

Serious accidents and high potential incidents

Mining and quarrying

Compilation of reports for September 2011

Fall of Person (3)

- The operator of an Atlas Copco MT6020 truck fell off the truck while cleaning the back windscreen and possibly broke his ankle.

Fall of Equipment/Material (20)

- While operating the drill rig, the over shot and tube released striking the control panel and the offside on the jaw before dropping down the hole.
- A Franna 25t crane toppled over while lifting a load of 10 tonne pipes off a truck.
- While reversing to dump short the operator of a dump truck reversed too far. The tip edge failed as the tray was lifted sinking the rear wheels into the floor.
- While dismantling a monorail using a man basket attachment to an Eimco loader the monorail slipped from the man basket striking the arm of the operator in the cabin of the Eimco.
- A boilermaker was gouging the weld on the propel button block of a Dragline shoe when the 40kg block dislodged from its mounting fracturing two of his fingers.
- During a dual lift with two mobile cranes to move a dragline bucket, the lifting chains on the bucket had shifted causing a shock load on one of the cranes. The crane's fly jib dislodged and fell on the bucket.
- Boom guide sheaves of a P&H 9020E dragline fell during operation.
- At coal exploration drilling site, the driller's offside was guiding the inner tube and core from drill-hole collar to the core barrel stands with the top end attached to the winch rope when the winch brake suddenly failed causing the tube to drop to the ground pulling away the offside's left shoulder joint.

Fall of Ground (6)

- 1.8 tonnes of cured fibrecrrete and rock fell from the back between the last two rows of bolts as a fibrecrrete operator was preparing to scale the walls and back beyond the last row of bolts.
- An excavator operator noticed a few small rocks falling from the highwall. He called the OCE, when a few more rocks fell. The crew withdrew from the pit, and a section of highwall fell shortly after.

- An Hitachi EX5500 excavator was positioned about 15m from the toe of a the highwall and loading a dump truck when a section of the highwall failed. A small amount of rock struck the excavator
- Two workers were barring down off a scaffold stage in preparation for installation of ground support when a rockfall from the back fell onto and collapsed the stage. The workers fell to the ground with the stage and rocks. One worker sustained a deep laceration to the top of his right leg and two fractured vertebrae while the other was bruised and sore.

Mechanical (15)

- While workers were preparing to install a new panel in an underground coal mine, a 150mm diameter live compressed air line came apart at the valve clamp causing the workers' safety glasses to blow off and flying debris to enter their eyes.
- While fitting excavator bucket teeth using a hammer, a small piece of steel chipped away from the bucket tooth and lodged itself in a fitter's upper arm.
- A serviceman was changing a 110mm diameter compressed airline when he was struck in the head by a coupling that flew out due to stored energy in the airline.
- Loose shaft brattice sheeting contacted the hoist skip of the skip winder causing part of a sheet to fall onto to the roof of the man winder cage in the adjacent shaft.
- A driller received lacerations to his hand while using break-out stilsons to pull a string of rods when his hand became caught between the stilsons and the machinery guard around the drive shaft.
- An exploration crew were undoing a rod in the drill rig, when the stilson broke. The head of the stilson weighing 2kg dropped into the drill rig mast and ricocheted out narrowly missing a worker standing nearby.

Vehicle – Collision (36)

- As an Hitachi EX1800 shovel reversed the counterweight contacted a Cat16H grader which was cleaning up behind the shovel.
- Towards the end of nightshift a loaded dump truck entered an intersection into the path of an approaching empty dump truck. The empty truck

braked and skidded for about 100m before pulling up on the shoulder of the road

- While reversing into position on a dump on nightshift the position 5 tyre of a Cat 785 rear dump truck contacted the ripper boot of a dozer which was on the dump to spot trucks into position.
- The oncoming shift dozer operator parked his light vehicle close to his dozer. He then did a walk round check, started the dozer and drove into his vehicle.
- A light vehicle which was towing a trailer missed a turn-off and was reversing when a following vehicle ran into the trailer.
- A light vehicle operator failed to stop at a stop sign and pulled into the intersection as a Cat 793 dump truck approached from the right along the haul road. The dump truck operator sounded his horn and braked, pulling up about 7m from the light vehicle which also braked and then reversed into the side road.
- As two Cat 769D dump trucks, both travelling at about 45kph, passed each other on a bend on a narrow section of haul road their mirrors collided. The impact shattered the glass in the mirrors with a piece of glass impacting and breaking the rear window of one of the trucks.
- A grader reversed out onto the haul road into the path of an empty Cat 776 dump truck. The truck stopped 4m from the grader.

