

DEVELOPMENTS IN INTERNATIONAL MINERAL RESOURCE AND RESERVE REPORTING

P R Stephenson, N Weatherstone

Figures and Tables

Figure 1 General relationship between Exploration Results, Mineral Resources and Mineral Reserves for CRIRSCO-Type Standards

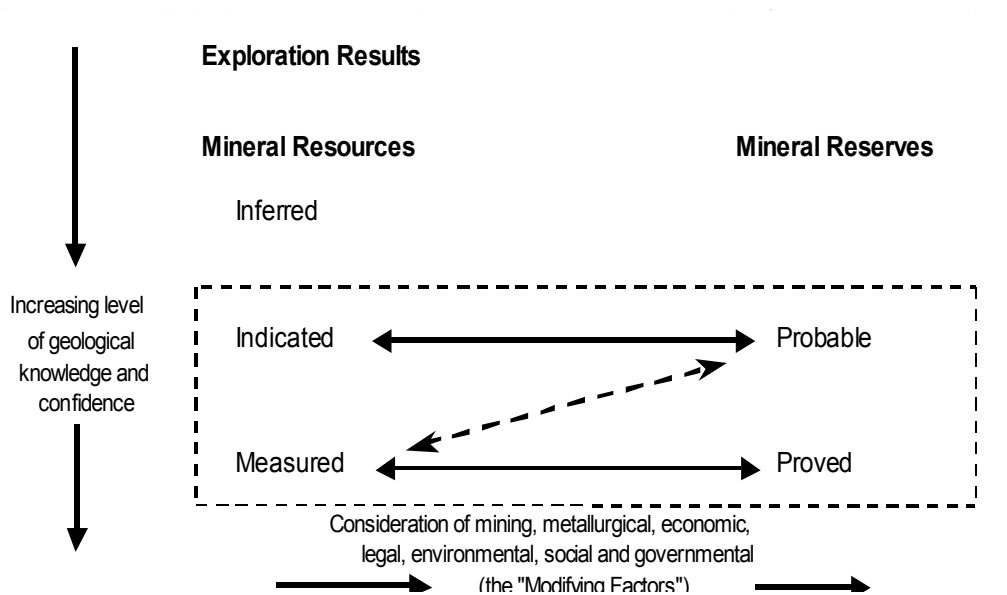


Figure 2 UNFC Three-Dimensional Classification and Codification System

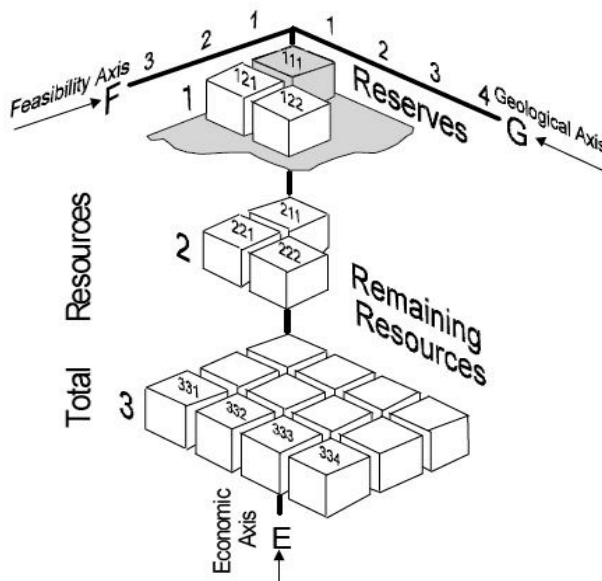


Figure 5: Preliminary Comparison of Hydrocarbon and Minerals Classifications

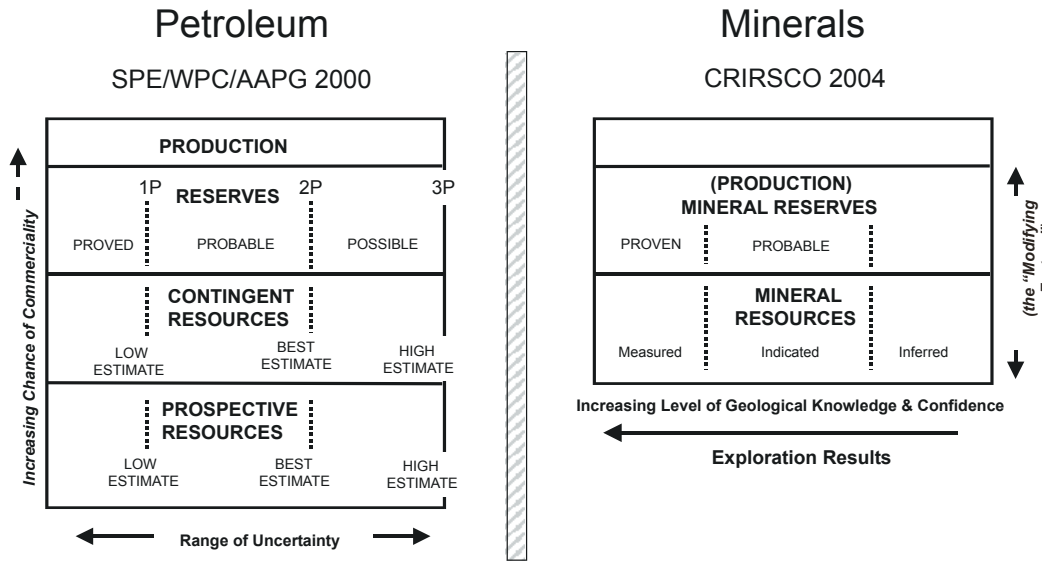


Figure 6 Comparison of Assessment Approaches

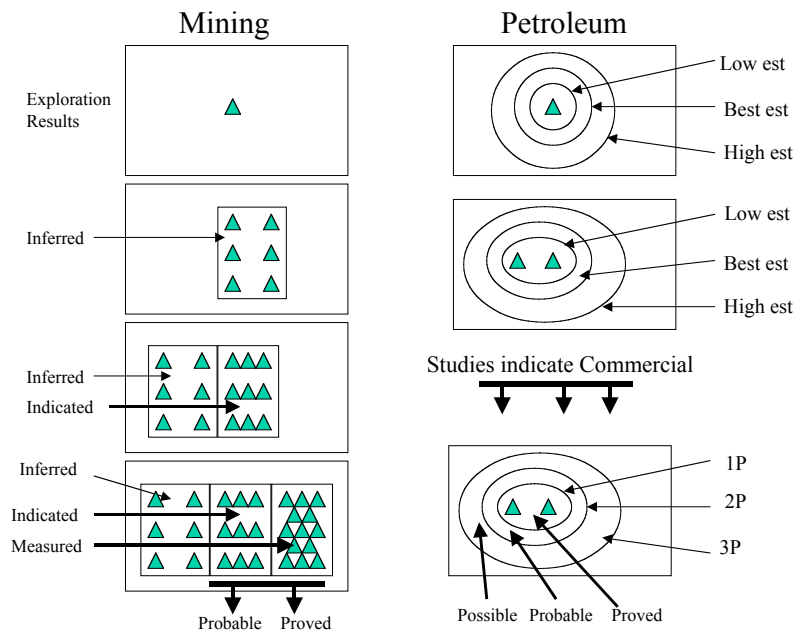


Table 1 Current CRIRSCO-Type National Reporting Standards

| Country | Standard | First Published | Latest Edition | Responsible Organisations |
|--------------------------------|--|-----------------|-------------------------|--|
| Australasia | Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) | 1989 | 2004 | Australasian Joint Ore Reserves Committee, supported by The Australasian Institute of Mining and Metallurgy, Minerals Council of Australia, Australian Institute of Geoscientists |
| Canada | CIM Definition Standards on Mineral Resources and Mineral Reserves | 2000 | 2004 | Canadian Institute of Mining, Metallurgy and Petroleum. |
| Chile | Code for the Certification of Exploration Prospects, Mineral Resources and Ore Reserves. | 2004 | 2004 | Institute of Mining Engineers of Chile, supported by Chilean Mining Ministry, National Association of Mining, National Association of Geologists and Engineering National Association |
| South Africa | South African Code for Reporting of Mineral Resources and Mineral Reserves (SAMREC Code) | 2000 | 2006 (<i>in prep</i>) | South African Mineral Resource Committee, supported by South African Institute of Mining and Metallurgy, South African Council for Natural Scientific Professions, Geological Society of South Africa, Geostatistical Association of South Africa, South African Council for Professional Land Surveyors and Technical Surveyors, Association of Law Societies of South Africa, General Council of the Bar of South Africa, Department of Minerals and Energy, Johannesburg Stock Exchange, Council for Geoscience, South African Council of Banks, Chamber of Mines of South Africa |
