The PERC Reporting Standard 2013

Eddie Bailey

• Chairman, Pan-European Reserves & Resources Reporting Committee (PERC);

• PERC representative on the Committee for Mineral Reserves International Reporting Standards (CRIRSCO);

• Group chief geologist, Aggregate Industries Ltd
Public reporting of exploration results, resources and reserves - purposes

• **Disclosure by companies quoted on stock exchanges.**
  - Objectives: Reliable, transparent information for investors and potential investors

• **Governmental, inter-governmental, or NGO reporting of mineral resource estimates and forecasts.**
  - Objectives: Reliable mineral inventory to underpin minerals policies (especially cross border e.g. Europe), available to exploration and mining companies to attract inward investment and exploration activity
Disclosure by companies

- CRIRSCO family of codes
  - Includes JORC (Australasia), CIM/NI43-101 (Canada), SAMREC (S. Africa), etc.
- PERC is the European member of the family
- A full reporting standard
  - Reporting principles
  - Classification
PERC: a standard for European markets

Relative sizes of mining capital markets –

EU total estimated in the region of 45-50%

End-2007 – source: CRU database
PERC – a short history

• 1991 IMM reporting code published
• 2001 “The Reporting Code” published by an *ad hoc* European working group
• 2006: PERC set up to replace the previous IMM Reserves Committee and an *ad hoc* European working group
  – Four parent organisations: EFG, IOM3, GSL, and IGI
• 2008: CRIRSCO-aligned “PERC Reporting Standard” published
• 2013: A registered not-for-profit organisation, now based in Brussels: **PERC asbl**
• 2013: Revised PERC Reporting Standard 2013 published
  – Includes specific provision for industrial and construction minerals, coal, historic estimates, ...
PERC members

• Four representatives from each founding organisation, plus any number of co-opted members
• Currently 21 members
# PERC members

<table>
<thead>
<tr>
<th>European Federation of Geologists</th>
<th>Institute of Materials, Minerals &amp; Mining</th>
<th>Geological Society</th>
<th>Co-opted members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ruth Allington</td>
<td>Graham Woodrow</td>
<td>Bill Gaskarth</td>
<td>Gordon Riddler</td>
</tr>
<tr>
<td>Markku Iljina</td>
<td>Paul Gribble</td>
<td>Mark Howson</td>
<td>John Clifford</td>
</tr>
<tr>
<td>Carlos Almeida</td>
<td>Liv Carroll</td>
<td>Paul Lusty</td>
<td>Tomas From (Euromines rep.)</td>
</tr>
<tr>
<td>Dan Germiquet (also IMA-Europe rep.)</td>
<td>Steve Henley</td>
<td>Eddie Bailey</td>
<td></td>
</tr>
<tr>
<td>Institute of Geologists of Ireland</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paul Gordon</td>
<td></td>
<td></td>
<td>Jay Hambro</td>
</tr>
<tr>
<td>Eibhlin Doyle</td>
<td></td>
<td></td>
<td>Neil Wells</td>
</tr>
<tr>
<td>Andy Bowden</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>John Barry</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Co-opted members</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gordon Riddler</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>John Clifford</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tomas From (Euromines rep.)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PERC asbl registration 2013

– A Belgian not-for-profit organisation
– The director of RBINS, Mrs. Pisani, accepted the registration of PERC asbl within the facilities provided to EFG (with an office at the Belgian Geological Survey)
– Company number: 0.521-825-257
– Legal personality acquired on 7 March 2013
PERC Reporting Standard 2013

• First draft completed 2011.
• Consultations during 2012.
• Final draft published and circulated Dec. 2012
• Approved at PERC AGM 15 March 2013
• Published on website 16 March 2013
PERC - A principles-based standard

Transparency

Materiality

Competence
Transparency

The reader of a Public Report must be provided with sufficient information, the presentation of which is clear and unambiguous, so as to understand the report and not be misled.
Materiality

A Public Report must contain 
all the relevant information 
which investors and their professional advisers 
would reasonably require, and reasonably expect 
to find, 
for the purpose of making a reasoned and 
balanced judgement 
regarding the Exploration Results, Mineral 
Resources or Mineral Reserves being Reported.
Competence

A Public Report must be based on work that is the responsibility of suitably qualified and experienced persons who are subject to an enforceable professional code of ethics and rules of conduct.
The Competent Person

- All CRIRSCO-style standards require publicly reported reserve and resource information to be based on work undertaken by a Competent Person

- The Competent Person is named in the public report

- It is the Competent Person’s responsibility to ensure that the estimates have been performed properly
The Competent Person

