulted in him breaking his nose on the steel cross bar in the screen. Refer to [safety alert](#).
- **Uncontrolled movement of trailer**

The driver disconnected the trailer, but the ring feeder pin was stuck, so he disconnected the trailer brakes. Once he got the pin out, he thought that he had engaged the trailer brakes. As he moved the truck forward, the trailer started moving slowly towards the cars in the carpark. Another contractor on site, tried to slow down the trailer by hand, then saw the trailer brake button and engaged the brakes stopping the trailer. Refer to [safety alert](#).
- **Battery fire in underground storage**

Smoke was observed emerging out of a heavy-duty steel toolbox that was stored underground, with one worker observing sparks flying towards them. They stepped back and, after using the extinguisher, the fire was thought to have been put out. However, the tool sparked a fire for the second time. The workers closed the toolbox lid and a leading hand arrived at the scene with a second 9kg dry powder extinguisher. Workers opened the lid using scaffold tubes and the fire was extinguished a second time. Workers started removing tools out of the toolbox and placed them on a nearby scaffold. Upon removing, workers found a 6V Hilti Lithium Battery 822 5.2 Li-Ion melted (connected) to a Hilti Sabre Saw SR6-A22. Refer to [safety alert](#).
- **Collision between loader and truck**

A loader operator was feeding the primary crusher with river-run whilst another operator loaded a road truck (and trailer) with crusher dust. After the road truck was loaded, it proceeded to stop at the fixed plant area where a hose was used to wet the crusher dust, as the truck did not have a cover for the load. When coming down the ramp to collect more product, the loader operator feeding the primary crusher did not see the truck behind the loader and collided with the truck. No-one sustained any injuries, however there was damage to the truck. Refer to [safety alert](#).

Notifiable incidents relating to hazards

The Work Health and Safety (Mine and Petroleum Sites) Regulation 2022 (the Regulation) identifies principal hazards and principal control plans for special consideration.

Principal hazards have a reasonable potential to result in multiple deaths in a single incident or a series of recurring incidents.

Principal control plans cover risks to health and safety from hazards, work processes and plant that may result in incidents that are high potential, frequently occurring or of a certain complexity.

Summary of incidents

The table below shows the number of incident notifications received for the past 5 quarters as classified against a principal hazard or principal control plan.

Overall, there were 547 incident notifications received in the quarter. Of these, 40% (219) related to principal hazards, 24% (129) related to principal control plans, with the remainder (36%) related to other incident types.

Table 1. Incident notifications classified by principal hazard/principal control plans – October 2021 to December 2022

Hazard or Control plan (reporting)	Hazard/Control plan (reporting)	FY 2022 Q2	FY 2022 Q3	FY 2022 Q4	FY 2023 Q1	FY 2023 Q2	Grand total
Hazard	Fire or explosion	70	47	58	52	63	290
	Roads or other vehicle operating areas	35	55	44	46	56	236
	Air quality, dust or other airborne contaminants	50	28	43	39	56	216
	Ground or strata failure	18	27	22	18	37	122
	Subsidence	4	3	4	1	1	13
	Spontaneous combustion	1		3	1	2	7
	Inundation or inrush of any substance				1	2	3
	Gas outburst		1	1	1		3
	Mine shafts and winding systems			1		2	3
	Total		178	161	176	159	219
Control plan	Mechanical engineering control plan	57	60	36	58	39	250
	Electrical engineering control plan and/or Mechanical engineering control plan	48	40	37	46	39	210
	Electrical engineering control plan	24	26	13	17	21	101
	Explosives control plan	20	13	25	23	19	100
	Ventilation control plan	1	2		2	11	16
	Total		150	141	111	146	129
Other	No related principal mining hazard or principal control plan	127	195	159	186	199	866
Grand total		455	497	446	491	547	2,436

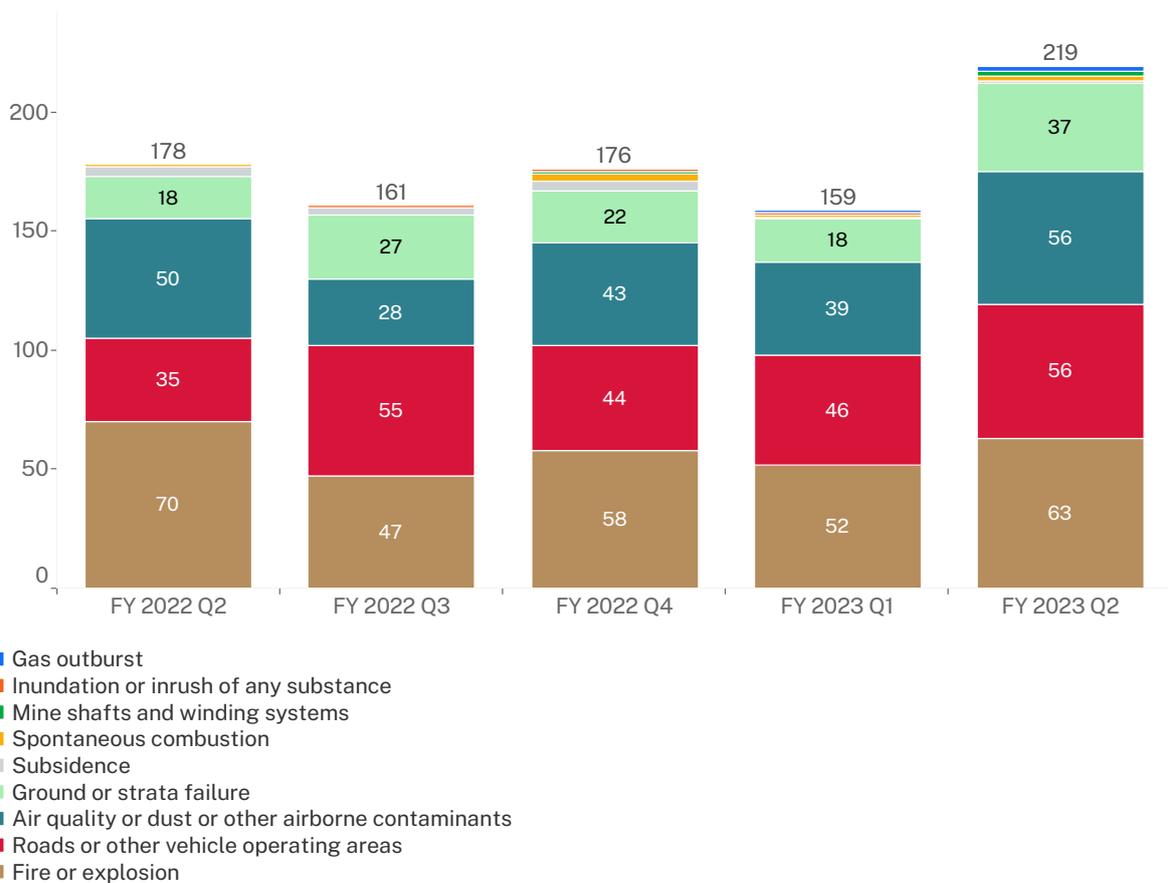
Principal mining hazards

Note: while only one hazard/control plan per incident appears in the report, it is possible for more than one hazard or control plan to be applicable to the incident.



The chart below presents a further breakdown of numbers of incident notifications received by quarter related to principal hazards as defined in section 4 of the Regulation.

Figure 1. Incident notifications received by principal hazard – October 2021 to December 2022





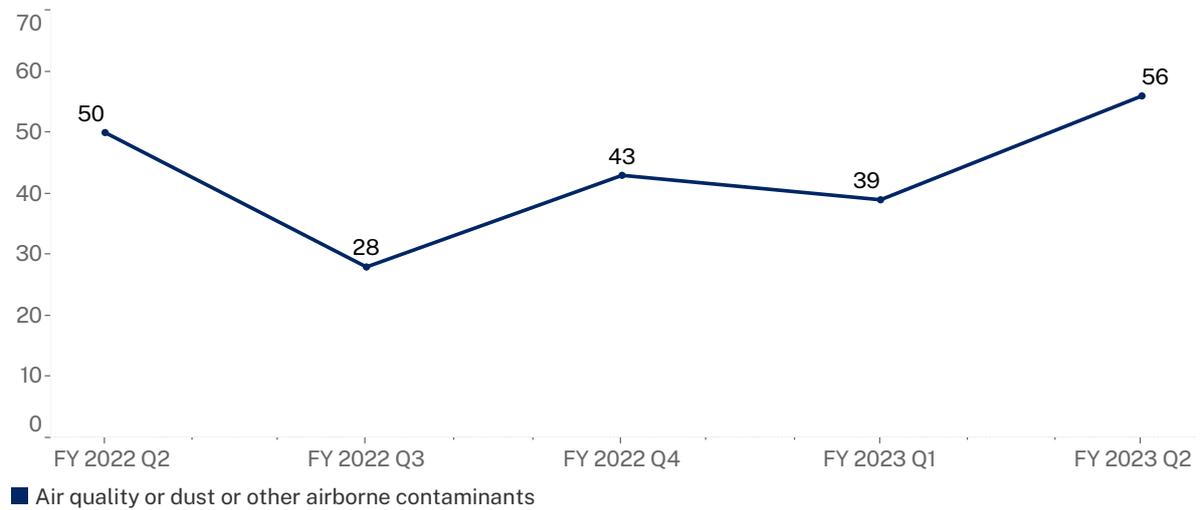
Air quality, dust or other airborne contaminants

↑ from 39 to 56

Airborne contaminants comprise a large and varied range of substances and forms. Coal and silica particles, along with methane and carbon monoxide, are regularly present in mining as dusts, fumes and vapours. These contaminants have exposure standards and can affect workers rapidly (CO or CO₂) or over several years (coal/silica dust).

There has been a 44% increase in incident notifications relating to air quality, dust or other airborne contaminants since Q1.

Figure 2. Incident notifications related to the principal hazard air quality, dust or other airborne contaminants – October 2021 to December 2022



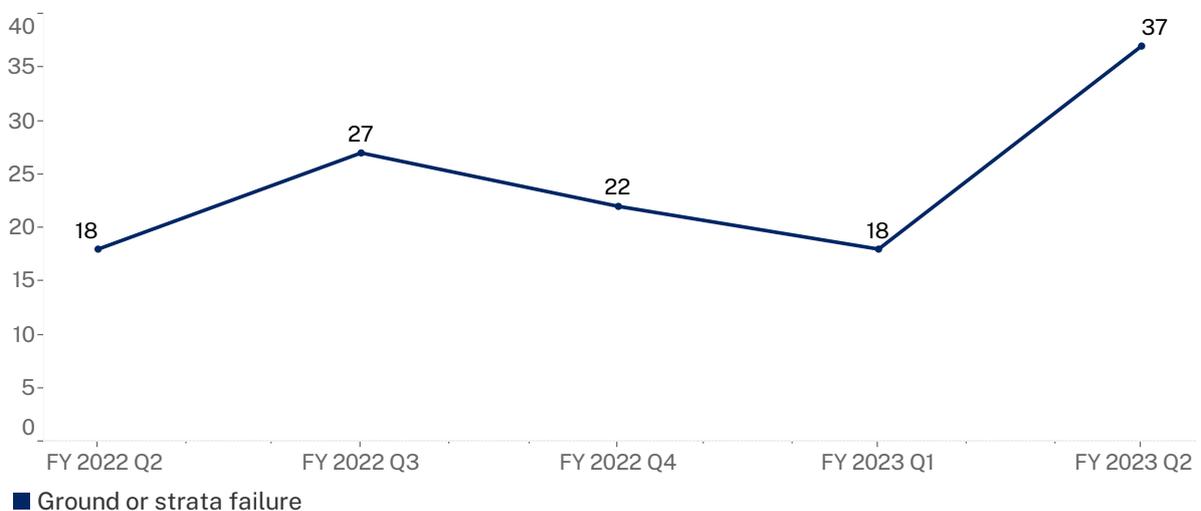
Ground or strata failure

↑ from 18 to 37

Ground or strata failure is an ever-present hazard in both surface and underground mining, with a significant risk posed to workers from unplanned movement of ground.

Incidents notified in this quarter for this principal hazard more than doubled from Q1.

Figure 3. Incident notifications related to the principal hazard ground or strata failure – October 2021 to December 2022



Dangerous incident | IncNot0043318 – tailings dam slump

Summary: A slump occurred at a tailings dam while a dozer was preparing the area for a remote dozer push. The preparation works included establishing a tip head at the dozer sighter peg line and filling in the void area prior to the sighter pegs.



Picture 1.
Slump location.

Comments to industry: Mine operators must have safe systems of work in place to inspect highwalls, low walls and dumps. These inspections must consider weathering effects, ground water and conditions that affect the stability. The adequacy of control measures, including survey controls, should be verified. Operators working in the vicinity of geotechnical hazards should be trained and deemed competent to do so. Refer to Safety Bulletin [SB20-01 Failure of highwalls, low walls and dumps](#)

Dangerous incident | IncNot0043667 – dump failure

Summary: A haul truck was dumping material when the dump failed and the rear wheels of the truck sank. The body was half raised. Cracking was identified on the dump 14 hours earlier. The dump was cut down as per the mine's trigger action response plan (TARP). The mine was in the process of rebuilding the dump when the failure occurred.



Picture 2.
Rear wheels of dump truck.

Comments to industry: When conditions warrant a change in TARPs and operating conditions, thorough assessments need to be made before returning to normal operations. Consider the suitability of material when building dumps and when determining if edge dumping or dumping short. All workers should be trained in the use and requirements of relevant TARPs.

Dangerous incident | IncNot0043413 – slump at stope

Summary: A loader was backfilling a stope when fill slumped, causing the loader to slump down on rill at stope edge. The operator escaped without injury.



Picture 3.
Loader slumped down.

Comments to industry: When tipping into stopes, the stope edge should be clearly demarcated and easily visible to the loader operator. Inspections of the stope should be conducted regularly for water ingress and fines accumulation.

Dangerous incident | IncNot0043383 – 10 metre slump on dump

Summary: A dozer operator noticed minor cracking on a dump and notified their supervisor. The supervisor inspected the area and believed the cracks were associated with reject management at the front of the dump and only affected the current lift (7 m high). A hard barrier was established behind the area and the dozer operator was tasked with cutting down the dump. Later in the shift, the dozer operator noticed movement on the dump and began to reverse. The section of the dump the dozer was on slumped about 10 m. The dozer was unable to exit the dump. The operator raised the emergency. A second dozer cut an access path for the first dozer to safely exit the area.



Picture 4.
Slump location.

Comments to industry: When a hazard is identified, workers must not be placed at risk to remediate the hazard. The integrity of waste material and impacts on the mine design must be considered when dumping reject material in the mine.

Dangerous incident | IncNot0043138 – rock burst

Summary: A rock burst occurred in an underground metals mine. A drill rig was working in the area but the operator was not affected. A seismic event with a magnitude of 1.4 was measured at the mine. The mine operator stopped work, barricaded the area and commenced monitoring.

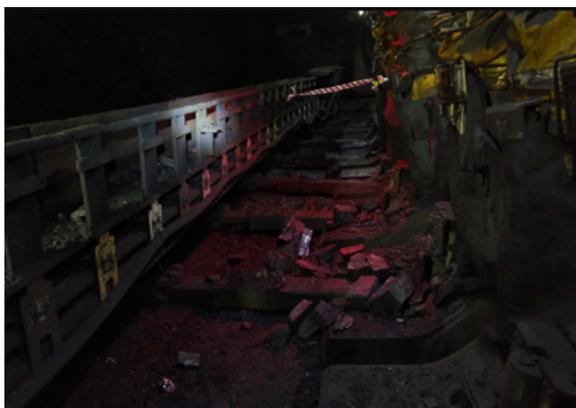


Picture 5.
Rock burst.

Comments to industry: Mine operators are reminded of the update to the Work Health and Safety (Mines and Petroleum Sites) Regulation 2022 Schedule 1 Section 1(1)(x) where mine operators must consider the risk of rock, coal or related pressure burst as part of the PHMP for Ground and Strata failure.

Dangerous incident | IncNot0043177 – slab of coal fall

Summary: A slab of coal on the longwall fell forward onto the ranging arm, slid down the arm, spilling over the pan line and struck a worker on the ankle knocking them over. The worker was standing on the front walkway of the roof supports. The shearer was entering the snake in the tailgate. Cutting was done in compliance with the restricted zone limits



Picture 6.
Fall of coal.

Comments to industry: Mine operators should consider flyrock and slabbing strata risks when determining restricted access zones for operators on longwalls. When reviewing controls related to a principal hazard, the impacts from all principal hazards must be considered.

