



Mine Name	MineID	Operator	Activity Type	Activity Date
Grosvenor Coal Mine	MI02976	Anglo Coal (Grosvenor Management) Pty Ltd	Inspection	15/10/2019

Vision: Our Industries Free of Safety and Health Incidents

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 15 October 2019, Inspectors of Mines Malcolm Brownnett and Geoff Nugent attended the Grosvenor Mine to conduct an Inspection of underground areas and obtain further information regarding the most recent gas event and exceedance in MG105 Development panel.

Opening Meeting

Inspectors held an opening meeting with Mr Logan Mohr (Technical Services Manager), Mr Hayden Hearne (Ventilation and GAS Superintendent) and Mr Neal Bryant (Undermanager). The following matter were discussed;

Mr Mohr provided Inspectors with an overview of the mines current operational status noting the following;

- LW103 is nearing take off and Gate road development in MG104 is currently at 36-37ct and MG105 22-23ct. Mains development is advanced to 34-35ct.
- The Grosvenor mining lease operates in parallel with a joint petroleum and gas lease owned and operated by Arrow energy. Mr Mohr Identified the existing gas wells on the displayed mine plan.
- The current insitu gas content (methane) 101 – 103 panels is 2-3m³/t. Panels beyond 104 begin to experience increased insitu gas content >6m³/t and as high as 15m³/t in the most deepest parts of the mine lease. An underground in-seam gas drainage programme has commenced to achieve effective gas management. Additionally, associated with high insitu gas content in the deeper parts of the mine permeability significantly reduces to as low as 0.1md
- Gas emission hazards are expected in LW104 due to gas management treatment had not been developed and implemented at time of development. Risked based controls will be pro-actively applied for effective gas management when mining defined zones to ensure an acceptable level of risk achieved.
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On 2 October 2019 a Gas release event from the floor occurred in MG105 C Hdg 21-22ct development panel resulting in a gas exceedance at the continuous miner of 3.3% CH₄. This event is consistent with previous floor gas relief events prior to the implementation of floor fracking program (Piffing). Mr Mohr and Mr Hearne explained the current status of the investigation and response to this incident, including;

- An IMT was formed to manage and control the re-emergence of the gas release hazard

- Data suggest piffing has been effective where the interburden between the floor and lower seam does not exceed 4m.
- A floor shot fire program has been implemented to control floor gas release events i.e. every 10m Mined, 10m of stone floor is shot fired.
- Data will be reviewed to determine effectiveness of controls
- Inspectors provide a general overview of recent industry High Potential Incidents and Serious accidents.

After the opening meeting Inspectors were provided with SCSR and CABA training by Mr Shaun Britton (Emergency Response Coordinator).

Underground Inspection.

Prior to travelling underground inspectors attended the day shift pre start meeting delivered by Mr Richard Whatman (DS Undermanager).

After the pre-start meeting Mr Whatman demonstrated the electronic ERZC statutory report system which is accessible for all CMW's on monitors in the main muster area. Mr Whatman noted the full electronic system had been commissioned as the sole ERZC statutory reporting system (with removal of paper based system) for approximately 2 weeks.

Inspectors Attended the Control room and reviewed the mine gas log and current status of the mines environmental monitoring system (EMS) with the on duty CRO, Mr Peter Hall, at the time of review no alarms were present on the mines EMS.

Mr Hall explained the following;

- There are 2 separate Tube Bundle systems.
- The Gas Alarm log had a number of consistent alarm triggers recorded (over weeks) for high sample flow on both TB systems. Additionally a recent alarm for TB42 (Outside TB Hut on surface) recorded alarms 20.4ppm CO, 1.32% CH₄, 8% O₂ and 0.24% CO₂.
- The flow alarm and erroneous gas readings at multiple locations has been an ongoing issue. The alarms are intermittent and when reset TB points return to normal operability. The VO is aware of the alarm faults and is currently conducting an investigation in consultation with SIMTARS and other external EMS specialists to eliminate the faults.
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Underground Inspection

In the company of Mr Mohr, Mr Bryant, Mr Hearne an Inspection was conducted at the following locations;

Longwall 103

Inspectors attended the panel Crib room where the LW Bullgang crew were present. Inspectors discussed the following matters with the CMW's.

- Respirable dust – At the time of the inspection airborne dust was not visible and roadway dust was controlled. However CMW's explained that, in their experience, visible airborne dust from outbye roads is a frequent occurrence and raised concerns regarding the effective management of dust control.
- Inspectors asked CMW's if they have recently or previously participated in the personal dust monitoring program and received their personal results. CMW's replied they have worn personnel dust monitors

but some had not received their personnel results back, or received results back up to 3 months after the sampling date. Additionally CMW's assumed personal results were only provided if a failure was recorded. Inspectors undertook to raise the matter with SSE Trent Griffiths.

