



Queensland Government

Mackay District Office

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Mine Name	Mine ID	Operator	Activity Type	Region	Activity Date
Grosvenor Coal Mine	MI02976	Anglo Coal (Grosvenor Management) Pty Ltd	Inspection	Central	15/12/2016

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.

Site Safety & Health Reps Consulted: Stacey White

Inspector Keith Brennan and I attended Grosvenor Mine today 15 December 2016. I was going to conduct an underground inspection of the development panels and Inspector Brennan was to conduct an underground inspection of the longwall panel.

The inspection resulted in the following MRE items being issued:

Directive: To ensure compliance with the control and management of methane in the Longwall Tailgate.

SCP: To develop a documented standard for cable management on wheeling corners.

SCP: To ensure that planned work activities meet with statutory compliance matters in work activities. This includes communicate of this to statutory officials.

1.0 Introduction

We undertook an opening meeting which was attended by -

Mr Adam Garde (SSE)

Mr Wayne Bull (UMM)

Mr Tim Reeves (Operations Manager)

Mr David Lawrence (SHE Manager)

The SSHRs were Mr Stacey White and Mr Jason Sharpe. Mr White was to accompany us on

the inspection and Mr Sharpe was underground with the bull gang.

1.1 Mine status

Mr Garde had only recently been appointed as the SSE and had recently appointed Mr Bull as UMM and Mr Lawrence as SHE Manager.

Mr Garde explained he had three immediate priorities which were in progress, these being:

- From the recent Level 1 exercise it was evident that the effectiveness of mitigating an unwanted outcome was by having a capable 'First response' capability. He was planning to replicate the surface training galleries that were in place at Grasstree mine.
- A reorganisation of the management structure was being implemented with a number of changes, and potential future changes.
- A review of the SHMS. Again a number of documents were in the process of being reviewed with others to be prioritised.

Mr Garde then gave an overview of the mine operations indicating that at present the limited production activity for Longwall 101 was due to the influence of the seam split in 'Domain A' which had also been impacted by operational matters.

Development activities were being conducted in TG102 where the 'Backholing' of 'C' heading was being driven from 27 c/t to 26 c/t. The install face road had been driven on single pass with widening to be undertaken prior to the Longwall install. Continuous miner operations had been ceased inbye in MG102 and development activities had been recently recommenced in the 'Mains' section of the mine.

The crews were commencing their first shift where a 'Communication session' was being undertaken prior to the start of production on the afternoon shift.

1.2 Inspector feedback

Inspector Dobson provided feedback on the following issues -

- All Form 5a's (Confirmation each month from the Mine on incidents and accidents) were up to date. It was noted that the IC Absent/Failed defences were not identified in any of the Form 5a's. I questioned how this factor was not present in the investigation process. Mr Lawrence said he would look at some of these and provide feedback.
- 8 of the last 9 HPI's were cable damage of various types with variable factors that had influenced these failures. These incidents demonstrate poor attention to good standards with cable management. The mine needs to ensure that I explained that this was one of the Focus areas in the Inspectorates annual plan, and given the recent incidents this needs to be a focus point for all CMW's.
- The number of HPI's v Anglo HPH's was discussed as this was raised at the previous inspection and a summary of the HPH's was provided. The mine has a procedure which was currently being reviewed. It was also stated that the definition between incident and hazard is also based on whether a release of energy has occurred and that a critical control has failed. I asked for a copy of the current procedure which was provided.
- The Inspectorates annual plan was developed from the Chief Inspectors Big 10 items. The matters of relevance for the undergrounds were Respirable dust, Strata control, Contractor management, UMM & ERZC forums, Health strategy, and Tyre management.

1.3 UMM and VO meeting

The Inspectors then met with the Ventilation officer Michael Webber and UMM Bull to discuss information previously provided with regards to Methane issues that were apparent in the Longwall Tailgate from the previous inspection from the ERZ Controllers reports. The graphical representations provided showed that on a number of occasions that Methane appeared to be greater than 2.5% in the Longwall Tailgate. I asked Mr Webber to verify this detail for the dates and time span that this was greater than 2.5%. This was to be provided for the close out meeting.

It was noted that Methane makes were not entered on the VO's monthly report that was provided. Mr Webber showed that these were now on current reports.

The weekly ventilation review process that UMM Bull planned to implement was discussed. I was given a copy of one of these reviews.