Dangerous incident | IncNot0043673 – void in underground metals mine

Summary: A loader operator went into the wrong draw point and proceeded to start bogging out in an underground metalliferous mine. While attending a production drill on the level above, a fitter has observed a void in the floor of the drive. The fitter and the production driller retreated from the drive and informed the shift supervisor. The area was then barricaded, and geotechnical assessment planned.



Picture 7.
Void area.

Comments to industry: Mine operators should use higher order controls to prevent inadvertent bogging of rills such as physical barriers.



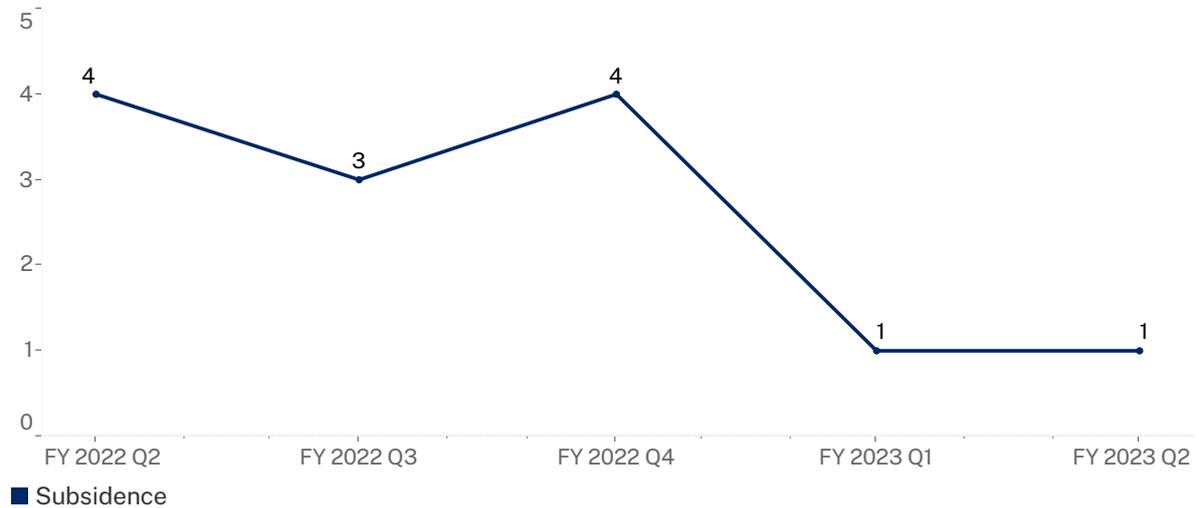


Subsidence

No change (1)

Surface subsidence hazards may exist where there has been underground mining. The potential to cause significant damage (from deformation or sinkholes) to infrastructure (roads, dwellings etc.) and injure persons nearby, makes this a principal hazard in NSW.

Figure 4. Incident notifications related to the principal hazard subsidence – October 2021 to December 2022

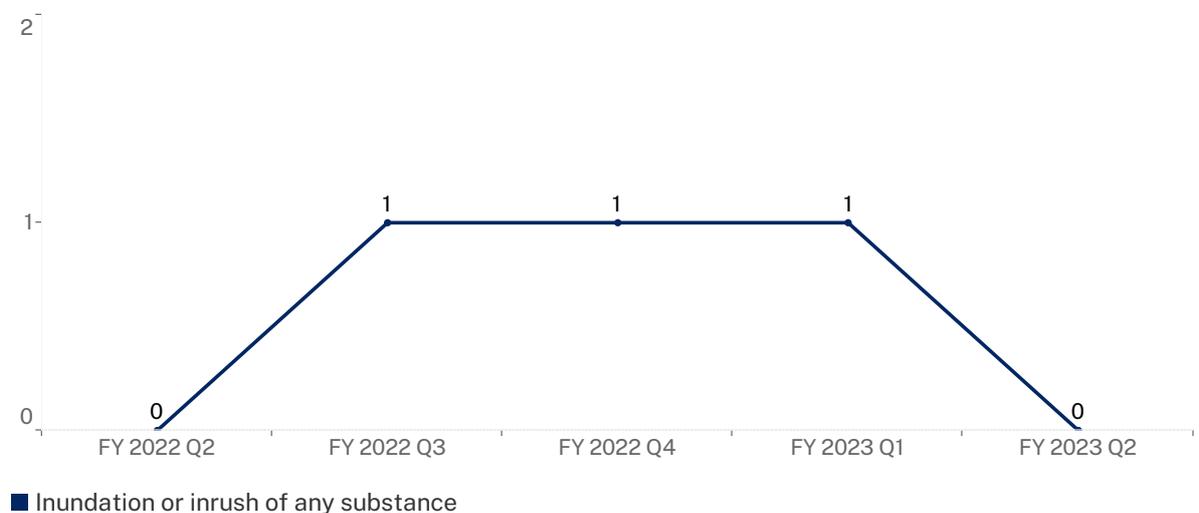


Inundation or inrush of any substance

↓ from 1 to 0

Inundation and inrush is a low frequency, high consequence hazard, particularly in underground mining. Incidents often involve inrushes of water or inundation by denser materials (sand or rock). The potential to cause multiple fatalities in a single event like at Gretley Colliery in 1996 make this a principal hazard in NSW.

Figure 5. Incident notifications related to the principal hazard inundation or inrush – October 2021 to December 2022



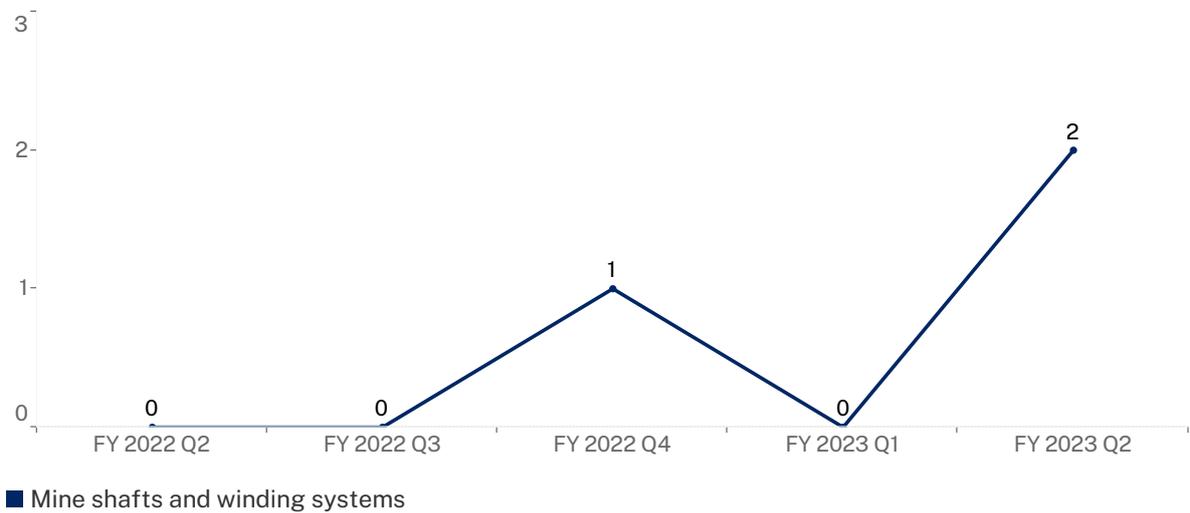


Mine shafts and winding systems

↑ from 0 to 2

Mine shaft integrity and the operation of winding systems require specific focus. The safe movement of material and workers up and down mine shafts can be hazardous and has the potential to impact on the safety of multiple workers at a mine.

Figure 6. Incident notifications related to the principal hazard mine shafts and winding systems – October 2021 to December 2022



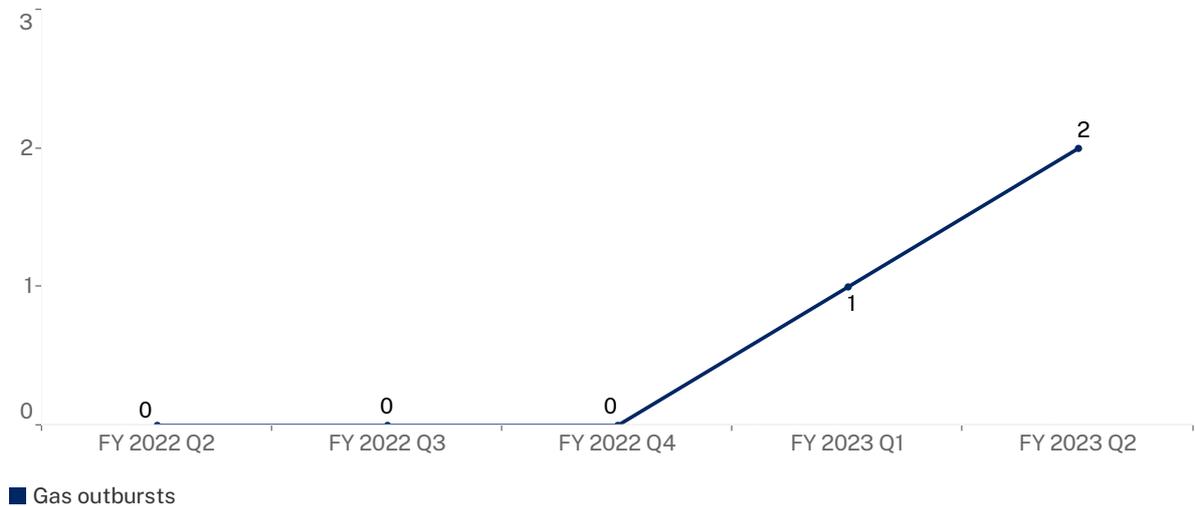


Gas outbursts

↑ from 1 to 2

The implementation of appropriate risk controls ensure gas outbursts are not a high frequency hazard event, however their often sudden and violent nature has the potential to cause fatalities to workers. This hazard also includes the liberation of gases that can asphyxiate, lead to explosions or cause a fire. These circumstances make this a principal hazard in NSW.

Figure 7. Incident notifications related to the principal hazard gas outburst – October 2021 to December 2022



Dangerous incident | IncNot0043099 –outburst

Summary: An outburst occurred during remote mining that resulted in approximately 8 tonnes of coal being ejected from the development face. Power was tripped to the continuous miner due to the face gas levels however the ventilation system was not overwhelmed with gas monitors in the return peaking at CO₂ 1.2% and CH₄ 1.37%. The cause of the outburst is the presence of a 100 mm strike-slip fault (containing up to 50 mm mylonite and calcite) which reduced the effectiveness of gas drainage.

Comments to industry: This incident is a reminder of the danger posed by outbursts and the necessity of having appropriate controls in place to protect workers, including remote mining practices, exclusion zones and sound ventilation practices. The implementation of these controls should not replace effective gas drainage in normal circumstances.

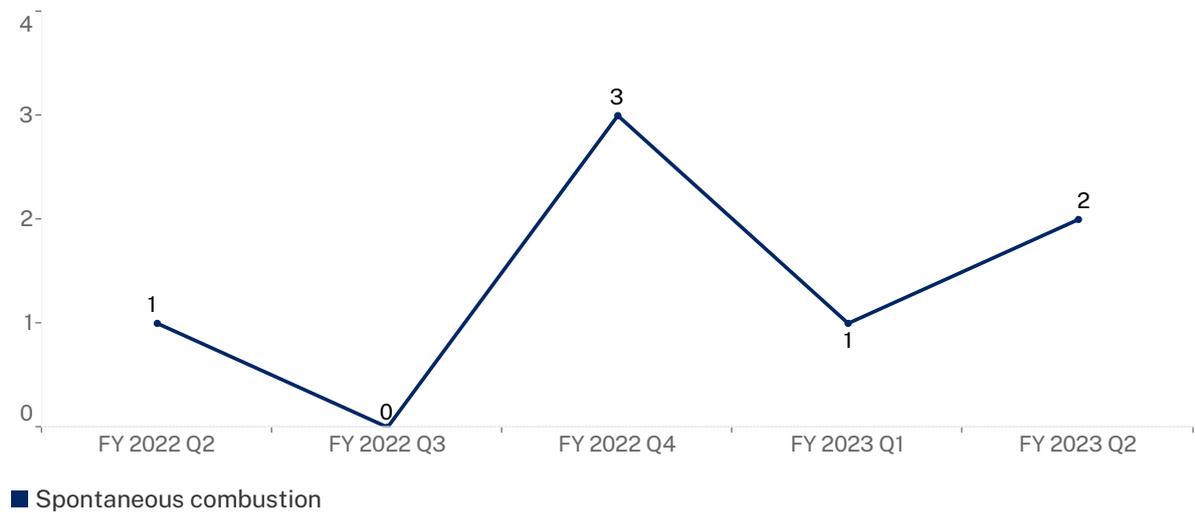


Spontaneous combustion

↑ from 1 to 2

While spontaneous combustion (of coal) is a hazard exclusive to the coal sector, in the underground parts of the mine the consequences have the potential to cause multiple fatalities. Figure 8 below includes spontaneous combustion incidents underground and on the surface of coal mines.

Figure 8. Incident notifications related to the principal hazard spontaneous combustion – October 2021 to December 2022



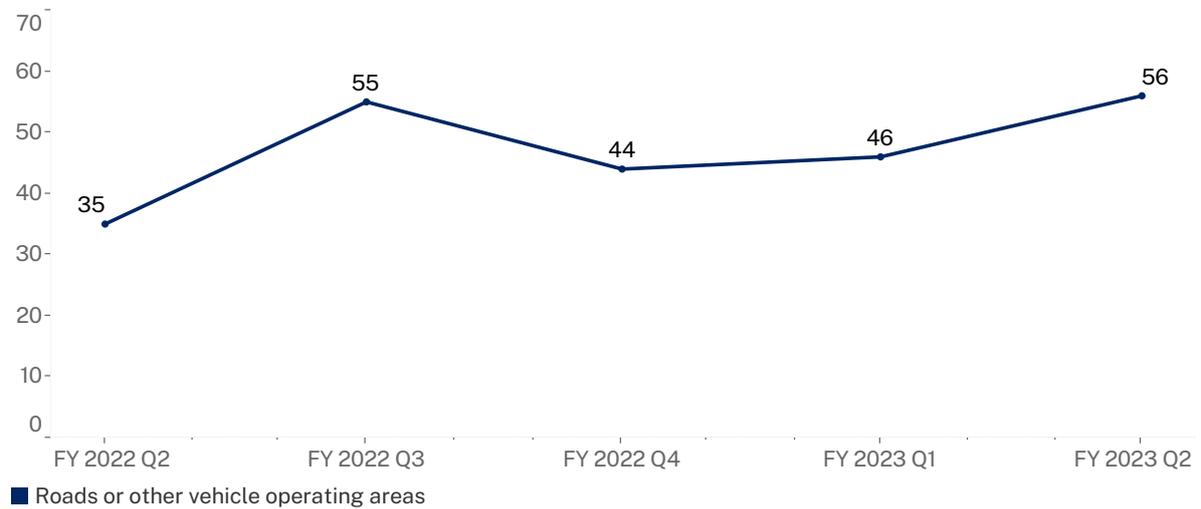


Roads or other vehicle operating areas

↑ from 46 to 56

Vehicle movements in and around mine sites require specific design considerations and controls to ensure that collisions and other vehicular accidents do not occur, and place workers lives at risk. The high volume of vehicular interactions on mine sites and the size of the mobile plant utilised classifies this as a principal hazard in NSW.

Figure 9. Incident notifications related to the principal hazard roads or other vehicle operating areas – October 2021 to December 2022



Dangerous incident | IncNot0043352 – ATV rollover

Summary: Three teenagers were injured when an all-terrain vehicle rolled in a quarry. The quarry was on private land and there were numerous potential access points. Two of the teenagers were treated for minor injuries and a third suffered severe abdominal injuries after being pinned under the vehicle.



Picture 8.
Terrain at quarry.

Comments to industry: All mines and quarries must have adequate site security. Where gates are required, they must be used and secured to prevent unauthorised access. Additional information may be published as required. This incident is the subject of an ongoing investigation.

Dangerous incident | IncNot0043166 – dump truck tub rollover

Summary: An articulated dump truck was travelling around a right-hand corner when the rear tyre contacted the middle delineation island and tipped the tub onto its side. The cab remained upright and the operator was not injured.



Picture 9.
Scene of incident.

Comments to industry: The stability of articulated trucks is a known risk that should be managed at mines. Factors that truck operators must consider include (but are not limited to):

- speed of operation
- operating grades
- uneven surfaces (holes, rocks, foreign material) tipping of loads
- hang-up of loads
- movement of loads.

