

CONSULTATION PAPER
ON NEW LISTING RULES FOR
MINERAL AND EXPLORATION COMPANIES

September 2009



Hong Kong Exchanges and Clearing Limited
香港交易及結算所有限公司

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How to Respond to this Consultation Paper

We invite interested parties to submit written comments on this paper no later than **11 November 2009**. Responses should, if possible, be made by completing and returning the questionnaire (Questionnaire) which is available at: http://www.hkex.com.hk/consul/paper/cp200909mq_e.doc by one of the following methods:

By mail or hand delivery to Corporate Communications Department
Hong Kong Exchanges and Clearing Limited
12th Floor, One International Finance Centre
1 Harbour View Street
Central
Hong Kong

**Re: Consultation Paper on
New Listing Rules for Mineral and
Exploration Companies**

By fax to (852) 2524-0149

By e-mail to response@hkex.com.hk

Please mark in the subject line:

**Re: Consultation Paper on
New Listing Rules for Mineral and
Exploration Companies**

Our submission enquiry number is (852) 2840-3844.

In the Questionnaire, we invite interested parties to give views on the proposed changes, and where appropriate support the answers with reasons. Respondents should reply to the questions against the backdrop of this Consultation Paper. For the purpose of the public consultation, respondents are reminded that we will publish responses on a named basis in the intended consultation conclusions. Please refer to the Questionnaire on how to complete it.

Our policy on handling personal data is set out in **Appendix III** of this paper and the Questionnaire.

Next Steps

We will carefully consider and analyse all the responses received, and if appropriate, develop (or further progress) rule amendments to implement the final agreed conclusions. As usual we will develop the consultation conclusions and work with the Securities and Futures Commission for any relevant rule amendments.

CHAPTER 1 EXECUTIVE SUMMARY

- 1.1 The Stock Exchange of Hong Kong Limited (the “**Exchange**”), a wholly-owned subsidiary of Hong Kong Exchanges and Clearing Limited (“**HKEx**”) is proposing to update Chapter 18 of the Listing Rules relating to companies engaged in the exploration for, extraction or production of natural resources.
- 1.2 We have observed increased interest from natural resource companies wishing to list on the Exchange. This has been coupled with increased merger and acquisition activity by listed companies seeking exposure to the resources sector. Companies engaged in the resources sector currently account for approximately 15% of total market capitalisation on the Exchange.
- 1.3 Market practitioners and industry experts have commented that the current rules for listing mineral companies lack sufficient clarity compared to international standards. They indicated that clarification should be made on:
 - (i) the definitions of mineral and oil and gas resources and reserves;
 - (ii) the qualifications and experience required of technical experts; and
 - (iii) the standards for reporting estimates of resources and reserves.
- 1.4 We seek comments on the revised rules, intended to ensure that investors are provided with material, relevant and reliable information by Mineral and Exploration Companies, and align the Exchange’s rules with globally recognised standards. We also seek comments on the proposal to invite exploration companies to seek listings.
- 1.5 A **Mineral and Exploration Company** will be defined as one whose “principal activity (whether directly or through its subsidiaries) involves the exploration for or extraction of natural resources (including minerals, oil and gas or solid fuels).” Principal activity should be determined by whether the activity represents 25% or more of assets, gross revenue or operating expenses. Existing listed issuers engaged in the resources sector will not be automatically treated as Mineral and Exploration Companies unless they complete a major transaction (or above) to acquire mineral or exploration assets after our proposals take effect.
- 1.6 To establish eligibility for initial listing, a new applicant Mineral and Exploration Company must have at least discovered resources under the proposed mineral or oil and gas reporting standards. New applicants must include technical reports or Competent Person’s reports (“**CPRs**”) on their portfolios of reserves and resources in their prospectuses.
- 1.7 New applicant Mineral and Exploration Companies unable to meet the track record requirements of Listing Rule 8.05 will be subject to alternative requirements, to establish eligibility and in the interests of investor protection. Those companies that have not yet commenced production must outline their implementation plans to production with indicative dates and costs.

1.8 Our proposals are categorised under the following headings:

- Additional Eligibility Requirements for New Applicant Mineral and Exploration Companies;
- Disclosure (General) Obligations;
- Disclosure (Technical Reporting) Standards;
- Continuing Obligations (for companies treated as Mineral and Exploration Companies and existing listed issuers engaging in mineral and/or exploration activity);
- Social and Environmental Standards; and
- Eligibility of exploration companies.

1.9 The Introduction outlines the international reporting standards governing mineral and oil and gas resources and reserves.

ADDITIONAL ELIGIBILITY REQUIREMENTS FOR NEW APPLICANT MINERAL AND EXPLORATION COMPANIES (Paragraphs 3.1 to 3.27)

1.10 In addition to the basic conditions for listing set out in Chapter 8 of the Listing Rules, we propose that new applicant Mineral and Exploration Companies must demonstrate:

- that they have adequate rights to participate actively in the exploration or exploration and extraction of resources, either by having controlling interests in a majority (by value) of the assets in which they have invested or through other rights, which give them significant influence in decisions over the extraction of those resources; and
- that they have sufficient working capital for 125% of their budgeted working capital needs for the next twelve months.

New applicant Mineral and Exploration Companies that cannot meet the track record requirements under rule 8.05 must demonstrate:

- that their boards and senior management, taken together, have adequate experience relevant to the mining and/or exploration activity that the applicant is pursuing. Individuals relied on must have a minimum of five years relevant experience.

DISCLOSURE (GENERAL) OBLIGATIONS (Paragraphs 4.1 to 4.26)

1.11 We propose that, where technical reports or CPRs are required under these proposals:

- those technical reports or CPRs and valuations must be prepared by independent Competent Persons;
- a ‘**Competent Person**’ must have at least five years experience relevant to the style of mineralization and type of deposit under consideration or to the type of oil and gas exploration, reserve estimate, and to the activity which they are undertaking. A Competent Person must be professionally qualified, and a member in good standing of a Recognised Professional Organisation (“**RPO**”) that upholds professional standards and ethics, and has disciplinary powers, including suspension and expulsion;

- CPRs must have an effective date less than six months before publication of a prospectus or circular;
- risk factors must be disclosed as part of a CPR and should be evaluated in the format set out in Appendix 1; and
- data on reserves and resources must be set out in table format in a manner a non-technical person can readily understand.

DISCLOSURE (TECHNICAL REPORTING) STANDARDS (Paragraphs 5.1 to 5.91)

Mineral Reporting Standards (Paragraphs 5.3 to 5.37)

1.12 For Mineral and Exploration Companies engaged in exploration and mining, we propose:

- to accept the three main JORC-type codes for presenting information on resources and reserves, namely the JORC Code, NI 43-101 and the SAMREC Code. Any departure from best practice under the codes must be accompanied by technical and economic reasons why the relevant practice or standard is inappropriate;
- for the time being, to require reconciliation to one of these codes where information is presented under Russian or Chinese standards;
- that estimates of mineral reserves be supported at a minimum by a pre-feasibility study;
- that mineral resources and mineral reserves must not be combined;
- that mineral resources only be included in economic analyses if they are appropriately discounted for the probabilities of their conversion to reserves. The basis on which resources are considered to be economically extractable must also be stated if they are included in economic analyses;
- the methods used to determine commodity prices used in pre-feasibility and feasibility-level studies and valuations of reserves and resources must be explained, together with the basis on which they represent reasonable views of future prices. Where a contract for future prices exists (for precious or base metals), the contract price must be used. Companies must also produce sensitivity analyses.

Oil and Gas Reporting Standards (Paragraphs 5.38 to 5.83)

1.13 For Mineral and Exploration Companies engaged in oil and gas activities, we propose:

- to adopt the Petroleum Resources Management System (“**PRMS**”) as our oil and gas resources and reserves reporting framework, with suggested modifications;
- that Proved and Proved plus Probable Reserves be presented at Net Present Values (“**NPVs**”) on a post-tax ‘unrisked’ basis at varying discount rates, including a reflection of the weighted average cost of capital or minimum acceptable rate of return applicable to the entity at the time of evaluation. Proved Reserves and the Proved plus Probable Reserves must be analysed separately;
- that estimates of NPVs of reserves must be presented using a forecast price as a base case but also include a sensitivity analysis using a constant price, represented by the unweighted arithmetic average of the closing price on the first day of each month in that twelve month period;

- to permit disclosures on estimated volumes of oil and gas resources, if relevant risk factors are clearly stated. No economic values may be attached to such Resources; and
- that Oil and Gas CPRs must be prepared by independent Competent Persons and deal with the list of technical items in Appendix II.

Valuation Codes (Paragraphs 5.84 to 5.91)

- 1.14 We propose to require that if valuations of natural resources properties are provided, they must be prepared by independent experts and submitted in accordance with either the Code for the Technical Assessment and Valuation of Mineral and Petroleum Assets and Securities for Independent Expert Reports (the “**VALMIN Code**”), the South African Code for the Reporting of Mineral Asset Valuation (the “**SAMVAL Code**”), or the Standards and Guidelines for valuation of mineral properties endorsed by the Canadian Institute of Mining, Metallurgy and Petroleum (the “**CIMVAL Code**”). This is consistent with our adoption of the JORC Code, the SAMREC Code and NI 43-101 for the presentation of estimates on resources and reserves.
- 1.15 For valuations, a ‘**Competent Person**’ must have at least ten years of relevant and recent general mining or petroleum experience as appropriate; at least five years of relevant and recent experience in the assessment and/or valuation of mineral or petroleum assets or securities, as appropriate; hold appropriate licenses; be professionally qualified, and, be a member in good standing of an RPO.

CONTINUING OBLIGATIONS (for companies treated as Mineral and Exploration Companies and existing listed issuers engaging in mineral and/or exploration activity)
(Paragraphs 6.1 to 6.20)

Requirement for CPRs and statements on reserves and resources

- 1.16 In addition to complying with all other relevant Listing Rule requirements, companies treated as Mineral and Exploration Companies must produce CPRs on the assets being acquired or disposed of in connection with transactions for the acquisition or disposal of resources and/or reserves which require shareholder approval (i.e. transactions which are classed as ‘major’ or above under Chapter 14 of the Listing Rules). This requirement applies to existing listed issuers if they enter into acquisitions for resources and/or reserves classed as major or above. These CPRs must be presented to shareholders in the circulars sent to them ahead of the proposed general meeting.
- 1.17 On completion of a major transaction (or above) to acquire mineral and exploration assets, a listed issuer will be treated as a Mineral and Exploration Company, unless it can demonstrate otherwise.
- 1.18 Listed issuers that have previously published details of reserves and resources must update such statements once a year in their annual reports. This may be achieved with statements of no material change by the company and need not be accompanied by a CPR. In other words, such statements may be prepared by companies’ internal management.

- 1.19 We may dispense with the requirement for CPRs on relevant transactions if detailed information on reserves and resources, in accordance our approved mineral and/or oil and gas codes, is already in the public domain.
- 1.20 We propose that companies treated as Mineral and Exploration Companies must provide details of exploration, mining production and development activities and expenditure incurred on these three activities in their interim (half-yearly) and annual reports.
- 1.21 We propose to:
- prohibit blanket disclaimers in technical reports;
 - disallow material indemnities in favour of the Competent Person or entity that prepared the report; and
 - permit disclaimers for sections/topics in the report in which the Competent Person relied upon other experts' opinions.

SOCIAL AND ENVIRONMENTAL STANDARDS (Paragraphs 7.1 to 7.5)

- 1.22 We propose that Mineral and Exploration Companies must consider and provide disclosure on the following matters, where material to their business operations:
- the nature of the prospecting or exploration right and mining right;
 - project risks arising from environmental, social and health issues;
 - NGO impact on sustainability of mineral and/or exploration projects;
 - compliance with host country laws, regulations and permits;
 - determined secondary impacts associated with the proposed activities;
 - provision of suitable funding for management operational measures and for closure of the facilities in an acceptable and sustainable manner;
 - environmental liabilities of the project or property;
 - details of the company's historical experience of dealing with host country laws and practices, including management of differences between national and local practice, details of operational risks and management arrangements;
 - details of the company's historical experience of dealing with concerns of local governments and communities on the sites of its exploration properties and relevant management arrangements; and
 - details of any native title claims that may exist to the land on which exploration activity is carried out.

ELIGIBILITY OF EXPLORATION COMPANIES (Paragraphs 8.1 to 8.14)

- 1.23 New applicant Mineral and Exploration Companies must have a portfolio of mineral or oil and gas resources identifiable under the proposed reporting standards to be eligible for listing. For oil and gas companies, this will mean 'Contingent Resources' as defined under PRMS, as opposed to Prospective Resources.

