



Mine Name	File No.	Operator	Activity Type	Region	Activity Date
Ensham Underground Mine	042939	Ensham Resources Pty Ltd	Inspection	Central	03/03/2011

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.

Today an inspection was made together with s.73 - Not relevant and following is the content of his MRE with which I concur:-

Due to the weather conditions we were unable to access the Mine via the normal route and took the alternate route via Yungala Rd. We were met at the Security Hut and escorted to the Underground Offices by s.73 - Not relevant

On arriving at the offices we were joined by s.73 - Not relevant A conversation was held during which the following were discussed;

Self escape strategy involving CABA.

Design of the underground workings with a view to separation of the primary escapeway.

The location and activation of the emergency doors and maintaining cleanliness around the doors.

Mines Rescue compliance involving an MOU with Kestrel and Crinum.

Following this discussion a trip was made to the portals which are currently being developed by UGM. The left hand portal was in some 13 m. and the right hand portal some 20 m. It was suggested that where a lip was being left that the mesh be wrapped around the lip and secured to prevent any rock from falling out from the lip. Of more concern was the road conditions. In areas where imported gravel had been used conditions were acceptable. In other areas such as the ramp up to the underground offices conditions were awful and even with 4 wheel drive engaged it was difficult to maintain a straight line. ***The mine should address the road conditions in this area as a matter of priority .***

Mike Walker
Inspector of Mines
Central Region



Mine Name	File No.	Operator	Activity Type	Region	Activity Date
Ensham Underground Mine	042939	Ensham Resources Pty Ltd	Inspection	Central	30/03/2011

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 Wednesday the 30th March I visited the Mine in the company of ^{s.73} District Inspector of Mines. Due to the weather conditions we were unable to access the Mine via the normal route and took the alternate route via Yunqala Rd. We were met at the Security Hut and escorted to the Underground Offices by ^{s.73}

On arriving at the offices we were joined by ^{s.73} A conversation was held during which the following were discussed;

Self escape strategy involving CABA.

Design of the underground workings with a view to separation of the primary escapeway.

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Bill Taylor
Inspector of Mines
Central Region



Mine Name	File No.	Operator	Activity Type	Region	Activity Date
Ensham Underground Mine	042939	Ensham Resources Pty Ltd	Inspection	Central	13/02/2013

Vision: Our Industries Free of Safety and Health Incidents

Mine Record Entry

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Site Safety & Health Reps Consulted: s.73 - Not relevant

Today Inspectors of Mines Mr Neville Atkinson and Kevin Poynter undertook an inspection of the Ensham underground Coal mine. Throughout the visit we were accompanied by s.73 - Not relevant

s.73 - Not relevant and s.73 - Not relevant

We travelled underground to South East Panel 2 area. On the way we stopped and inspected the recently completed air crossing installed following my last visit for the purpose of separating the primary escapeway. This was constructed using brattice. I questioned the applicability of this and asked if there was any intention to make this more permeant. s.73 - Not relevant advised that this met the requirements of section 298 (iii) of the CMSHR

(iii) separated, as far as practicable, from all other roadways by a separation stopping that is antistatic, fire resistant and of substantial construction providing for minimal leakage

We travelled to the continuous Miner and called into the crib room. I checked for the SOPS relevant to the area and found them to be present. On reading the ERZC statutory report it was noted that not all areas had been completed. Specifically the temperature readings had not been completed. I had noted this also on other reports on the surface and later in the mains development area. Deputies and any other persons required to fill out a Statutory reports you must ensure that all parts of the report are complete.

Walking to the face I found the roadway rough and a deep swilly was present. I discussed this with all present as it was a designated travel road and could impede a person self escaping in an emergency. I explained that it was my belief that if the roadway could not support either the travel of the mine ambulance to the face or could impede the escape of a mine worker then that presented an unacceptable risk. In this case there are several other roadways that can be used in self escape.

We observed the miner cutting and it was noted that there was an area of parting in the roof that was breaking away and falling. The plan was to lower the place and work under the penny band present approx 500 to 700mm from the roof. Work place was well ventilated.

We then travelled to Mains development headings. I observed that the belt road had been separated from the main egress using a cloth type material provided by Minova. These appear to be provide suitable separation.

Again the roadways were rough and in need of attention. I spoke with the Continuous miner operator and he explained the sequence. i asked him about plunge depth and he was able to tell me the standards for the mine. He showed me on a plan he had on his person the sequence. Place was tidy.

