


**THE JORC CODE AND THE  
COAL GUIDELINES**

Hunter Region Branch AusIMM  
26 June 2015


Peter Stoker HonFAusIMM (CP)  
Deputy Chairman JORC  
JORC Representative CRIRSCO.

1

**The JORC Code** 

**JORC**  
Joint Ore Reserves Committee

- JORC is a voluntary committee with the responsibility for preparing and updating the Australasian Code for Public Reporting of Exploration Results Mineral Resources and Ore Reserves, The JORC Code.
- The JORC Code – Australasian Code for Reporting of Exploration Results, Mineral Resources, and Ore Reserves.
- First edition published in 1989, with updates in 1992, 1996, 1999, 2004, and 2012.
- Applicable to all solid minerals including coal, diamonds, other gemstones, and industrial minerals.
- Incorporated into the listing rules of both the Australian Securities Exchange and New Zealand Stock Exchange.



Copyright, The JORC Committee 2013

## The JORC Code—What it Does

- Sets minimum standards for public reporting (in Australia and New Zealand) of Exploration Results, Mineral Resources, and Ore Reserves.
- Provides a mandatory system for classification of tonnage /grade estimates according to geological confidence and technical /economic considerations.
- Requires Public Reports to be based on work undertaken by a Competent Person; describes the qualifications and type of experience required to be a Competent Person.
- Provides extensive guidelines on the criteria to be considered when preparing reports on Exploration Results, Mineral Resources, and Ore Reserves.



Copyright, The JORC Committee 2013

## The JORC Code **what it does not do**

- Regulate the procedures used by Competent Persons to estimate and classify Mineral Resources and Ore Reserves:
  - It is a Code for reporting.
- Regulate companies' internal classification or reporting systems.
- JORC (the committee) does not deal with breaches of the Code:
  - Breaches by companies are dealt with by ASX.
  - Breaches by individuals are dealt with under the code of ethics of AIG, AusIMM, or the Recognised Professional Organisation (RPO).




Copyright, The JORC Committee 2013

## The 2012 JORC Code

### *READ THE CODE!!!!*

JORC, 2012. Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code) [online]. Available from: <<http://www.jorc.org>> (The Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia). Effective 20 December 2012 and mandatory from 1 December 2013.


Australasian Code for Reporting of  
Exploration Results, Minerals Resources  
and Ore Reserves



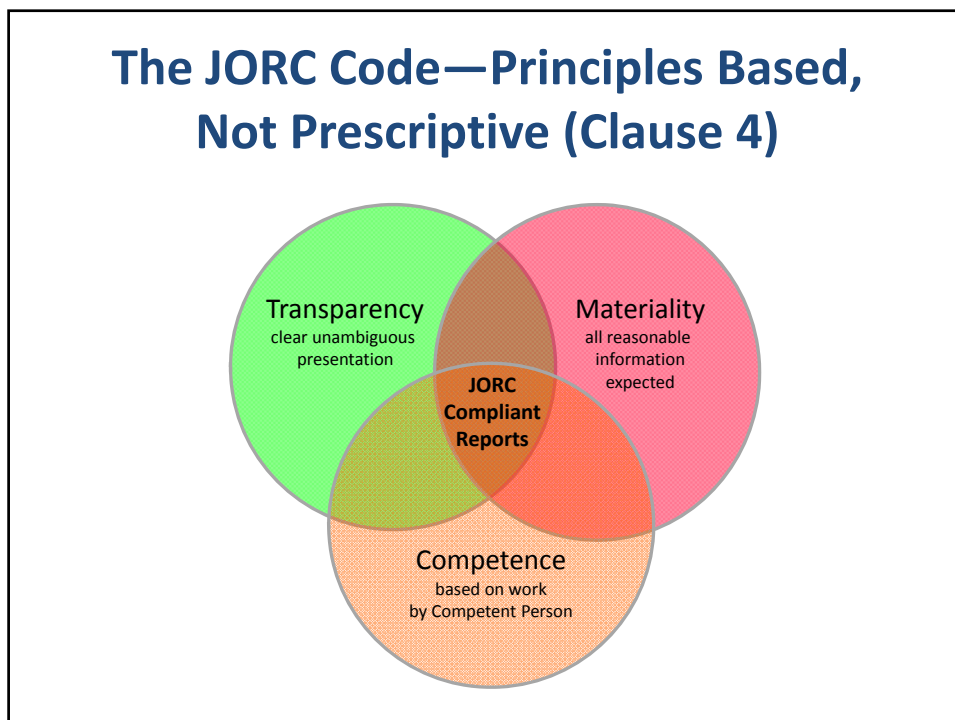
**The JORC Code**  
2012 Edition

Effective 20 December 2012 and  
mandatory from 1 December 2013

Prepared by the Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC)