1.24 New applicant Mineral and Exploration Companies should be mindful of their disclosure obligations. Those that have not yet commenced production must disclose their plans to proceed to production with indicative dates and costs. New applicant Mineral and Exploration Companies with resources in their portfolios (i.e. not reserves in accordance with an accepted standard) must warn investors that such resources may not ultimately be extracted at a profit. This risk must be disclosed prominently.

CHAPTER 2 INTRODUCTION

- 2.1 This Consultation Paper invites comments on proposed reforms to Chapter 18 of the Listing Rules (“Equity Securities - Mineral Companies”).
- 2.2 In recent years we have observed increased interest from companies engaged in exploration and production of natural resources, including minerals, oils and gases wishing to list on the Exchange. This has been coupled with increased merger and acquisition activity by listed companies seeking exposure to the resources sector. Companies engaged in the resources sector currently account for approximately 15% of total market capitalisation on the Exchange.
- 2.3 Market practitioners and industry experts have commented that the current rules for listing mineral companies lack sufficient clarity compared to international standards. They indicated that clarification should be made on:
- (i) the definitions of mineral and oil and gas resources and reserves;
 - (ii) the qualifications and experience required of technical experts; and
 - (iii) the standards for reporting estimates of resources and reserves.
- 2.4 Eleven companies engaged in the resources sector have listed on the Exchange since the beginning of 2006. All of them presented information on reserves and exploration properties in accordance with the VALMIN Code and the JORC Code.
- 2.5 Two of them had previously presented information in accordance with Chinese classification standards. However the technical experts appointed reassigned the resources and reserves estimates to compare them with categories similar to those under the JORC Code. The information was not presented in full compliance with the JORC Code due to various differences in the calculation of estimates, the JORC Code requiring more rigorous standards, but was nonetheless considered to be presented on a reliable basis by technical experts.

The Review of Chapter 18

- 2.6 The Exchange initiated a review of Chapter 18 of the Listing Rules (“Equity Securities – Mineral Companies”):
- (i) to ensure that Mineral and Exploration Companies provide investors with significant, relevant and reliable information;
 - (ii) to align the Exchange’s rules with globally recognized standards to facilitate a long term goal of enhancing the Exchange’s position as an international market for Mineral and Exploration Companies to list and raise funds; and
 - (iii) to consider whether the Exchange should invite exploration companies to seek listings.

- 2.7 As part of our review, we studied the rules, regulations and applicable legislation in other relevant jurisdictions, including Australia, Canada, China, South Africa, the UK and the US and identified common features and differences in international practices. We sought the advice of technical experts, namely Behre Dolbear Asia, Inc. (Mineral Industry Consultants) and Gaffney, Cline & Associates (Consultants) Pte Ltd, who provided specific advice in relation to proposed requirements for oil and gas companies. The industry consultants assisted our review by providing analyses of practices in different jurisdictions and making relevant recommendations. We also consulted a number of practitioners on a confidential basis. Our proposals have taken account of the advice received.

Overview of the Reporting Regimes for Mineral and Exploration Companies

- 2.8 Mineral resource and reserve classification systems generally fall into the groups below:

- (a) Those generally accepted by the international mining industry, including:
- the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the “**JORC Code**”);
 - the (Canadian) Standards of Disclosure for Mineral Projects, including Form 43-101F1 (“**NI 43-101**”);
 - the South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (the “**SAMREC Code**”); and, perhaps to a lesser extent,
 - the Code for Reporting of Mineral Exploration Results, Mineral Resources and Mineral Reserves (the “**European Reporting Code**”)

These four are generally referred to as ‘JORC-type’ codes or CRIRSCO family codes.

- (b) The U.S. Securities and Exchange Commission’s Industry Guide 7; and
- (c) Those used by government bureaus of mines and/or geological surveys such as the Russian standard system for classification of mineral reserves and resources developed by the GKZ (the Russian State Commission on Mineral Reserves) and the United Nations Framework Classification for Fossil Energy and Mineral Reserves and Resources (“**UNFC**”), on which the current Chinese mining and oil and gas classification systems are based.

- 2.9 Relevant standards for reporting oil and gas reserves and resources include:
- The (Canadian) Standards of Disclosure for Oil and Gas Activities (“**NI 51-101**”);
 - The United States Securities and Exchange Commission (SEC) Release No. 33-8995, Modernization of Oil and Gas Reporting, issued on 31 December 2008 (to be implemented on 1 January 2010 – the “**SEC’s OIL AND GAS DISCLOSURE RULES**”).
- 2.10 Both these reporting standards are largely based on the Petroleum Resources Management System (“**PRMS**”) published by the Society of Petroleum Engineers/World Petroleum Council/American Association of Petroleum Geologists/Society of Petroleum Evaluation Engineers (“**SPE/WPC/AAPG/SPEE**”) in March 2007. The PRMS provides a basis for the classification and categorization of hydrocarbon volumes.

Hard Minerals

- 2.11 Hard minerals are categorized in terms of reserves and resources. International mining companies and the SEC essentially agree on definitions of reserves, ore, proven and probable. These terms are used to describe deposits that have been thoroughly explored and tested and for which pre-feasibility and feasibility studies demonstrate that economic extraction can occur at the present time. Conversely, government bureaus of mines and/or geological surveys are asked to identify deposits that might be economically extractable at some time in the future.

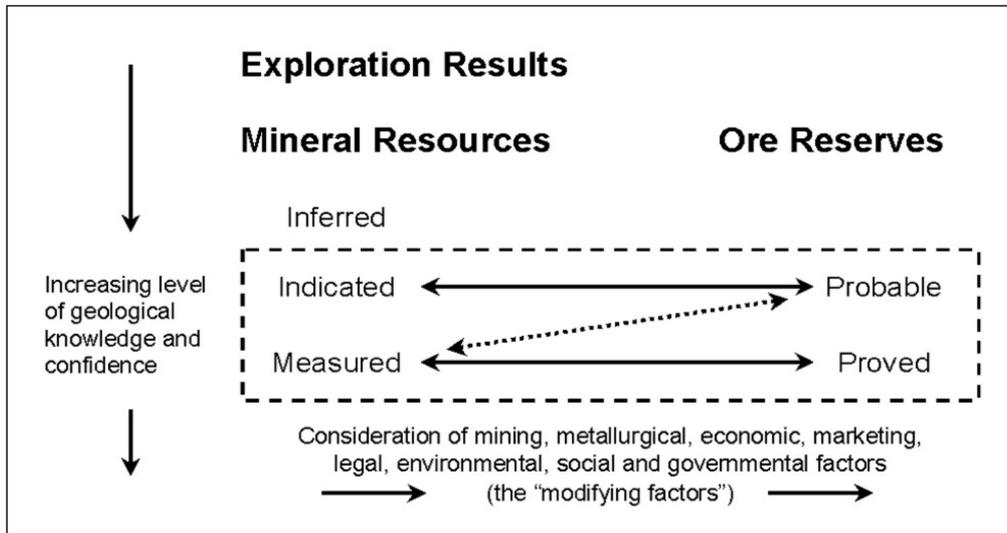
Proved & Probable vs. Possible Reserves

- 2.12 The definition of mineral reserves is essentially the same in the four JORC-type codes. Under these codes, mineral reserves can be sub-divided into proved and probable categories only; the possible category is not defined and disclosure of mineral reserves classified as “possible” is not allowed. The JORC-type codes also require that mineral reserve estimates must be supported by appropriate assessments which demonstrate that extraction can reasonably be justified.
- 2.13 Canadian NI 43-101 and the SAMREC Code require that estimates of mineral reserves be supported by a ‘pre-feasibility study’ which requires that a comprehensive study identifies a mining method or pit configuration and determination of an effective method of mineral processing, such that all or part of a mineral resource may be classified as a reserve. ‘Feasibility studies’ under NI 43-101 and the SAMREC Code require a higher level of certainty in that they must reasonably serve as the basis for a final decision by a financial institution to finance the development of a deposit for mineral production.

Reserves vs. Resources (Measured, Indicated & Inferred)

- 2.14 The four internationally recognized JORC-type codes define and allow disclosure on mineral resources. The JORC-type codes typically define a ‘mineral resource’ as a “concentration or occurrence of material of intrinsic economic interest in or on the Earth’s crust in such form, quality and quantity that there are reasonable prospects for eventual economic extraction”. The “reasonable prospect” of commercial exploitation is a pre-requisite for categorization and mineral resources are subdivided, in order of increasing geological confidence, into “inferred”, “indicated” and “measured” categories. The inferred category must be reported separately from the other categories. There is no equivalent to the inferred category under the SEC’s classification rules although “mineralized materials” are essentially equivalent to measured and indicated resources.
- 2.15 The difference between mineral resources and ore (or mineral) reserves involves the factors that determine whether a deposit or part of it can be mined at a profit. All categories of resources require that samples have been obtained whilst the character and number of samples required varies with different categories. The uncertainties associated with one or more ‘modifying’ factors may be significant for a particular property which explains why measured resources are converted to probable rather than proved reserves.
- 2.16 The organizations that are responsible for the development of the JORC-type codes are also all represented on the Committee for Mineral Reserves International Reporting Standards (“**CRIRSCO**”). CRIRSCO, which was formed in 1994 under the auspices of the Council of Mining and Metallurgical Institutes (CMMI), is a grouping of representatives of organisations that are responsible for developing mineral reporting codes and guidelines in Australia (JORC), Chile (National Committee), Canada (CIM), South Africa (SAMREC), the USA (SME), UK (National Committee) and Western Europe (IGI and EFG). The combined value of mining companies listed on the stock exchanges of these countries accounts for more than 80% of the listed capital of the mining industry.

- 2.17 The similarity of the various national reporting codes and guidelines has enabled CRIRSCO to develop an International Minerals Reporting Code Template (the “**Template**”), which is available at http://www.cirrsco.com/cirrsco_template_first_ed_0806.pdf. This is intended to act as a "core code and guidelines" for any country wishing to adopt its own CRIRSCO-style reporting standard.

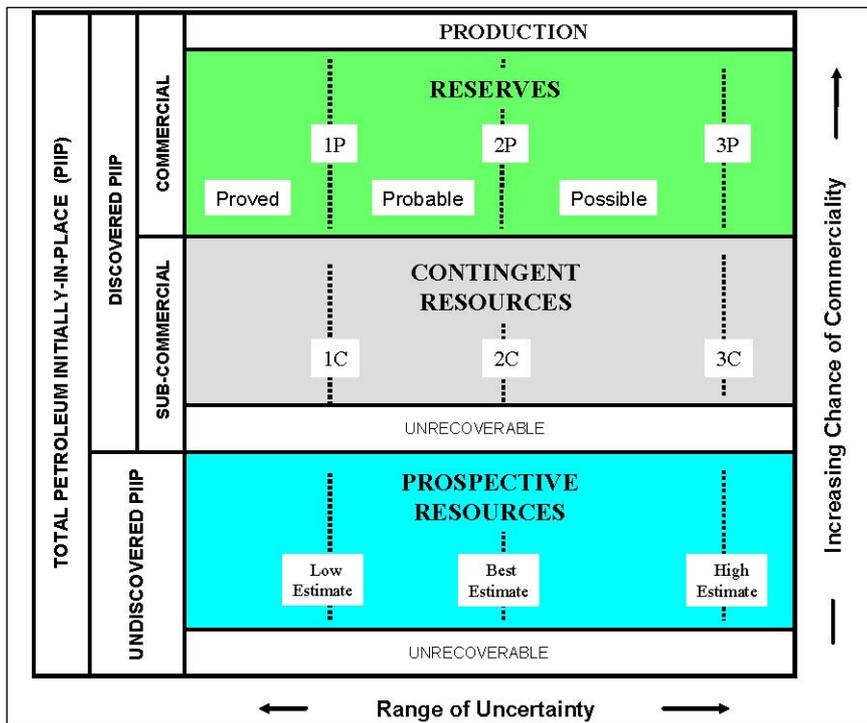


The Template (sourced from CRIRSCO’s website), outlining the general relationship between exploration results, mineral resources, and ore reserves also appears in the JORC-type codes to be adopted.