Mr Webber also informed of the Chief Inspectors VO forum and some of the papers given. Of particular note was the incident of excessive Carbon Monoxide production with the Floxal plant.

1.4 Muster Area

In the company of SSE Adam Garde and Operations Manager Tim Reeves, Inspector Brennan was provided an overview of the muster area including the ERZ Controllers de-brief/communications facility. The facility has colour coded mine plans indications relevant ERZ Controllers areas of inspection. The plan requires the ERZ Controller to sign off on the area of responsibility. Inspector Dobson identified a document 'confirmation of inspection' required countersigning had not been completed, this was raised with Underground Mine Manager Wayne Bull.

The previous night statutory reports were reviewed, Mains Zone 7 Report Number 12766 recorded pull tests were being conducted, however no indication of location, bolt type was recorded on the report, the expectation is the ERZ Controller would record the information. Maingate 102 Zone 5A Report Number 12435 recorded RADCO were setting up for drilling at 26ct stub.

Afternoon Shift Longwall 101 report number 11836 recorded tailgate return Ch4 0.5%; CO 20ppm and Goaf Stream Ch4 2.15%. Code Red Trigger Action Response Plan T.A.R.P. recorded for Longwall Face, Rocksill being pumped 63# - 83# an up-throw fault 47# - 48#; Shotfiring of stone lumps 92# - 93#. A copy of the Goaf Stream Bag Sample dated 14/12/12 taken at 4:05am – CO 11ppm; Ch4 2.04% and O2 19.08%. Other information; D/A Ram on 148# replacement during night shift and a cavity had rilled in at 110# - 120#.

1.5 Longwall inspection

In the company of SSE Adam Garde and Operations Manager Tim Reeves Inspector Brennan travelled to Longwall 101. In the cribb room I reviewed details on the statutory report 11838 noting T.A.R.P. Red for face conditions. On the outbye rib an Anglo ACCOM Board from Night Shift 14/12/12 had recorded recent incidents discussed with crews.

We accessed the face via the belt roadway, I was provided an overview of the outbye face monitoring system and the intent is to remove coal mine workers from respirable dust and hazardous conditions.

SSE Garde explained the introduction of Environmental High Pressure Mist Sprays that have been installed through the BSL and transfer location. A small cavity was evident at the maingate block corner, there were no indicators of excessive weighting in the belt roadway. All face sprags were deployed, the Tonstein Band varied in thickness throughout the seam, stone was visible above the shields where Rocksil had been pumped. Coal mine workers under the supervision of the shotfirer had completed drilling holes in preparation to fire a number of sandstone rocks on the face.

I took the opportunity to speak with Wilson's coal mine workers to gauge their knowledge of the requirements of Grosvenor Coal Mine GRO-7174-FRM – Longwall Familiarisation. The document requires longwall personnel to have a basic understanding of Safety and Operational requirements from CABA; Statutory Reporting, No Go Zones, Isolation etc. The coal mine workers were able to provide satisfactory responses to GRO-7174-FRM – Longwall Familiarisation, in particular Isolation and Emergency Stops.

Inbye of the shearer located at 97# coal mine workers were housing down the surrounding area in preparation for Shotfiring. At 149# the side shield was damaged an inoperable, the flushing shield had broken away from the locating pins and when face/goaf conditions allow will be replaced.

After exiting the face SSE Garde and I walked inbye to the last open cut-through. The stopping work area was ventilated with a brattice wing, a mesh barrier had been erected. I raised the use of an ERZ controllers lock to secure the mesh preventing inadvertent access by coal mine workers. I also brought to the attention of SSE Garde the four-way gas monitoring tree should be inbye of 17ct the last open cut-through.

1.6 Development Inspection

Inspector Dobson inspected the areas of the mine currently being developed and associated workings accompanied by UMM Bull, Undermanager Neal Bryan, and SSHR White. We commenced with an inspection of the MG102 district.

1.6.1 MG102

The Outbye District inspection board and Diesel tag board was compliant. The travelling surfaces and adequacy of stonedust applied in the roadways travelled throughout the Mains and the outbye section of this district was acceptable. The NERZ/ERZ boundary was clearly displayed and installed to an acceptable standard. The inbye district inspection board was compliant for the district to be open, however it did not show that an inspection had been conducted on the current shift. The afternoon shift were still on the surface at a Communication session therefore no production was being undertaken.

