



Queensland Government

**Mackay Office**

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Mine Name	Mine ID	Operator	Activity Type	Activity Date
Grosvenor Coal Mine	MI02976	Anglo Coal (Grosvenor Management) Pty Ltd	Inspection	11/12/2018

Our Vision: **Zero Serious Harm**

## Mine Record Entry

*This report forms part of the Mine Record under s68 of the Coal Mining Safety and Health Act 1999. It must be placed in the Mine Record and displayed on Safety Notice Boards.*

*Note that inspection or audit activities conducted by the Mines Inspectorate are based upon sample techniques. It remains the primary responsibility of Mine Personnel to identify hazards, and risks associated with Operations and ensure those risks are at an acceptable level.*

Today Tuesday 11 December 2018, arriving at 8am Inspector Richard Gouldstone conducted a routine announced inspection at Grosvenor Mine.

### 1.1 Opening Meeting

I was met by Mr Wouter Niehaus (UMM) and I then conducted the opening meeting with him.

#### 1.1.1 Mine Status

- **LW102 Sealing Plan progress**

All shield were now off the faceline, the TG, TG chute and MG chute seals are complete with work in progress on the remaining two MG seals. It was reported later that the TG seal had been closed completely and oxygen was below 2% at that seal. The gas fringe is very close to the salvaged longwall and it is not anticipated that a move to stable goaf conditions will take very long.

Mr Niehaus has provided regular up dates as the sealing has progressed.

- **LW103 Installation and Dust Mitigation**

The final 25 supports are to be installed with support commissioning in progress. A major vent change to establish 60 cubic metres/second on the longwall, maintain the bleeder as an intake to LW104 to return to LW103 and establish homotropical ventilation in the belt road. Ventilating past previous longwall seals results in 0.3% methane reporting to the longwall maingate. A vent shaft is planned for longwall 104 which will dispense with the need for the current bleeder.

Cutting will commence on Saturday 15 December 2018 after the ventilation change. Mr Niehaus undertook to give notice of second workings formally before the commencement of cutting operations and provide a copy of the latest ventilation survey results after the ventilation change.

Mr Ben Thomson (LW Mechanical Coordinator) joined us and showed the plans for dust mitigation principally for the longwall but also in respect to other parts of the Mine.

These included -

- i) Roadway sprinklers - retained selectively because of softening of the roadway floor
- ii) Enviromist on both ED25 & 12CM12
- iii) Curtain sprays on apron & cutter booms and trial with ducting on ED25
- iv) Panline sprays on AFC with modified nozzles
- v) Lemniscate Sprays and dust gutters - limited success as dust is clogging before running away
- vi) Enviromist Sprays in BSL
- vii) Dustchem 76 Foam on BSL and BSL/belt delivery
- viii) Dust grip turbo in sprays as a wetting agent
- ix) Chock washer mounted on shearer
- x) Comp ram sprays
- xi) Wash down hoses on every support

There is clear evidence that the Mine is constantly reviewing the effectiveness of the measures and refining to seek further improvements.

I was provided with documentary evidence with photographs illustrating the various items listed above. After the longwall inspection Mr Thomson provided two documents

Job Card for examination and testing of the LW Dust mitigation Equipment WO 00230408 & Commissioning Roof Supports WO 00217052.

#### ● **Shaft 16 and MG105/Mains developments**

This has been formed to depth and casing is very close to completion . Some difficulty is being experienced with the removal of the remnant high density drilling mud. It is located at 29.5CT B to C in the Mains. Headings A, D, E, and F are complete to 30CT and the remnant drivage to hole into the shaft will be completed after grouting in January 2019. Drivage of 105 MG has just commenced.

#### ● **Development MG 104**

Mr Niehaus has previously reported the following incident -

An incident occurred in MG104 Development Panel on the 1st of December at approximately 2:28pm. The Continuous Miner was producing in B Hdg 23-24ct and was approximately 66m from the last open cut through. A floor heave event occurred releasing CH<sub>4</sub> gas into working face in MG104. The gas release event caused the Continuous Miner to trip power on the GB gas sensor.

A hand held gas detector at the continuous miner recorded peak readings of 1.1% CH<sub>4</sub> while the second unit presented an off-scale reading. The outbye general body gas sensor at the dogleg read a peak of 0.34% CH<sub>4</sub>. Ventilation at working face with both auxiliary fans running was 29m<sup>3</sup>sec.

This was one of 5 similar incidents since 29/10/18 shown below\*.

All of the incidents have been involved in the Mine investigation in an attempt to fully understand the circumstances and put controls in place to prevent or diminish the impact.

It is understood that this may take some time and when similar impacts were experienced in MG102 the drivage was through the problem area before a real solution was effected. The current area looks at this stage to be associated with the 'Domains'. It is believed that methane from the seam below has migrated into the stone above but is held in there by minor pockets created by geological disturbances. The Mine has now taken the action of drilling proving holes in advance of the drivage to pre-drain the gas and dropped the cutting horizon to remove all coal bottoms. There has been consequential floor control problems following that decision. Also, even though the cutting horizon effectively removed all floor coal two further incidents were encountered but less gas was emitted, the deduction being that removing all floor coal releases the gas more gradually.

The matter will continue to receive particular attention and I later talked to officials in the development.

I also asked that a copy of the draft investigation report be forwarded as soon as possible so that I could share the detail with fellow inspectors who may have advice on the matter.