Oil and Gas

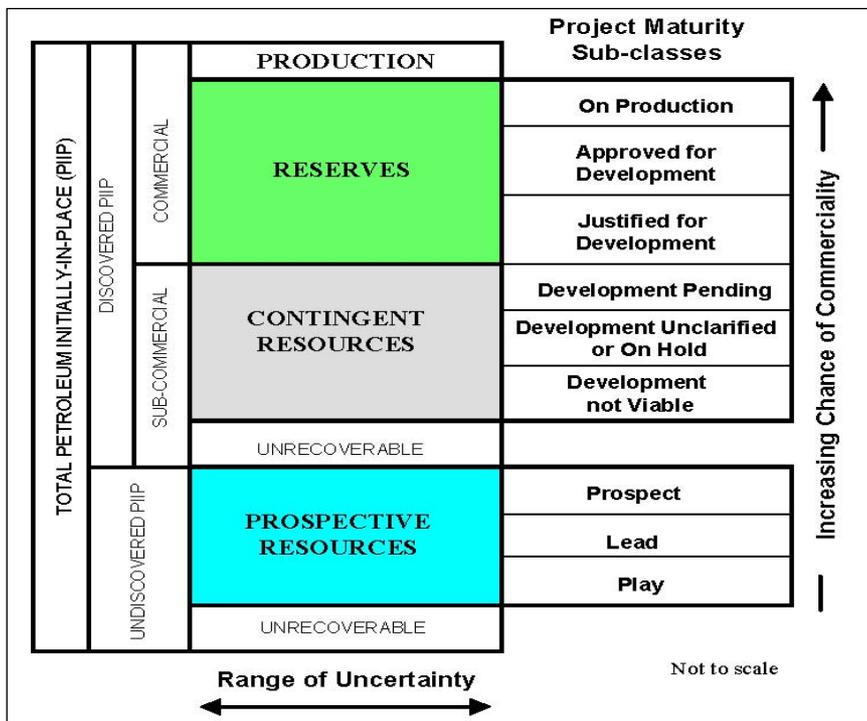
- 2.18 Oil and gas reserves and resources are defined as volumes that will be commercially recovered in the future. Reserves are physically located in reservoirs deep underground and cannot be visually inspected or counted. Estimates are based on evaluation of data and involve some degree of uncertainty. The PRMS incorporates a central framework that categorizes reserves and resources according to levels of certainty associated with recoverable volumes whilst they are classified according to the potential for reaching commercial producing status. Risk and uncertainty are significantly different concepts under PRMS. Risk is primarily associated with the classification of volumes and is a measure of the certainty of a project progressing to production. Uncertainty is the driver for categorization and is a measure of the technical factors impacting the volumes ultimate producibility.
- 2.19 The four major recoverable resources classes defined under PRMS are: Production, Reserves, Contingent Resources and Prospective Resources. There is also a distinct class for unrecoverable petroleum.

2.20 Illustrations outlining the categorization of resources under PRMS are provided below:



The overall classification scheme under PRMS

Source: PRMS



Sub-categories of petroleum resources based on project maturity under PRMS

Source: PRMS

- 2.21 Production is the quantity of oil and gas that has been recovered already. Reserves represent that part of Resources which are commercially recoverable and have been justified for development. The highest valued category of Reserves is “Proved” Reserves which have a “reasonable certainty” of being recovered, which usually means a chance of being recovered of at least 90%.
- 2.22 “Probable” and “Possible” Reserves are lower categories of reserves which are commonly combined and referred to as “Unproved Reserves”, with decreasing levels of technical certainty. Probable reserves are volumes that are defined as “less likely to be recovered than Proved, but more certain to be recovered than Possible Reserves”, which usually means a chance of being recovered of at least 50%. Possible reserves are reserves which, on analysis of geological and engineering data, are less likely to be recoverable than Probable Reserves, which usually means at least a 10% chance of being recovered.
- 2.23 The above chances of recovery are based on the “probabilistic” method of estimating reserves and are set out for indicative purposes. The PRMS also identifies a “deterministic” method of estimating reserves and incorporates a detailed discussion on both of these methods.
- 2.24 Contingent Resources are less certain than Reserves. They are potentially recoverable but not yet considered mature enough for commercial development due to technical or business hurdles. For Contingent Resources to move into the reserves category, the contingencies that prevented commercial development must be removed and there must be evidence of a firm intention to proceed with development within a reasonable time frame (typically 5 years).
- 2.25 Prospective Resources are estimated volumes associated with undiscovered accumulations. These represent quantities of petroleum which are estimated to be potentially recoverable but have not yet been drilled. For Prospective Resources to become classified as Contingent Resources, hydrocarbons must be discovered, the accumulations must be further evaluated and an estimate of recoverable quantities prepared.

CHAPTER 3 ADDITIONAL ELIGIBILITY REQUIREMENTS FOR NEW APPLICANT MINERAL AND EXPLORATION COMPANIES

The proposals

- 3.1 These proposed eligibility requirements will apply to new applicant Mineral and/or Exploration Companies, in addition to the basic conditions for listing set out in Chapter 8 of the Listing Rules.
- 3.2 We propose to define a **Mineral and Exploration Company** as one whose “principal activity (whether directly or through its subsidiaries) involves the exploration for or extraction of natural resources (including minerals, oil and gas or solid fuels).” Principal activity should be determined by whether the activity represents 25% or more of assets, gross revenue or operating expenses. Existing listed issuers engaged in the resources sector will not be automatically treated as Mineral and Exploration Companies unless they complete a major transaction (or above) to acquire mineral or exploration assets after our proposals take effect.
- 3.3 The nature of Mineral and Exploration Companies that should be eligible for listing and relevant conditions are discussed under Chapter 8.

Proposal 3A: Rights relevant to exploration and/or extraction and control of assets

The proposals

- 3.4 New applicant Mineral and Exploration Companies must demonstrate that they have adequate rights to participate actively in the exploration or exploration and extraction of resources, either by having controlling interests in a majority (by value) of the assets in which they have invested or through other rights, which give them significant influence in decisions over the extraction of those resources.
- 3.5 We recognise that companies often engage in mineral and/or exploration activity under joint venture agreements, product sharing contracts or specific government mandates. We propose to allow, on a case by case basis, an applicant to rely on adequate agreements where a third party possesses relevant rights, to satisfy this eligibility requirement.

Practices in other jurisdictions and rationale

Control of assets

- 3.6 Canadian securities administrators adopt a strict approach to eligibility requirements for control of an exploration-stage or development stage company. They must generally hold or have the right to earn and maintain at least a 50% interest, but not less

than a 30% interest, in exploration properties. Companies holding less than a 50% interest will be considered on an exceptional basis looking at program size, stage of advancement of the property and strategic alliances.

- 3.7 Where listing applicants are unable to meet the three year track record requirement and cannot demonstrate control of assets, the UK Listing Authority (“UKLA”) and the Johannesburg Securities Exchange (the “JSE”) will allow them to list provided they can demonstrate that they have a reasonable spread of direct interests in mineral assets and have rights to participate actively in their extraction, whether by voting or through other rights, which give them influence in decisions over the timing and method of extraction of those resources. This position in London is now reflected in the Committee of European Securities Regulators recommendations for the consistent implementation of the European Commission’s Regulation on Prospectuses number 809/2004 (“CESR’s GUIDANCE”), although it was formerly stated in the UKLA’s Listing Rules.
- 3.8 We consider adequate control of assets protects against ownership claims from other interests, which may arise more frequently in emerging markets. We note however that in practice companies sometimes engage in exploratory activity under joint ventures or operate in jurisdictions where exploration is carried out under specific government mandates. Adoption of a second limb to the control of assets test is therefore appropriate, i.e. allowing companies to demonstrate that they have adequate rights to participate in the exploration, extraction or exploration and extraction, in the absence of control. We note that companies yet to commence production may not yet be in the position to obtain rights to extract relevant reserves. Such companies must disclose details of how they plan to proceed to extraction and must state risks relevant to obtaining relevant rights.

Rights relevant to exploration and extraction

- 3.9 In South Africa, a listing applicant must demonstrate that it, or its group (including companies in which the Mineral Company has investments) is in possession of the necessary legal title or ownership rights to explore, mine or explore and mine the relevant minerals.
- 3.10 The TSX requires sponsors for mining applicants to be responsible for reviewing and commenting on, amongst other things, issues and material agreements relating to land tenure for the company’s principal properties, including the legal system, ability to mine, terms for maintaining mineral rights, legal impediments and impediments to maintaining or securing the property.
- 3.11 Our practical experience of dealing with mining companies that have sought listings to date, especially those operating in Mainland China, is that they are required to obtain a number of rights to successfully explore and extract resources. These include mining rights, exploration rights and valid land use rights. We consider it important that this position be reflected in the Listing Rules.

Consultation Questions

- 3.12 *Question 3.1:* Do you agree with the Exchange's proposal that new applicant Mineral and Exploration Companies must demonstrate that they have adequate rights to participate actively in the exploration or exploration and extraction of resources, either by having controlling interests in a majority (by value) of the assets in which they have invested or through other rights, which give them significant influence in decisions over the extraction of those resources? Please provide specific reasons for your views.
- 3.13 *Question 3.2:* Do you agree with our proposal that new applicant Mineral and Exploration Companies that have not yet obtained rights to extract relevant reserves must disclose details of how they plan to proceed to extraction and must state risks relevant to obtaining relevant rights? Please provide specific reasons for your views.

Proposal 3B: Cash operating costs and working capital requirements

The proposals

- 3.14 New applicant Mineral and Exploration Companies must ensure that they meet the following requirements and provide relevant disclosure in relation to cash operating costs and working capital:
- (a) demonstrate that they have sufficient working capital for 125% of their budgeted working capital needs for the next twelve months. The working capital requirements must include, as a minimum, general and administrative costs, property holding costs and the cost of proposed exploration and development.
 - (b) estimates of cash operating costs include those of: (a) workforce employment; (b) consumables; (c) power, water and other services; (d) on and off-site administration; (e) environmental protection and monitoring; (f) transport of workforce; (g) product marketing and transport; (h) non-income taxes, royalties and other governmental charges; and (i) contingency allowances. This definition of operating costs is sourced from paragraph 91 of the VALMIN Code.
 - (c) producing companies must disclose their operating cash cost per appropriate unit for the mineral(s) and/or oil and gas produced.

Practices in other jurisdictions and rationale

- 3.15 Both the UK Listing Rules and the JSE Listings Requirements require working capital statements for twelve months. Companies producing prospectuses in London will however also be subject to CESR's Guidance. Mineral companies with a track record of less than three years that publish prospectuses will be required to provide an estimate of funding and cash flow requirements for two years together with confirmation from an independent auditor or accountant that the statement has been prepared after due and careful enquiry.
- 3.16 The TSX has different requirements relating to sufficiency of working capital depending on the specific board/market that companies are listed on but exploration companies are generally required to demonstrate they have sufficient funds to complete a planned program of exploration and/or development to meet all estimated capital and operating costs for at least eighteen months.
- 3.17 The ASX rules require that an entity's working capital must be at least AUD\$1.5m, or if it is not, would be at least AUD\$1.5m if the entity's budgeted revenue for the first full financial year was included in the working capital forecast. For mining and exploration companies, the rules specify that this amount must be available after allowing for the first full financial year's budgeted administration costs and the cost of acquiring plant, equipment and mining tenements.
- 3.18 We note that requirements for working capital statements and funding requirements vary from exchange to exchange. Our preferred approach is to require Mineral and Exploration Companies to provide working capital statements for twelve months. We note from conversations with other regulators and market practitioners that working capital statements beyond twelve month periods are associated with uncertainty and relevant professionals, notably accountants, may be reluctant to provide comfort that these statements are made on a reliable basis. The requirement for a buffer of 25% to allow for additional contingencies is preferable to extending the requirement for a working capital statement beyond twelve months. Investors should therefore be assured that the twelve month working capital statement has been presented on a reliable basis and that additional contingencies have been provided for. It is necessary to provide for contingencies as we understand that production or exploration costs often exceed estimates.
- 3.19 We believe these proposals provide greater transparency to investors on companies' business models, operating costs and sufficiency of working capital, all of which are relevant to an investment decision.

Consultation Questions

- 3.20 *Question 3.3:* Do you agree that new applicant Mineral and Exploration Companies must demonstrate that they have sufficient working capital for 125% of their budgeted working capital needs for the next twelve months? Do you consider that the requirement for a working capital statement should be extended beyond a period of twelve months? Please provide specific reasons for your views.
- 3.21 *Question 3.4:* Do you agree that estimates of cash operating costs must include those of: (a) workforce employment; (b) consumables; (c) power, water and other services; (d) on and off-site administration; (e) environmental protection and monitoring; (f) transport of workforce; (g) product marketing and transport; (h) non-income taxes, royalties and other governmental charges; and (i) contingency allowances? Please provide specific reasons for your views.
- 3.22 *Question 3.5:* Do you agree that producing new applicant Mineral and Exploration Companies must disclose their operating cash cost per appropriate unit for the mineral(s) and/or oil and gas produced? Please provide specific reasons for your views.