The risks associated with the rollover of mobile plant was the subject of our compliance priority program in 2018. Refer to the following outcome report for more information: [Articulated truck rollovers and falls from mobile plant](#)

Refer to safety bulletins:

- [SB17-01 Industry reports more truck rollovers](#)
- [SB18-07 Safe systems of work for mobile plant.](#)

Dangerous incident | IncNot0043489 – dozer and dump truck collision

Summary: A collision occurred between a dozer and a dump truck. The dump truck operator was a trainee with 6 months' experience. On the operator's fourth load, the dozer operator requested the load be dumped at the start of the dump at 45 degrees. The dozer operator was referring to the opposite end of the dump to where the previous loads were dumped. The truck operator proceeded to the previous point and started to reverse at an angle. The dozer operator started to reverse and noticed the rear of the truck as they were about to collide and tried to call the operator to stop. The truck hit the dozer, damaging the dozer's GPS/aerial.



Picture 10.
Damaged dozer.

Comments to industry: Higher order risk controls such as equipment segregation and engineering controls must be considered during risk assessments for roads and other vehicle operating areas. Relying on procedural controls such as positive communications and operating procedures should not be used in place of higher order risk controls.

Dangerous incident | IncNot0043194 – contact between truck and dozer

Summary: A truck operator reversed a dump truck into a dozer on a dump. The dozer was parked in the correct position next to the windrow waiting for the truck to dump. As the dump truck was reversed, the operator lost sight of the dozer and continued to reverse. The position 6 wheel contacted the dozer’s ripper box.



Picture 11.
Truck and dozer.

Comments to industry: Operators must stop and reassess if they lose vision of other plant and equipment while reversing. They must not proceed placing other workers at risk.

Dangerous incident | IncNot0043435 – trailer rollover

Summary: An articulate dump truck was hauling material to a waste dump. While travelling around a corner, the trailer rolled over. The cabin remained upright and the driver was uninjured.



Picture 12.
Trailer rollover with cab remaining upright.

Comments to industry: Roll over is a well-known hazard when operating articulated dump trucks. Workers must drive at speeds suitable for the type of vehicle they are operating. When cornering, adequate clearance between the truck and obstacles such as windrows and stockpiles must be maintained.

Dangerous incident | IncNot0043551 – LV not fundamentally stable

Summary: While a boilermaker was repairing the bucket of a large excavator, a light vehicle slowly rolled from its parked location. The vehicle narrowly missed the boilermaker as it rolled. The vehicle was parked for some time before the incident occurred.



Picture 13.
Light vehicle on site.

Comments to industry: When setting up work areas, vehicle park-up areas should be located where vehicles can be parked fundamentally stable and clear of work areas. All workers should confirm their vehicles are parked fundamentally stable before leaving the vehicle. Vehicle operators should daily check the function and operation of braking systems.

Dangerous incident | IncNot0043547 – rollover of water cart

Summary: A road-registered water cart moved to the edge of the road and hit a soft section, slowly rolling onto the side. The driver was not injured.



Picture 14.
Water cart rollover.

Comments to industry: When operating plant and equipment, workers must remain situationally aware of the environment in which they are operating. Mine operators should assess and demarcate any areas alongside roads and vehicle operating areas where conditions may pose hazards to vehicle operations such as soft edges.

Dangerous incident | IncNot0043521 – rollover of cab

Summary: An articulated truck was being used as part of rehabilitation works hauling topsoil. While unloading on a grade, the cab rolled and the tub stayed upright. The operator was uninjured but required assistance to exit the cab.



Picture 15.
Cab rollover on articulated truck.

Comments to industry: Operating areas need to be assessed as suitable for the type of vehicle hauling the material. When dumping on grades or transitions between grades, the grade and machine capabilities must be compared to ensure that operations remain within the allowable operating parameters of the machine.

Dangerous incident | IncNot0043119 – piston and cap ejection

Summary: During pressure checks on a refurbished steering accumulator on a haul truck, the centre accumulator failed. The piston and cap were ejected under pressure and mounts were damaged. The cap was found 3 m from the truck while the cylinder piston was found 20 m from the truck. Nobody was injured.

Comments to industry: This incident highlights the importance of considering component failure and having no-go zones in place when commissioning hydraulic systems.

Dangerous incident | IncNot0043648 – haul truck and dozer collision

Summary: A haul truck was reversing at a tip head where it reversed into a dozer, making contact with the rollover protective structure (ROPS).



Picture 16.
Haul truck and dozer.

Comments to industry: There continues to be too many incidents of this type occurring at open cut coal mines. Mine operators should review the hierarchy of controls for managing vehicle interactions at dumps. Segregation between dozers and trucks should be prioritised over administrative controls such as positive communications and procedures.

Dangerous incident | IncNot0043703 – truck collision

Summary: A truck was parked in the wash bay with the tailgate propped open. The driver was reaching into the body of the truck hosing out material. A second truck approached the wash bay to clean the truck body. The second truck reversed towards the first truck and hit the tailgate. As the tailgate dropped, it hit the first driver's arm. The driver was able to free their arm. The driver was taken to hospital and cleared of injury.

Comments to industry: This incident serves as a stark reminder of the potential for fatal outcomes when working around tailgates on trucks. Please refer to [Investigation report: Report into the death of Mr Stephen Norman at the Rix's Creek Coal Mine, Singleton](#). Mines must provide safe areas for truck drivers to load, clean and park up their trucks. Truck drivers must stop reversing if sight is lost of other workers or if they are unsure of clearances to other mobile plant and structures.

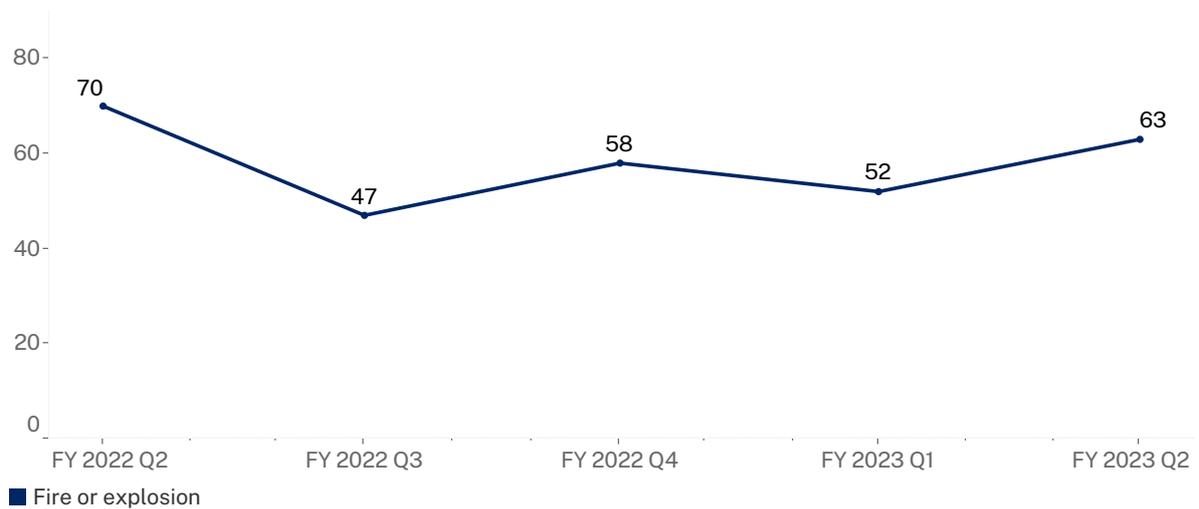


Fire or explosion

↑ from 52 to 63

This principal hazard includes risk associated with all sources of flammable, combustible and explosive substances and materials in the working environment. A common source of these incidents are fires on mobile plant. This principal hazard is distinct from the hazards covered in the explosives control plan.

Figure 10. Incident notifications related to the principal hazard fire or explosion – October 2021 to December 2022



Dangerous incident | IncNot0043153 – dozer catches fire

Summary: A dozer operator jumped from the deck to the ground to escape flames when the dozer caught fire. The worker saw smoke and flames emanating from the left and right engine bay doors. As the worker tried to activate the fire suppression system from within the cab, the switch unit came away from the panel and couldn't be activated. The worker reversed the dozer to level ground so they could egress safely. When the worker tried to egress, the ladder was impeded by smoke and flames so the worker jumped from the deck to the ground. The worker was uninjured. The investigation identified that the safety clip was looped behind the activation handle. This prevented the safety clip from being able to be removed. The dozer was a hire plant that had a different activation method for the fire suppression system to those fitted other dozers on the site.

Comments to industry: Operability of fire suppression systems in the event of a fire emergency is critical to the health and safety of operators on mobile plant. Inspections should confirm that fire suppression systems can be quickly activated. Mine operators should review second egress methods and regularly train workers in their location and use. Mine operators should ensure that change management processes identify the differences between new plant introduced to site and existing plant in use at the site.

Dangerous incident | IncNot0043531 – arc fault

Summary: An underground coal mine was restoring power following a disturbance on the incoming supply. The supply was restored to an underground distribution board and all 4 outlets had been powered for several minutes. A hissing sound lasted for 5-10 seconds. An arc fault then occurred. The arc front propagated from the enclosure to the PLC cabinet and then external to the enclosure. The surface substation tripped. Four nearby workers suffered discomfort and ringing in the ears, several reported a blocked ear sensation.



Picture 17.
Result of arc fault.

Comments to industry: High voltage electrical plant has a high risk of causing fires and explosions and must be maintained fit-for-purpose throughout its life cycle. Mine operators should identify areas within high voltage enclosures that are susceptible to quenching and high voltage stress. Maintenance schedules and stress relief measures should be documented and implemented. Explosion vents on high voltage enclosures should be checked that they are suitably located and will direct any internal explosion away from workers and are appropriately sized to prevent deformation of the switch board in the event of an internal electrical explosion.

Dangerous incident | IncNot0043508 – tele-remote bogging fire

Summary: A load haul dump (LHD) was tele-remote bogging. An operator entered the cab to resume manual operation. The operator noticed a burnt electrical smell but did not notice any damage. The LHD was taken to the workshop where further inspections identified damage. Video footage was reviewed, and the reflection of flames could be seen in the cab.

Comments to industry: When plant and equipment is operated autonomously or via tele-remote, additional controls to manage the detection and activation of fire suppression systems are to be implemented. During the 2021–22 financial year, only 13% of fires reported were extinguished by automatic deployment of the fire suppression system.

Dangerous incident | IncNot0043240 – boot end fire

Summary: A small fire occurred at the outbye end of a longwall boot end. Workers on the face smelled smoke and found a flame about 100 mm in height. The fire was on a fist-size lump of coal. The longwall had been stationary for 24 hours due to strata issues. Five metres of structure had been removed and the boot end raised to full height to maintain clearance. Material spalled from the off-walk side rib under the belt. Over time, the boot end lowered due to creeping hydraulic cylinders. This gradually lowered the belt to the point where it was making contact with spalled material.



Picture 18.
Result of boot end fire.

Comments to industry: When defects exist on equipment, additional controls should be put in place to manage any increase in risk until repairs can be completed. Mines should review the adequacy of conveyor and strata inspections conducted of the off-walk side of conveyors.

Dangerous incident | IncNot0043142 – ice machine catches fire

Summary: An ice machine located near an underground crib room caught fire due to a faulty electrical connection. The fire was extinguished with a hand-held fire extinguisher.

Comments to industry: Mine operators must have documented life-cycle maintenance strategies for plant and ensure that maintenance is undertaken in accordance with the manufacturer's recommendations. Regular inspections and testing must be carried out on all equipment.

Dangerous incident | IncNot0043390 – dump truck fire

Summary: A worker in a quarry was driving an articulated dump truck when the operator noticed smoke coming from the engine bay. The worker stopped and opened the engine bay and it burst into flames. He activated the onboard fire suppression, but this failed to extinguish the fire. The local fire brigade sent several units to respond to the fire. The engine bay and cabin were destroyed. There were no injuries. Due to the extent of the damage, a cause has not been identified.



Picture 19.
Engine bay and cabin damage.

Comments to industry: This incident should remind all mine operators of the consequence of fires on mobile plant. Mobile plant should be routinely inspected for flammable fluid leaks, damage to components and accumulation of flammable material.

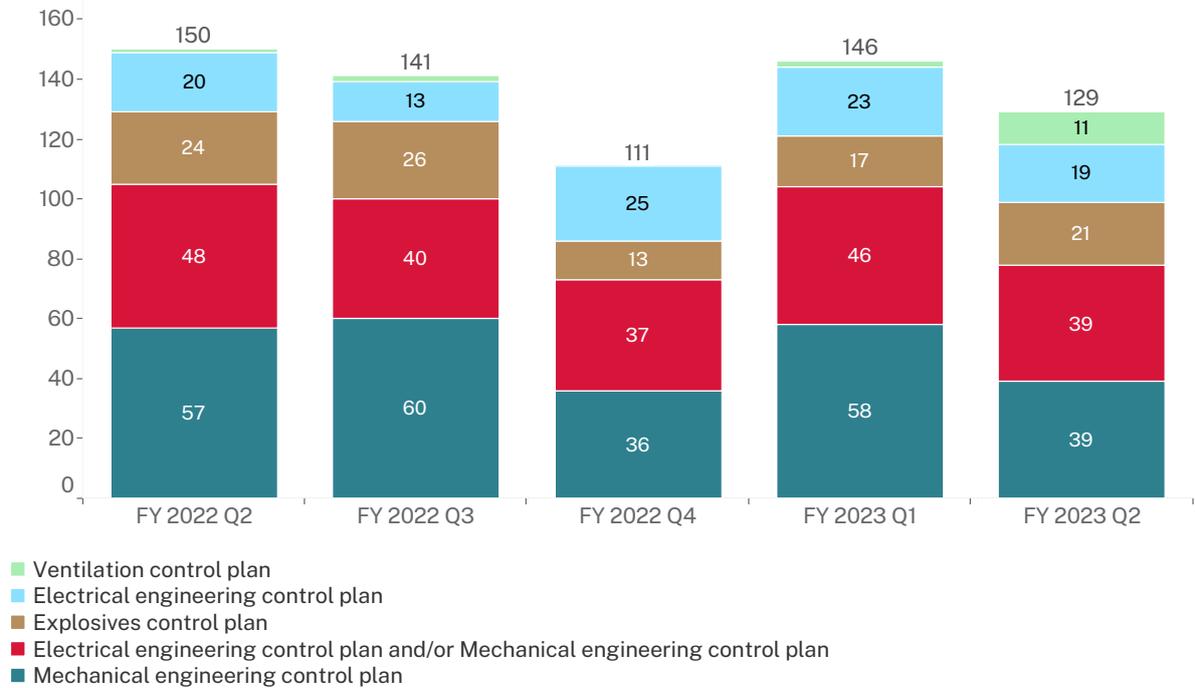
Principal control plans

The Work Health and Safety (Mines and Petroleum Sites) Regulation 2022 specifies principal control plans for managing certain risks associated with hazards at mine and petroleum sites.

There are 7 principal control plans specified in the Regulation.

The figure below presents a further breakdown of numbers of incident notifications received related to principal control plans as defined in section 26 and the dictionary of the Regulation.

Figure 11. Incident notifications received, by principal control plan – October 2021 to December 2022



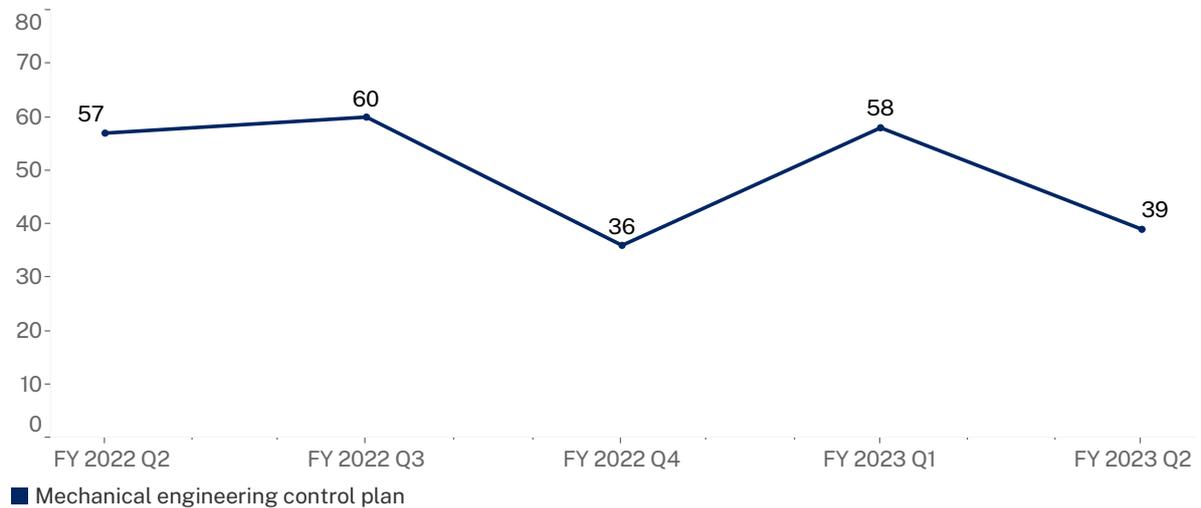


Mechanical engineering control plans

↓ from 58 to 39

The mechanical engineering control plan covers 'lifecycle' risks associated with mechanical hazards (vehicles, plant and mechanical systems and structures) that workers may be exposed to. This includes risks associated with pressurised fluids.