- Inspectors requested Mr Bryant to display the current inspection findings on the ERZC electronic tablet containing the statutory report. Mr Bryant explained that because the ERZC is logged on and wifi is not present in the crib room it may be difficult for him to access the reports. It appeared accessibility to inspection findings recorded on electronic statutory reports requires the district ERZC to be present to provide the report on their personal electronic Tablet.
- CMW's noted that the ERZC read out the previous shifts ERZC report in the crib room at the start of shift prior to commencing work activities.
- Inspectors advanced to the LW face and were met at the Main Gate by ERZC Josh Lancaster who explained the planned work for his shift which was Longwall maintenance until 1200pm, then production.
- Face conditions were good with no structures observed. LW shields had been hosed to remove excess coal dust, 0.35% CH₄ was recorded on Mr Bryant's PGD at the TG.
- On inspecting fire extinguisher locations on the long wall face in the presence of Mr Mohr and Mr Bryant it was observed fire extinguishers were located in the back of the chocks and would make it difficult to access if required due to low height in the back of the chocks and the position of the hydraulic hoses in between the front of the chocks. Mr Bryant and Mr Mohr concurred with the observation.
- Inspector Brownnett discussed with Mr Lancaster his view on the position/location of the fire extinguishers Mr Lancaster commented it was difficult to access the extinguisher's and he had previously reported this and he would report it again on his statutory report. Inspector Brownnett noted he would recommend to the SSE the mine review the location/position of fire extinguishers on Longwall Faces.

Main Gate 105 Development.

Inspectors attended the panel Crib room where the Development Bullgang crew were present. Inspectors discussed the following matters with the CMW's.

- A number of CMW's again raised concerns regarding visible airborne dust being generated outbye frequently enters Main Gate 105 Panel. Inspectors asked CMW's their understanding of the reporting process and controls the mine has in place to manage respirable dust and their role in effective dust management. Inspectors undertook to raise the matter with the SSE.
- Inspectors asked the CMW's if they have participated in personnel dust monitoring recently or previously at the mine. Similarly, to the LW Bullgang crew, the CMW's had participated in the monitoring program but were uncertain of the process to receive their personal results.
- When Inspector Brownnett reviewed a hazard report book in the presence of Mr Bryant an original report (Loader broken down in the M&M drift) had been completed on 07.10 .2019 but had been left in the hazard report book. Mr Bryant explained the mines reporting system required if any machine breaks down in a Drift the incident must be formally reported and investigated. Mr Bryant undertook to investigate the matter as the hazard report was completed on his shift and was unaware of the incident.

Inspectors progressed down the travel road towards the production face and were met by the district ERZC Mr Cory Barnsdale. Mr Barnsdale discussed the following matters with Inspectors;

- The panel shift plan for the day and described the sequence control process for each pillar of development.
- The current status of gas drainage borehole intersections, the process applied during intersection and the management of Borehole Intersection Notices (BINs). Mr Barnsdale noted that a UIS borehole is expected to be intersected in C heading within 10m of the existing face and the BIN was in the crib room.
- The recent floor gas release event in the panel Mr Barnsdale explained the process of floor fracking (PIF) and the current process involving shot firing the stone floor.
- Two Auxiliary Fans located in C Heading adjacent to the conveyor outbye 21 c/t were inspected, Deputies locks were appropriately located. Gas reading on the Methane Monitor General body recorded 0.35 % CH₄.
- The Continuous Miner had holed 22 c/t C-B and strata controls activities were being applied in the roof and ribs by CMW's.

With permission of the Miner Driver Inspector Nugent boarded the continuous miner. The operators described previous floor gas release events they had experienced prior to the current controls being implemented, noting the pressure release could be felt when standing on the miner and a distinct H₂S smell was present with warm air passing over the miner after the gas was released from the floor. The operators acknowledged they have been consulted during investigations and development of controls for the hazard.

Consistent with the previous CMW's the subject of airborne dust from outbye was raised as a concern by the CMW's.

Inspectors thanked the CMW's and ERZC Barnsdale and travelled to the surface.

Close out meeting

Inspectors conducted a close out meeting with Mr Trent Griffiths (SSE), Mr Bryan, Mr Mohr and Mr Hearne. Inspectors explained to Mr Griffiths the observations made on the inspection as listed above, including the following recommendations;

- CMW accessibility to electronic ERZC statutory reports - Inspectors recommended to the SSE to review the accessibility of ERZC statutory reports for CMW's both on the surface and in underground crib rooms.
- CMW's reported concerns of ongoing roadway dust management and receipt of personal monitoring results. Mr Griffiths explained that resources (equipment and people) have been allocated to outbye road management. A process has been developed and will be implemented at the end of October to ensure roads are transferred from production to outbye at an acceptable standard and outbye road maintenance resources are not absorbed by other departments.
- A recommendation will be issued to the SSE to review the current process for issuing personal dust results and determine if the process is effective. as per Grosvenor SHMS;
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GROSVENOR COAL MINE HMP—Management of Inhalable and Respirable Dust

4.9 Analysis and Reporting Initial sampling results and reporting of trigger events

The Occupational Hygienist is responsible for forwarding initial sampling results to the relevant Department Managers, Production Coordinators, Undermanagers and placing the reports on notice boards. All personnel

involved in the monitoring program shall be issued with a feedback letter. The Occupational Hygienist is also responsible for initiating the incident report for the event to be recorded in Enablon.

- Accessibility to fire extinguishers LW103 face - A recommendation will be given to the SSE to review the positioning of hand held fire extinguishers on future LW faces to ensure adequate accessibility for maintenance and in a potential emergency.

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<u>Number</u>	<u>Recommendation</u>	<u>Due Date</u>
1	Accessibility to Fire Fighting equipment LW face SSE to review the positioning of hand held fire extinguishers on future LW faces to ensure adequate accessibility for maintenance and in a potential emergency.	N/A

<u>Number</u>	<u>Recommendation</u>	<u>Due Date</u>
2	Personal dust monitoring reporting SSE to review the current process for issuing personal dust results and determine if the process is effective. as per Grosvenor SHMS;	N/A

Geoff Nugent
Inspector of Mines

Malcolm Brownnett
Inspector of Mines