Proposal 3C: Alternative eligibility requirements for new applicant Exploration Companies, and Mineral Companies that cannot meet the financial track record requirements under Listing Rule 8.05

Proposal: Required experience for managers and directors

- 3.23 We propose that a new applicant Mineral and Exploration Company must demonstrate that its board and senior management, taken together, have adequate experience relevant to the mining and/or exploration activity that the applicant is pursuing, unless it can meet the financial track record requirements under Listing Rule 8.05. Individuals relied on must have a minimum of five years relevant experience.

Practices in other jurisdictions and rationale

- 3.24 The JSE Listing Requirements require that management have “satisfactory experience” in mining and/or exploration activities. The TSX also considers the background and expertise of management in the context of the business of the company. Management (including the company’s board of directors) should have adequate experience and technical expertise relevant to a company’s mining projects (or oil and gas projects) and adequate public company experience, which demonstrates that they are able to satisfy all of their reporting and public company obligations. Moreover, the sponsor of a mining applicant is responsible for reviewing and commenting on, amongst other things, management’s experience and technical expertise relevant to the company’s mining projects (or oil and gas projects).
- 3.25 The UK Listing Rules historically had a requirement that directors of mineral companies collectively have appropriate experience and technical expertise although this was removed in June 2005.

- 3.26 We are of the view that our proposal is a suitable alternative to establish eligibility for companies unable to meet the track record requirements of Listing Rule 8.05 and will act as an appropriate safeguard to protect investors' interests. It will ensure that management has relevant business experience, providing investors with more assurance that the issuer will be well managed and have a greater chance for long-term success. This is desirable because investors in Hong Kong are considered to have less experience of investing in exploration ventures than international investors. The existing rules already require three years experience in mining and/or exploration activities for companies that are not able to fulfil requirements under Listing Rule 8.05. We have not encountered any resistance to these requirements to date.

Consultation Question

- 3.27 *Question 3.6:* Do you agree that a new applicant Mineral and Exploration Company must demonstrate that its board and senior management, taken together, have adequate experience relevant to the mining and/or exploration activity that the applicant is pursuing, unless it can meet the financial track record requirements under Listing Rule 8.05? Do you agree that individuals relied on must have a minimum of five years relevant experience? Please provide specific reasons for your views.

CHAPTER 4 DISCLOSURE

(GENERAL) OBLIGATIONS

Proposal 4A: Requirement that Technical/Competent Persons' Reports ("CPRs") be prepared by independent Competent Persons

The proposals

- 4.1 The Exchange proposes, where technical reports or CPRs are required under these proposals, that:
- (a) those technical reports and valuations required by the Listing Rules must be prepared by independent Competent Persons; and
 - (b) Competent Persons must take overall responsibility for the reported reserve evaluation.
- 4.2 A 'Competent Person' must have a minimum of five years experience which is relevant to the style of mineralization and type of deposit under consideration or to the type of oil and gas exploration, reserve estimate, and to the activity which that person is undertaking. A Competent Person must be professionally qualified, and a member in good standing of a Recognised Professional Organisation ("RPO") that upholds professional standards and ethics, and has disciplinary powers, including those of suspension and expulsion. This definition is similar to that in paragraph 10 of the JORC Code.
- 4.3 The requirement that Competent Persons be independent means that the expert retained and his/her associates (as defined in the Listing Rules) must have no economic or beneficial interest (present or contingent) in any of the mineral or petroleum assets being determined or valued, or any association with the applicant. Furthermore, their remuneration must not be dependent on the outcome of the report. This definition of independence is based on those in the CIM guidelines and VALMIN code.
- 4.4 An RPO is an association which admits individuals on the basis of their academic qualifications and experience; requires compliance with professional standards of competence and ethics established by the organisation; and has disciplinary powers, including the power to suspend or expel a member. An applicant's sponsor must ensure that the Competent Person engaged is a member of an RPO. We do not consider that it is necessary for the Exchange to formulate its own list of RPOs.

Practices in other jurisdictions and rationale

- 4.5 Other jurisdictions generally seem to adopt a requirement that Competent Persons be independent, although some treat independence as a matter to be disclosed. Australia, South Africa and the United States adopt this approach, while other jurisdictions generally require independence.

- 4.6 The Exchange proposes that Competent Persons must be independent so that they are less likely to be adversely influenced by self-interest or by management of the applicant or listed issuer. The involvement of a Competent Person who is independent should improve the quality of reserves data disclosure.
- 4.7 Some international mining centres formulate lists of RPOs which are kept updated from time to time. This is the case in Australia, Canada and, more recently, South Africa, where a list is still in early formation. Other jurisdictions, notably London, do not have a specific list of RPOs but rely on an external expert's review to establish that a report has been properly prepared under the relevant code by a suitably qualified individual.
- 4.8 Given that Hong Kong is not currently an international mining centre, we do not consider that it is practicable or necessary to formulate a list of RPOs. We propose to follow London's approach i.e. to request an external expert to review prospectuses or circulars to establish that a report has been properly prepared under the relevant code by an independent Competent Person. In addition, we would however propose only accepting CPRs from Competent Persons who are qualified in a jurisdiction where the statutory securities regulator has adequate arrangements with the Securities and Futures Commission ("**SFC**") for mutual assistance and exchange of information for enforcing and securing compliance with the laws and regulations of that jurisdiction and Hong Kong. These arrangements will be either by way of the IOSCO Multilateral Memorandum of Understanding ("**IOSCO MMOU**") or an adequate bi-lateral agreement with the SFC.

Consultation Questions

- 4.9 *Question 4.1:* Do you agree with our proposal that technical reports and valuations required by the Listing Rules must be prepared by independent Competent Persons? Please provide specific reasons for your views.
- 4.10 *Question 4.2:* Do you agree with our proposal that a Competent Person must be a member of a RPO? Please provide specific reasons for your views.
- 4.11 *Question 4.3:* Do you agree that the Exchange should only accept CPRs prepared by Competent Persons who are registered in jurisdictions where the statutory securities regulator has adequate arrangements with the SFC for mutual assistance and exchange of information for enforcing and securing compliance with relevant laws of each jurisdiction? Please provide specific reasons for your views.

Proposal 4B: Age/Currency of the CPR

The proposal

- 4.12 The Exchange proposes that CPRs must have an effective date (being the date at which the contents of the CPR are valid) less than six months before the date of publishing the prospectus or circular required under the Listing Rules. Moreover, the CPR must be updated before publication if further material data becomes available after the effective date. The CPR must therefore include an up to date no material change statement.

Practices in other jurisdictions and rationale

- 4.13 Under both JSE Listings Requirements and the AIM Guidance Note published in March 2006, technical reports must have an effective date less than six months before the date of the admission document, prospectus or Class 1 circular, and include an up to date no material change statement. Canadian NI 43-101 requires that technical reports state their effective dates whilst they are expected to reflect the current state of development. The technical expert must carry out a current inspection of exploration properties. Although there are some exceptions to this rule, the expert must still be satisfied that no material changes have occurred.
- 4.14 We consider it important that CPRs reflect the current state of development of mining and/or exploration projects.

Consultation Questions

- 4.15 *Question 4.4:* Do you agree that the CPR must have an effective date less than six months prior to the date of the publication of the prospectus or circular required under the Listing Rules? Please provide specific reasons for your views.
- 4.16 *Question 4.5:* Do you agree that CPRs must include an up to date no material change statement? Please provide specific reasons for your views.

Proposal 4C: Risk factors and risk analysis

The proposals

- 4.17 We propose that Mineral and Exploration Companies must disclose risk factors as part of a CPR, and present risk factors together with a risk analysis in the format outlined in Appendix I.

Practices in other jurisdictions and rationale

- 4.18 Most jurisdictions do not prescribe specific risks that must be disclosed. A number of them do however educate staff internally to ensure that they are mindful of the specific risks to consider.

- 4.19 The UK AIM Rules provide some guidance and require that ‘risk factors should address both the specific and general risk factors affecting the applicant. Risk factors that are specific to the applicant should be set out ahead of any general risks applicable to the applicant or resource companies within the risk factors section of the admission document.’
- 4.20 Whilst risk factors should be determined by companies and Competent Persons on a case by case basis, a framework under which all companies rate risks from likely to unlikely and low to high based on likelihood and consequence is desirable as it provides a common reference point for investors. Accordingly, we propose that the form of risk analysis (with specific items to be addressed and risk categories) in Appendix I be incorporated into the revised Listing Rules in the form of a Guidance Note.

Consultation Questions

- 4.21 *Question 4.6:* Do you agree that all Mineral and Exploration Companies must disclose in the CPR, where one is required, risk factors and provide a risk analysis in the format outlined in Appendix I? Please provide specific reasons for your views.
- 4.22 *Question 4.7:* Do you agree with the Exchange’s proposal that disclosure on risks must be provided as part of a Competent Person’s Report? Please provide specific reasons for your views.

Proposal 4D: Presentation of information on reserves and resources

The proposal

- 4.23 Companies must present data on reserves and resources in tables in a manner readily understandable to a non-technical person.

Practices in other jurisdictions and rationale

- 4.24 Most of the jurisdictions reviewed do not appear to specify the format for the presentation of data on reserves and resources. The AIM however endorsed a similar approach, as stated in its guidance note issued in March 2006. Canadian regulators set out sample tables to provide an example of how certain reserves data can be presented in a manner consistent with NI 51-101.
- 4.25 Our proposal should ensure companies provide investors with relevant information in a user friendly format appropriate for comparative analysis.

Consultation Question

- 4.26 *Question 4.8:* Do you agree that data on reserves and resources must be presented in tables in a manner readily understandable to a non-technical person? Please provide specific reasons for your views.

CHAPTER 5 DISCLOSURE (TECHNICAL REPORTING) STANDARDS

Background

- 5.1 Significant differences exist between exploration for, development and production of solid minerals, and, oil and gas. This requires that the Exchange adopt two distinct sets of disclosure standards.
- 5.2 This section deals first with technical reporting standards acceptable for the preparation of CPRs (i.e. disclosure on resources and reserves) for hard minerals and secondly, those for oil and gas.

Mineral Reporting Standards

Proposal 5A: Accepted (technical reporting) standards

The proposals

- 5.3 Where CPRs are required under these proposals, the Exchange proposes to:
- (a) accept the three main JORC-type codes for the presentation of information on resources and reserves, namely the JORC Code, NI 43-101 and the SAMREC Code.
 - (b) request reconciliations to one of these codes where information is presented in accordance with the Russian Standard system for classification of mineral reserves and resources, or the solid mineral resource/reserve classification issued by the Ministry of Land and Resources in China (GB/T17766-1999), which is generally based on the UN's Framework Classification ("UNFC").

Practices in other jurisdictions and rationale

- 5.4 Australia, South Africa and Canada require CPRs to comply with their respective national mineral reporting codes, although Canadian NI 43-101 allows use of a JORC-type code or the SEC's Industry Guide 7 by foreign issuers or for assets located in foreign jurisdictions, so long as reconciliation to the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") categories is provided.

- 5.5 The UK Listing Authority accepts mineral expert's reports prepared under codes adopted by: the Australian Joint Ore Reserves Committee; Canadian Institute of Mining, Metallurgy and Petroleum; UK Institute of Materials, Minerals and Mining; South African Mineral Committee, and US Society of Mining, Metallurgy and Exploration. The AIM accepts Standards under the following codes and/or organisations: the JORC Code; the SAMREC Code; the Institute of Materials, Minerals and Mining (“**IMMM**”); CIM and the Gosstandart of Russia (“**GOST**”) as published by the National Certification Body of the Russian Federation and the Society for Mining, Metallurgy, and Exploration (“**SME**”).
- 5.6 We would like to retain a flexible approach to the presentation of estimates of mineral resources and reserves so long as we can still promote the most commonly recognised and widely accepted international standards. Industry experts consider that there are three existing alternative systems which might be used by companies seeking a listing, namely the JORC Code, the SAMREC Code and NI 43-101. The difference between these JORC-type codes is minor.
- 5.7 Industry experts have been comfortable with the co-existence of the JORC-type codes for years and given the subtle differences in the JORC-type codes, we consider that presentation on reserves and resources should be accepted under the three main JORC-type codes. London accepts all three of these codes in addition to the European Reporting Code and the SEC Industry Guide 7. Hong Kong's position is comparable with London, in that it is not an international mining centre with its own national reporting code.
- 5.8 We do not propose to accept the European Reporting Code nor the SEC Industry Guide 7 as the former is considered redundant to the other JORC-type codes, whilst the latter may be considered by mineral experts to be too brief for adoption on its own. The Pan European Reporting Code (“**PERC**”) was published in January of this year and has evolved from the European Reporting Code. PERC is being developed as a European wide code and is also seen as CRIRSCO family or JORC-type code. PERC does not yet appear to have attained widespread international recognition.

