

## EXAMINERS REPORT | CERTIFICATE OF COMPETENCE

# Mining Engineering Manager of coal mines other than underground mines

December 2016

## Summary of overall written results

Date:	2 June 2016
Number who passed:	OCM1 - 4 out of 8 OCM2 - 7 out of 11
Highest overall mark obtained:	76.5%
Average overall mark:	61.5%
Lowest overall mark:	9.25%

## OCM1 - Mining Legislation

Highest OCM1 mark obtained:	72%
Average OCM1 mark:	52.5%
Lowest OCM1 mark:	37%

## Question 1 (total 20 marks)

Highest mark obtained	20/20
Average overall mark:	13/20
Lowest overall mark:	7/20

### Examiners Comments

This question examined basic requirements relating to managing risk and obligations of duty holders with specific reference to WHS Act Cl 18, WHS Reg Cl 32, 35 and 36.

## Question 2 (total 40 marks)

Highest mark obtained	32/40
Average overall mark:	22/40
Lowest overall mark:	10/40

### Examiners Comments

This question was designed to assess a candidate's ability to practically apply legislation to develop and implement a PHMP. Basic marks were obtained by referencing requirements under WH&S (MP) R 2014 Cl 23 (1), 24, 25 and Schedule 1, Part 2 Cl 4. However a practical application of the legislation in regards to development and implementation of the plan involved reference to consultation, risk identification and consideration of control measures, review of control measures, provision of information, training and instruction as well as record keeping requirements prescribed by WHS Act and WH&S(MP)R 2014.

## Question 3 (total 20 marks)

Highest mark obtained	13/20
Average overall mark:	8/20
Lowest overall mark:	5/20

### Examiners Comments

This question examines a candidate's knowledge of legislation of health and safety representatives under WHS Act Part 5 Consultation, representation and participation. Question 3 required reference to Cl 85, 87 for a) and b) with b) requiring candidates to apply legislation to a likely scenario which some candidates either did not provide an answer or were lacking knowledge. c) Referred to Cl70 (1) (g). Some candidates provided good, clear assumptions for consideration in their answers.

## Question 4 (total 20 marks)

Highest mark obtained	13/20
Average overall mark:	10/20
Lowest overall mark:	7/20

### Examiners Comments

Question 4 deals with requirements of the Explosives Act and Regulations. The requirements in relation to Regulatory Authority required a simple navigation through the index where the Act references the Regulations. Part b) involves a practical scenario where the requirements of the Explosives Regulations regarding shotfirers is examined particularly under Cl 9, 10, 33, 34, 35 and 38.

## OCM2 - Open Cut Mining Practice

Highest OCM2 mark obtained:	77.5%
Average OCM2 mark:	57.5%
Lowest OCM2 mark:	53%

### OCM2 Overall Examiners Comments

Overall, candidates performed above average in the practical exam. Candidates who provided balanced responses with regards to legislative understanding and practical mining processes. The questions with the strongest responses were related to general daily mining operations. Where candidates were weakest in their responses was generally with more complex circumstances that would require consideration of numerous issues simultaneously.

### Question 1 (total 60 marks)

Highest mark obtained	40/60
Average overall mark:	34/60
Lowest overall mark:	28/60

#### Examiners Comments

This question tested a candidate's ability to identify and manage risks involving a significant change to the coal handling and preparation plant (CHPP) area. Key areas hazards included vehicle interaction, particularly with heavy and light vehicles, road truck operations, construction activities, supervision and contractors. Strong candidates were able to identify the requirement of a Principal Contractor as per Chapter 6 of the WHS Act. Consideration of the community impacts of road haulage of coal was only included in a few responses.

### Question 2 (total 60 marks)

Highest mark obtained	37/60
Average overall mark:	30.5/60
Lowest overall mark:	21/60

#### Examiners Comments

This question tested a candidate's ability to manage the introduction of a blasting contractor within an existing mining operation. Key issues included contractor management, training and competency, consultation and practical mining processes involved when using third party explosives equipment. Areas that were not covered well include licensing, permits, audits and consultation.

### Question 3 (total 60 marks)

Highest mark obtained	56/60
Average overall mark:	41.5/60
Lowest overall mark:	23/60

### Examiners Comments

This question tested a candidate's ability to design a simple shot as well as fundamental blasting knowledge. It was expected that candidates would perform well in this area. Whilst most candidates provided adequate responses, the key areas where candidates were let down include simple calculation errors and bulk product assumptions.

## Question 4 (total 60 marks)

Highest mark obtained	51/60
Average overall mark:	46/60
Lowest overall mark:	35/60

### Examiners Comments

This question tested a candidate's fundamental understanding of tyre issues and their approach to investigating and preventing tyre related incidents after a trend of tyre incidents. The response to this question was above average with candidates demonstrating a strong knowledge of tyre related issues. Where candidates could improve is by understanding more of the tyre handling processes and the potential impact it could have on operations.

## Question 5 (total 60 marks)

Highest mark obtained	43/60
Average overall mark:	34/60
Lowest overall mark:	29/60

### Examiners Comments

This question firstly focuses on hazard identification and control of environmental and community impacts of an open cut mining operation. Candidates that scored well provided responses that were succinct and covered the range of controls including systems and processes (including management plans, pollution incident response management plans etc.), people requirements (including supervision), equipment (including fit for purpose (FFP) fleet, monitoring systems and technology). The second parts of the question centres around application of the Management Model: Plan, Do, Check, Act, however a number of candidates took a scatter gun approach.

## Question 6 (total 60 marks) - Compulsory

Highest mark obtained	49/60
Average overall mark:	43.5/60
Lowest overall mark:	30/60

### Examiners Comments

This question tested a candidate's ability to identify and respond to a potentially significant environmental incident. Candidates scored above average for this question, demonstrating practical long term responses with consideration for regulatory notification processes. Candidates who scored well also covered mitigating measures to prevent reoccurrence.

## Question 7 (total 60 marks) - Compulsory

Highest mark obtained	52/60
Average overall mark:	31/60
Lowest overall mark:	15/60

### Examiners Comments

This question tested a candidate's ability to identify the hazards in expanding an existing mining operations into a new area. Key issues for consideration include inspection, remediation of work areas, CHPP inspection, mechanical engineering, departmental approvals, notification to regulator and workforce recruitment. Overall, this question had a marginal response. Areas where candidates were weak include: not performing an adequate inspection prior to recommending work, CHPP mechanical inspections, consultation with existing workforce. Some candidates provided responses that were too high level and did not link risk management strategies with specific actions.

## Question 8 (total 60 marks)

Highest mark obtained	50/60
Average overall mark:	50/60
Lowest overall mark:	50/60

### Examiners Comments

This question tested a candidate's knowledge of fundamental coal beneficiation processes, as well as hazards associated with reclaim tunnels, stockpiles and CHPP operations. Only one candidate answered this question and scored well.

## Summary of oral results

Date:	24 August 2016
Number of candidates:	8
Candidates deemed competent:	2

## More information

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## Acknowledgments

Mining Engineering Manager Coal mines other than underground mines Examination Panel

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