The crib room was at 26 c/t and the ERZ Controllers report for this work period had not been commenced however the report noted that the district was open until 14:00(3 hours left). The crib room notice boards were in good condition and displayed all relevant information. The Emergency response equipment was compliant. We were met by the District ERZ Controller who explained that he had completed his inspection earlier and had been rectifying an issue with the failure of ventilation ducting. He provided his note book with evidence of the findings of his inspection.

I noted that the area between 26 c/t and 27 c/t had been recently shotcreted however had no stonedust applied (No reference to this being non-compliant was observed in the statutory reports). We discussed this and it became evident that this had been completed over a week ago yet had not been identified as requiring to be stonedusted. Mr Bull committed to have this addressed immediately. This matter was discussed further at the close out meeting.

Methane drainage drilling activities were being conducted by a contract workgroup in 26.5 c/t. I spoke to the CMW's, and had a general discussion about the current work activities and documentation for these tasks. The Contract Coordinator was present who with the aid of the documents explained the Permit to work for the current activities and process for this being authorised. This had been scoped by him being the "Contractors representative", and a "Grosvenor representative". However the "*Scoping/Inspection completed*" was signed by these two persons on different dates (2 days difference). This did not appear to be the intent of this step in the procedure, and it was not clear as to who were the permit holders. Multiple documents for safe working instructions were referenced on this in the "*Procedural Requirements*" section which was all referenced to the Grosvenor SHMS.

I enquired as to how were CMW's deemed to understand the contractors SWI's that had been mapped to the Grosvenor SHMS and was informed that these were activities that all of the contract personnel had to be trained in as part of the appointment process as a driller. I commented that there was no requirement for compliance with Regulation 94 which it was agreed that this should be included. This matter was discussed further at the close out meeting.

The CMW's also demonstrated adequate risk management of their current activities and had completed detailed SLAMS for their work activities.

We then inspected the work area at the intersection of 'C' heading and 28 c/t where the Maintenance crew had just removed the LH drill rigs from the Joy 12CM12. Lifting equipment for this activity was compliant. I discussed the work activities with the Tradesmen who had undertaken adequate SLAMS for this work, and had undertaken this task previously.

The Breaker/feeder and fan were positioned in 'C' heading in-between 26 c/t and 27 c/t. These were compliant and housekeeping was acceptable. The Methanometer on the fan displayed 0.15%. Cable protection was also compliant.

We walked the rest of the bleeder road towards the backholing in 'C' heading where centre-line cracking was evident in the roof and centre-line Mega-bolts had been installed where TARP triggers had been initiated.

The 12CM12 Continuous miner was between 27c/t and 26 c/t in TG102. No activities were being undertaken here. Rib conditions were poor on the right hand rib but were being controlled adequately. The Methanometer on the CM displayed 0.37%. Cable management was acceptable. I noted that no tail sprays were installed on the tail of the miner to suppress any dust from the delivery from the centre chain to the car. This had been identified as a key dust suppression control in the development of the recent Recognised Standard for dust control. Mr Bull committed to investigate this.

The intersection of the TG with the install face road was beginning to deteriorate due to water from maintenance activities. The management of these activities was discussed with regards to the focus of minimising these impacts.

We walked the first pass of the install face roadway which had centre-line Mega-bolts installed on advance as part of the development cycle. No centre-line cracking was evident. The fan was positioned on the faceline which was compliant and the Methanometer on the fan displayed 0.43%. The second pass for this roadway was not planned to be mined in the immediate future. Housekeeping for the 'Surge point' on the face line for the shuttle cars was in good condition and cable management on the faceline was being effectively managed.

1.6.2 Mains

Development had recently recommenced in the Mains section of the mine after a recent Jiffy conveyor extension in 'C' heading. The travelling surfaces from 19 c/t in 'B' heading needed improving, and this was to be actioned. Mining was being undertaken in 'E' heading with an ED 25 Continuous miner driving from 21 c/t to 23 c/t. One car had been cut when we went to the miner however no further mining took place as the ventilation ducting required to be extended. I spoke to the coal mine workers involved in these activities, and was aware that one of these was a clean skin labour hire employee. The cleanskin explained what his requirements were for him being managed through this process.