Acceptance of Russian and Chinese Standards

- 5.9 We will consider, from time to time, whether it is appropriate to recognise other international reporting standards. We have considered but at this stage do not propose accepting the Russian standards of reporting which are also used in the Commonwealth of Independent States (**CIS**), East Europe, North Africa, India and China, with modifications. The Russian system focuses on in-situ estimates in the absence of analysis for property based mining and processing losses and economic studies. Likewise, the United Nations Framework Classification for Fossil Energy and Mineral Reserves and Resources (**UNFC**), an effort at harmonizing fossil energy and mineral resources terminology, although adopted in China, is still evolving and has not attracted support from certain international mining centres.

- 5.10 The UNFC is considered by some industry experts as a highly complicated and aspirational model. They consider that the UNFC does not serve the minerals industry well as it fails to recognize the differences between the way the hydrocarbon and solid mineral industries report resources and reserves. CRIRSCO has re-engaged with the United Nations Economic Commission for Europe (UNECE) and has committed to lead efforts to produce definitions and guidelines based on the CRIRSCO Template that are compatible with the needs of users of the UNFC.
- 5.11 We are aware that efforts at revising the Chinese reporting system are underway so as to make it more compatible with the CRIRSCO or JORC-type codes. CRIRSCO is involved in working jointly with Russia and China to map existing systems to its Template and vice versa to promote the use of consistent and readily understood definitions and guidelines. We understand that CRIRSCO and GKZ (the Russian State Commission on Mineral Reserves) propose to present a conversion handbook on comparability of Russian and CRIRSCO categories of resources by the end of 2009.
- 5.12 We do not object to the presentation of information on reserves in accordance with Russian and Chinese standards. We do consider however that reconciliation to a JORC-type code is appropriate as these standards are presented on a fundamentally different basis to information presented under JORC-type codes and have not yet achieved widespread international recognition. This will enhance comparability between the Mineral and Exploration Companies listed on the Exchange.
- 5.13 From past experience, we note that companies using Chinese standards will usually present relevant information in accordance with the JORC Code to provide relevant information in accordance with widely recognised international standards. This includes information presented in prospectuses for the domestic market. We consider that it is appropriate, at least until developments with the UNFC and the efforts of CRIRSCO to provide reporting regimes which achieve widespread international recognition are successful, to insist on reconciliation to standards that will be recognised by the Exchange. We will consider giving guidance to the market as to the basis on which reconciliations to JORC-type Codes should be performed.
- 5.14 We propose to recognise Russian and Chinese standards when they are more widely accepted. The current concerns over comparability of these standards with those internationally recognised and a lack of global recognition necessitate a transitional period where reconciliations to JORC-type codes will protect the interests of investors. The other international exchanges reviewed will not accept reports on reserves prepared in Chinese or Russian standards, with the exception of AIM, which accepts Russian standards.

Consultation Questions

- 5.15 *Question 5.1:* Do you agree with the Exchange's proposal to accept the three main JORC-type codes for the presentation of information on resources and reserves, namely the JORC Code, NI 43-101 and the SAMREC Code? Please provide specific reasons for your views.

- 5.16 *Question 5.2:* Do you agree with the Exchange’s proposal to request reconciliation to one of the above codes where information is presented in accordance with Russian or Chinese standards, until such time as they achieve widespread recognition or efforts at convergence between these standards and JORC-type codes are sufficiently advanced? Please provide specific reasons for your views.

Proposal 5B: Estimates of mineral reserves must be supported at a minimum by a pre-feasibility study

The proposal

- 5.17 The Exchange proposes that estimates of mineral reserves must be supported at least by a pre-feasibility study. The definitions of pre-feasibility study and feasibility study will be set out in an appendix to the revised rules and based on the definitions set out under the SAMREC Code and NI 43-101, which appear similar in all material respects.

Practices in other jurisdictions and rationale

- 5.18 Most other jurisdictions accept pre-feasibility studies in support of statements on reserves. Specifically, the CIM Guidelines (used by NI 43-101) stipulate reserves should be supported by at least a preliminary feasibility study. At the minimum, the SAMREC Code requires a pre-feasibility study for a project or a “Life of Mine Plan” for an operation.
- 5.19 The SAMREC Code defines a pre-feasibility study as “a comprehensive study of a range of options for the viability of a mineral project that has advanced to a stage where the preferred mining method, in the case of underground mining or the pit configuration in the case of an open pit has been established and where an effective method of mineral processing has been determined. It includes a financial analysis based on realistically assumed assumptions of technical, engineering, operating, economic factors and the evaluation of other relevant factors which are sufficient for a Competent Person, acting reasonably, to determine if all or part of the Mineral Resource may be classified as a Mineral Reserve. The overall confidence of the study should be stated. A pre-feasibility study is at a lower confidence level than a feasibility study.”¹
- 5.20 The SAMREC Code defines a feasibility study as “a comprehensive design and costing study of the selected option for the development of a mineral project in which appropriate assessments have been made of realistically assumed geological, mining, metallurgical, economic, marketing, legal, environmental, social, governmental, engineering, operational, and all other modifying factors, which are considered in sufficient detail to demonstrate at the time of reporting that extraction is reasonably justified (economically mineable) and the factors reasonably serve as the basis for a final decision by a proponent or financial institution to proceed with, or finance, the development of the project. The overall confidence of the study should be stated.”²

¹ The SAMREC Code, p3.

² The SAMREC Code, p2.

- 5.21 In short, a feasibility study must demonstrate that extraction is reasonably justified in accordance with a number of factors, while a pre-feasibility study provides a lower level of assurance but requires that the Competent Person must be able to determine reasonably that all or part of a mineral resource may be classified as a mineral reserve. The crucial difference is that a feasibility study provides a high level of comfort that can be used to finance the development of a project.
- 5.22 The JORC Code does not have a formal definition of feasibility study and does not adopt the concept of a pre-feasibility study. It does however require that assessments and studies are carried out which correspond to a feasibility study level report as the basis for supporting a claim that reserves exist.
- 5.23 Regardless of whether the terms pre-feasibility study or feasibility study are formally defined in a code, mineral experts generally consider that a claim reserves exist must be supported by a comprehensive study covering various matters including: the geology; mining plan; processing plan; the estimates of recoverable mineralization, capital and operating costs; environmental permits and social impacts. The requirement for such a study is one of the distinguishing features of the JORC-type codes from other mineral resource classification systems such as the Chinese, Russian, UN, and other governmental resource classification systems.
- 5.24 As most jurisdictions accept pre-feasibility studies in support of statements on reserves, we propose to request that all estimates of reserves must be supported by at least a pre-feasibility study. This may serve to promote a level playing field between Canadian and South African mineral and exploration companies on the one hand, and Australian ones on the other. The requirement for pre-feasibility studies will also ensure that companies adopting Russian and Chinese standards will also support reports on reserves by studies on the commercial viability of extraction. This will make it easier for us to accept these standards of classification in the future.

Consultation Question

- 5.25 *Question 5.3:* Do you agree with the Exchange's proposal to require that estimates of mineral reserves be supported at a minimum by a pre-feasibility study as defined in the SAMREC Code and NI 43-101? Please provide specific reasons for your views.

Proposal 5C: Information on mineral resources and mineral reserves must not be combined

The proposals

- 5.26 The Exchange proposes that:
- (a) information on mineral resources and mineral reserves must not be combined.
 - (b) mineral resources must only be included in economic analyses if they are appropriately discounted for the probabilities of their conversion to reserves. The basis on which resources are considered to be economically extractable must also be stated if they are included in economic analyses.

Practices in other jurisdictions and rationale

- 5.27 Other jurisdictions have acknowledged the concern associated with the combining of resources and reserves, even though the practice is not always outlawed. The rationale for the proposal in 5.26(a) is that mineral reserve estimates include diluting materials and allowances for losses, which may occur when the material is mined, whereas mineral resource estimates are the in-situ material (and may include some economically unmineable material). If companies were allowed to add them together, they could present a more favourable projection of their prospects.
- 5.28 We consider that it is only appropriate to allow the inclusion of resources in economic analyses if they are appropriately discounted for conversion to reserves as the major risk associated with resources is whether they will be converted and the losses that will arise on conversion. We therefore consider that the basis on which resources are considered to be economically extractable must also be stated if they are included in economic analyses.

Consultation Questions

- 5.29 *Question 5.4:* Do you agree with the Exchange's proposal that information on mineral resources and mineral reserves must not be combined? Please provide specific reasons for your views.
- 5.30 *Question 5.5:* Do you agree with the Exchange's proposal that mineral resources must only be included in economic analyses if they are appropriately discounted for the probabilities of their conversion to reserves and the basis on which they are considered to be economically extractable is stated? Please provide specific reasons for your views.

Proposal 5D: Disclosure on commodity prices (hard minerals)

The proposals

- 5.31 Companies must explain methods used to determine commodity prices used in pre-feasibility and feasibility-level studies and valuations of reserves and resources, and state the basis on which such prices represent reasonable views of future prices. Where a contract for future prices exists, the contract price must be used. Companies must also provide sensitivity analyses to higher and lower prices.

Practices in other jurisdictions and rationale

- 5.32 We have considered whether the Exchange should mandate the use of long term average prices for cash flow projections or reserve estimates, given the volatility associated with commodity prices and their cyclical nature. It was suggested that a standardized measure may provide investors with an ability to compare the results of one company with another engaged in similar activities.

- 5.33 We note that the SEC is the only regulator in the jurisdictions reviewed that provides for the use of a standardised measure (i.e. long term average prices) for the presentation of economic values associated with reserves. Although this is aimed at providing investors with comparability among different issuers, market practitioners consulted indicated that advocating a standardised measure of presentation may instead mislead investors. Long term historical average prices often do not reflect current or future trends while there is usually market consensus on reasonable future prices. We therefore do not propose to mandate the use of long term average prices. However, in order to ensure that suitable estimates are used, we propose to require management to disclose the basis on which their estimates or assumptions on price are reasonable. The SAMREC Code advocates a similar practice. Where contracts for future prices exist, these prices must be used. Likewise, spot prices must be used where these are available.
- 5.34 Mineral companies recently listed on the Exchange presented sensitivity analyses together with their profit forecasts to illustrate the impact of changes in prices in the relevant commodity. Companies must continue this practice so that investors may easily see the impact on changes in prices to valuations of reserves or profit forecasts.

Consultation Questions

- 5.35 *Question 5.6:* Do you agree with our proposal that Mineral and Exploration Companies must explain the methodology used to determine commodity prices used in pre-feasibility and feasibility-level studies and valuations of reserves and resources, and state the basis on which such prices represent reasonable views of future prices? Please provide specific reasons for your views.
- 5.36 *Question 5.7:* Do you agree with our proposal that Mineral and Exploration Companies must present sensitivity analyses on price in their valuations of reserves and profit forecasts? Please provide specific reasons for your views.
- 5.37 *Question 5.8:* Do you consider that the requirement to state the methods used to determine prices and state the basis on which they are reasonable should extend to forecast prices of oil and gas? Please provide specific reasons for your views.

Oil and Gas Reporting Standards

Background

- 5.38 There are two main systems for reporting oil and gas resources commonly in use, the Canadian NI 51-101 and the SEC's Oil and Gas Disclosure standards, the recently updated version of which will come into effect on 1 January 2010. Both of these systems are based on or in broad agreement with PRMS, which may be considered the globally-recognised yardstick for making oil and gas evaluations.

Proposal 5E: Oil and Gas reporting framework

The proposal

- 5.39 We propose to adopt PRMS as the accepted reporting code for CPRs related to oil and gas resources, with modifications discussed below.

Practices in other jurisdictions and rationale

- 5.40 The UK Listing Authority accepts mineral expert's reports (for oil and gas reporting) prepared under the codes adopted by the SPE in association with the WPC and the AAPG, i.e. PRMS, as these entities jointly published the framework. The UKLA will consider accepting other international codes if it can be shown that they provide an equivalent standard of disclosure and apply a similar level of rigorous assessment of the underlying assets. AIM accepts Standards adopted by: CIM, and SPE, which includes PRMS. As previously stated, PRMS provides a framework for reporting on all categories of oil and gas resources, from Proved Reserves to Prospective Resources.
- 5.41 The SEC's Oil and Gas Disclosure Rules will come into effect on 1 January 2010. The SEC will permit companies to disclose "probable" and "possible" reserves in addition to "proved reserves". The "economic producibility" of reserves will be determined on a 12-month average annual price rather than a year-end spot price. The revised rules ensure that definitions of reserves are revised to take account of current industry practices and include oil and gas derived from "non-traditional" and "unconventional" sources. The SEC allows a foreign private issuer to exclude required disclosures about reserves and agreements if its home country prohibits such disclosures. The SEC's Oil and Gas Disclosure requirements do not apply to Canadian foreign private issuers which comply with similar rules under NI 51-101 in Canada, providing for mutual recognition of Canadian standards.
- 5.42 The SEC's Oil and Gas Disclosure Rules modernise their reporting regime by allowing companies to disclose "probable" and "possible" reserves whilst they were previously only entitled to disclose proved reserves.
- 5.43 In Canada, reporting issuers engaged in oil and gas activities must comply with the requirements of NI 51-101. There is broad agreement between Canadian standards and PRMS, and Canadian listed oil and gas companies are thus able to disclose their full portfolio of resources from Proved Reserves to Prospective Resources. Where a reporting issuer, that has securities registered in the United States, is subject both to the disclosure requirements of the SEC and to NI 51-101, it may apply for a limited exemption from certain disclosure requirements of NI 51-101. This was important for Canadian companies listed in the U.S. historically given that they have been able to disclose both proved and probable reserves. All companies subject to the SEC's Oil and Gas Disclosure Rules will however be able to provide such disclosure with effect from 1 January 2010.