We travelled to the surface where i met s.73 - Not relevant and looked at and discussed Stone dust sampling. s.73 took me through the stone dust plan and showed me the collated results. The mine uses colour metric analysis an well as normal sampling regime. Re dusting is organised either by s.73 or the UMM as required.

At the close out meeting I raised the issue of the road conditions and s.73 - Not relevant said that with the new grader on site the road conditions should improve.

The results of an investigation into a mine workers complaint are listed in a separate MRE

I requested the following documents

1. Dust reports for the 13/2/13
2. Last two environmental reports
3. The last two ventilation surveys

Kevin Poynter
Inspector of Mines
Central Region

RTI DL RELEASE - DNR/M



Mine Name	File No.	Operator	Activity Type	Region	Activity Date
Ensham Underground Mine	042939	Ensham Resources Pty Ltd	Inspection	Central	06/03/2014

Vision: Our Industries Free of Safety and Health Incidents

Mine Record Entry

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Today the 6th of March a Diesel Particulates Audit (DPM) was carried out by Mechanical Mines Inspector Mr Bruce McKinnon, Senior Principal Occupational Hygienist Mr Fritz Djukic and Mechanical Mines Inspector Anthony Logan. The audit was conducted with the assistance of

s.73 - Not relevant

s.73 - Not relevant

The audit was focussed on the requirements of Sections 260 (2) (b), 360A and 362 (5) of the Coal Mining Safety and Health Regulation which relates to diesel engine pollutants such as Particulate Matter.

The mine has three main documents which have been developed for the management of diesel particulates. These documents have good content and appear to be a systematic approach to the issue of diesel engine pollutants.

A formal audit report is supplied to the mine and is an integral part of this Mine Record Entry; this report is to be placed into the mine record. **The SSE is required to examine the report, develop an action plan and time line for the Non Conformances and Improvement Opportunities (these are identified as No or Partial in the audit tool), and then forward the plan and time line to the Mackay Office of the Inspectorate.**

Observations regarding the audit appear below;

- The Safety and Health Management System would benefit if all the associated documentation that relates to the management of diesel engine pollutants was contained within one overarching system document that draws all facets of the system together.
- Implementation of a training and awareness program for machine operators and the general underground work-force needs to be implemented as soon as it is completed.
- Monitoring and recording of both vehicle emissions and personnel monitoring appear to be well established and conducted in line with best practice.
- A test protocol for safely managing the potential risks (e.g. uncontrolled vehicle movement), when sampling diesel exhaust needs to be developed.

- All of the audit participants were aware of their roles in the system, but had received little formal notification of same. *Note: there is no system to show what an individual or position is responsible for. (SOPs, MOPs, Responsibilities) A responsibilities matrix may be a useful tool for such an issue.*
- The mine is cognisant of the need to ensure latest technologies for pollutant control are included in the specification for new equipment purchases. This was verified in the purchasing scope sighted for equipment. The system documentation needs to reflect these intentions, the auditors were advised that the current review of the system, is taking into account this issue.
- The mines current practice is to investigate any occupational hygiene exceedance and provide feedback and results to affected parties. This process needs to be documented so that any actions can be assigned, tracked and closed out.
- Development of a formalised system which controls diesel vehicles in a panel needs to be considered as the mine expands.

The above issues are not all issues identified in the audit.

After the audit an inspection of the underground workings was conducted in the presence of

s.73 - Not relevant

The following is a list of observations from the inspection:

- Self-rescuer and caba refresher training provided was high of a high standard and included practical exercises
- The access ramp road surface to the underground was in good condition, however, it was dusty. Recommend review of dust control processes to ensure dust generation is minimised
- A B-Double was unloading stone dust bags near the portal area. The issue of brake testing for the truck was raised with s.73 He advised that brake testing of b-doubles etc, is completed before being allowed down the mine access ramp. This is seen as an effective control for the hazard.
- Housekeeping standards in the bulk goods storage areas adjacent to the lower part of the access road were poor. Recommend review of inspections of the area and actions implemented to clean up waste items.
- Underground roadways of variable quality with a number of areas in very poor condition. The PJB we were bottoming out in a number of locations. To reduce risk of injury to personnel and equipment damage, road design and maintenance standards need to be reviewed. Methods to reduce water entering the travel road areas should be investigated and implemented.

Panel 201 equipment

- Continuous miner correctly isolated as per site procedures (locks in place)
- LH shuttle car pump compartment oil leaks need attention to minimise risks
- SC drivers compartment clean and high height provided good visibility (for a shuttle car)
- SC tyres in good condition. Progressive implementation of tyre inserts is seen as a positive safety initiative
- Breaker Feeder in acceptable condition, guarding installed at conveyor/breaker feeder transition noted
- Panel conveyor appeared to be well aligned and levelled.

