The Importance of the International Reporting Codes in the Mining Industry

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The mining industry is a vital contributor to national and global economies; never more so than at present with soaring demand for the commodities that it produces. It is a truly international business that depends on the trust and confidence of investors and other stakeholders for its financial and operational well-being. Unlike many other industries, it is based on depleting mineral assets, the knowledge of which is imperfect prior to the commencement of extraction. It is therefore essential that the industry communicates the risks associated with investment effectively and transparently in order to earn the level of trust necessary to underpin its activities.

(CRIRSCO Website)

Mines are based on
• Depleting Assets
• Imperfect knowledge prior to the commencement of extraction

Developing a mining project or mine involves
• Technical expertise
• Substantial capital investment
• Long term investment
• Carries numerous risks
Pertinent Aspects of the Reporting Codes

- A **required minimum standard** for the **Public Reporting** of Exploration Results, Mineral Resources and Mineral Reserves

- Considered relevant to **all solid minerals**

- Present information about mineral assets to
  - Investors and potential investors
  - Advisors
  - Satisfy regulatory requirements

### Relationship between Exploration Results, Mineral Resources and Mineral Reserves

**Exploration Results**

<table>
<thead>
<tr>
<th>MINERAL RESOURCES</th>
<th>MINERAL RESERVES</th>
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<tbody>
<tr>
<td>Inferred</td>
<td>Probable</td>
</tr>
<tr>
<td>Indicated</td>
<td>Proved</td>
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<tr>
<td>Measured</td>
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Increasing level of geological knowledge and confidence

Consideration of mining, processing, metallurgical, economic, marketing, legal, environmental, infrastructure, social, and governmental factors (the "Modifying Factors")
Exploration Results

- Examples - discovery outcrops, single drill hole intercepts or the results of geophysical surveys
- A statement or estimate of the exploration potential of a mineral deposit in a defined geological setting where the statement or estimate,
- Quoted as a range of tonnes and a range of grade or quality, relates to mineralisation for which there has been insufficient exploration to estimate Mineral Resources.
- Exploration Results include data and information generated by mineral exploration programmes that might be of use to investors but which do not form part of a declaration of Mineral Resources or Mineral Reserves
- Must not be presented so as to unreasonably imply that potentially economic mineralisation has been discovered.

Mineral Resources

- Increasing level of geological confidence
- Consideration of mining, processing, metallurgical, economic, marketing, legal, environmental, infrastructure, etc.
- (the UnCalendar)
Mineral Resources classification is a matter for skilled judgement and Competent Persons should take into account those items in Table 1 which relate to confidence in Mineral Resource estimation.
Mineral Reserves

- Prove Viability
- Pre Feasibility Study or Life of Mine Plan

Mineral Reserves

- Modifying Factors
  - mining
  - processing
  - metallurgical
  - economic
  - marketing
  - legal
  - environmental
  - infrastructure
  - social
  - and governmental factors
Underlying Principles of Reporting Codes

Materiality

Competency

Transparency

COMMITTEE FOR MINERAL RESERVES INTERNATIONAL REPORTING STANDARDS

31 August 2016

Background

• In Australia in 1960’s concern about unacceptable reporting practices - the so-called “Poseidon nickel boom and bust”
• Australian Stock exchanges responded with proposal to self-regulate, resulting in the Australasian Joint Ore Reserves Committee (JORC) established 1971
• In February 1989, JORC released the first version of the JORC Code
• Events during the 1990’s such as the BreX affair (1997) cause re-examination by the regulatory bodies
• The Enron, Shell and other events in the US have lead to greater scrutiny by the US SEC of company reporting, with significant penalties for misrepresentation

35th IGC Cape Town, South Africa
Why did the Codes Develop

Good Governance (Self Regulation, Best Practice)
Reliable Reporting (Financial Sector, Valuations)

International Reporting Codes

Public Reporting - What it’s meant be

Requires that technical information is:

• Signed off by a professional (CP) who takes responsibly for the information
• Based on reasonable assumptions which are clearly explained
• Consistent in its use of standardized terms and definitions
• Unbiased and identifies the potential risks and uncertainties
• Balanced and not misleading
• In a format that allows for comparing similar projects
• Understandable to a reasonably informed investor
Public Reporting - What it’s meant be

- To mitigate the risks
- Obtain financial, political, social support
- Demonstrate level of understanding of the project/mine.
- Need to communicate the risks effectively
- Provide a level of trust and confidence for the investors and other stakeholders.
- Effective communication is provided by the declaration of the Mineral Resources and Reserves.
- Provide a common understanding of the project/mine.

What the Reporting Codes are not

- It’s not a guarantee of good work
- It’s not a cookbook for mineral resource or reserve estimation
- It’s not confirmation that the project is good
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**Competent Person**

- Be a self-regulatory organization covering professionals in mining or exploration or both;
- Admit members primarily on the basis of their academic qualifications and experience;
- Require compliance with the professional standards of competence and ethics established by the organization;
- Have disciplinary powers, including the power to suspend or expel a member.

A minimum of 5 (five) years experience relevant to the style of mineralisation and type of deposit or class of deposit under consideration and to the activity which that person is undertaking.

Key question: could the Competent Person face his or her peers and demonstrate competence in the commodity, type of deposit and activity he/she is undertaking?

**TO PROMOTE INTERNATIONAL BEST PRACTICE IN THE REPORTING OF MINERAL EXPLORATION RESULTS, MINERAL RESOURCES AND MINERAL RESERVES**
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