Copyright, The JORC Committee 2013



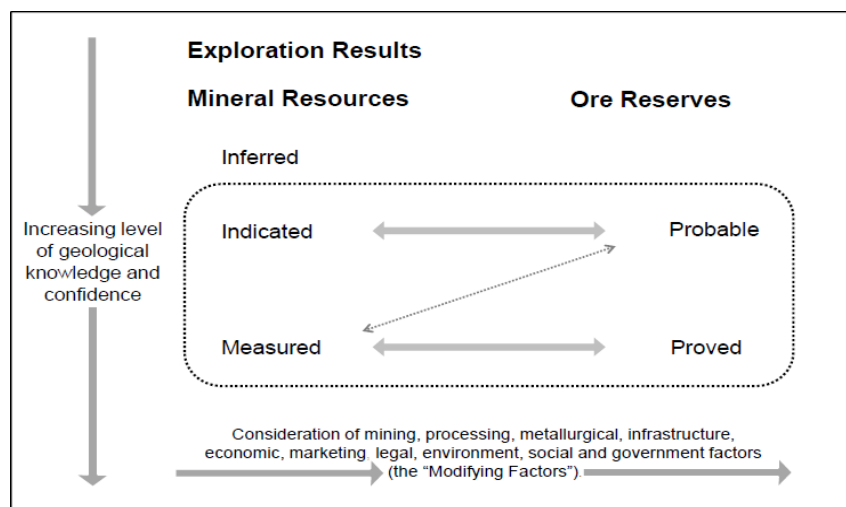
## JORC Code: Competence

- Public Reports detailing Exploration Results, Mineral Resources, and Ore Reserves must be prepared by or under the direction of, and signed by, a Competent Person(s).
- A Competent Person:
  - Is a minerals industry professional who is a member or fellow of the AusIMM or AIG, or of a “Recognised Professional Organisation”.
  - Has a minimum of five years relevant experience to that mineralisation style or deposit type and the activity they are undertaking.
- Resource and Reserve estimates can be, and often are, signed-off by more than one Competent Person e.g.: resources by a geologist and reserves by a geologist and an engineer.



Copyright, The JORC Committee 2013

## 2012 JORC Code: Relationship between Exploration Results, Mineral Resources, and Ore Reserves



## Mineral Resource Classification— Confidence Statements

Classification	That part of a Mineral Resource for which:
Inferred	Tonnage, grade and mineral content can be estimated with lower confidence than an Indicated Resource. Geological evidence is sufficient to <b>imply but not verify geological and grade continuity</b> ”.
Indicated	Tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with sufficient confidence to allow the application of Modifying Factors for evaluation of economic viability. The sampling locations are too widely or inappropriately spaced to confirm geological and/or grade continuity but are spaced closely enough <b>for continuity to be assumed.</b> ”
Measured	Tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a sufficient confidence to support detailed mine planning. The sampling locations are spaced closely enough to <b>confirm geological and grade continuity</b> ”.

Continuity is important

Continuity is between not around

## 2012 JORC Code—Important Terms

**Significant project:**

- “An exploration or mineral development project that has or could have a significant influence on the market value or operations of the listed company, and/or has specific prominence in Public Reports and announcements.” (Appendix 1).

**Similar to the definition of a ‘material mining project’ in ASX Listing Rules**

**Material change:**

- “A material change could be a change in the estimated tonnage or grade or in the classification of the Mineral Resources or Ore Reserves. Whether there has been a material change in relation to a significant project must be considered by taking into account all of the relevant circumstances, including the style of mineralisation. This includes considering whether the change in estimates is likely to have a material effect on the price or value of the company’s securities.” (Guideline to Clause 5).

**‘if not, why not’:**

- “means that each item listed in the relevant section of Table 1 must be discussed and if it is not discussed then the Competent Person must explain why it has been omitted from the documentation.” (Guideline to Clause 5).



Copyright, The JORC Committee 2013

## Important Changes in 2012 JORC Code Public Reports

To comply with both the 2012 JORC Code and the ASX listing rules **for significant projects** (material mining projects in ASX listing rules) **when reporting initial results or estimates, or reporting results or estimates which have materially changed from when they were last reported**, enhanced reporting requirements apply.



Copyright. The JORC Committee 2013

## Reporting for significant projects

For these significant projects (material mining projects in ASX listing rules) projects when reporting initial results or estimates or reporting results or estimates which have materially changed from when they were last reported, the following information needs to be prepared:

- Competent Person's internal documentation (always required).
- Public report addressing all material matters and all those points identified as requiring prominent reporting in ASX Listing Rules 5.7, 5.8, and 5.9, in the body of the public report.
- As an appendix to the public report, a completed Table 1 for the relevant sections of the table as identified in the JORC Code and the ASX Listing Rules, on an "if not, why not" basis.