Figure 12. Incident notifications related to mechanical engineering control plan – October 2021 to December 2022



Dangerous incident | IncNot0043131 – failure of silo

Summary: While loading a dump truck from a silo, the driver noticed there was material coming out of the silo near the top of the cone. The driver closed the clam shells and drove out from under the bin. In order to open the clam shells to empty the bin, the truck driver positioned the truck to the bin to have access to the clam shell controls from the truck's platform. The driver then opened the clam shell slightly. As the truck driver returned to the cabin and started to reverse, the silo failed and material rilled over the front of the truck smashing its windscreen. The operator was uninjured.



Picture 20.
Damaged dump truck.

Comments to industry: Mine operators should review the adequacy of their structural integrity audits and ensure that remedial actions that have been identified as being required during such audits, are carried out in a timely manner.

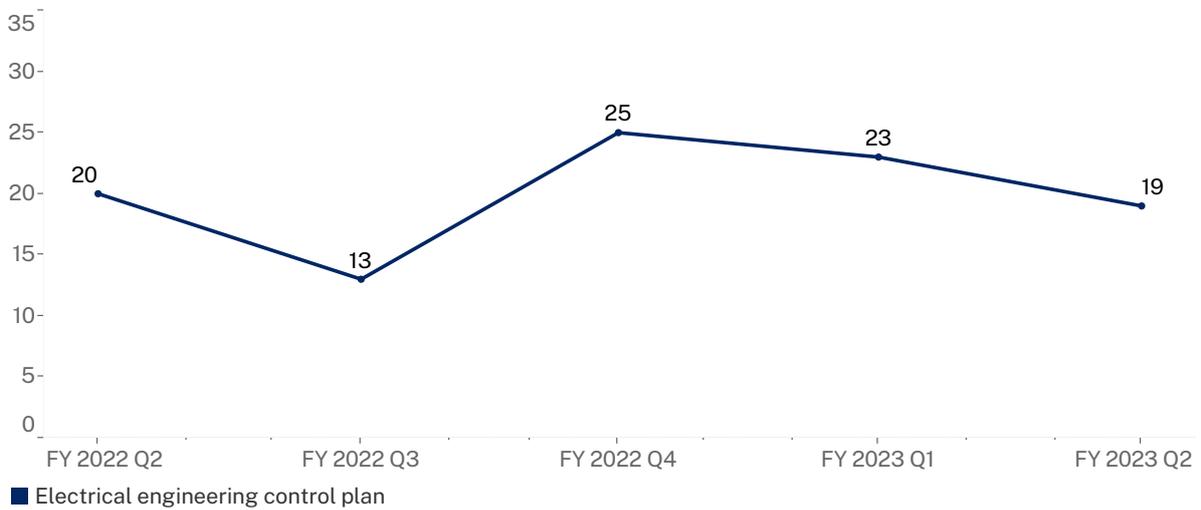


Electrical engineering control plans

↓ from 23 to 19

The electrical engineering control plan covers 'lifecycle' risks associated with electrical hazards (supply, vehicles, plant or infrastructure) that workers may be exposed to.

Figure 13. Incident notifications related to electrical engineering control plan – October 2021 to December 2022

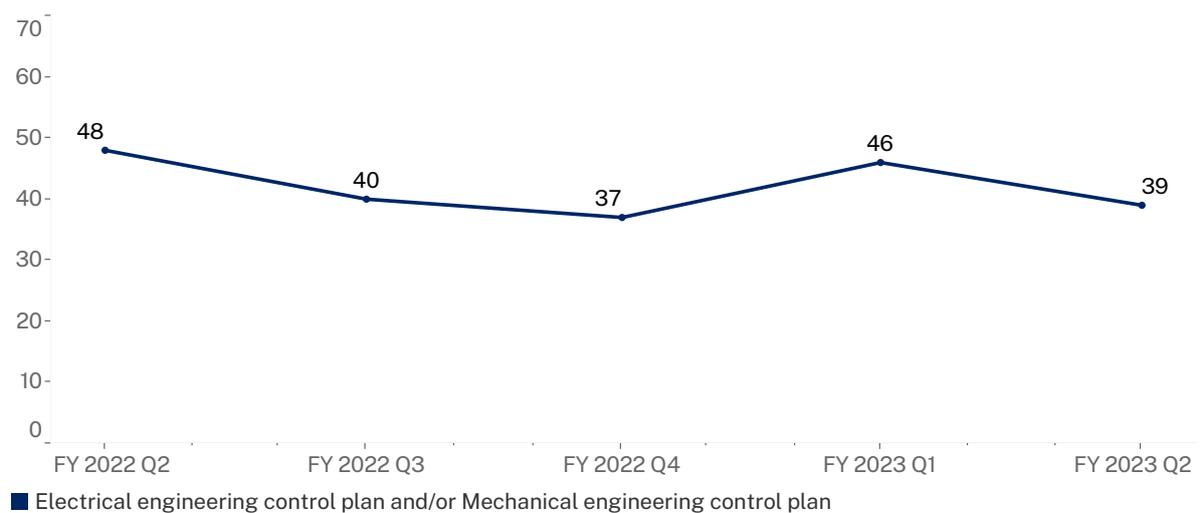


Electrical and/or Mechanical engineering control plans

↓ from 46 to 39

Notified incidents may relate to either electrical and mechanical engineering control plans or both.

Figure 14. Incident notifications related to electrical and/or mechanical engineering control plan – October 2021 to December 2022



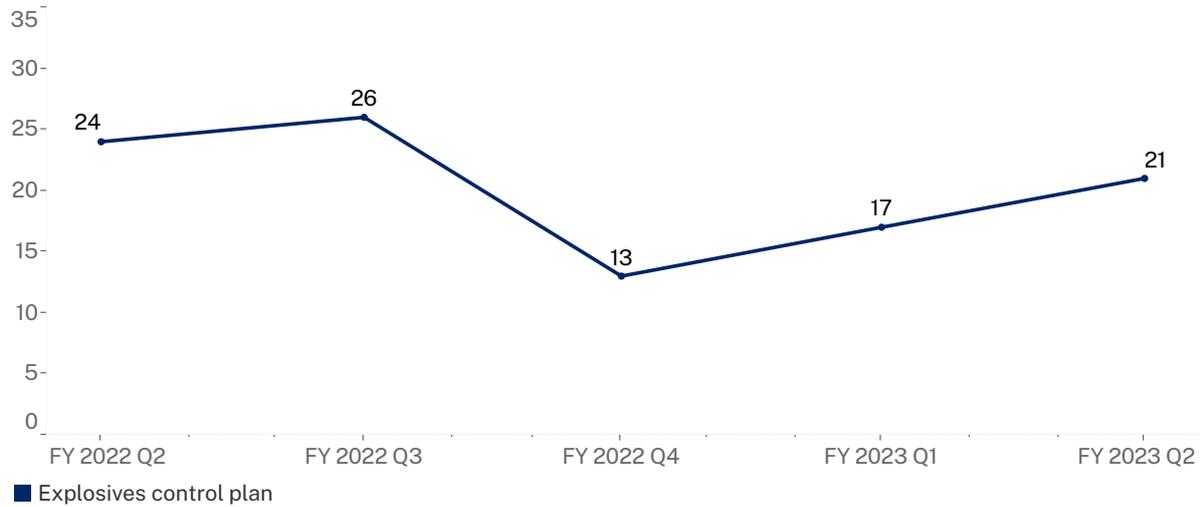


Explosives control plans

↑ from 17 to 21

The explosives control plan covers risks associated with the use and management of explosives hazards workers may be exposed to. This includes incidents involving 'flyrock' and misfire events.

Figure 15. Incident notifications related to explosives control plan – October 2021 to December 2022



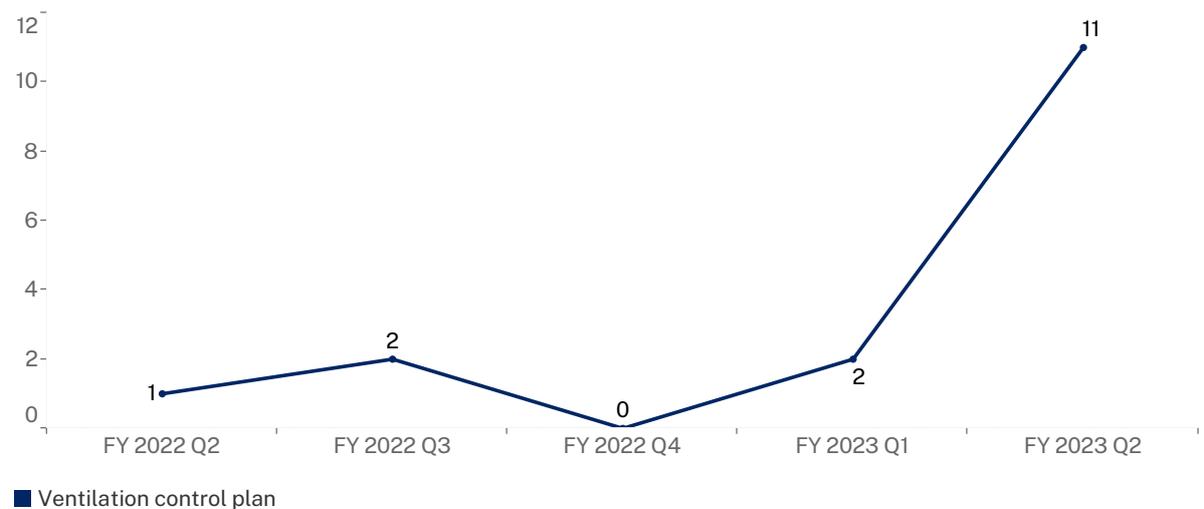
Ventilation control plans

↑ from 2 to 11

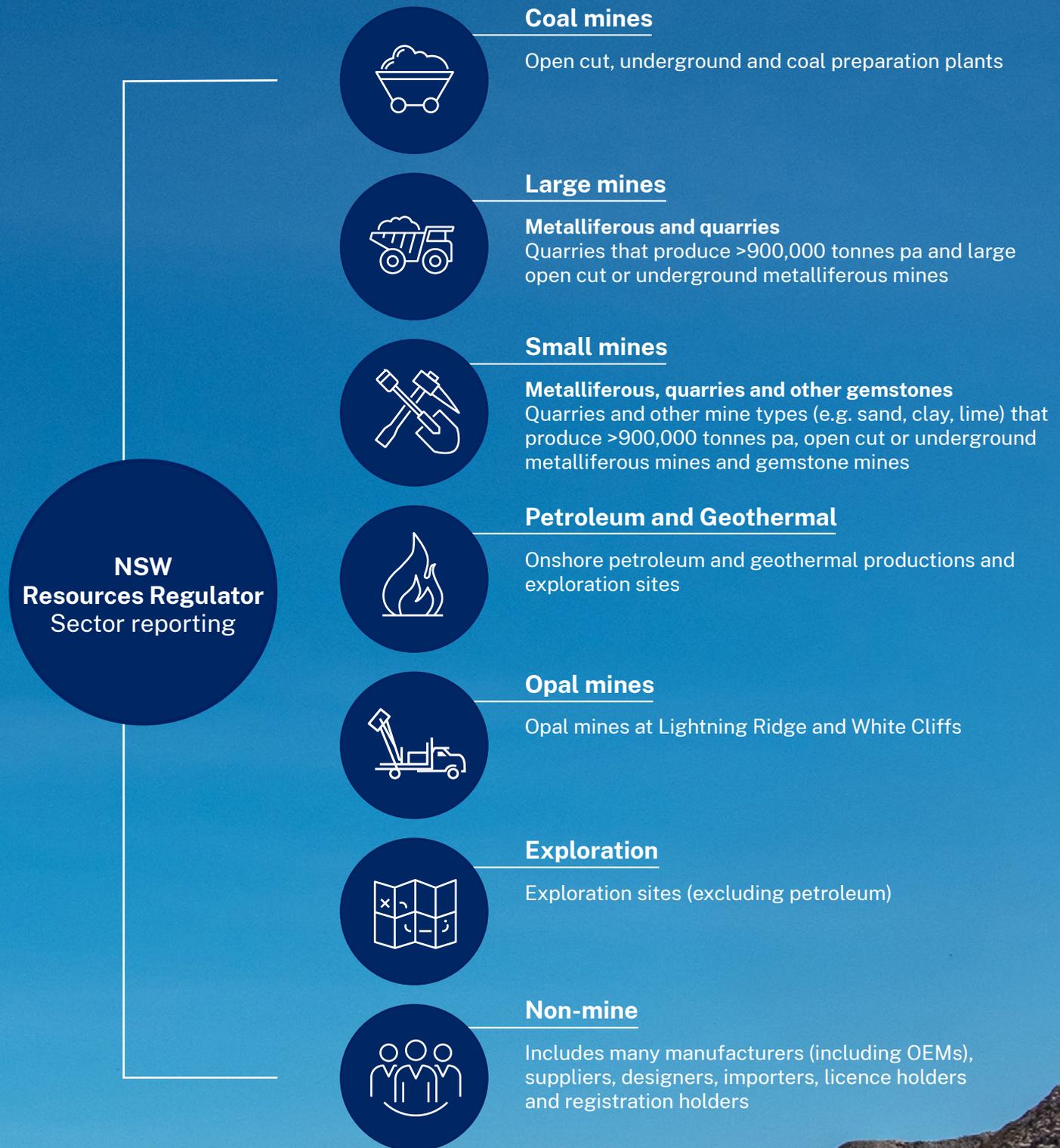
A ventilation control plan covers risks associated with ventilation in underground mines. This includes incidents involving failed atmospheric conditions and where trigger action response plans may have been activated.

This quarter there has been a sharp increase in incident notifications for this category, from 2 to 11 incidents.

Figure 16. Incident notifications related to ventilation control plan – October 2021 to December 2022



Sector profiles



Coal sector

Incident notifications

Under work health and safety legislation, mine operators must notify the Regulator about the occurrence of certain types of safety incidents. Incident notification data (by active mine) provides insights into sector-specific reporting trends.

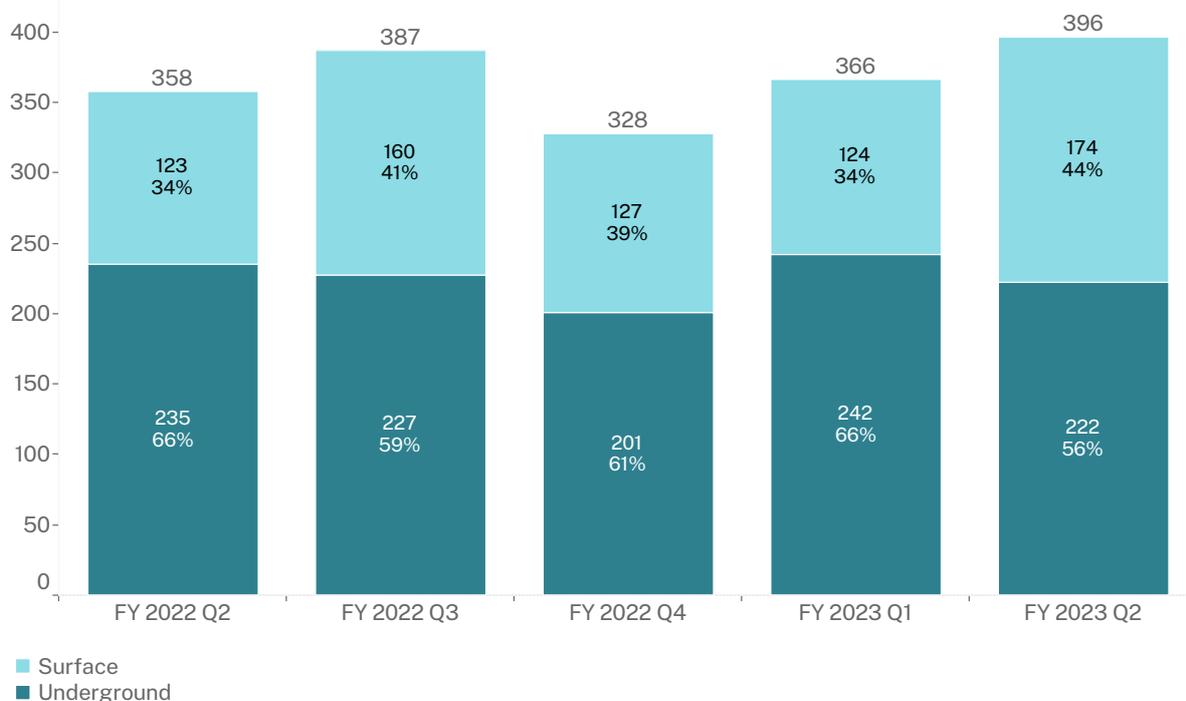
Table 2. Coal sector incident notification rates – October 2021 to December 2022

Measure	FY 2022 Q2	FY 2022 Q3	FY 2022 Q4	FY 2023 Q1	FY 2023 Q2
Incidents	358	387	328	366	396
Active mines	119	119	120	103*	102
Incident rate per active mine	3.01	3.25	2.73	3.55	3.88
Mines that notified incidents	51	50	48	50	57
% of mines notifying an incident	43%	42%	40%	49%	56%
Incident rate per notifying mine	7.02	7.74	6.83	7.32	6.95

* The change in active mine numbers represents recategorisation within Resources Regulator's systems.