- must have at least five years **relevant** experience

- must be a **member** of EFG, IoM3, GSL, IGI or other recognised **professional organisation** that:
  - requires compliance with professional and ethical standards
  - has disciplinary powers, including the power to expel a member
The Competent Person

- Discipline of professionals is by professional organisations
- Discipline of companies listing and relying on the report is through the stock exchange regulator
Classification

- Three sorts of information: exploration results, mineral resources, mineral reserves. All must be supported by geological data
  - **Exploration results** can be quoted only as ‘raw’ data, not tonnage and grade
  - **Mineral Resources** are estimates of mineral in the ground
  - **Mineral Reserves** are estimates of mineral as mined (allowing for losses/dilution)
- Core definitions are identical across all CRIRSCO standards
Relationship between exploration results, mineral resources & mineral reserves in the CRIRSCO template

Exploration Results

MINERAL RESOURCES
- Inferred
- Indicated
- Measured

MINERAL RESERVES
- Probable
- Proved

Many professionals (including geologists and other geoscientists) may be responsible for progression along this axis.
MINERAL RESOURCES

• A Mineral Resource is a concentration or occurrence of solid material of economic interest in or on the Earth’s crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction.

• The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling.
MINERAL RESERVES

• A Mineral Reserve is the **economically mineable part** of a Measured and/or Indicated Mineral Resource.

• It **includes diluting materials and allowances for losses**, which may occur when the material is mined or extracted and is defined by studies at Pre-Feasibility or Feasibility level as appropriate that include application of Modifying Factors.

• Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified.
Constraints on Reserves reporting

• Mineral Reserve estimates must not be added to Mineral Resource estimates to report a single combined figure.

• A statement must be included in the report which clearly indicates whether the Mineral Resources are inclusive of, or additional to, the Mineral Reserves.
Resources & Reserves

two possible conventions:
must state explicitly which is used

(1) “Resources quoted exclusive of material used to estimate reserves”

(2) “Resources quoted inclusive of material used to estimate reserves”
PERC Reporting Standard - 2013

• Main updates:
  – Includes agreed standard CRIRSCO definitions
  – Re-written section on Competent Person definition
  – Re-written section on industrial and construction minerals
  – New section on oil shales and oil sands
  – New section on minerals extracted by solution mining
  – New guideline on materiality for consistency with ESMA rules (especially relevant for construction minerals companies)
  – New Table 1 checklist section on site visits and verification of data
  – New Appendix 5 for definition of Recognised Professional Organisations
  – Other minor improvements
PERC’s Recent Activities

• Consultation submissions:
  – ESMA 2011 and 2012
  – JORC Code 2012
  – EGRC specifications 2012 (UNFC-2009)
  – IVSC (valuations) 2012
  – RMSG (EU Raw Materials Supply Group) 2012

• Presentations and workshops
  – IPGC Vancouver (Jan. 2012)
  – EU-USA Workshop Brussels (Sept 2012)
  – Extract-IT, Leoben (Feb. 2013)

• PERC hosted CRIRSCO 2011 and 2012 meetings in London
EU and international projects

• PERC participation in:
  – EURAW Consortium bid for European Intelligence Network (coordinator G. Tiess, Leoben)
  – European Innovation Partnership (already approved participants R. Allington, S. Henley)
  – Extract-IT (S. Henley invited participant in FP7 project)
  – Horizon-2020 Advisory Groups: nominated ‘expert’
  – UNECE EGRC Communications sub-committee (S. Henley) (UNFC-2009 classification)
PERC and ESMA

• ESMA: the European Securities & Markets Authority
  – Defines regulations for EU stock markets
  – Minerals company prospectus regulations issued in 2011 after consultation in 2010
  – Allows use of CRIRSCO family of reporting standards including PERC – and no others
  – Clarification issued in 2012 for cement companies, PERC 2013 Standard includes provision for this
PERC Priorities: “the reference standard” for Europe

• Engagement with financial and regulatory organisations to extend the recognition of the PERC Standard, and continue to lobby for it to become the "reference standard" for EU markets.

• While companies listed on EU markets may use JORC or other standards there is no regulatory or professional support - JORC is hard-wired into the Australian stock exchange system and professional membership of Australian organisations. **Using JORC in Europe is like flying without a parachute: no protection for investors or for companies if things go wrong.**
PERC Priorities: Training courses

• PERC will prepare and provide training courses on the preparation and use of reports using CRIRSCO-aligned standards
• An online training course to be developed
• NOTE – these courses will also be relevant to users of other CRIRSCO standards such as JORC, CIM, etc.
Contact information

EMAIL -- info@percstandard.eu

Websites

PERC – http://www.percstandard.eu/
CRIRSCO – http://www.critisco.com