

Blakefield South – Restarting of Mine Fans after sealing and Three Further Explosions.

[Blakefield South 2011- Mining Accident Database \(mineaccidents.com.au\)](http://mineaccidents.com.au)

The inertisation process continued until 15 February 2011 when Bulga Underground Operations believed that the fire was extinguished. Fresh air was reintroduced into the mine and the gas readings were monitored during the process. It was intended that after reventilation, monitoring and assessment the next stage of the recovery would begin. But 12 hours after reintroducing air to the mine, there was a reignition of gas followed by three further explosions.

- Fans started 15/2/11 at 9:09pm without any problems, 2 fans running at 270rpm.
- By 9:40pm there was clear evidence of gas moving around and out of the mine.
- At 12:10am 16/2/11 all appeared to be going well.
- At 7:00am 16/2 all appeared to be going well.
- At 8:25am reading from "A" hdg return in the mains was of some concern due to CH₄ going up from 6% to 12%, reason unknown.
- At 9:03 am there was huge spike in CO (up to 10,300 ppm), as a result of an explosion underground.
- Smoke appeared out of a borehole and No2 shaft.
- 9:27am there is another CO spike and also at 9:30am, believed to be another two explosions.
- At 9:40am the fans were turned off.
- 9:40am the Nitrogen plant was turned up to 12t/hour.
- Some tubes were not sampling, probable fire damage.
- No 1 and No2 shafts sealed.
- 10:40am, Surface to seam pregas drainage diverted back into LW1 goaf (CH₄).
- 11:10am, flyash into most likely area of explosion, floxall unit running, Tomlinson boiler down.
- 11:30am, Tomlinson boiler back on line.
- Nitrogen transferred from MG to TG just outbye of LW face.
- 1:40pm, another CO spike and most likely another explosion.

The mine is currently waiting for CH₄ levels >20% and O₂ levels <10% throughout the mine so that Broke Road can be opened up and Exclusion Zone 2 removed to allow traffic on Broke Rd and people to move back into the Blakefield offices to manage the event. The sealing of the shafts will be improved once the atmosphere is inert. The explosions were a surprise to everyone but there must have been a hotspot somewhere in the area of the tailgate, exact site unknown. This time everybody knows there is a definite ignition source although monitoring at the mine showed no signs of combustion at all prior to this morning.

Currently the Beltana has about 400m of retreat which should take five weeks approximately, three to five weeks to pull face off and decommission the mine giving a total of about ten weeks work for the blokes at Beltana.

The only good thing to come out of this is that the attempted reventilation could be done without persons underground.

The mine was resealed and inert gases were again pumped into the mine until the oxygen level was reduced to less than 2% to ensure that any fires were extinguished and to remove the possibility of any further explosions.

Remote sealing of Longwall No 1

The mine remained sealed until 31 May 2011, when the mine was reventilated. This was achieved by remotely isolating and sealing LW1 from the rest of the mine. The remote sealing refers to the process of drilling boreholes from the surface and then pumping a non-flammable material into the mine that will flow to fill up the space in the underground roadway. Before the process of remote sealing could occur, a number of potential sealing agents had to be tested. It was decided to use a product called Rocsil (a non-flammable, two component product, intended for cavity filling, air and gas sealing and stabilisation of highly fractured strata) ²⁰ to seal those roadways. Rocsil has the advantage of being easily breached should the sealed area need to be re-entered.