Copyright. The JORC Committee 2013

## 'if not, why not'

- “means that each item listed in the relevant section of Table 1 must be discussed and if it is not discussed then the Competent Person must explain why it has been omitted from the documentation.” (Guideline to Clause 5).
- Reporting on an 'if not, why not' basis is to ensure that it is clear to an investor whether items have been considered and deemed of low consequence or are not yet addressed or resolved.
- These additional reporting requirements appear in:
  - Clause 19 for Exploration Results
  - Clause 27 for Mineral Resources
  - Clause 35 for Ore Reserves



Copyright, The JORC Committee 2013

13

## Other key changes in the 2012 Code

- Competent Person attributions — Clause 9.
- Exploration Target — now defined in the revised Clause 17.
- At least a study at Pre-Feasibility level required for an Ore Reserve declaration — Clause 29.
- Technical studies definitions — Clauses 37, 38, 39, and 40.
- Metal equivalents — Clause 50.
- *In situ* or 'in ground' values — Clause 51.
- Additional guidance on reporting requirements for Competent Persons — Table 1 body of table.
- Note there are other wording changes and these can be ascertained from the clause by clause comparison available on the JORC website.

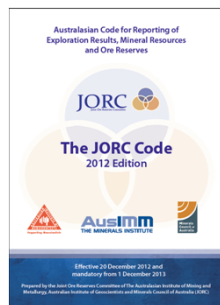


Copyright, The JORC Committee 2013

14

## Securities Exchange Listing Rules

- Public reports made via the ASX or other stock exchange need to consider the rules of the exchange as well as the JORC Code



- + Listing Rules (For example, in Australia refer to ASX Listing Rules & Guidance note 31)
- + Corporations Law – reasonable grounds
- = Public Reporting that meets all requirements



Copyright, The JORC Committee 2013

## The current ASX Listing Rules contain:

- Requirements parallel with the 2012 JORC Code, for the reporting of initial or materially changed Exploration Results, Mineral Resources, or Ore Reserves, but there are several subtle differences.
- Requirements additional to the 2012 JORC Code including:
  - Reporting of historical estimates and foreign estimates of mineralisation for material mining projects.
  - Reporting of production targets.
  - The requirements for Annual Reporting of Mineral Resources and Ores Reserves.
  - Some Competent Person Requirements.



Copyright, The JORC Committee 2013

16



**Many of you will remember  
this next slide from a talk at  
Maitland in 2009 –  
The JORC Code and Coal**



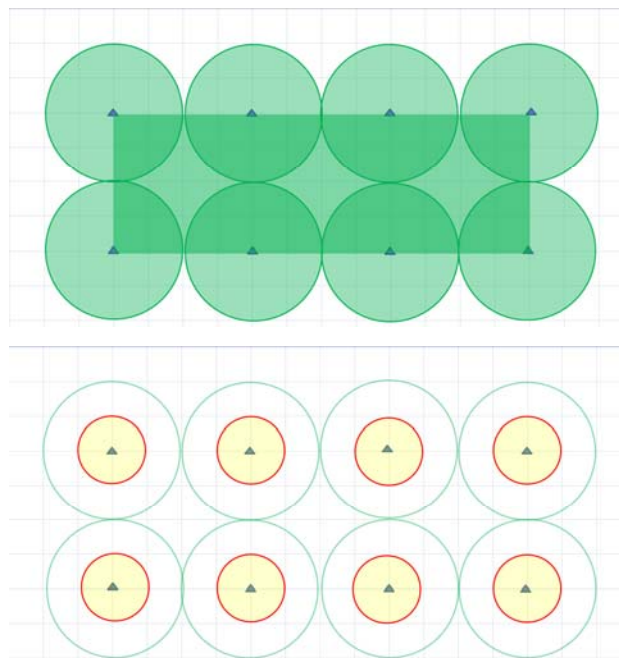
Copyright, The JORC Committee 2013

17

**1999 Guidelines**  
2km spacing  
indicated (1km  
extrapolation)

**2003 Guidelines**  
1km spacing  
indicated (500m  
extrapolation)

**Where did the  
Reserves go? No  
longer have continuous  
Indicated Resources  
to be modified to  
Probable Reserves.**



## 2014 Edition of the Australian Guidelines for the Estimation and Classification of Coal Resources

**Now it's up to the  
Competent Person!**

AUSTRALIAN GUIDELINES  
FOR THE  
ESTIMATION AND CLASSIFICATION OF  
COAL RESOURCES

2014 EDITION

Prepared by the Guidelines Review Committee  
on behalf of  
the Coalfields Geology Council of New South Wales  
and  
the Queensland Resources Council



