

**ISSUES PAPER**

**SEPTEMBER 2009**

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# **REPORTING STANDARD AND FORMAT OF MINERAL RESOURCES AND MINERAL RESERVES**

**SAMCODE WORKING DRAFT**

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**An Issues Paper for comment by the  
SAMREC/SAMVAL Committee Working Group**



## Preface

There has been important debate concerning the problems relating to consistent and unambiguous presentation of Mineral Resource and Mineral Reserve Statements in the minerals industry. The particular issue incorporated in this discussion paper relates to the wording, common to all CRIRSCO Codes, which allows companies to report resources inclusive or exclusive of reserves. SAMREC states:-

“In situations where figures for both Mineral Resources and Mineral Reserves are reported, a clarifying statement must be included in the report which clearly indicates whether the Mineral Resources are inclusive of, or additional to, those Mineral Resources which have been modified to produce Mineral Reserves.”

Whilst the CRIRSCO codes facilitate ambivalent reporting, to the extent that the wording for the reporting of Mineral Resources is almost identical, the relationship between the Valuation Codes and the IASB and accounting for mineral assets is forcing a serious rethink on this matter.

The fact that the CRIRSCO codes for the reporting of Mineral Resources and Valuation Codes are specifically linked means that definitions in one must be consistent with those of the other. There are a number of examples of contradictory definitions and interpretations. In this case, the issue is “Exclusive” or “Inclusive” reporting of Mineral Resources.

The Canadian authorities, in the Canadian Institute of Mining and Metallurgy and Petroleum’s (CIM’s) ‘Estimation of Mineral Resources and Mineral Reserves - Best Practice Guidelines’, show a clear preference for the reporting of Resources exclusive of Reserves. While the authorities say:-

“In cases where estimates for both Mineral Resources and Mineral Reserves are reported, a clarifying statement must be included that clearly indicates whether Mineral Resources are inclusive or exclusive of Mineral Reserves.”

They also say:

“The Estimation Best Practice Committee recommends that Mineral Resources should be reported separately and exclusive of Mineral Reserves.”

Later in the document, they add:-

“In the interests of standardization, the Committee recommends that Mineral Resources should be reported exclusive of Mineral Reserves in Annual Reports.”

The US Securities Exchange Commission (SEC), meanwhile, expressly disallows the reporting of any mineralisation other than “proved (measured) or probable (indicated) reserves” unless there is a requirement by a foreign state or law or unless these are required for the purposes of an acquisition, merger or consolidation.

To this extent, its guidelines do not endorse either the inclusive or exclusive reporting of Resources, since the term Resource is not allowed by the SEC. It is believed that this may reflect an SEC view that “Mineral Resources are poorly defined and therefore their publication can be misleading to the investor”, as one commentator puts it.

It must be noted that the Valuation Codes for minerals expressly require two methods to be used for the valuation of a Mineral Resource and inevitably the “Comparative Approach” will be one of them. Furthermore, and inevitably, comparison of value-per-unit of resource is a fundamental requirement. The accounting fraternity and the majority of Valuation Experts demand inclusive reporting of mineral Resources and the eradication of ambivalence on this matter – once and for all.

Reporting on an inclusionary or exclusionary basis remains a divisive issue among regulators, mining companies and advisors to the mining industry. For this reason, the SAMREC/SAMVAL Working Group Committee has established an Inclusive/Exclusive Working Group, headed by Andy Clay, of Venmyn, to discuss this issue. It was intended that the parking-lot issues, including this issue, form part of the agenda for the World Gold Conference Workshop, which was to be held at the end of October.

Since the link between the Valuation Codes of CRIRSCO and Mineral Resource and Reserve Reporting Codes requires that ambiguous reporting should be eliminated, a specific Working Group is deliberating on whether resources should be reported inclusive or exclusive of reserves.

**The SAMREC/SAMVAL Exclusive/Inclusive Working Group in South Africa:**

Andy Clay (ANC)  
Keith Rayner (KAR)  
Christina Dohm (CD)  
Michael Harley (MH)  
Johan Odendaal (JO)  
Rob Croll (RC)  
Fiona Harper (FJH)

**Invitation to Comment**

The SAMREC/SAMVAL Exclusive/Inclusive Working Group welcomes comments on the debates set out in this paper, especially comments that:-

- explain the commentators views and solutions to the issues clearly; and
- provide supporting reasoning.

The SAMREC/SAMVAL Inclusive/Exclusive Working Group requests that a SAMREC/SAMVAL Committee Meeting is convened to discuss this paper.