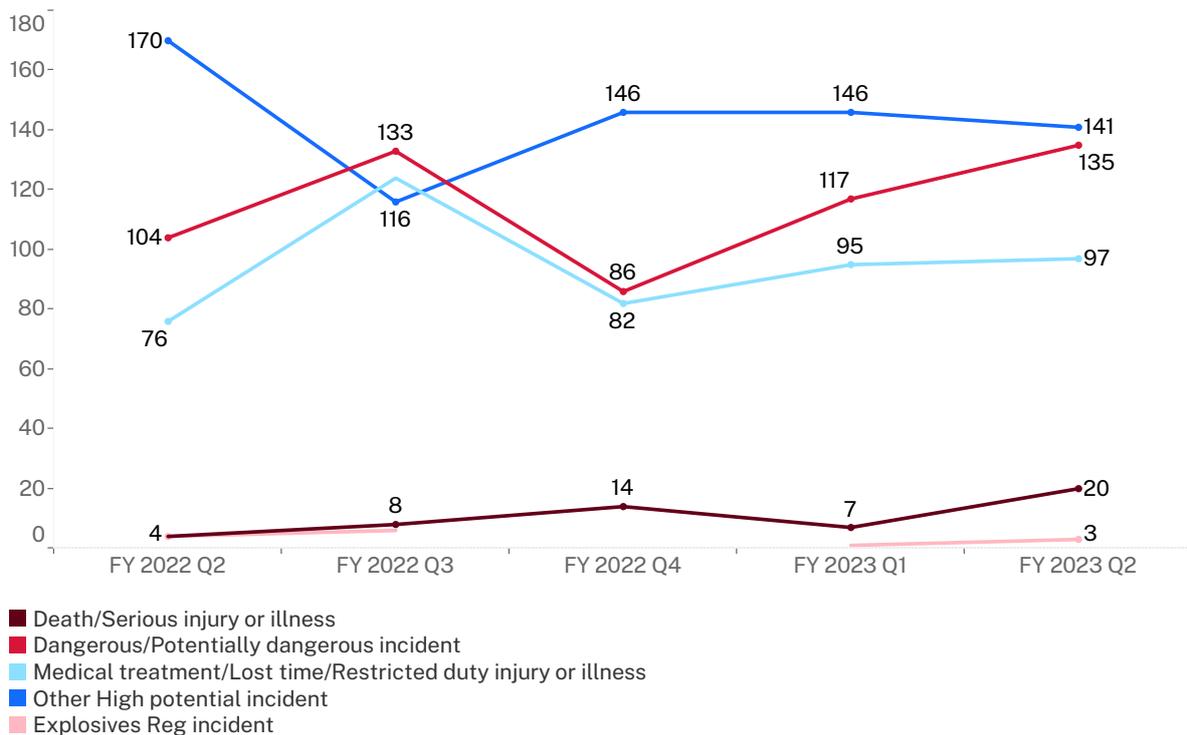
The following graph shows the proportion of safety incident notifications received from surface and underground coal operations. In line with the previous 2 quarters, incidents notified by the coal sector increased this quarter, largely due to a 40% increase in notifications from the surface coal operations. Notifications from underground coal operations decreased by 8%.

Figure 17. Coal sector incident notifications by operation type – October 2021 to December 2022



The graph below presents a breakdown of safety incidents notified to the Regulator by the coal sector by the requirement to report. Dangerous/potentially dangerous incidents have increased for the second consecutive month, a rise of 57% since FY 2022 Q4. Serious injuries notified almost tripled from the previous quarter (7 to 20).

Figure 18. Coal sector incident notifications by requirement to report – October 2021 to December 2022

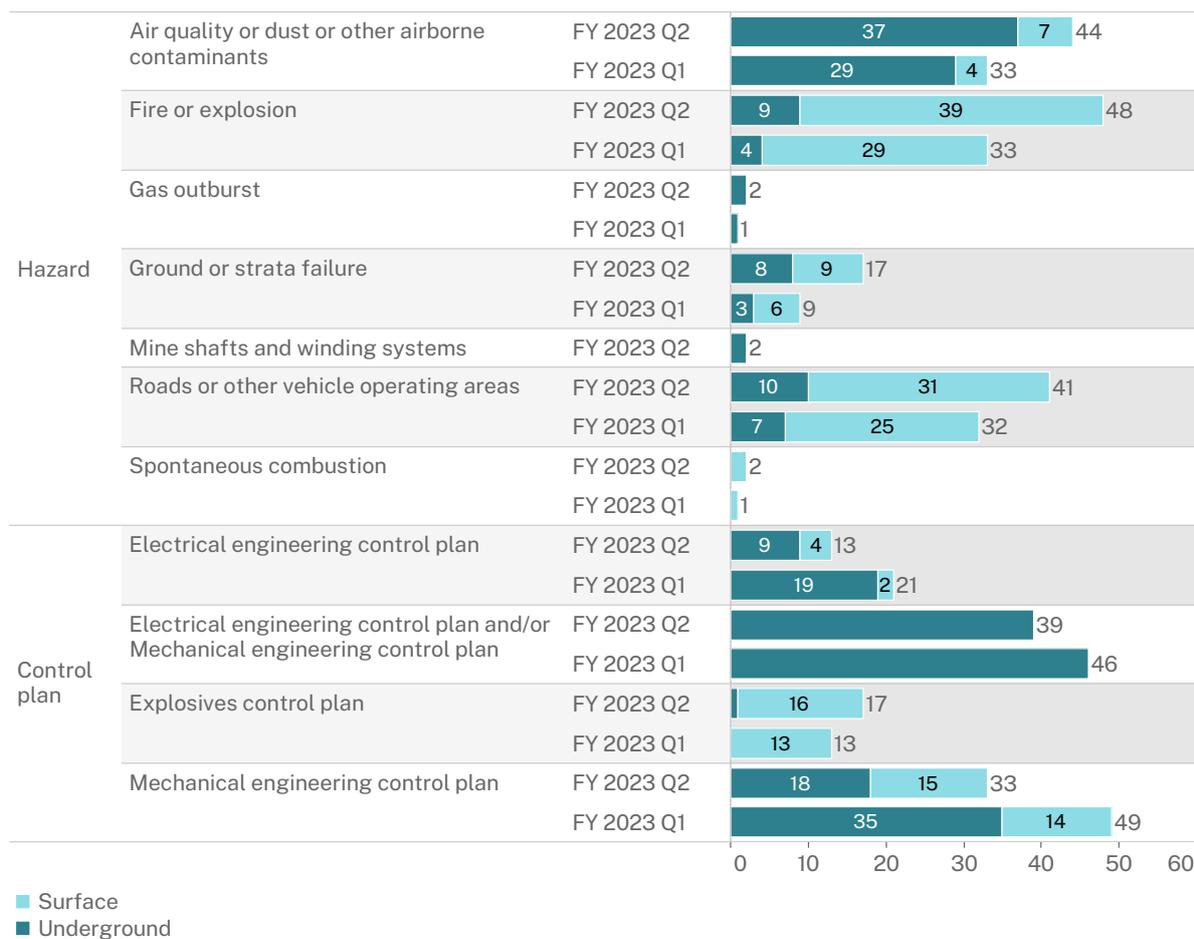


Incident notifications by principal hazard

The figure below shows the number of incident notifications received from the coal sector during the past 2 quarters, as classified against related principal hazards and principal control plans. The findings highlight hazards where mine operators need to ensure their risk management controls remain fully effective – this includes ensuring the effectiveness of electrical/mechanical engineering control plans in underground operations and controls for managing fire or explosion hazards in surface operations.

In this quarter, notable increases were observed in incidents related to air quality or dust or other airborne contaminants (33 to 44), fire or explosion (33 to 48), ground or strata failure (6 to 17) and roads or other vehicle operating areas (32 to 41). Decreases were observed in incidents related to mechanical engineering control plans and electrical engineering control plans in underground coal mines.

Figure 19. Coal mine incidents classified by principal hazard by operation type – July to December 2022



Large mines sector

Incident notifications

Under work health and safety legislation, mine operators must notify the regulator about the occurrence of certain types of safety incidents. Incident notification data (by active mine) provides insights into sector specific reporting trends.

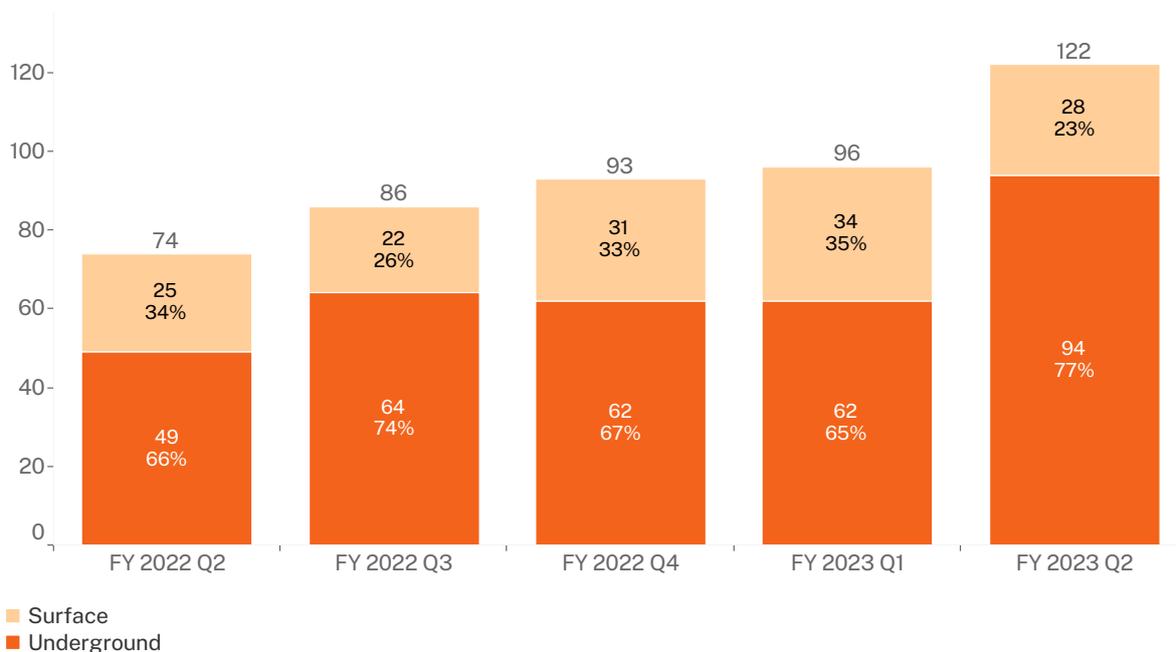
Table 3. Large mines and quarries sector incident notification rates – October 2021 to December 2022

Measure	FY 2022 Q2	FY 2022 Q3	FY 2022 Q4	FY 2023 Q1	FY 2023 Q2
Incidents	74	86	93	96	122
Active mines	59	58	58	57*	57
Incident rate per active mine	1.25	1.48	1.60	1.68	2.14
Mines that notified incidents	24	24	29	27	27
% of mines notifying an incident	41%	41%	50%	47%	47%
Incident rate per notifying mine	3.08	3.58	3.21	3.56	4.52

* The change in active mine numbers represents recategorisation within Resources Regulator's systems.

The following graph shows the proportion of safety incident notifications received from large mines and quarries by operation type.

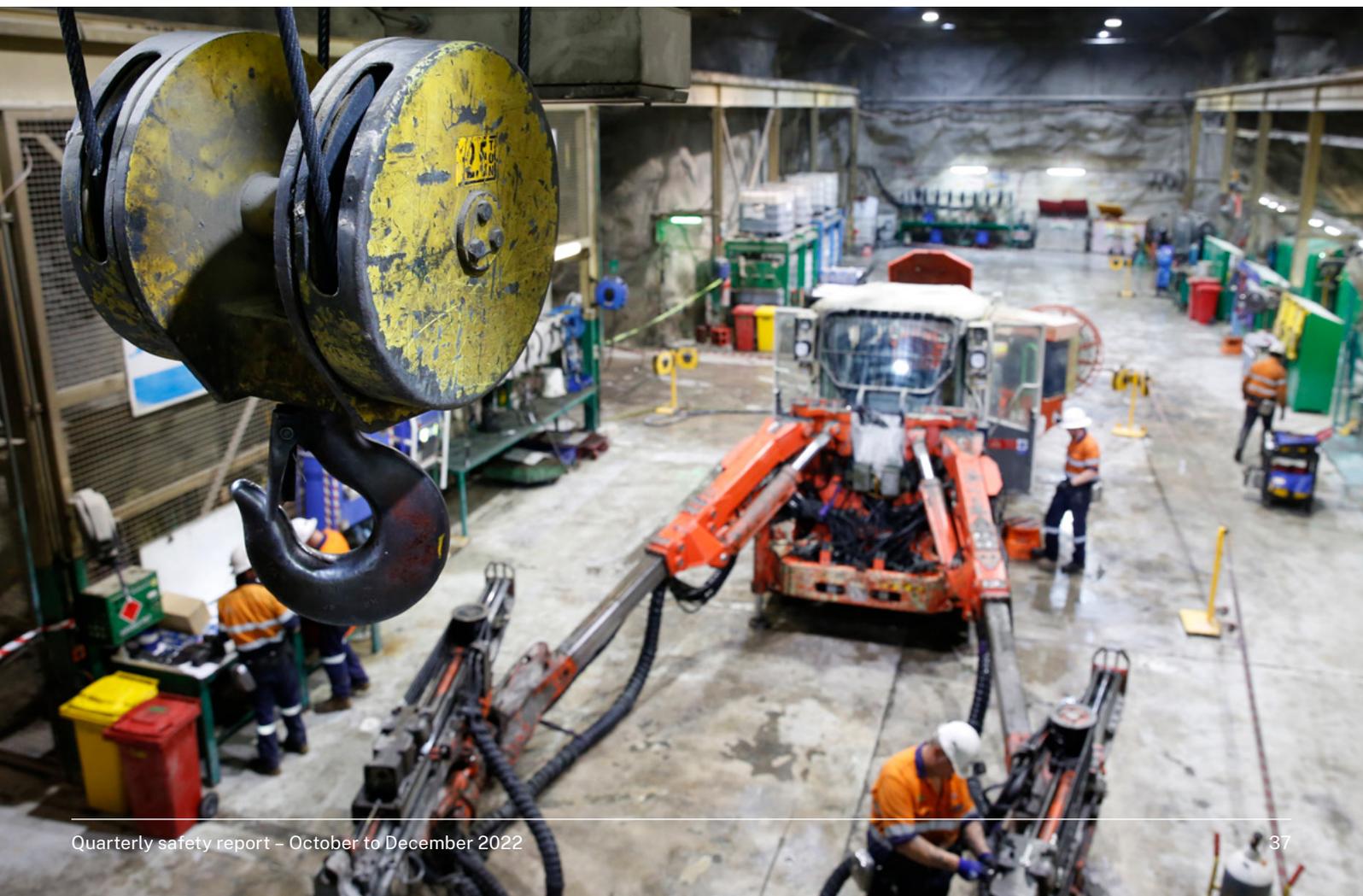
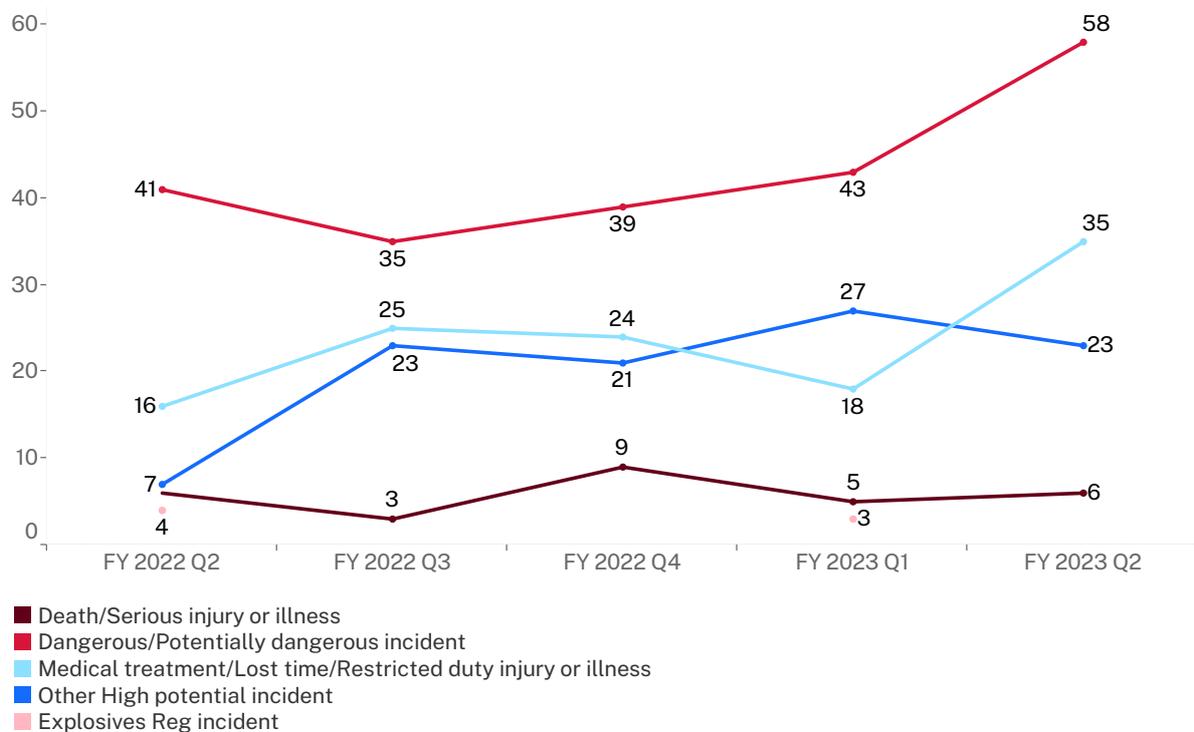
Figure 20. Large mines and quarries incident notifications by operation type – October 2021 to December 2022