The ERZ Controller was conducting his inspection and we then discussed the cable management standards in this panel as the protection on the wheeling corners was not to the same standard as in the MG102 district. It was evident that the mine did not have a documented standard for this. An SCP was to be issued to ensure these standards are documented and applied consistently.

The bootend of the Jiffy conveyor extension in 'C' heading was examined where good housekeeping was evident and gas monitoring was compliant. The next cut through outbye of this being 20 c/t had a loose bag and pogo separation stopping. These were also evident outbye to 17 c/t. We discussed the standard of temporary segregation stoppings as these were very poor. Mr Bull committed to immediately have a standard documented and replace these to that standard.

1.7 Close out meeting

We discussed the general matters from the inspection.

The use of the Permit to work process was discussed with regards to the "Scoping/Inspection completed" section being signed by these two persons on different dates (2 days difference). This did not appear to be the intent of this step in the procedure, and it was also not clear as to who were the permit holders. The requirement for the UMM, VO, and Geo Tech to sign off only if required in the checklist was not signed off before the Scoping/Inspection was undertaken. We discussed this and the perceived order of how this document flowed. Mr Lawrence agreed with these findings and committed to review this. It was also agreed that the requirement for compliance with Regulation 94 should be included.

The requirement to document the standard for cable protection on wheeling corners was issued as an SCP.

The matter of compliance matters in the work cycle for reapplying stonedust after shotcreting and ensuring temporary segregation stoppings were installed to an acceptable standard was discussed. It was unacceptable how the work in these areas had not included these key matters and that ERZ Controllers and other statutory officials had not identified this. An SCP was issued to communicate the expectations of planning for statutory compliance and monitoring this as part of the work process.

Inspector Brennan was provided details of the corrective actions required from a number of recent High Potential Incidents by HSE Manager David Lawrence, in particular the responses following six electric cable incidents, of particular concern was shuttle car 10SC42 cable torn in half on the 26th November 2016 this is despite a number of controls in place to prevent this occurring.

SSE Adam Garde committed to a process ensuring gas monitors are re-located as part of the longwall retraction process, the monitors also require a form of easy identification, the monitors are hung high in the rib line.

The matter of the Methane appearing to be greater than 2.5% in the Longwall Tailgate was presented by VO Webber where the graphs presented were from Real time monitoring system which were different to the CITEC graphs previously provided. These showed Methane in different concentration levels which was not clarified as to why this was the case. I required further explanation with respect to reasons for these, the actions taken and duration of each of these events as it was not clear as to why any of these events had not been reported to an Inspector as HPI's. Mr Bull committed to provide this as soon as possible.

1.8 Further information provided regarding Methane issues.

An email was received on 19/12/16 from UMM Bull compiled by VO Webber. An explanation of an event on 02/08/16 for an event where Methane greater than 2.5% in the Longwall Tailgate was due to a power outage with no persons underground. The mine was subsequently degassed.

Two further events on 06/09/16 indicate two peaks where the Methane was greater than 2.5% in the Longwall Tailgate for periods of approximately 30 minutes and 15 minutes. I spoke with UMM Bull on 20/12/16 with regards this and required these matters to be investigated as to why these were not classified as per CSMH Regulation 366 and reported as HPI's. I informed that I was issuing a Directive to ensure compliance with the Act and Regulations for this matter.

<u>Number</u>	<u>Directive</u>	<u>Due Date</u>
1	Pursuant to section 166 of the Coal Mining Safety and Health Act 1999 Management of methane in the Longwall Tailgate.	12/01/2017
	To ensure compliance with the control and management of methane in the Longwall Tailgate.	
<u>Number</u>	<u>Substandard Condition or Practice</u>	<u>Due Date</u>
2	Cable protection on wheeling corners	06/01/2017

To develop a documented standard for cable management on wheeling corners.

<u>Number</u>	<u>Substandard Condition or Practice</u>	<u>Due Date</u>
3	Planning of statutory compliance with mining related activities	06/01/2017
To ensure that planned work activities meet with statutory compliance matters in work activities. This includes communicate of this to statutory officials and their diligence for these matters.		
<i>Please provide a written status report on each SCP together with the actions taken to address each item by their due dates</i>		
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Shaun Dobson
Inspector of Mines

Keith Brennan
Inspector of Mines (Coal)
Central Region