**Summary of SAMREC/SAMVAL Working Group Views**

1. A format for reporting Resource Modifying Factors is required and one was proposed by the SAMREC/SAMVAL Inclusive/Exclusive Working Group. The Inclusive/Exclusive Working Group proposed that, where resource modifying factors are used, a standardised format be adopted for disclosing which modifying factors have been used;
2. Two total resource reconciliation tables were suggested. It is recommended that one of these tables is adopted as an industry standard to improve transparency when reporting mineral resources and mineral reserves; and
3. Clause 39 of the SAMREC Code should be amended to reflect the issues raised in this paper.
4. The SAMREC/SAMVAL Inclusive/Exclusive Working Group recommended that the SAMREC/SAMVAL Committee Working Group place two items on its agenda for further discussion. These items are:-
  - a. - training of the JSE's Readers' Panel; and
  - b. - the compilation of a list of Competent Readers (similar to that of Competent Persons).

**Contents**

Deliberations.....5  
Debate 1 .....5  
Debate 2 .....5  
Debate 3 .....6  
Debate 4 .....7

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## Deliberations

At the meeting of the SAMREC/SAMVAL Inclusive/Exclusive Working Group on the 10<sup>th</sup> September 2009 the following issues were raised that have bearing on the matter:-

### Debate 1

The project team deliberated on whether or not companies should provide requirements or economic criteria which were used to confirm “reasonable prospects for eventual economic extraction” – which is a fundamental requirement of the Code at the time of reporting. It further debated the definition of an economically-viable mineral resource and what underlying assumptions (geological features, price, politics and technology, etc.) should be used for establishing an economically-viable mineral resource.

*SAMREC/SAMVAL Inclusive/Exclusive Working Group View: There was no unanimity at the meeting on this matter but a format for reporting “Resource Modifying Factors” was suggested.*

The following table was suggested for the reporting of resource-modifying factors:-

**Table 1: Resource Modifying Factors**

RESOURCE MODIFYING FACTORS	AMOUNT
Commodity Prices	
Spot Price	
Long-term Price	
Anticipated Cash Cost Production	
Resource Cut-off Grade	
Recovery Percentages from in situ recovery to saleable product	
For tabular orebodies - mining width	

### Debate 2

The project team discussed how to improve transparency when reporting mineral resources and mineral reserves.

*SAMREC/SAMVAL Inclusive/Exclusive Working Group View: A total resource reconciliation table was suggested. Two alternative tables were proposed.*

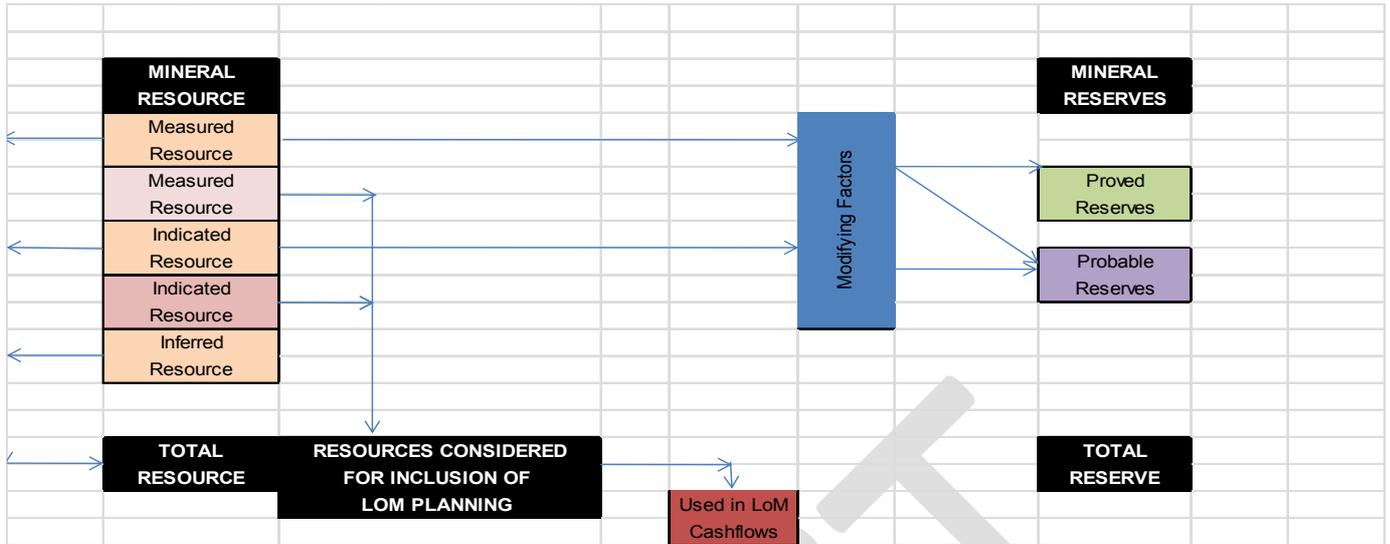
CD and MH suggested the use of a total resource reconciliation table to improve transparency when reporting mineral resources and mineral reserves. CD advised that the reconciliation table should be practical enough so that two-year comparisons could be made. RC suggested that influences and drivers be added in the reconciliation table as per the debates above.