- 5.44 The Australian Securities Exchange (“ASX”) issued an Exposure Draft in June 2007, where it proposed to amend its listing rules to allow listed entities that report oil and gas reserves and resources to: (i) report in accordance with PRMS; or (ii) report in accordance with the SEC Standard; or (iii) disclose or define the standard or methodology the company has used. This proposed amendment has not yet been introduced but, according to the Exposure Draft, is intended to ensure that ASX’s rules remain aligned with major reporting standards and afford companies greater flexibility so long as investors receive additional information about the methodology used to estimate reserves.
- 5.45 PRMS provides the basis for both the SEC and the Canadian standards and provides a common reference point for the international petroleum industry. The adoption of PRMS by the Exchange will ensure that oil and gas companies are able to report on their complete portfolios of resources (including reserves) to shareholders under a recognised framework. This will be particularly important to junior oil and gas exploration companies. However, in order to be eligible for listing, companies are expected to have a portfolio of Contingent Resources, at the very least. Please refer to Chapter 8 for further discussion.
- 5.46 The Oil and Gas companies currently listed on the Exchange largely report in accordance with SEC standards (perhaps as a result of the fact that the majority are dual listed) although they have on occasion made reference to the guidelines of the SPE and the WPC. The adoption of the PRMS should not cause any difficulties to these companies since the SEC standards are based on the PRMS classification system, as modified.
- Oil and Gas Standard adopted by the VALMIN Code*
- 5.47 The VALMIN Code, which is the only valuation code to specifically address petroleum assets, requires that all material petroleum occurrences, resources and reserves within the boundaries of the tenements under consideration *must* be reviewed and reported on in accordance with the PRMS.³

Consultation Question

- 5.48 *Question 5.9:* Do you agree with our proposal to adopt the PRMS as the accepted reporting code for CPRs related to oil and gas resources? Please provide specific reasons for your views.

³ Paragraph 75 of the VALMIN Code.

Proposal 5F: Disclosure and presentation of NPVs for Reserves

The proposals

- 5.49 We propose that Proved and Proved plus Probable Reserves are presented as Net Present Values (“NPVs”) on a post-tax ‘unrisked’ basis at varying discount rates, including a reflection of the weighted average cost of capital or minimum acceptable rate of return applicable to the entity at the time of the evaluation. Proved Reserves and the Proved plus Probable Reserves must be analysed separately and the principal assumptions (prices, costs, exchange rates and effective date) must be stated in all cases. Requiring that NPVs for Proved and Probable Reserves must be stated on an “unrisked” basis simply clarifies present practice. NPVs are invariably stated on an unrisked basis, since it has already been determined that they are more likely than not to be recovered.
- 5.50 PRMS requires the Competent Person to apply a discount rate that reasonably reflects the weighted average cost of capital or the minimum acceptable rate of return applicable to the entity at the time of the evaluation.
- 5.51 We propose that companies must present estimates of NPVs of reserves using a forecast price as a base case but must also include a sensitivity analysis including a constant price, to be represented by the unweighted arithmetic average of the closing price on the first day of each month within the 12-month period prior to the end of the reporting period, unless prices are defined by contractual arrangements. It should be noted that, in the forecast case under PRMS, the economic evaluation underlying the investment decision is based on the entity’s reasonable forecast of future conditions, including costs and prices, which will exist during the life of the project.

Practices in other jurisdictions and rationale

Discount Rates

- 5.52 Under AIM rules, Proved and Proved plus Probable Reserves are presented as Net Present Values (“NPVs”) on a post-tax basis at a discount rate of 10%. Proved Reserves and the Proved plus Probable Reserves must be analysed separately and the principal assumptions (including cost assumptions, effective date, constant and/or forecast prices, forex rates) must be stated in all cases.
- 5.53 AIM mandates a 10% discount rate for the calculation of NPVs for reserves as an acceptable subjective rule of thumb. Experts consider that this is not always an indicative economic figure of a company’s cost of capital. PRMS requires that a discount rate be applied that reasonably reflects the weighted average cost of capital or the minimum acceptable rate of return applicable to the entity at the time of the evaluation.

- 5.54 The SEC's discussion of economic values associated with reserves is focused on historical average prices (i.e. the standardised measure approach), discussed below. The standardised measure uses only a 10% discount rate at specified prices and costs. However, the presentation of reserve estimates using different discount rates is allowed but not required under the SEC's Oil and Gas Disclosure Rules. Canadian NI 51-101 requires the reporting issuer to provide estimates of the net present value of reserves calculated without discount and using discount rates of 5 percent, 10 percent, 15 percent and 20 percent. The reporting issuer must also disclose the unit value for each category of reserves calculated on a pre-tax basis at a discount rate of 10 percent.
- 5.55 As the discount rate to be applied to the calculation of NPVs of reserves is a sensitivity that can be varied, we consider that the listing applicant must provide disclosure to reflect various discount rates, including the weighted average cost of capital or the minimum acceptable rate of return applicable to the entity at the time of the evaluation. While providing investors with details based on varying rates, our approach will also ensure consistency with the principles in PRMS.

Historical v Future Prices

- 5.56 The SEC proposes a 12-month average historical price rule to determine the economic producibility of reserves. The 12-month average price is calculated as the unweighted arithmetic average of the first-day-of-the-month price for each month within the 12-month period prior to the end of the reporting period, unless prices are defined by contractual arrangements. The SEC considers that this approach increases comparability between companies' oil and gas reserves disclosures, mitigating additional variability a single-day price may have on reserve estimates. Companies that do not consider that the use of historical prices captures management's outlook of the future are now permitted to present a sensitivity analysis in their filings using different price and cost criteria, such as a range of prices and costs that may reasonably be achieved.
- 5.57 Canadian NI 51-101 requires the reporting issuer to provide estimates of the net present value of Proved and Proved plus Probable Reserves using both pre- and post-tax forecast prices. Companies must disclose the pricing assumptions used in estimating reserves data for each of the previous five financial years; and the reporting issuer's weighted average historical prices for the most recent financial year. "Forecast prices and costs" are those "generally accepted as being a reasonable outlook of the future". Disclosure of reserves data may be supplemented with estimates of the NPV of future net revenues run both pre- and post-tax for its proved reserves or its proved and probable reserves, using constant prices and costs as at the last day of the reporting issuer's most recent financial year.

- 5.58 We consider that oil and gas companies must present estimates of reserves using a forecast price as the base case, as this is what management will be using to make relevant investment decisions. The requirement to include a sensitivity analysis on a constant case scenario using a 12-month average oil and gas price calculated using the actual prices received on the first day of each month ensures that the historical position is clearly provided. The historical position is also considered important, especially given that received prices depend on the specific quality of oil or gas along with adjustments for deleterious contents, and the quality of oil and gas can vary with each reservoir.
- 5.59 We also propose that companies which have dual listings in Hong Kong and the US which are subject to the SEC's Oil and Gas Disclosure Standards will be permitted to present estimates of reserves using the constant price as the base case, provided that they also disclose a sensitivity analysis on the forecast case scenario. Providing a sensitivity analysis is allowed by the SEC's Oil and Gas Disclosure Rules.
- 5.60 Regardless of whether industry experts consider that the historical cost basis or forecast prices should be favoured as the base case on which estimates of reserves are based, our proposal caters for both.

Consultation Questions

- 5.61 *Question 5.10:* Do you agree with the proposal that Proved and Proved plus Probable Reserves be presented as Net Present Values ("NPVs") on a post-tax 'unrisked' basis at varying discount rates, including a reflection of the weighted average cost of capital or minimum acceptable rate of return applicable to the entity at the time of evaluation? Please provide specific reasons for your views.
- 5.62 *Question 5.11:* Do you agree with the proposal that Proved Reserves and Proved plus Probable Reserves must be analysed separately and the principal assumptions must be stated in all cases? Please provide specific reasons for your views.
- 5.63 *Question 5.12:* Do you agree with the proposal that companies must present estimates of NPVs of reserves using a forecast price as a base case but must also provide a sensitivity analysis including a constant price, to be represented by the unweighted arithmetic average of the closing price on the first day of each month in that 12 month period? Please note the possible variation in this proposed rule applicable for companies that may be subject to the SEC's Oil and Gas Disclosure Standards in paragraph 5.59. Please provide specific reasons for your views.

Proposal 5G: Disclosures about estimated volumes of oil and gas resources

The proposal

- 5.64 The Exchange proposes that disclosures about estimated volumes of oil and gas resources should be permitted, provided relevant risk factors are clearly stated.

Volumes and Risk under PRMS

- 5.65 As stated above, risk and uncertainty are articulated as key but significantly different concepts under PRMS. Risk is primarily associated with the classification of volumes and is a measure of the certainty of progressing to production. Uncertainty is the driver for categorization and is a measure of the technical factors impacting the resources' ultimate producibility⁴. A diagrammatic illustration of the categorisation of resources under PRMS is set out above in paragraph 2.20.
- 5.66 In the Contingent Resources class, the risk is expressed as the chance that the accumulation will be commercially developed and graduate to the Reserves class. We propose to mandate that this risk factor be clearly stated when quoting a Contingent Resource volume.
- 5.67 In the Prospective Resources class, the risk is expressed as the chance that a potential accumulation will result in a significant discovery of petroleum. We propose to mandate that this risk be clearly stated whenever a Prospective Resource volume is quoted.

Practices in other jurisdictions and rationale

- 5.68 The UK AIM market allows companies to report their full portfolio of assets/resources (i.e. Reserves, Contingent Resources and Prospective Resources). The AIM Rules require estimates of volumes of resources to be presented in tables together with appropriate risk factors. Canada also allows oil and gas companies, who are reporting issuers, to make disclosures on resources provided resource estimates satisfy various conditions, including that they are audited by a qualified auditor or evaluator, that specific contingencies which prevent classification as reserves are explained and that prescribed cautionary language is provided.”⁵
- 5.69 In contrast, the SEC, under its new oil and gas rules, has continued to prohibit disclosures about oil and gas resources other than reserves, and any estimated values of such resources. The limited exceptions are when (i) the information is required to be disclosed by a foreign or state law or (ii) an estimate has been previously provided to an entity that is offering to acquire, merge, or consolidate with, the registrant or otherwise to acquire the registrant's securities.

⁴ SPE Petroleum Resources Management System Guide for Non-Technical Users, pp 1-4.

⁵ Please see Section 5.9 of NI 51-101 for further details.

- 5.70 The Exchange proposes to permit disclosure of oil and gas resources, provided that relevant risk factors are clearly stated, particularly as we anticipate that potential listed issuers operating in this region (mainland China, SE Asia) are likely to include junior companies with immature assets. As stated above, PRMS provides a suitable framework for companies to report on their whole portfolio of resources. In the absence of an appropriate oil and gas reporting standard, we have been advised that companies may report on findings that may translate into reserves in their own words. A conventional framework is better than allowing companies to report on exploration results in their own words, which may be expressed to investors in different ways which may be misleading.

Consultation Question

- 5.71 *Question 5.13:* Do you agree with the Exchange’s proposal that disclosures about estimated volumes of oil and gas resources should be allowed, provided relevant risk factors are clearly stated? Please provide specific reasons for your views.

Proposal 5H: Disclosures on economic values attached to resources

The proposal

- 5.72 We propose that Mineral and Exploration companies must not attach economic values to Contingent or Prospective Resources.