The following graph presents a breakdown of safety incidents notified to the Regulator by the large mines and quarries sector based on the requirement to report under the safety legislation.

A decrease in other high potential incidents is noted for this quarter, with increases observed in dangerous and potentially dangerous incidents and medical treatment/lost time/restricted duty injuries or illnesses.

Figure 21. Large mines and quarries incident notifications by requirement to report – October 2021 to December 2022

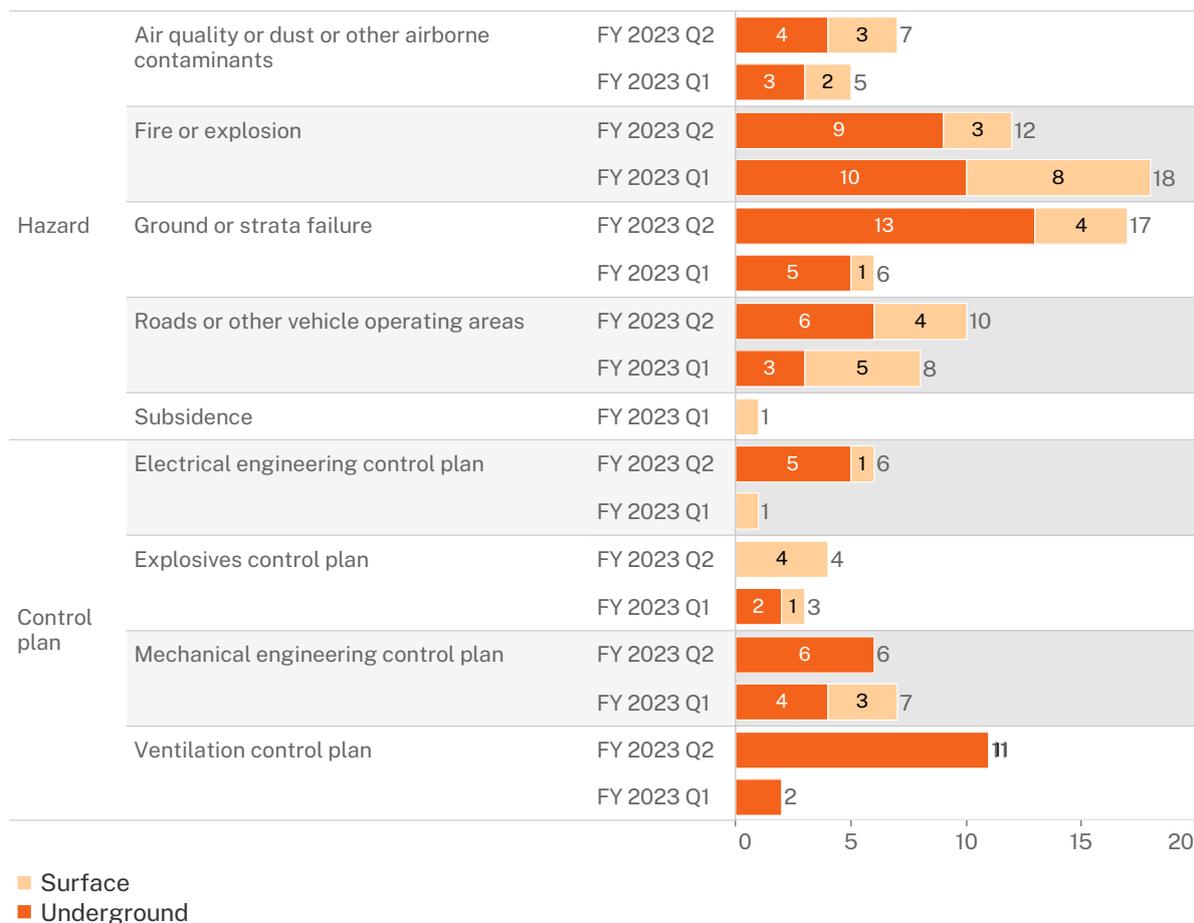


Incident notifications by principal hazard

The figure below shows the number of incident notifications received from the large mines and quarries sector during the past 2 quarters as classified against related principal hazards and principal control plans. The findings highlight hazards where mine operators need to ensure their risk management controls remain fully effective. This includes controls for managing hazards associated with fire or explosion and roads or other vehicle operating areas.

In this quarter, notable increases were observed in notified incidents relating to ground or strata failure, electrical engineering control plans and ventilation control plans. A decrease in fire or explosion incidents in surface operations was also observed.

Figure 22. Large mines and quarries incidents classified by principal hazard by operation type – July to December 2022



Small mines sector

Incident notifications

Under work health and safety legislation, mine operators must notify the regulator about the occurrence of certain types of safety incidents. Incident notification data (by active mine) provides insights into sector specific reporting trends.

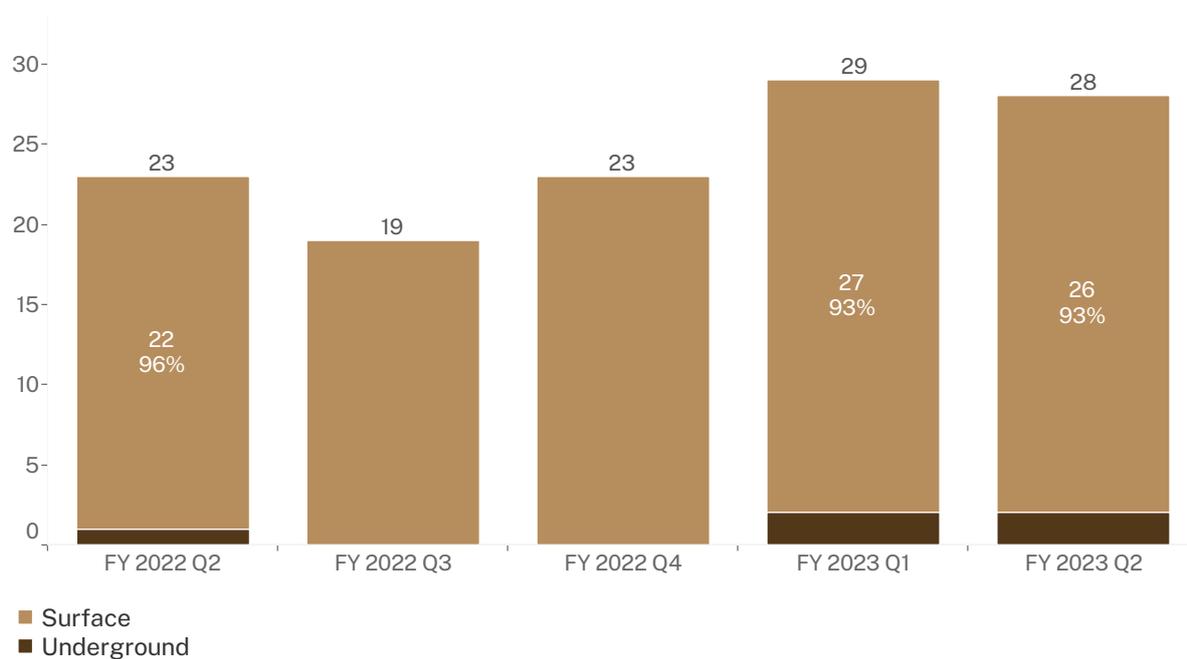
Table 4. Small mines and quarries sector incident notification rates – October 2021 to December 2022

Measure	FY 2022 Q2	FY 2022 Q3	FY 2022 Q4	FY 2023 Q1	FY 2023 Q2
Incidents	23	19	23	29	28
Active mines	2,592	2,591	2,589	2,542*	2,534
Incident rate per active mine	0.01	0.01	0.01	0.01	0.01
Mines that notified incidents	22	18	20	25	25
% of mines notifying an incident	0.85%	0.69%	0.77%	0.98%	0.99%
Incident rate per notifying mine	1.05	1.06	1.15	1.16	1.12

* The change in active mine numbers represents recategorisation within Resources Regulator's systems.

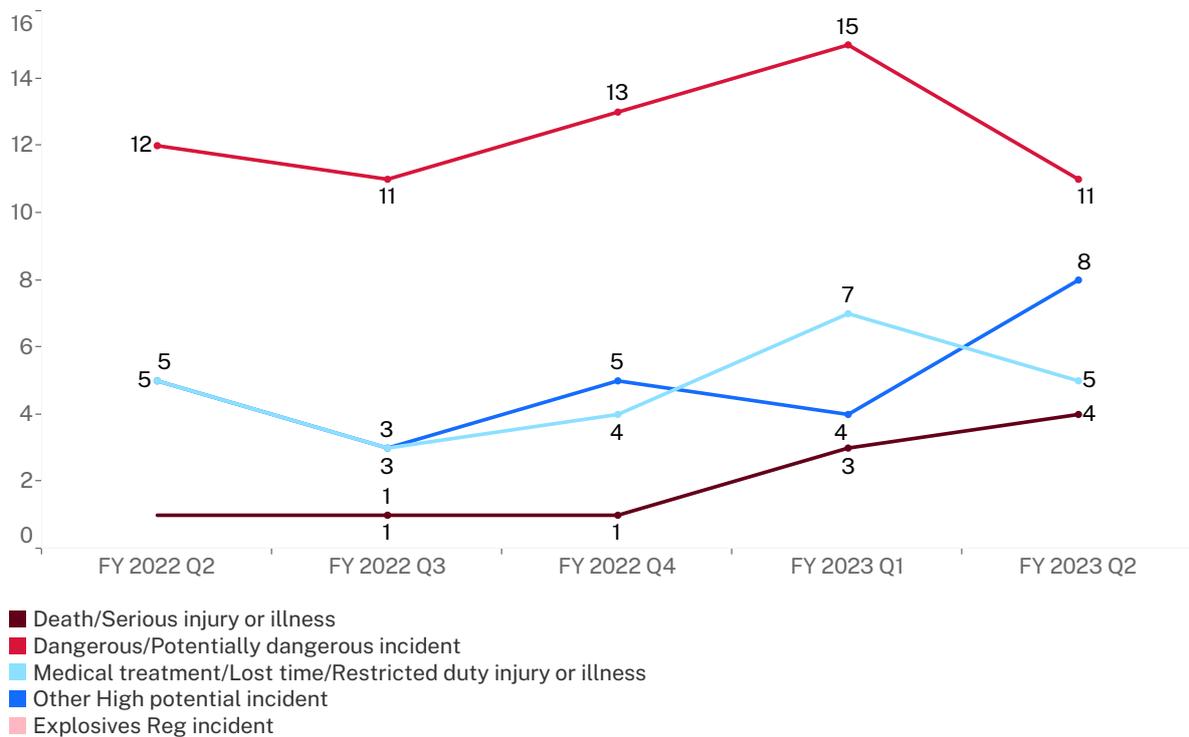
The graph below shows the proportion of safety incident notifications received from small mines and quarries.

Figure 23. Small mines and quarries incident notifications by operation type – October 2021 to December 2022



The graph below presents a breakdown of safety incidents notified to the Regulator by the small mines and quarries sector by the requirement to report. Comparatively, the number of incidents notified by the sector is substantially lower than what is reported by the coal and large mines sectors.

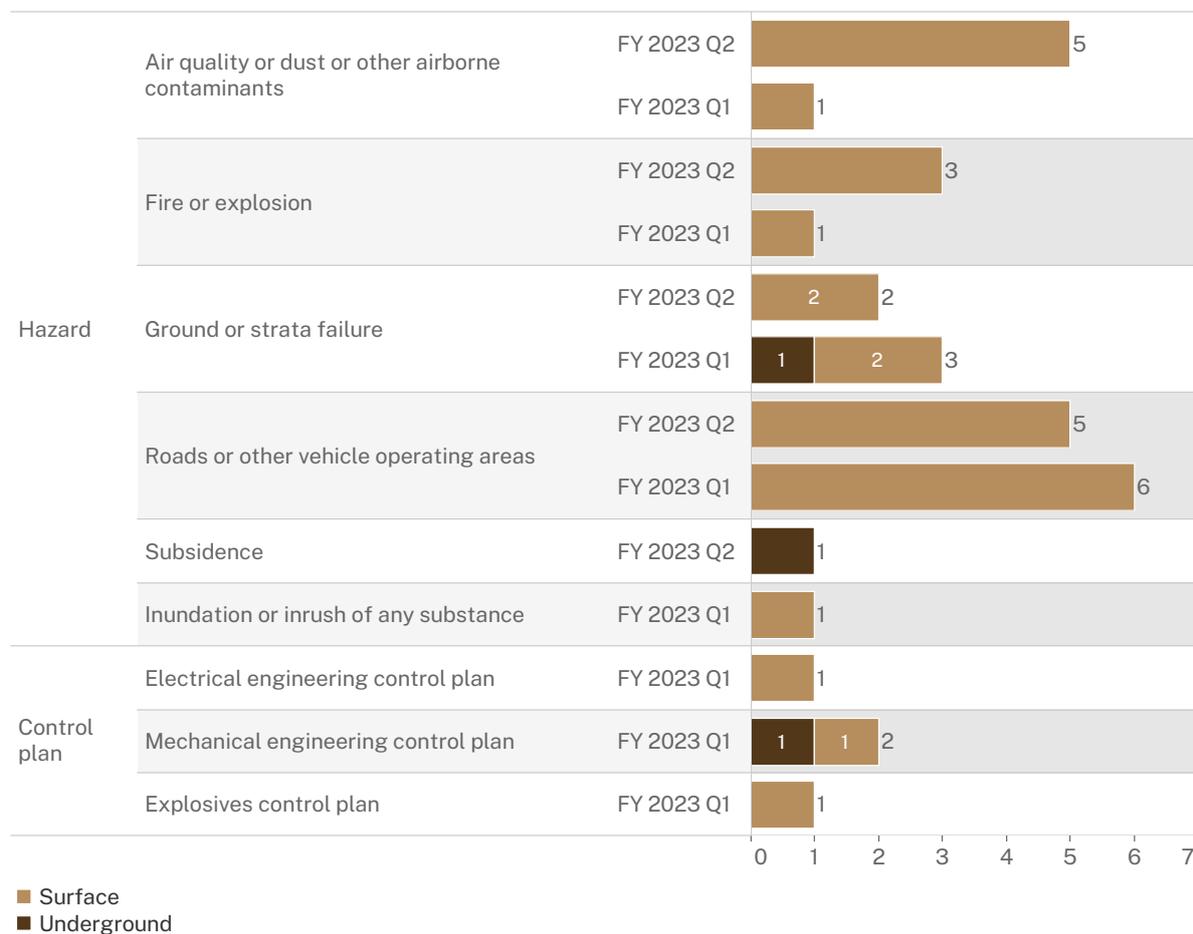
Figure 24. Small mines and quarries incident notifications by requirement to report – October 2021 to December 2022



Incident notifications by principal hazard

The figure below shows the number of incident notifications received from the small mines and quarries sector during the past 2 quarters as classified against related principal hazards and principal control plans. The findings highlight hazards where small mine and quarry operators need to ensure their risk management controls remain fully effective – this includes controls for managing hazards associated with airborne contaminants /dust and roads or other vehicle operating areas.