This was further elaborated upon by JO. He suggested a table, to be adopted as an industry standard. It shows the step-by-step calculation of total resources, resources used for converting into reserves, modifying factors, and reserves. The sum of each column appears underneath each column.

MH suggested a similar table, which showed which components of a total resource are used to calculate reserves, and pre-reserve resources. His table suggests that calculations of total resources and pre-reserve resources are integrally linked.

The following reconciliation table was recommended:

**Table 2: MH's Total Resource Reconciliation Table**



**Debate 3**

A statistical review paper was introduced by Venmyn to indicate from preliminary research the extent to which companies presently report either on an exclusive or inclusive basis. These statistics indicate that, depending on the size and national jurisdiction, the majority report resources inclusive of reserves. The SAMREC/SAMVAL Inclusive/Exclusive Working Group discussed whether Clause 39 of the SAMREC Code should be amended given the results of Venmyn's statistical review and debate 2.

*SAMREC/SAMVAL Inclusive/Exclusive Working Group View: It was recommended that Clause 39 be amended.*

It is recommended that some paragraphs from the SAMREC Code should be deleted.

Clause 39, at present, reads:-

“In situations in which figures for both Mineral Resources and Mineral Reserves are reported, the Public Report must include a statement that clearly indicates whether the Mineral Resources are inclusive of, or additional to those Mineral Resources that have been modified to produce Mineral Reserves.

*In some situations, there are reasons for reporting Mineral Resources inclusive of Mineral Reserves. In other situations, there are reasons for reporting Mineral Resources additional to Mineral Reserves. It must be made clear which form of reporting has been adopted. Appropriate forms of clarifying statement may be:*

*The Measured and Indicated Mineral Resources are inclusive of those modified to produce Mineral Reserves or The Measured and Indicated Mineral Resources are additional to Mineral Reserves.*

*In the first example, if any Mineral Resources have not been modified to produce Mineral Reserves for economic or other reasons, the relevant details of these unmodified Mineral Resources should be included in the Public Report. This is to help the reader judge the likelihood of the unmodified Measured and Indicated Mineral Resource eventually being converted to Mineral Reserves.*

*For reasons stated in the first guideline of Clause 37 and in this paragraph, the reported Mineral Reserve figures cannot be added to the reported Mineral Resource figures. The resulting total is misleading and is capable of being misunderstood or, more seriously, misused to give a false impression of a company's prospects.*

*When reporting Mineral Reserves, a sensitivity analysis should be conducted. The disclosure of commodity price and other financial assumptions used for this analysis is recommended.”*

The project team recommended that Clause 39 be amended to read:

“Mineral Resource and Mineral Reserve quantities and qualities must be reported based upon the reconciliation structure identified in Figure 2. This will **require** that all companies report total Measured, Indicated and Inferred Resources. This will be followed by, for those companies reporting Mineral Reserves, the quantity and quality of those Mineral Resources that were used as a basis for the application of Modifying Factors for conversion to Mineral Reserves. The resultant Mineral Reserves should then be reported in their appropriate categories.

*For reasons stated in the first guideline of Clause 37 and in this paragraph, the reported Mineral Reserve figures cannot be added to the reported Mineral Resource figures. The resulting total is misleading and is capable of being misunderstood or, more seriously, misused to give a false impression of a company's prospects.*

*When reporting Mineral Reserves, a sensitivity analysis should be conducted. The disclosure of commodity price and other financial assumptions used for this analysis is recommended.”*

This amendment would require that the existing Figure 2 in Coal Resources be changed to Figure 3, after the favoured total reconciliation table is introduced, as Figure 2, into Clause 39.

#### Debate 4

The project team discussed whether there were any outstanding issues that needed to be put forward to the SAMREC/SAMVAL Committee Working Group (SSC WG).

*SAMREC/SAMVAL Inclusive/Exclusive Working Group View: The team recommended that the SSC WG discusses:-*

- *training of the JSE's Readers' Panel; and*
- *the compilation of a list of Competent Readers (similar to that of Competent Persons).*