Practices in other jurisdictions and rationale

- 5.73 AIM only explicitly permits NPVs of Proved and Proved plus Probable Reserves, but does state that “additional valuations may be included,” which some technical experts have taken to allow lower classes of resources. These valuations should include an explanation of the basis of the valuation and the method used.
- 5.74 While Canadian regulators expressly allow reporting issuers to disclose estimated values attributable to estimated volumes of resources, they impose specific conditions for reporting. These estimates must satisfy the conditions set out in paragraph 5.68 above.
- 5.75 There is some support for permitting disclosure of economic values associated with Contingent Resources as it may assist investors to establish a share price for junior oil and gas exploration companies. Some industry experts point to recognised industry standards to attach values to Contingent Resources by assessing the mean of all the possible value outcomes associated with the development of Contingent Resources.

- 5.76 We are concerned that the disclosure of values for Prospective or Contingent Resources may be misleading and cause investors to speculate because of the uncertainty associated with resources. Attaching values to Prospective Resources is of particular concern given that accumulations may not even result in a significant discovery. Even in the case of Contingent Resources, we understand that practices vary whilst institutional investors very rarely ascribe them meaningful values. Accordingly, we consider that whilst companies should be allowed to present their full portfolio of resources, they should not be permitted to ascribe values to Contingent or Prospective Resources.

Consultation Question

- 5.77 *Question 5.14:* Do you agree with our proposal that Mineral and Exploration Companies should not be permitted to attach economic values to Contingent or Prospective Resources? Please provide specific reasons for your views.

Proposal 5I: Competent Persons for Oil and Gas CPRs and detailed requirements

The proposals

- 5.78 The Exchange proposes that CPRs must be prepared by independent Competent Persons and deal with the list of items in Appendix II.
- 5.79 A ‘Competent Person’ must have a minimum of five years experience relevant to the style of mineralization and type of deposit under consideration or to the type of oil and gas exploration, reserve estimate, and to the activity which that person is undertaking. A Competent Person must be professionally qualified, and a member in good standing of an RPO that upholds professional standards and ethics, and has disciplinary powers, including those of suspension and expulsion. For valuation purposes, the Exchange proposes to adopt the definition of ‘Competent Person’ in paragraph 5.85 below.

Practices in other jurisdictions and rationale

- 5.80 The SEC’s Oil and Gas Disclosure Rules do not appear to prescribe a format for technical reports. However, Canadian NI 51-101 requires the annual filing of various information in prescribed form, including a “Statement of Reserves Data and Other Oil and Gas Information”, a “Report on Reserves Data by the Independent Qualified Reserves Evaluator or Auditor” and “Reports of Management and Directors on Oil and Gas Disclosure”. The AIM Guidance Note provides a similar template to the one we propose, to assist companies to ensure that their technical reports are comprehensive and provide relevant information to investors. Industry experts consider that templates are helpful to market practitioners.

- 5.81 There are various definitions of technical experts in terms of the level of experience required on the part of individuals before they may be viewed as competent to prepare a technical report. PRMS has definitions for both a ‘Reserves Estimator’ and a ‘Reserves Auditor’. We have taken account of these definitions and have also striven for consistency with the definition of Competent Person for minerals in forming the definition in paragraph 5.79.

Consultation Questions

- 5.82 *Question 5.15:* Do you agree with the Exchange’s proposed definition of ‘Competent Person’ for oil and gas reporting? Please provide specific reasons for your views.
- 5.83 *Question 5.16:* Do you agree with the Exchange’s proposal that CPRs must be prepared by independent Competent Persons and deal with the list of items in Appendix II? Please provide specific reasons for your views.

Proposal 5J: Valuation codes

The proposals

- 5.84 Whenever valuations of natural resources properties are prepared in connection with the presentation of estimates on resources and reserves, we propose that they must be prepared in accordance with the VALMIN, SAMVAL or CIMVAL valuation codes. This is consistent with our adoption of the JORC Code, the SAMREC Code and NI 43-101. Whether or not a valuation is required must be determined by Competent Persons and company management.
- 5.85 To perform valuations, a Competent Person must have at least ten years of relevant and recent general mining or petroleum experience as appropriate; at least five years of relevant and recent experience in the assessment and/or valuation of mineral or petroleum assets or securities, as appropriate; hold appropriate licenses; be independent; be professionally qualified, and, be a member in good standing of an RPO.

Practices in other jurisdictions and rationale

- 5.86 Some jurisdictions, such as Australia and Canada, have specific requirements on when valuation reports will be required, incorporated in national securities legislation. Other exchanges are silent on the requirement to provide valuation reports and the standards that should be adopted. In these cases, company management and the relevant independent expert usually decide whether a valuation report is required. This is the position we propose to adopt. By contrast, South Africa requires that a CPR must contain a valuation section which must be completed and signed off by a Competent Valuator in compliance with the SAMVAL Code.

- 5.87 The codes we propose to adopt are based on the proposed adoption of the three main JORC-type codes. The SAMVAL and CIMVAL valuation codes are based on the VALMIN Code and are equally respected in the international mining industry. The fact that the VALMIN Code is the only one that applies to petroleum assets should itself dictate that oil and gas companies use the VALMIN Code.
- 5.88 The proposed definition of Competent Person for valuations requires that an individual has ten years experience in contrast to the suggested five for the compilation of data on reserves and resources. This largely follows requirements under the VALMIN Code. Although the other valuation codes do not refer to a specific number of years for experience required on valuations, they do indicate that considerable experience should be obtained ahead of carrying out valuations. By way of example, a “Qualified Valuator” under the CIMVAL Code is required to have “extensive experience” in the valuation of mineral properties. A “Competent Valuator” under the SAMVAL Code is required to have “sufficient relevant experience in valuing mineral assets” although it does not appear to quantify what may be regarded as sufficient.

Consultation Questions

- 5.89 *Question 5.17:* Do you agree with the Exchange’s proposal to accept the VALMIN, CIMVAL and SAMVAL valuation codes for the valuation of natural resources properties? Please provide specific reasons for your views.
- 5.90 *Question 5.18:* Do you agree with the Exchange’s proposed definition of ‘Competent Person’ for valuation purposes? Please provide specific reasons for your views.
- 5.91 *Question 5.19:* Do you agree with the Exchange’s proposal that company management and the relevant independent expert must determine whether a valuation report is required? Please provide specific reasons for your views.

CHAPTER 6 CONTINUING OBLIGATIONS

(for companies treated as Mineral and Exploration Companies and existing listed issuers engaging in mineral and/or exploration activity)

Proposal 6A: Requirement for CPRs and statements on reserves and resources

The proposals

- 6.1 In addition to complying with all other relevant requirements under the Listing Rules, Mineral and Exploration Companies must produce CPRs on the assets being acquired or disposed of in connection with transactions for the acquisition or disposal of resources and/or reserves which require shareholder approval (i.e. transactions which are classed as ‘major’ or above under Chapter 14 of the Listing Rules). This requirement also applies to listed issuers if they enter into acquisitions for resources and/or reserves classed as major or above. These CPRs must be presented to shareholders in the circulars sent to them ahead of the proposed general meeting.
- 6.2 On completion of a major transaction (or above) to acquire mineral and exploration assets, an existing listed company will be treated as a Mineral and Exploration Company, unless it can demonstrate otherwise.
- 6.3 We may dispense with the requirement for CPRs on relevant transactions if detailed information on reserves and resources, in accordance with our approved mineral and/or oil and gas codes, is already in the public domain.
- 6.4 Listed issuers that have previously published details of reserves and resources must update such statements once a year in their annual reports. This may be achieved with statements of no material change by the company and need not be accompanied by a CPR. In other words, such statements may be prepared by companies’ internal management.
- 6.5 We propose that Mineral and Exploration Companies must provide details of exploration, mining production and development activities and expenditure incurred on these three activities in their interim (half-yearly) and annual reports.

Practices in other jurisdictions and rationale

- 6.6 In the United Kingdom and South Africa, mineral and exploration companies are generally required to provide CPRs when they list and when they enter into transactions that require shareholder approval (i.e. a transaction where any of the percentage ratios is 25% or more). In Australia, a transaction where a listed company agrees to issue further securities as consideration will require shareholder approval, where the proposed issue exceeds 15% of existing capital. On the TSX’s main market, security holder approval is required for acquisitions resulting in more than 25% dilution, while on the TSX Venture board, security holder approval is only required for transactions which result in a change of control.

- 6.7 In Canada, reporting issuers must file a technical report to support scientific or technical information about mineral projects on material properties with a number of documents including, offering documents, preliminary short form prospectuses, annual information forms, valuations required under securities legislation, take-over bid circulars and so on.⁶ Also, a reporting issuer must file a technical report to support a news release or directors' circular that contains a change in a preliminary assessment or in mineral resources or mineral reserves estimates from the most recently filed technical report that constitutes a material change in the issuer's affairs. Canadian NI 43-101 stipulates that technical reports should be filed within 45 days of relevant news releases. Companies have to apply for specific relief if they are not able to comply with the 45 day requirement.
- 6.8 Canada appears to be the only country requiring an independent auditor's report on reserves for annual reporting. The practice in the UK and Australia is that financial auditors rely on companies' disclosure although some occasionally carry out independent audits of reserves as a means of providing shareholder comfort. We do not propose that Mineral and Exploration Companies should be required to carry out independent audits on reserves and resources for the purposes of annual reporting. We do however consider that management of Mining and Exploration Companies should update shareholders in their annual reports on statements of reserves and resources where they have made such statements during the year.
- 6.9 The ASX requires that both mining producing and mining exploration entities provide quarterly updates on exploration, mining production and development activities with details of expenditure incurred on such activities. Details must be provided not later than one month after the end of each quarter. Other exchanges do not follow this practice. Although listed companies have the obligation to release all material and price sensitive information on a timely basis (Listing Rule 13.09) we understand that production updates are useful to investors and contain information which may collectively be material. We do not propose to mandate that such information be provided on a quarterly basis but consider that relevant information should be provided to shareholders as a matter of course in financial updates required under the Listing Rules.
- 6.10 We note that practices in other exchanges differ slightly but that the majority have thresholds for shareholder approval which are broadly in line with our existing concept of materiality. Given that we have precise parameters aimed at determining a level at which a transaction should require shareholder approval, we propose to be consistent with established parameters of materiality shareholders are familiar with. We propose that transactions by Mineral and Exploration Companies need only be accompanied by CPRs if these transactions require shareholder approval (i.e. 'major' and above). The requirement will apply to acquisitions of mineral and/or exploration assets by listed issuers to ensure shareholders are provided with reliable information on mineral and exploration assets. We will consider whether a short grace period should be provided for companies that have already entered into and announced relevant transactions.

⁶ Section 4.2 of NI 43-101 sets out a comprehensive list of documents which must be supported by a technical report.

Consultation Questions

- 6.11 *Question 6.1:* Do you agree with our proposal that Mineral and Exploration Companies must produce CPRs on transactions for the acquisition or disposal of resources and/or reserves, which require shareholder approval (i.e. transactions which are classed as ‘major’ or above)? Please provide specific reasons for your views.
- 6.12 *Question 6.2:* Do you agree with our proposal that listed issuers which enter into acquisitions for resources and/or reserves classed as major or above must also comply with the requirement to produce CPRs? Do you consider that such companies should be granted a short grace period for relevant transactions that have already been entered into and announced on implementation of the new rules? Please provide specific reasons for your views.
- 6.13 *Question 6.3:* Do you agree with our proposal that, we may dispense with the requirement for CPRs on relevant transactions if detailed information on reserves and resources, in accordance with our approved mineral and/or oil and gas codes, is already in the public domain? Please provide specific reasons for your views.
- 6.14 *Question 6.4:* Do you agree listed issuers that have previously published details of reserves and resources must update such statements once a year in their annual reports? Please provide specific reasons for your views.
- 6.15 *Question 6.5:* Do you agree with our proposal that Mineral and Exploration Companies must provide details of exploration, mining production and development activities and details of expenditure incurred on these three activities in their interim (half-yearly) and annual reports? Please provide specific reasons for your views.

Proposal 6B: Disclaimers in CPRs (also applicable to CPRs for new applicants)

The proposals

- 6.16 We propose to:
- (a) prohibit blanket disclaimers in technical reports;
 - (b) disallow material indemnities in favour of the Competent Person or entity that prepared the report; and
 - (c) permit disclaimers for sections/topics in the report in which the Competent Person relied upon other experts opinions.

Practices in other jurisdictions and rationale

- 6.17 Canadian NI 43-101 prohibits certain disclaimers in technical reports. These include blanket disclaimers that disclaim responsibility for, or reliance on, that portion of the report that the qualified person prepared. Disclaimers are also prohibited when they create limitations on the use or publication of the report that would interfere with an issuer's obligation to reproduce the report. Qualified Persons (equivalent to Competent Person) are permitted to insert a disclaimer of responsibility if they relied on other experts who are not Qualified Persons for legal, environmental, political, or other issues relevant to the technical report that are not within the Qualified Person's area of expertise.
- 6.18 We consider that it is appropriate that disclaimers should be limited. It is anticipated that disclaimers will be reviewed on a case by case basis in prospectuses and circulars requiring shareholder approval.