### 1.1.2 Mine HPIs

I provided Mr Niehaus with details of each of the following incidents and requested he provide evidence (after the inspection by correspondence) demonstrating clearly that each had received appropriate investigation with traceable outcomes -

01/12/18 Floor gas release 104MG B heading\*  
 23/11/18 Floor gas release 104MG 24CT\*  
 14/11/18 Failure of FLP LW 103 TG  
 10/11/18 5T FLT axle bearing failure  
 09/11/18 Floor gas release 104MG B Heading 23CT\*  
 03/11/18 Floor gas release 104MG B Heading \*  
 31/10/18 Failure of FLP Drifrunner in workshop  
 31/10/18 Collision between LV & semi-trailer  
 29/10/18 Floor gas release 104MG B Heading 22/23CT\*  
 19/10/18 Fire on surface drill rig  
 06/10/18 Mechanical failure on ED 10 Loader No 1334  
 29/09/18 CMW struck by CM cable facial injury

Dust exceedances (3) - Grosvenor has one of the lower instances of dust exceedances for underground operations.

### 1.1.3 Industry HPIs and Bulletins/Alerts

Reference was made to the most recent alerts/bulletins distributed by the Department and in particular –

- New safety and health measures to safe guard miners including new competency requirements, improved contractor management, proactive officer obligations, compliance and enforcement and transparency and accountability - Mr Singer could not identify if this had been received by the Mine
- Newsflash - Dump Truck Steering Failures
- Bulletin - Manual fire suppression activation units
- Revised Standard 14 - Monitoring Respirable Dust in Coal Mines
- Storm Season precautions
- Updated QGN 31 Tyre and wheel rim management
- Labour Hire Workers and provision of PPE and Health Assessments
- Alert No 354 - Persons and mobile plant falling over edges
- Alert No 355 - Grader falls of low loader
- Alert No 356 - Vehicle roll-overs
- Alert No 359 - Fatality involving plant at a quarry - in which an employee was fatally injured when he was drawn into a conveyor tail end pulley.
- Alert No 360 - Worker survives accessing an irrespirable atmosphere

Mr Niehaus confirmed receipt in each instance and where relevant, action had been taken by the Mine.

### 1.1.4 Rib Bolt Problems

I asked if the Mine had been informed of a problem with rib bolts which they were using. An adjacent Mine had experienced a short duration orange coloured flame when spinning to stall while installing rib bolts on two occasions in the preceding five days. I was informed that the supplier had been in contact with the Mine to alert them of this matter.

## 2.0 Underground Inspection

I was accompanied by Mr Niehaus, Mr Thomson, Mr Richard Whatmore (Shift Undermanager) and Mr Shane Steven (Shift Engineer).

### 2.1 Surface

I read through the ERZ Controllers reports for each of the districts listed below for the previous shift. The standard in each instance was good and contained reference to alarms from CRO and action taken. There was only one instance of a safety related issue reported on the production report but not the statutory report which related to a out of order vehicle blocking the travel road - it was later removed as an obstacle.

## 2.2 LW103 and HPI location

We met the ERZ Controller at the crib room, it was his first shift in the district and he explained the circumstances of a HPI which had occurred as we had travelled inbye.

The shield carrier had reached the bleeder road parallel to the installation face at the first cut through to the face start line. It (the support beam tip) stuck pipes at that intersection parting the live compressed air line(closed off) and parting the uncharged dirty water pump line. There were no injuries and the operator had gone to the surface for drug and alcohol testing.

We viewed the scene which was undisturbed. First reaction showed the support to be riding higher than the norm by 0.5m and the terrain was rough. I released the scene satisfied that measures were in place to fully record all details and check the route to see that no more damaged had occurred elsewhere. I requested a copy of the investigation upon completion.

We returned to the longwall and Mr Thomson showed the items discussed earlier in regard to dust controls through the face and BSL.

I talked to two separate groups (support installers & electrical commissioning) regarding the Slams they had undertaken, their importance, and especially that they are done together for group activities. All coal mine workers demonstrated their awareness of potential hazards.

The installation was generally tidy but it was noticeable that the supports were not fully washed off before re-installation.

I asked Mr Thomson if a number of brackets normally fitted to the supports, which had been dropped between bases, were going to be replaced or refitted as they needed to be removed when supports are fully closed for transportation. I was informed that all brackets would be in place before production commenced. I found two sets of lifting equipment tagged blue(not in use) which should have been withdrawn from use.

## 2.3 LW 104 MG

We were met by two ERZ Controllers at the crib room in MG104 and undertook a long conversation into the succession of floor lift/gas emission incidents that had occurred in the district. A particular concern was that the decision was taken to not leave any coal bottoms, but still to have two further incidents - albeit of lesser gas volume. The outcome was to introduce other hazards due to the floor breaking up during shuttle car and tramming activity. I understood the concerns but at this stage the priority must be to provide a solution to prevent such events.

We visited the drillers who were commencing a second attempt at drilling a proving/relieving hole. I asked for a copy of the drill plan - the exact direction and inclination detail was still to be received. The underfoot conditions were as had been described and both headings were looking untidy as a result of the change of cutting horizon.

I found two further blue tagged items of lifting equipment neither of which were in use - it was arranged for their removal. I recognised that outbye of the last two cut throughs the standards were better but could be improved in the areas mentioned in the close-out meeting.

### **3.0 Close-out Meeting**

I conducted a close-out meeting with Mr Niehaus and Mr Marc Kirsten (SSE) explaining my observations as in the text above.

I explained that there was no reason to give either SCP or Directives on this occasion. However there are opportunities for general improvements in standards which I listed as -

- Roadway travel conditions evidenced by occasional potholes and casual water
- Inconsistent application of stonedust
- Condition of installations eg development equipment in travel road
- Condition and consistency of signage.
- Date of lifting equipment not taken out of use

Both Mr Kirsten and Mr Niehaus were broadly in agreement with the comments and explained a series of initiatives they were applying to improve the situation.

**Richard Gouldstone**  
Inspector of Mines