Vehicle – Loss of Control (45)

- The operator of a Cat 777 dump truck lost control of his truck and drove through the centre bund of a haul road and ended up tipping over on the driver's side.
- Two workers were injured, one seriously, when their light vehicle rolled on a mine access road.
- A Cat EH3500 dump truck slid about 200m down an over-watered ramp.
- The operator of a Cat 785 dump truck had a micro sleep and ran into the safety bund.
- A Cat 789 dump truck was travelling down a ramp in low gear after a shower of rain when it slid as it neared the bottom of the ramp and ended up at 90° across the ramp.
- When the operator of a Cat 793 dump truck had a sneezing fit he lost control of his truck which ended up with the position 3 & 4 tyres on top of the centre dividing bund.
- A supervisor had a micro sleep while driving his light vehicle and veered into a berm rolling the vehicle onto its side. An in-vehicle camera recorded that the driver had nodded a number of times before the accident.
- While travelling down a ramp in an Hitachi 4000 dump truck a trainee operator applied the retarder a number of times but this did not slow the truck. At the bottom of the ramp he drove over an intersection dividing bund, before applying the service brake.
- As a light vehicle was travelling along an access road towards a creek crossing the driver lost concentration and applied the accelerator instead

of the brake. The vehicle left the road, hit a tree and rolled over.

- A Cat 930G loader, which was positioned across the slope of a ramp, toppled onto its side when it elevated its full bucket.
- A loaded Komatsu 785 dump truck was travelling up a ramp when it crossed onto the wrong side of road, came in contact with the low wall and tipped onto its side.
- A dump truck was tramping down a decline when it lost steering and ran into the wall.
- A rear wheel of a light vehicle came off while travelling along an access road after the wheel nuts popped off.

Explosion (13)

- The auxiliary fan in an underground coal mine tripped off at the DCB. Power to the other face machinery did not trip as designed.
- An underground conveyor tripped on a fault. When the fault was reset and the conveyor restarted, the door for the rectifier section blew open and an arc flash was observed.
- A NERZ/ERZ boundary was established for drillers in an underground coalmine. When drilling was terminated, the boundary was decommissioned. Drilling recommenced but the boundary was not re-established, therefore the methane trip circuits were not reactivated.
- A diesel fitter was attempting to jump start a service truck by connecting the jumper leads across the battery. The battery exploded splashing battery acid into the fitter's eyes and pieces of the battery hit his face.
- An electrician was undertaking repairs to the brake solenoid of a continuous miner. He had not isolated the machine and the power was still on to the enclosure that he was working on which was also within an ERZ1 zone.

Fire (32)

- A fire started in the engine bay of a Cat D10T dozer after oil sprayed from a burst hydraulic hose onto the hot exhaust.
- The drag motor on a dragline flashed over and caused a ball of hot molten metal to ignite a fire below the motor.
- An electrical short circuit in the engine compartment of a Cat D11 dozer ignited coal dust which had built-up in the vicinity. The on board fire suppression did not work so the fire was put out with hand held fire extinguishers.
- The failure of hose on a hydraulic hoist pump on a Cat 793 dump truck resulted in hydraulic oil discharging into the engine bay and igniting. When the operator noticed the fire he stopped the truck and exited via the secondary egress. The operator sustained a superficial burn to the back of his neck. A water truck extinguished the fire.

Electrical (17)

- An arc flash occurred after an overload trip was reset on a 7kW pump starter.

- An electrical apprentice received an electric shock while disconnecting a grinder from an extension lead. The grinder, extension lead and gloves were wet and the power had not been isolated.
- A 22kV bolted plug on a dragline cable failed catastrophically due to deterioration of insulation and tracking to earth of a connecting pin.
- A plumber was mounting water services to a block wall using a double insulated drill. He drilled into the wall and intersected a live 240V cable.
- A worker received an electric shock while running an air line in a workshop beside electrical cables. One of the cables had the outer insulation missing and the worker contacted a bare conductor.

- A 30 tonne articulated dump truck was being transported on a low loader. Most items on the roof of the truck were removed except for the aerials. As the low loader past under a rail traction overhead wire at a level crossing, the aerials touched the overhead wires.