The SSE and his team are thanked for the assistance provided on this day.

Bruce McKinnon
Inspector of Mines
Central Region

Anthony Logan
Inspector of Mines (Mechanical)
Central Region

Fritz Djukic
Inspector of Mines
(Occupational Health)
Central Region



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RTI DL RELEASE - DNRM



Mine Name	File No.	Operator	Activity Type	Region	Activity Date
Ensham Underground Mine	042939	Ensham Resources Pty Ltd	Inspection	Central	23/04/2014

Vision: Our Industries Free of Safety and Health Incidents

Mine Record Entry

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Today I attended the Ensham Mine for the purpose of undertaking an Inspection of the underground workings. I was met by ^{s.73 - Not relevant}

^{s.73 - Not relevant} Prior to going underground I was given an update on activities since my last inspection. work was presently being undertaken in Panels 201, 101 and stone driveage was being undertaken in South East Main driveage. I requested that we visit each of those areas. ^{s.73} showed me the mine plan and explained that the mine had made a decision to reduce the number of headings in the panels from nine to seven with the addition of "bellouts on each side of the panel on retreat. I asked if there had been any further consideration with regards to sealing the panels once bottoms and bellouts had been extracted on retreat. I am advised that work is being undertaken to decide this matter but as yet no decisions have been made.

I had a discussion with the control room operator and questioned him on Enshams Spontaneous Combustion Tarp. The CRO was a trainee in the roll but demonstrated a good knowledge of the Tarp and its requirements. I asked if there was a Gas Chromatograph on site and was advised No. ^{s.73} advised that bag samples are transported to Kestrel for analysis. I questioned this given that the Spontaneous Combustion Tarp includes ethylene as one of the triggers for level 3 Tarp actions that consideration of the time that it takes to get results from Kestrel needs to be considered. ^{s.73} advised that the purchase of the gas Chromatograph would be part of the work looking at sealing the panels,

We travelled underground to Panel 201. We met ^{s.73} in the panel and he escorted us through the panel. The roadways were in satisfactory condition and Stone dusting appeared to be compliant. Bottom coal was being extracted. We travelled into an area where bottom coal had been extracted and inspected one of the bellouts. The ribs were standing well and there appeared to be no evidence of weight being taken by the supports.

The mine had been having some issues with cable damage and damage to the out rigger and cable sheave due to the width and visibility. Short reflective flags had been installed highlighting the outrigger which I am advised has reduced damage dramatically.

I discussed Emergency response with ^{s.73} I asked him how often do they undertake walkouts of the secondary escapeway. He advised that these are undertaken as part of Level 3 exercises. I recommended that signage in the primary escapeway could be improved by installing secondary escapeway signs and arrows denoting the access cut-through. We also

discussed the importance of ensuring that the access through the cut-throughs to the man doors in the separation stoppings is not blocked off by equipment, supplies or stowage.

We travelled to Panel South East Mains stone driveage. This is being undertaken by contractor Lunar Mining. On arrival I had a discussion with a group of Lunar mining employees. We discussed the hazards in the work area. All had completed their pre work hazard IDs and all demonstrated a good knowledge of the risks in their work. I then met with

s.73 We discussed how Ensham audit and monitor the contractor. s.73 advised that its his responsibility to ensure compliance with the SHMS and that he gets daily visits from the under-manager. As an example of control s.73 told me that in following the Strata management plan he can determine when extra bolts or support is required butt he needs Mine Managers approval to reduce the pattern and we discussed. We walked to the face. The road was steep and the stone floor was slippery in places. Some rib spall was evident at the interface of the fault line. I was advised that this is to be meshed and that it will be meshed on advance in parallel roadways.

Prior to leaving the panel I observed a pump hung on a chain block. The pump had a fixed chain attached incase of failure of the lifting device. I pointed out that the lifting chain had been hooked back onto itself and that this is bad practice as it damages the safety catch and can potentially come disconnected.

We then travelled to 101 Panel. The roadway (travel road and primary escapeway) was in poor condition. I discussed this with s.73 and it was agreed that the needed to improve the condition of the roadway. During our visit no mining was being undertaken and the miner was being walked to commence another cycle of headings. I question the lack of stone dust in the recent driveage and was advised that this is planned at the end of each shift. The balance of the panel appeared compliant for stone dust.

We exited the mine and travelled back to the main offices where a close out meeting was had. were we discussed the issues mentioned above.