Copyright, The JORC Committee 2013

19

## Frequently Asked Questions

### A joint ASX, ASIC, JORC initiative:

'ASX mining reporting - frequently asked questions'  
are downloadable from ASX and JORC websites:

<http://www.asx.com.au/regulation/compliance/asx-mining-reporting-faqs.htm>

or as a pdf:

<http://www.asx.com.au/documents/asx-compliance/mining-faq.pdf>



Copyright, The JORC Committee 2013

# Monograph 30 - Mineral Resource and Ore Reserve Estimation

## – The AusIMM Guide to Good Practice - Second Edition

<http://www.ausimm.com.au/publications/publication.aspx?ID=15848>

**MINERAL RESOURCE AND ORE RESERVE ESTIMATION**  
**THE AUSIMM GUIDE TO GOOD PRACTICE**  
Second edition, Monograph 30

**AusIMM**  
THE MINERALS INSTITUTE

**Liability of Competent Person for JORC Reports**  
K Livesley<sup>1</sup>

**ABSTRACT**  
When preparing JORC reports on Exploration Results, Mineral Resources or Ore Reserves for disclosing entities, Competent Persons should bear in mind the potential liabilities involved. These include administrative sanctions from professional organisations, and statutory liabilities, both civil and criminal. This paper examines these liabilities in detail, and outlines measures that Competent Persons can undertake to minimise them. The position of Competent Persons who are also directors is also discussed.

**INTRODUCTION**  
Disclosing entities that are subject to the Australian Securities Exchange (ASX) Listing Rules must, when preparing information on Exploration Results, Mineral Resources or Ore Reserves for disclosure to investors, potential investors and their advisors, comply with the Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code).

This often allows an entity to limit issuing companies' reporting requirements under ASX Listing Rule 4.1. It is also relevant when preparing a report for a disclosure document such as a prospectus for an initial public offering, rights issue, etc. In order to target statements or update of management.

The JORC Code requires that the documentation on which such a report is based must be prepared by, or under the direction of, and signed by, a Competent Person in Person (JORC Code Clause 6).

This article provides a brief overview of the potential liabilities faced by Competent Persons as a result of their professional role in preparing their report. This article does not intend to cover the additional duties that Competent Persons who are also directors of the disclosing entity, and does not seek to address liabilities that may arise in the circumstances involving disclosure to investors of a Competent Person.

It should be noted that all references to reports in this paper, and in the JORC Code, are those reports that are released by the company to the public. Other reports prepared by the Competent Person and that are not released to the public by the company, usually a public report. It is more often that a Competent Person will be providing evidence to a company for disclosure in a report by the company and not have his or her own report disclosed. This is to be compared to the Canadian System, which requires the Competent Person's report itself to be disclosed under CSA 43(1).

**APPLICATION OF THE JORC CODE**  
**Who is a Competent Person?**  
A Competent Person must be a member or fellow of a recognised professional organisation with appropriate experience. Clause 6 of the JORC Code provides that:  
A Competent Person must have a minimum of five years' experience which is relevant to the type of mineralisation and type of deposit under consideration and to the activity which they propose to undertake.  
This minimum number of required experience is in accordance with the intent of the basic principle of the JORC Code, namely Competence. The first two principles, Transparency and Integrity, and the background for the obligations of the Competent Person in respect of the investors and their professional advisors, and liability of the Competent Person in the performance of those obligations may give rise to liability.

**Changes to the JORC Code**  
There were a number of changes to the 2004 JORC Code. One of the changes that remains important to highlight is the recommendation to quantify risks. Under the 2004 JORC Code, Competent Persons are encouraged to quantify the risk and uncertainty relating to any Reserve or Resource estimate. This is primarily not a mandatory requirement, however, it is recommended for Competent Persons on the grounds that it is necessary to accurately compare projects with the industry. Despite not being mandatory, the inclusion of such a recommendation by a Competent Person may result in a Competent Person being held liable to which a Competent Person may be subject. It has been suggested, however, that by quantifying such risk and uncertainty it could make it easier for an approved party to take a decision.

1. Former Geopark Mining, Lakeview, (1) Adelaide Street, Sydney NSW 2000. Email: klivesley@ausimm.com.au  
2. Authorisation of report published in a journal in the AusIMM Bulletin, Volume 120, August 2014.

Copyright, The JORC Committee

# Acknowledgements

JORC is a voluntary committee, so thanks to my JORC colleagues for preparation of some of the material included in this presentation and to JORC and its parent bodies for their support:





And my CRIRSCO colleagues:



A strategic partner of




And to my employer for my time and travel



Copyright, The JORC Committee 2013