Figure 25. Small mines and quarries incidents classified by principal hazard by operation type – July to December 2022



Other mines sector profiles

Incident notifications

Under work health and safety legislation, mine operators must notify the regulator about the occurrence of certain types of safety incidents.

This section relates to petroleum and geothermal sites, opal mines and exploration sites. The tables below show the number and types of incident notifications by requirement to report and by principal hazard.

Table 5. Petroleum and geothermal sites, opal mines and exploration sites incident notifications – October 2021 to December 2022

Sector	Measure	FY 2022 Q2	FY 2022 Q3	FY 2022 Q4	FY 2023 Q1	FY 2023 Q2
Petroleum & geothermal sites*	Incidents	0	0	0	0	0
Opal mines	Incidents	0	0	2	0	1
Exploration sites**	Incidents	0	5	0	0	0

* includes exploration

** excludes petroleum and geothermal

Table 6. Opal mines and exploration sites incident notifications by requirement to report – October 2021 to December 2022

Sector	Requirement to report measure	FY 2022 Q2	FY 2022 Q3	FY 2022 Q4	FY 2023 Q1	FY 2023 Q2
Opal mines	Dangerous/Potentially dangerous incident	0	0	2	0	0
	Other high potential incident	0	0	0	0	1
	Total	0	0	2	0	1
Exploration sites	Dangerous/Potentially dangerous incident	0	1	0	0	0
	Medical treatment/Lost time/Restricted duty injury or illness	0	4	0	0	0
	Total	0	5	0	0	0

Table 7. Opal mines and exploration sites incident notifications by principal hazard and principal control plan – October 2021 to December 2022

Sector	Incident notification PH/PCP classification	FY 2022 Q2	FY 2022 Q3	FY 2022 Q4	FY 2023 Q1	FY 2023 Q2
Opal mines	Ground or strata failure	0	0	0	0	1
	Inundation or inrush of any substance	0	0	1	0	0
	Roads or other vehicle operating areas	0	0	1	0	0
	Total	0	0	2	0	1
Exploration sites	Mechanical engineering control plan	0	1	0	0	0
	No related principal mining hazard or principal control plan	0	4	0	0	0
	Total	0	5	0	0	0

Compliance and enforcement

The Regulator uses a range of tools to promote and secure compliance in mines and petroleum sites in relation to work health and safety legislation. These include desktop assessments, site inspections, investigations and enforcement actions, such as issuing notices and commencing prosecutions.

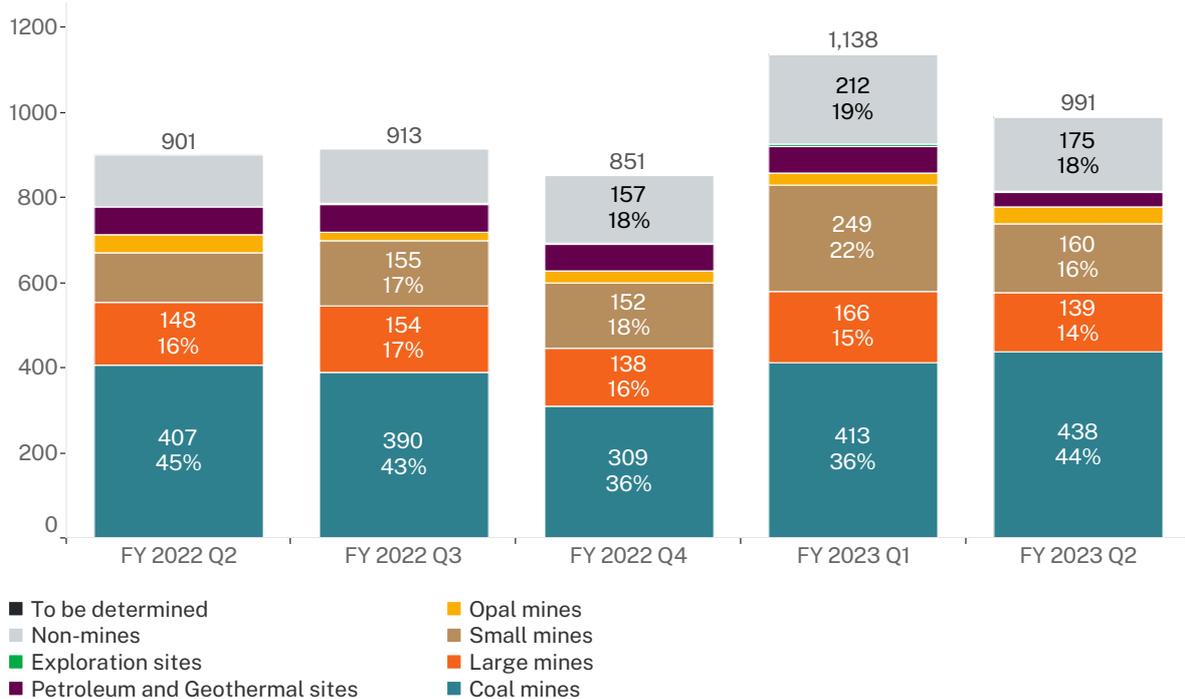
Detailed information regarding compliance activities, priorities, outcomes and reports are published on our [website](#) and in our [business activity reports](#).

Safety assessments by sector

The overall decrease in safety assessments undertaken reflects decreases in all sectors except coal mines and opal mines.

Non-mines assessments predominantly relate to licensing and practising certificate applications and renewals.

Figure 26. Safety assessments by sector – October 2021 to December 2022

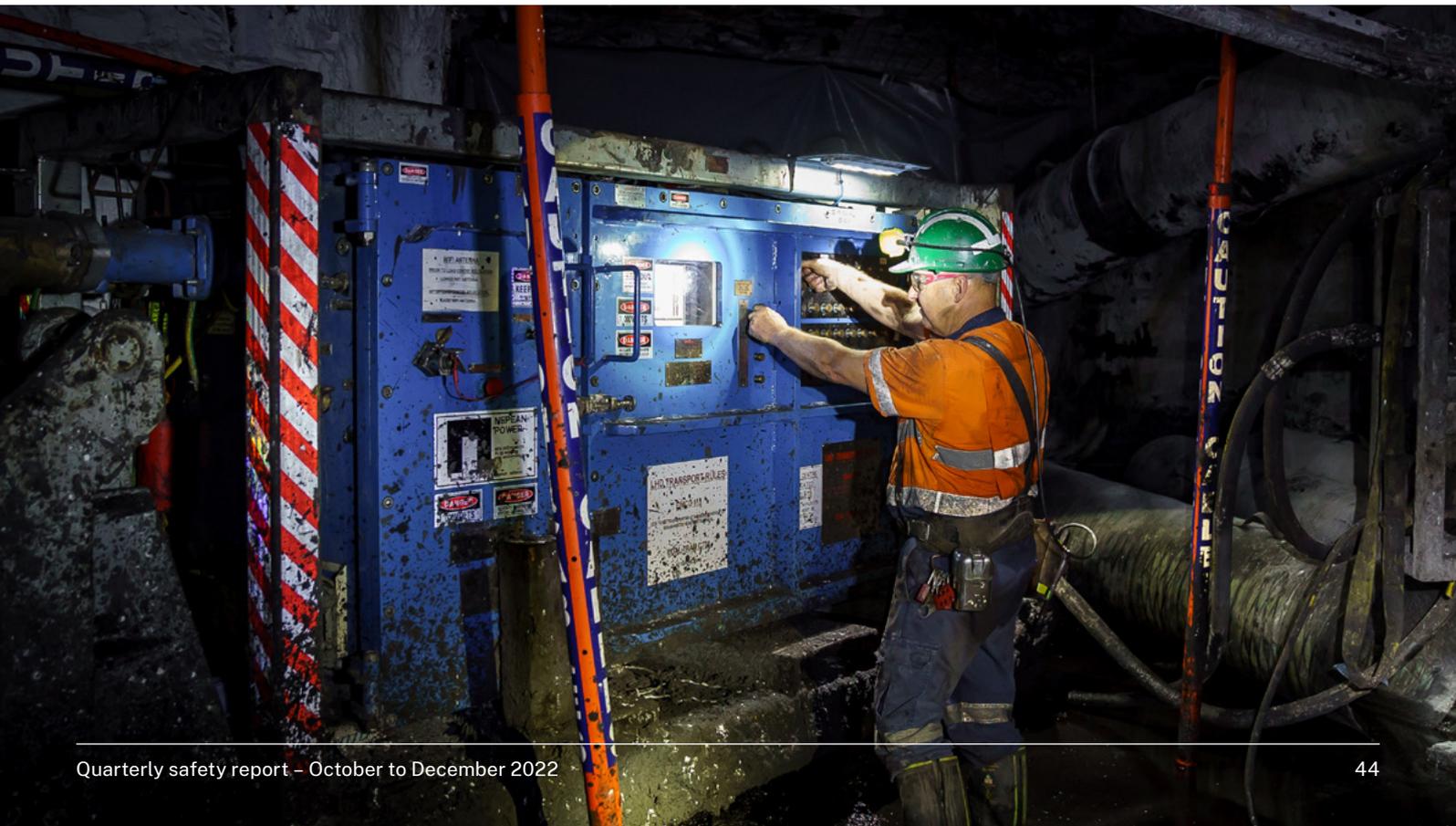
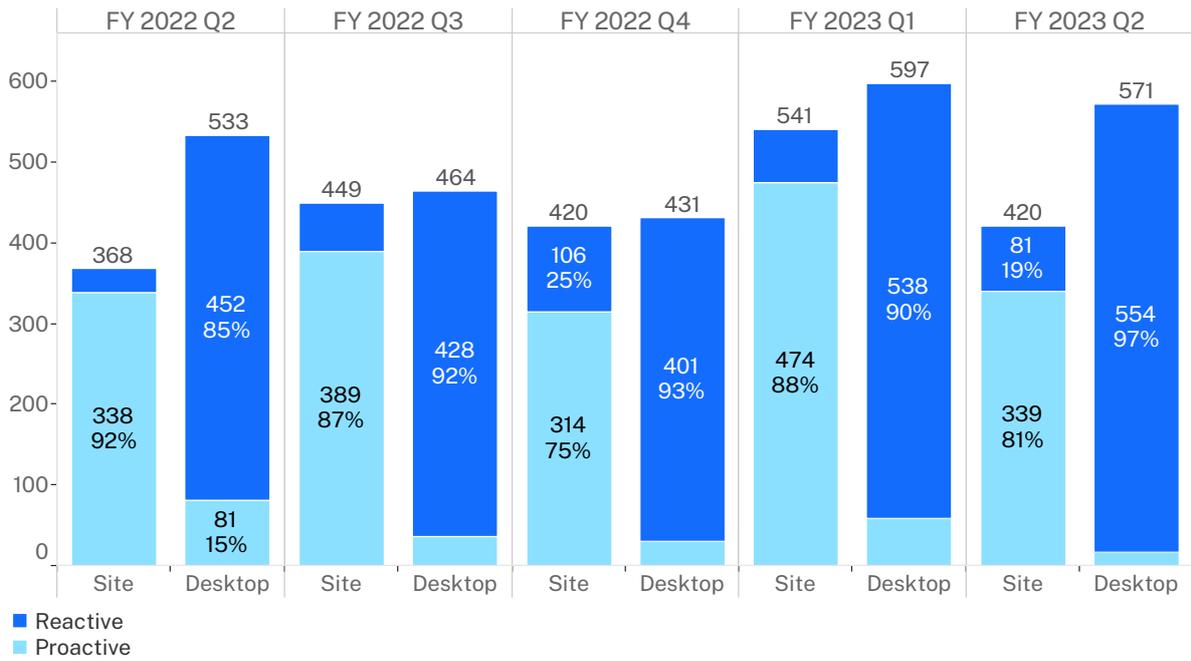


Safety assessments by category and nature

Site-based (visiting mine sites) and desktop activities are both important regulatory tools. While the main focus of our on-site compliance activity is on preventing incidents through planned risk-based proactive assessments, our desktop activities are mainly reactive.

Site-based proactive assessments focus on establishing whether critical controls have been effectively implemented. Meanwhile desktop assessment activities include reviews of control measures following an incident, review of personal dust monitoring reports submitted by coal mine operators, assessment of high risk activity notifications, applications for exemptions from work health and safety laws, subsidence management plans and preparation for site work.