Kevin Poynter
Inspector of Mines
Central Region



Mine Name	File No.	Operator	Activity Type	Region	Activity Date
Ensham Underground Mine	042939	Ensham Resources Pty Ltd	Inspection	Central	04/12/2014

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Site Safety & Health Reps Consulted: s.73 - Not relevant

Today Inspector of Mines Anthony Logan attended Ensham Underground Mine. The primary purpose of the visit was carry out an underground inspection.

Opening meeting

Upon arrival at site I was met by s.73 Opening meetings were held with s.73

Prior to going underground refresher training on the Ensham SCSR/CABA units was completed.

Underground inspection

In the company of s.73, and s.73 an underground inspection was completed. It was noted that housekeeping within the box cut area adjacent to the underground mine portals appeared to have improved since my last inspection. In general, underground travel roadways into 202 panel were in excellent condition with the exception of the area close to the 202 panel face area. Roof and ribs observed were sound, and the roadway clearly signposted.

It was brought to the attention of s.73 that a seat belt was inoperable in the personnel transport used for the underground visit. The vehicle was tagged out of service and repairs initiated. During the underground visit s.73 also prompted a coal mine worker to wear the seat belt in the personnel transport.

- It is recommended that standards for pre-use inspections (including seatbelts) and compliance with mine standards (wearing seatbelts etc) be communicated to coal mine workers and supervisors.

SE3 conveyor drivehead area

An inspection of the SE3 conveyor drivehead area was completed. At the time of inspection the area was clean, tidy, adequately lit and guarded. The poor design of the conveyor discharge transfer point results in spillage from bouncing coal. This requires regular clean-up to minimise the risks associated with coal accumulations adjacent to moving conveyor belts.

The operation is well aware of the issue and associated risks which have to be managed.

202 panel drivehead installation

An inspection of the 202 drivehead area was completed. The 202 drivehead design is of an improved engineering standard compared to SE2. The area was well guarded and there were less signs of spillage at the transfer point.

- The installation of barriers using mesh at areas where moving belts were elevated or transitioning to ground mounted structure were noted. Whilst these mesh barriers may not comply with specific requirements for guarding detailed in relevant Australian Standards they do act as a barrier to potential hazards associated with moving conveyors.
- Lifting gear (pulllifts) observed were in code and hung up and stored appropriately. An ample supply of new synthetic slings was available at the storage location. Using independent inspectors to undertake in-situ underground inspections of lifting gear is seen as a positive step in maintaining equipment lifting standards underground.

202 panel

An inspection of 202 panel was completed. At the time of inspection the panel was producing. s.73 provided an overview of activities being undertaken in the panel including details of mining hazards. Ground conditions were wet and sloppy, although the floor appeared to be firm underneath.

Mobile bolter activities were inspected and activities were discussed with the coal mine workers including s.73 No concerns were raised.

Conveyor recommendations

Aspects of the design and management of conveyors were discussed with s.73 It is recommended that:

- Operational risk assessments for all conveyors be reviewed to make sure an assessment of hazards and risks associated with the run-of-conveyor have been considered. It is suggested that the full length of conveyors be walked and the requirements for additional guarding/barriers in high risk areas be considered.
- Site training plans be reviewed and updated to include training for coal mine workers and visitors on the hazard and site controls associated with conveyor installations.
- As part of the conveyor design process the designer be requested to provide to the mine details of the hold down bolting requirements for all components to enable appropriate footing designs to be implemented. This may become critical as belt speeds, lengths and installed powers are increased.
- Fire resistant and antistatic (FRAS) requirements for underground conveyor belts and conveyor accessories.
 - s.73 provided examples of FRAS certification for "new" supply conveyor belting and pulley lagging.
 - Currently no processes are in place for making sure that belting is operated and maintained in a FRAS condition.
 - Requirements for making sure conveyor belting is operated and maintained in a FRAS condition be reviewed. For guidance; refer to Australian Standard AS4606 Grade S fire resistant and antistatic requirements for conveyor belting and conveyor accessories. In particular, Section 8, periodic confirmation for continued use of belt.

Coaltram LH02

Coaltram LH02 has recently been returned to service after being re-powered with an alternate

supply engine package. s.73 showed copies of the change management, design risk review (which included diesel engine system (AS3584), braking and stability assessments) updated maintenance manuals, operator training packages and machine safety file.

Based on the limited review it appears that a comprehensive change management approach has been undertaken.

Close-out

Prior to leaving site, brief close-out meetings were held with s.73
s.73 Observations and recommendations from the inspection were presented and discussed.

Anthony Logan
Inspector of Mines
Central Region

RTI DL RELEASE - DNRM