| Peru | Code for Reporting on Mineral Resources and Ore Reserves | 2003 | 2003 | Joint Committee of the Venture Capital Segment of the Lima Stock Exchange, supported by mining institutions, professionals and specialists in mining exploration. |
| UK/Ireland/ Western Europe: | Code for Reporting of Mineral Exploration Results, Mineral Resources and Mineral Reserves (The Reporting Code) | 1991 | 2001 | Pan-European Reserves Reporting Committee, supported by Institute of Materials, Minerals and Mining, Geological Society of London, Institute of Geologists of Ireland, European Federation of Geologists, with industry and stock exchange representation. |
| USA | Guide for Reporting Exploration Information, Mineral Resources and Mineral Reserves | 1992 | 1999 | Committee on Resources and Reserves of the Society for Mining, Metallurgy, and Exploration, Inc. |

Table 2 Key Differences between CRIRSCO-Type Reporting Standards and SEC Industry Guide 7

| CRIRSCO-type | SEC Industry Guide 7 |
|--|---|
| Can report resources and reserves | Can only report reserves |
| Commodity prices are based on the Company's reasonable forecasts | Commodity prices generally required to be average of last three years |
| Technical/economic study required for declaration of reserves | Feasibility study required for declaration of reserves for new projects |
| Competent Person requirement | No Competent Person requirement |

Table 3 Main Differences Between CRIRSCO-Type Reporting Standards and the UNFC.

| CRIRSCO-type | UNFC |
|---|---|
| Two dimensional framework (geological and technical / economic axes) | Three dimensional framework (geological, technical (feasibility) and economic axes) |
| Five possible categories of resources and reserves | Over 30 possible categories of resources and reserves, though many not used |
| Market-related reporting only | Government and market-related reporting |
| Competent Person requirement | Studies must be undertaken by a person with appropriate (but not specified) qualifications. |
| Commonly used by "Western" banks, international mining companies etc. | Not commonly used by "Western" banks, international mining companies etc. |