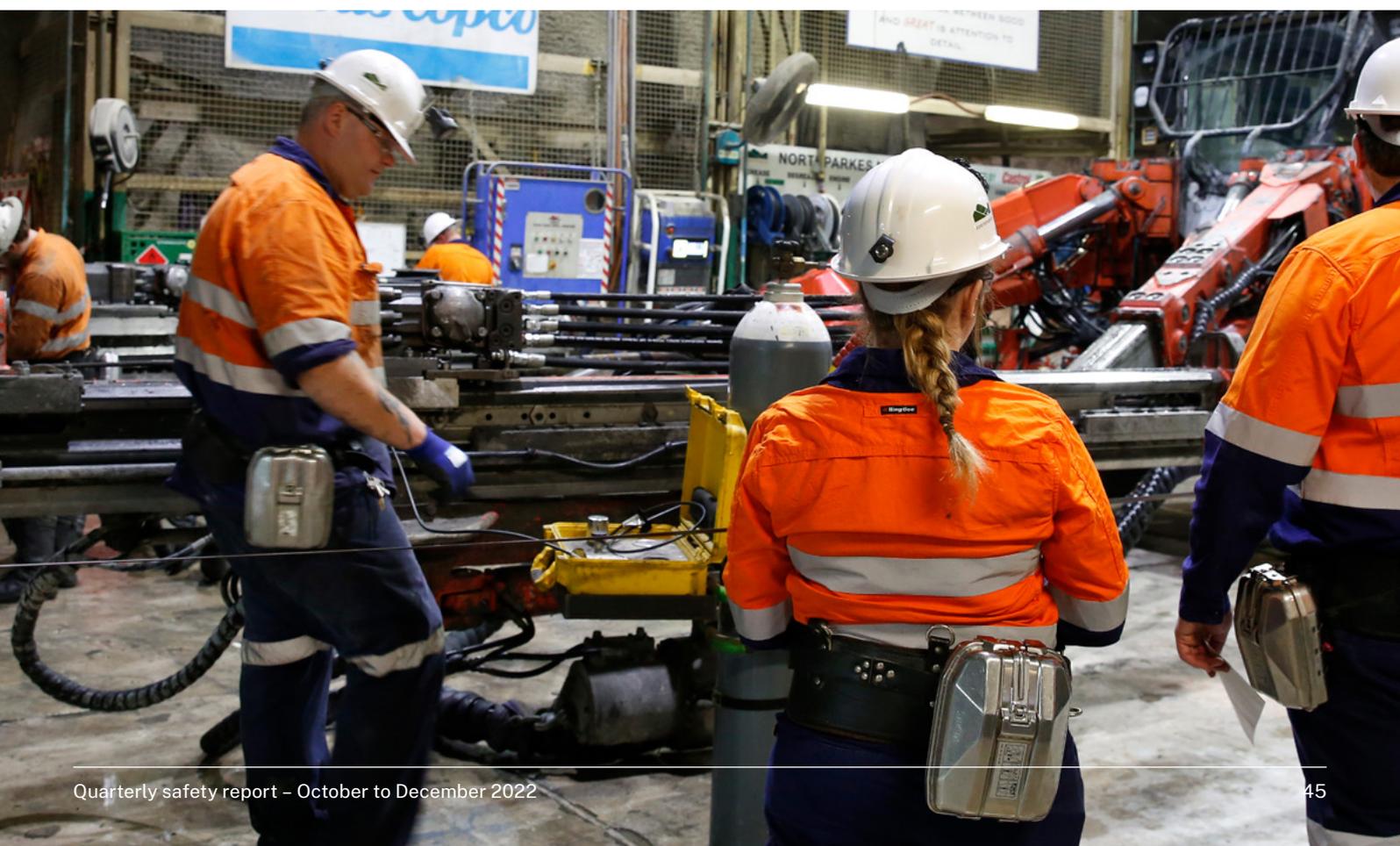
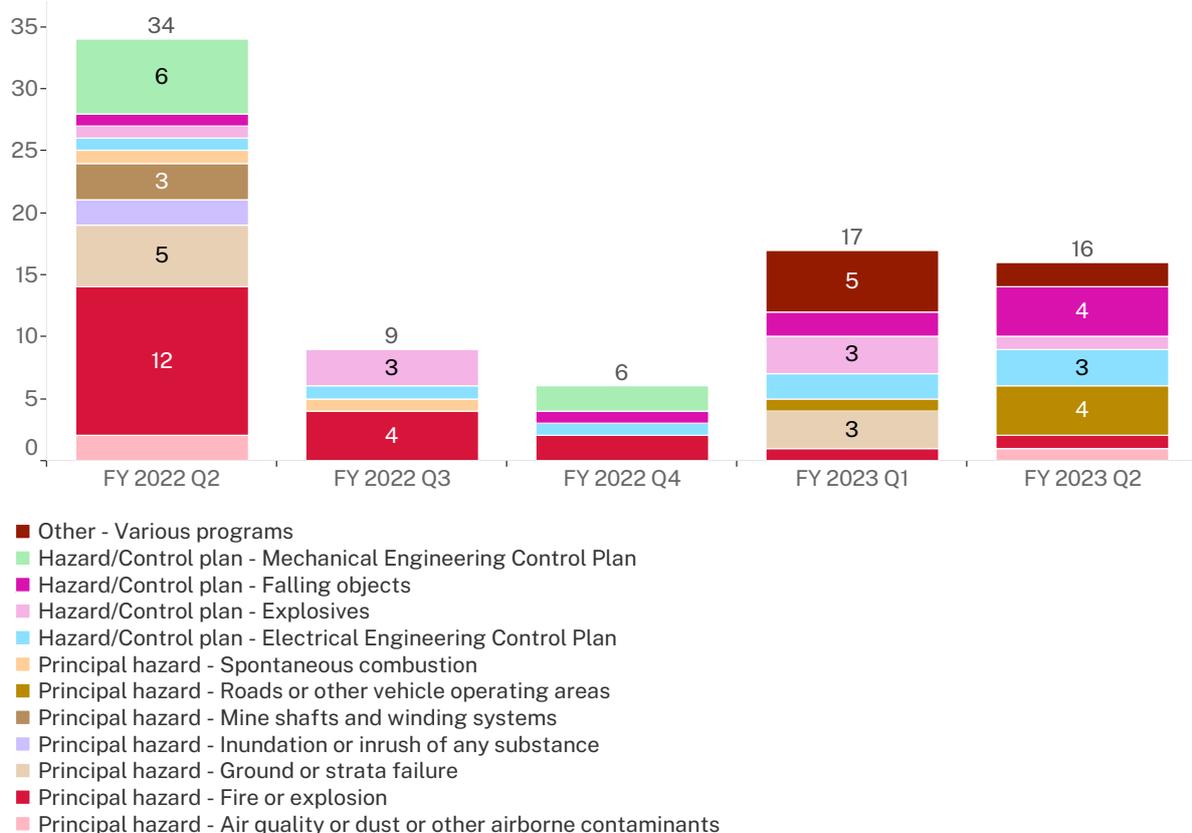
Figure 27. Safety assessments by category and nature – October 2021 to December 2022



Targeted assessment program

Our targeted assessment program establishes a risk-based and proactive approach for assessing the extent to which critical controls for managing principal mining hazards have been identified, implemented and are being monitored.

Figure 28. Targeted assessments by hazard – October 2021 to December 2022

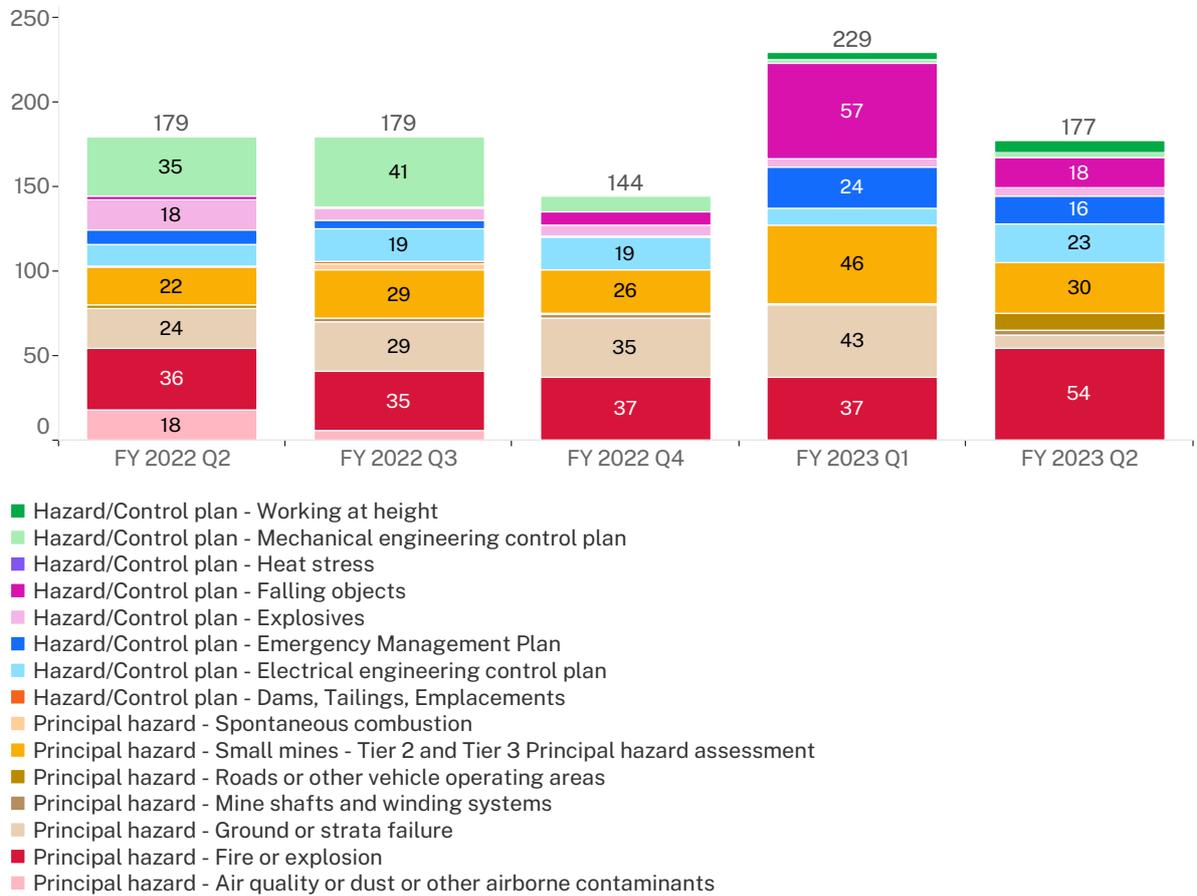


Planned inspections

Planned inspections assist in identifying compliance weaknesses which could lead to an incident or injury. These assessments focus on the physical implementation of critical controls in the operating areas of a mine.

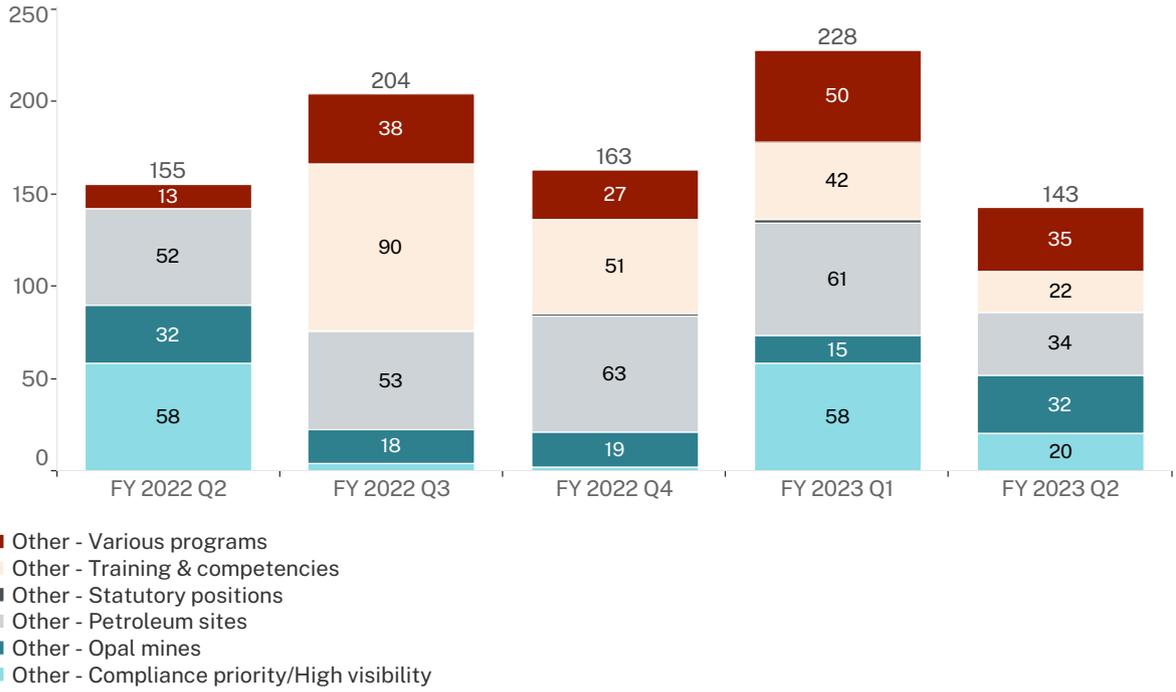
Planned site inspections were commenced on the principal hazards shown in the graph below

Figure 29. Planned inspections by principal hazard – October 2021 to December 2022



The graph below shows planned site inspections commenced for 'other' hazards.

Figure 30. Planned inspections by 'other' hazard – October 2021 to December 2022

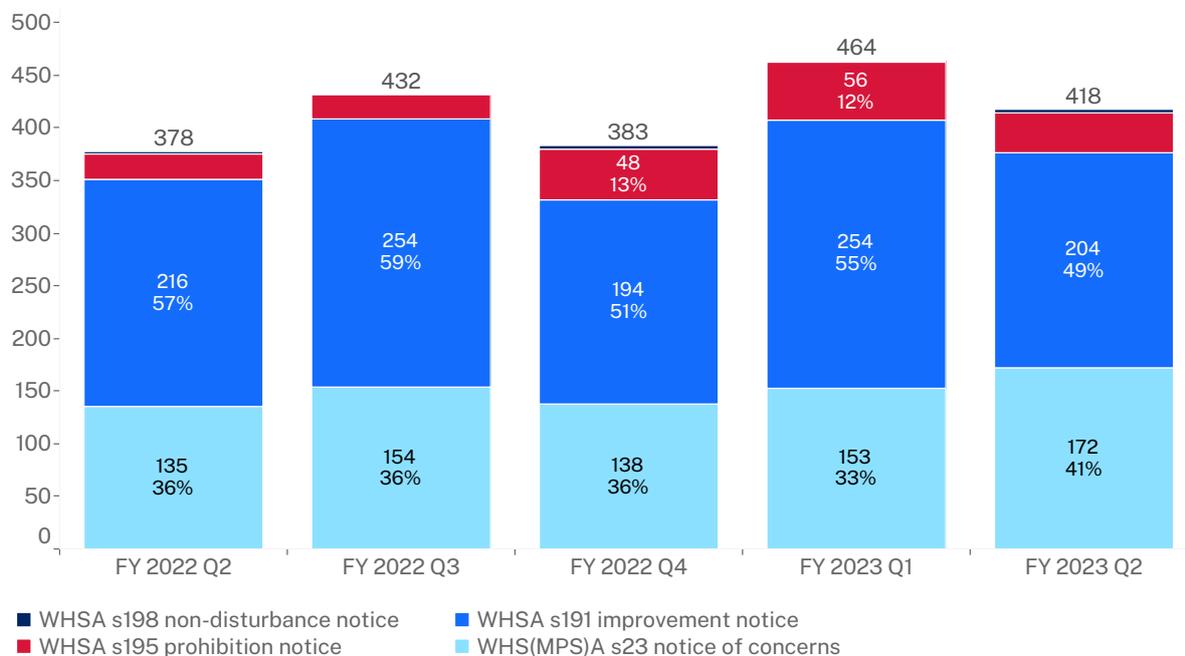


Safety notices issued

We issue risk-based safety notices including prohibition and improvement notices, notices of concern (written notice of matters) and non-disturbance notices.

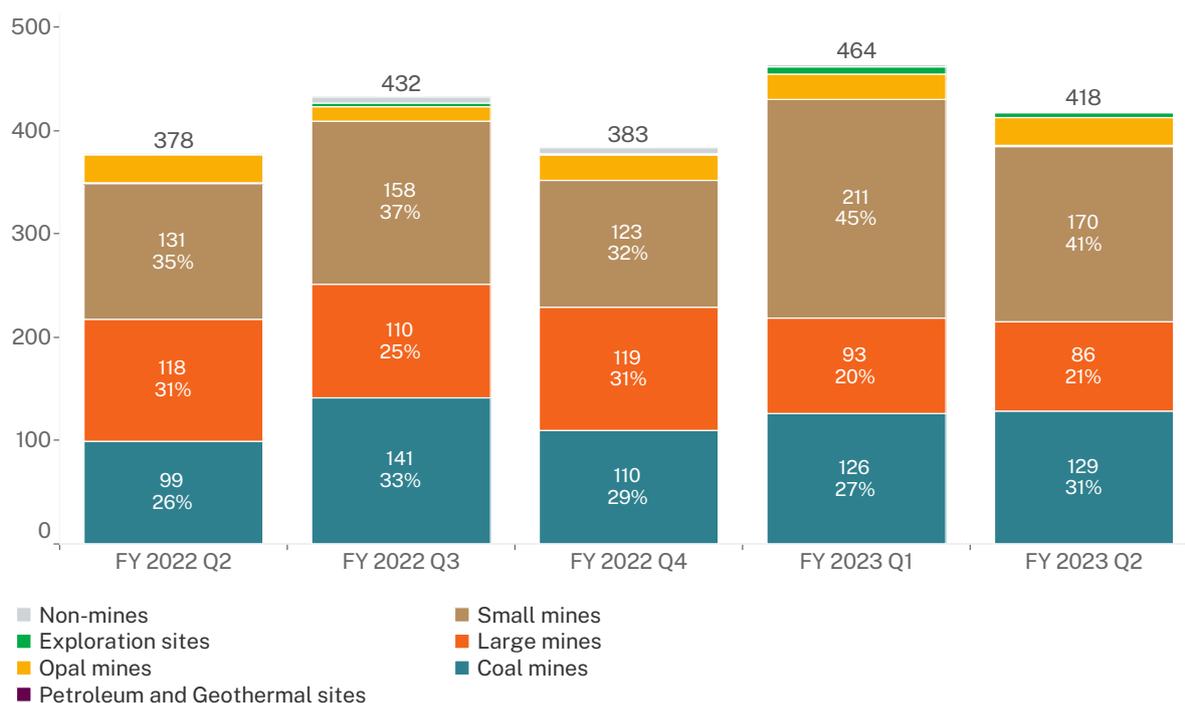
The graph below shows the number and types of safety notices issued during each of the 5 quarters since October 2021. Although this quarter saw a decrease in the number of overall notices issued, there was a 12% increase in the number of s23 notices of concern issued.

Figure 31. Safety notices issued by notice type – October 2021 to December 2022



The proportion of safety notices issued to the coal mines and large mines sectors have decreased this quarter, with an increase observed in the small mines and quarries sector.

Figure 32. Safety notices issued by sector – October 2021 to December 2022



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