Other (5)

- Following an overburden blast a category 4 fume event occurred with the fumes travelling beyond the exclusion zone and off the mining lease.

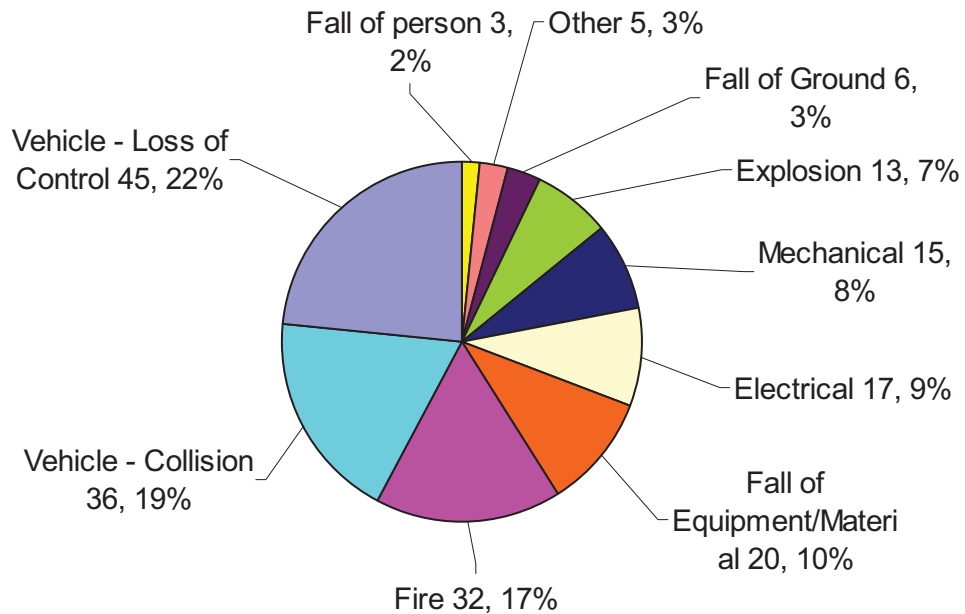


Figure 1: September 2011 Incidents (total 192) by Category

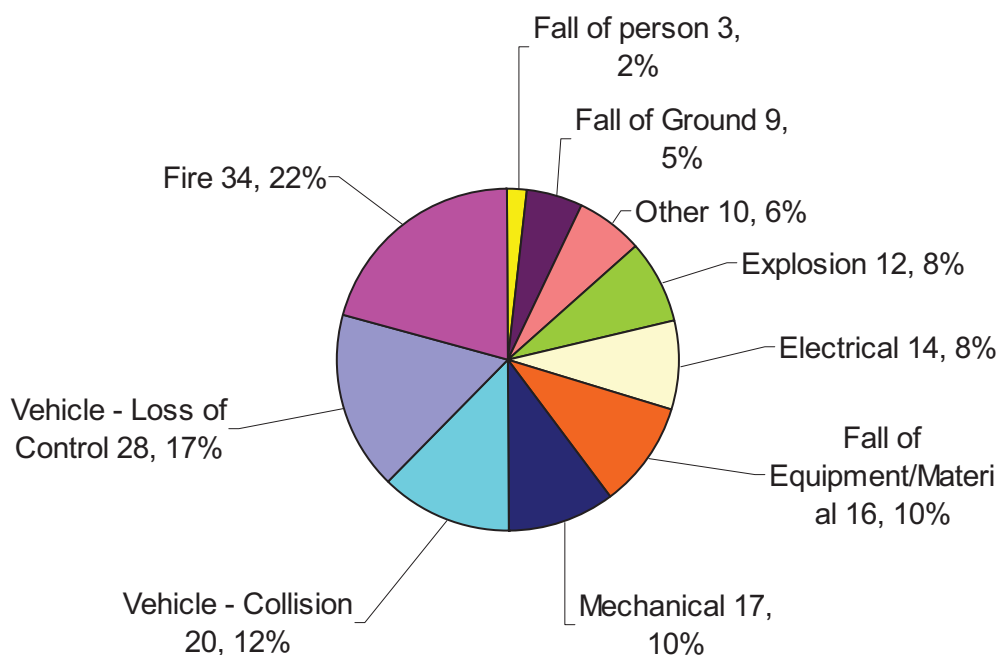


Figure 2: Twelve Month Rolling Average (164 incidents/month) by Category