

# MEMORANDUM

**To:** C. Malinga – DMR

**Date:** 15 November 2011

**From:** E Venter – Examiner (Geology)

**Re: Summary of observations – MMCC Geology examination – October 2011**

The following is a summary of observations made during the marking of the October 2011 Geology papers.

The exam paper was divided in 3 sections; Questions 1 to 3 were on General Geology and sum of the marks for this section was 38. Questions 4 to 7 covered Economic Geology and the total marks for this section was 48. Question 8 covered practical aspects and 14 marks were allocated to this question.

## **General Geology – Questions 1 to 3:**

General Geology was the best answered section. The total average mark achieved for this section was 15.2 out of a possible 38 marks equating to an average of **39.9%** for this section. **Question 1** was the best answered at an average achieved mark of **52%** followed by **question 2** at **35.7%** and then **question 3** at **35%**.

Question 1 was divided into 2 questions that covered rocktypes (6/10) and oil and gas (4/10). Rocktypes was well answered as it featured in most past papers. Common mistakes were getting the examples incorrect, either swapping them between rocktype groups and could indicate lapse of concentration or guessing. Oil and gas was mostly incorrectly answered. It was a new question and was included under general due to the current topical nature of oil and gas exploration and the whole debate on fracking etc.

Question 2 was for a total of 20 marks and had to differentiate between 5 groups of physical geological features. Three of the groupings was old had that appeared in almost all previous papers and 2 of the groupings was new concepts. The candidates struggled with the new groups, totaling 8 marks - and very few got it correct. The rest was answered moderately well and it was clear from the answer sheets who had worked through previous question papers. The introduction of new questions and the poor marks achieved for those indicate that the candidates that do prepare use mostly old papers to prepare.

Question 3 was divided into 3 parts and the candidates had to name features on a sketch. Once again the general features that appeared in past papers were well answered but the candidates struggled with the new additions.

A more academic question was introduced for 2 marks and it was also a new term, and it was answered very poorly as most candidates guessed the answer.

### **Economic Geology – Questions 4 to 7:**

General Geology was the best answered section. The total average mark achieved for this section was 12.8 out of a possible 48 marks equating to an average of **26.8%** for this section. **Question 4** was the best answered at an average achieved mark of **49.1%** followed by **question 5** at **34.8%**, **question 6** at **21.9%** and then **question 7** at **12.4%**, also the most poorly answered question.

Question 4 was on gold deposits and for a very broad question the candidates was required to discuss and name only a few aspects for full marks. It was expected that the candidates would do well in this question and it was also the 2<sup>nd</sup> best answered question of the exam. A number of candidates that got it incorrect seem not to have read the question properly or otherwise did not study. Variations of this question also appeared in previous papers.

Question 5 was on coal and it was clear who studied as definitions were required and the individual candidates did either very well or poorly.

Question 6 was on Bushveld platinum and as with question 4 a broad topic with very little detail required for full marks. For this question the candidates had to study and a lot of guessing was made.

Question 7 covered a range of base metal commodities and was generally poorly answered as none passed this question. It was clear that the majority of candidates wrote on experience and what they have observed and picked up from where they work.

### **Practical– Question 8**

Question 8 was a practical question and poorly answered as the average achieved mark was **12.8%**. The different way in which the question was asked could have confused the candidates but generally the application of knowledge and problem-solving ability was lacking in almost all the candidates.

A handwritten signature in black ink, appearing to read 'JE Venter', written over a horizontal line.

JE Venter