Consultation Questions

- 6.19 *Question 6.6:* Do you agree with the Exchange's proposal to prohibit blanket disclaimers in technical reports? Please provide specific reasons for your views.
- 6.20 *Question 6.7:* Do you agree with the Exchange's proposal to disallow material indemnities in favour of the Competent Person or entity that prepared the report? Please provide specific reasons for your views.

CHAPTER 7 SOCIAL AND ENVIRONMENTAL STANDARDS

The proposals

- 7.1 We propose that Mineral and Exploration Companies must consider and provide disclosure on the following matters, where material to their business operations:
- (a) The nature of the prospecting or exploration right and mining right;
 - (b) Project risks arising from environmental, social and health issues;
 - (c) NGO impact on sustainability of mineral and/or exploration projects;
 - (d) Compliance with host country laws, regulations and permits;
 - (e) Determined secondary impacts associated with the proposed activities;
 - (f) Provision of suitable funding for management operational measures and for closure of the facilities in an acceptable and sustainable manner;
 - (g) Environmental liabilities of the project or property;
 - (h) Details of the company's historical experience of dealing with host country laws and practices, including management of differences between national and local practice, details of operational risks and management arrangements;
 - (i) Details of the company's historical experience of dealing with concerns of local governments and communities on the sites of its exploration properties and relevant management arrangements; and
 - (j) Details of any native claims that may exist to the land on which exploration activity is carried out.

Practices in other jurisdictions and rationale

- 7.2 None of the other jurisdictions reviewed appear to endorse specific social and environmental disclosures. We are however aware that some of them have internal guidelines on social and environmental issues that those vetting listing documents should focus on.
- 7.3 We consider that we may use this opportunity to encourage companies to consider matters relevant to an investor's appraisal of its stance on social and environmental issues, given their increasing importance and coverage. These issues need only be covered to the extent that they will have a material impact on a company's operations. We hope that an indication of the nature of social and environmental issues that companies might consider will serve to improve standards of disclosure to the market.
- 7.4 We note that there is varying practice in the market amongst listing applicants in terms of disclosure on environmental issues. We have on occasion seen compliance with standards such as World Bank and International Finance Corporation Requirements and the Equator Principles. We welcome compliance with such best standards of practice but in reality such extensive disclosure will only be provided by companies that obtain financing from financial institutions that subscribe to the Equator Principles ("EPFIs"). Given that there are only estimated to be sixty global financial institutions that are EPFIs, we consider that it is worth highlighting some major social and environmental issues that listing applicants should consider.

Consultation Question

- 7.5 *Question 7.1:* Do you agree with the Exchange's proposal to encourage Mineral and Exploration Companies to consider and provide disclosure on the social and environmental matters described in paragraph 7.1, where material to their business operations? Please provide specific reasons for your views.

CHAPTER 8 ELIGIBILITY OF EXPLORATION COMPANIES

The proposals

- 8.1 Our proposed definition of Mineral and Exploration Companies is disclosed in Chapter 3.
- 8.2 We propose to allow Mineral and Exploration Companies to seek listings provided that they have a portfolio of mineral or oil and gas resources identifiable under the proposed reporting standards. For oil and gas companies, this will mean ‘Contingent Resources’ as defined under PRMS, as opposed to Prospective Resources. Mineral companies currently seeking a listing under Chapter 18 are required to demonstrate the existence of “adequate economically exploitable reserves”.
- 8.3 New applicant Mineral and Exploration Companies should be mindful of their disclosure obligations. New applicants must include CPRs on their portfolios of reserves and resources in their prospectuses. Those that have not yet commenced production must disclose their plans to proceed to production with indicative dates and costs. New applicant Mineral and Exploration Companies with resources in their portfolios (i.e. not reserves in accordance with an accepted standard) must warn investors that such resources may not ultimately be extracted at a profit. This risk must be disclosed prominently.

Practices in other jurisdictions and rationale

Defining Mineral Companies

- 8.4 The jurisdictions reviewed have different ways of classifying mineral companies. Australia, London and South Africa all categorise mining companies by reference to their principal activities involving mining and/or exploration. In the case of the Official List in London, the activity is confined to the extraction or proposed extraction of mineral resources. The ASX, UKLA or JSE do not expressly quantify ‘principal activity’ or its equivalent. The ASX delineates ‘mining entities’ into two categories: ‘mining producing entities’ and ‘mining exploration entities’, as it imposes different disclosure reporting requirements on these mining entities.
- 8.5 Under the former UKLA Listing Rules, in determining what constituted a principal activity, the UK Listing Authority had regard to all circumstances, including whether the activity represented 25% or more of gross revenue, operating expenses, assets or market capitalisation of the company or group. The UK Listing Rules were simplified when disclosure requirements for prospectuses of mineral companies were incorporated into the CESR Guidance in 2005.
- 8.6 For the sake of clarity and transparency, the Exchange proposes to classify that principal activity shall be determined by whether the activity represents 25% or more of assets, gross revenue or operating expenses. The 25% threshold is consistent with the requirements for CPRs and determines whether a transaction is ‘major’ and accordingly

requires shareholder approval.

Eligibility

- 8.7 All of the jurisdictions reviewed by the industry experts allow exploration stage companies to list. London is an exception in that early stage exploration companies list on AIM, while mineral companies seeking a listing on the Official List are expected to demonstrate that commercial extraction of reserves is viable.
- 8.8 Local retail investors appear to have recently demonstrated that they have appetite for risk comparable with overseas investors when the potential for reward exists. We nevertheless consider that any proposal to list exploration stage companies should be coupled with measures to protect investors given that market infrastructure in Hong Kong and investor knowledge in the mining sector may not be as well developed as other jurisdictions. It is accepted that there are significantly higher investment risks associated with exploration companies that have not yet identified resources because they face geological as well as development risk.
- 8.9 Our proposals to require that companies must have identified resources to list will protect investors as they will not be exposed to the high risks of failure of early stage exploration companies. Such companies will face significant geological risk. The requirement to set out steps to production will ensure that listing applicants have a viable business plan, which also serves to mitigate the risk investors are exposed to.

Consultation Questions

- 8.10 *Question 8.1:* Do you agree that Chapter 18 should be amended to allow Mineral and Exploration Companies that have mineral or oil and gas resources to apply for listing? Please provide specific reasons for your views.
- 8.11 *Question 8.2:* Do you agree that it is not appropriate to list early stage exploration companies in the interests of investor protection, i.e. those that have not yet determined the existence of resources? Please provide specific reasons for your views.
- 8.12 *Question 8.3:* Do you agree that new applicant Mineral and Exploration Companies that have not yet commenced production must disclose their plans to proceed to production with indicative dates and costs? Please provide specific reasons for your views.
- 8.13 *Question 8.4:* Do you consider that new applicant Mineral and Exploration Companies which have not yet commenced production should be subject to any additional eligibility requirements, such as a requirement to have a minimum market capitalisation? Please provide specific reasons for your views.
- 8.14 *Question 8.5:* Do you agree with the Exchange's proposed definition for 'Mineral and Exploration Companies'? Please provide specific reasons for your views.

GLOSSARY OF TERMS

AAPG	American Association of Petroleum Geologists
AIM	Alternative Investment Market of the London Stock Exchange
ASX	Australian Securities Exchange
AUD	Australian Dollar
CESR	The Committee of European Securities Regulators
CIM	Canadian Institute of Mining, Metallurgy and Petroleum
CIMVAL	Standards and Guidelines for Valuation of Mineral Properties endorsed by the Canadian Institute of Mining, Metallurgy and Petroleum
CIS	Commonwealth of Independent States
CPR	Competent Person's Report (terminology used in the UK and South Africa for ITR)
CRIRSCO	The Committee for Mineral Reserves International Reporting Standards
EPFIs	Equator Principles Financial Institutions
European Reporting Code	Code for Reporting of Mineral Exploration Results, Mineral Resources and Mineral Reserves (2001 edition)
FSA	Financial Services Authority (UK)
HKFRS	Hong Kong Financial Reporting Standards
IFC	International Finance Corporation
IFRS	International Financial Reporting Standards
IMMM	Institute of Materials, Minerals and Mining
IPO	Initial public offering
ITR	independent technical report (terminology used in Canada for CPR)
JORC Code	The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (2004 edition), as published by the Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia

JORC-type Codes	the JORC Code, the SAMREC Code and NI 43-101
JSE	Johannesburg Securities Exchange
LSE	London Stock Exchange Plc
MOU	Memorandum of Understanding
NGO	Non-Governmental Organisation
National Instrument 43-101 (NI 43-101)	The (Canadian) Standards of Disclosure for Mineral Projects, including Form 43-101F1, Companion Policy 43-101.
National Instrument 51-101 (NI 51-101)	The (Canadian) Standards of Disclosure for Oil and Gas Activities
NPV	Net Present Value
PERC	Pan European Reporting Code
PRC	People's Republic of China, other than the regions of Hong Kong, Macau and Taiwan
PRMS	Petroleum Resources Management System published by SPE/AAPG/WPC/SPEE in March 2007
RPO	Recognised Professional Organisation
SAMREC Code	The South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (2007 edition)
SAMVAL Code	The South African Code for the Reporting of Mineral Asset Valuation (2008 edition)
SEC	U.S. Securities and Exchange Commission
SEC Industry Guide 7	the mining industry guide entitled "Description of Property by Issuers Engaged or to be Engaged in Significant Mining Operations" contained in the Securities Act Industry Guides published by the U.S. SEC, as amended
SEC's Oil and Gas Disclosure Rules	SEC Release No. 33-8995, Modernisation of Oil and Gas Reporting, issued on 31 December 2008 (to be implemented on 1 January 2010)
SFC	Securities and Futures Commission (HK)
SFO	The Securities and Futures Ordinance (HK)
SPE	The Society of Petroleum Engineers
SPEE	The Society of Petroleum Evaluation Engineers
TSX	Toronto Stock Exchange

UKLA	United Kingdom Listing Authority
UNECE	United Nations Economic Commission for Europe
UNFC	United Nations Framework Classification for Fossil Energy and Mineral Reserves and Resources
the VALMIN Code	Code for the Technical Assessment and Valuation of Mineral and Petroleum Assets and Securities for Independent Expert Reports (2005 edition)
WPC	World Petroleum Council

Mineral Terms (sourced from the JORC Code, 2004 edition, for reference)

Ore Reserve	An ‘Ore 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. Appropriate assessments and studies have been carried out, and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction could reasonably be justified. Ore Reserves are sub-divided in order of increasing confidence into Probable Ore Reserves and Proved Ore Reserves.
Probable Ore Reserve	A ‘Probable Ore Reserve’ is the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource. It includes diluting materials and allowances for losses which may occur when the material is mined. Appropriate assessments and studies have been carried out, and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction could reasonably be justified.
Proved Ore Reserve	A ‘Proved Ore Reserve’ is the economically mineable part of a Measured Mineral Resource. It includes diluting materials and allowances for losses which may occur when the material is mined. Appropriate assessments and studies have been carried out, and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction could reasonably be justified.

Mineral Resource	A 'Mineral Resource' is a concentration or occurrence of material of intrinsic economic interest in or on the Earth's crust in such form, quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.
Inferred Mineral Resource	An 'Inferred Mineral Resource' is that part of a Mineral Resource for which tonnage, grade and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence and assumed but not verified geological and/or grade continuity. It is based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes which may be limited or of uncertain quality and reliability.
Indicated Mineral Resource	An 'Indicated Mineral Resource' is that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are too widely or inappropriately spaced to confirm geological and/or grade continuity but are spaced closely enough for continuity to be assumed.
Measured Mineral Resource	A 'Measured Mineral Resource' is that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a high level of confidence. It is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are spaced closely enough to confirm geological and grade continuity.

Oil and Gas Terms (sourced from the PRMS published March 2007)

Reserves	Reserves are those quantities of petroleum anticipated to be commercially recoverable by application of development projects to known accumulations from a given date forward under defined conditions.
Proved Reserves	Proved Reserves are those quantities of petroleum, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be commercially recoverable, from a given date forward, from known reservoirs and under defined economic conditions, operating methods, and government regulations.
Probable Reserves	Probable Reserves are those additional Reserves which analysis of geoscience and engineering data indicate are less likely to be recovered than Proved Reserves but more certain to be recovered than Possible Reserves.
Possible Reserves	Possible Reserves are those additional reserves which analysis of geoscience and engineering data suggest are less likely to be recoverable than Probable Reserves.
Contingent Resources	Contingent Resources are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations, but the applied project(s) are not yet considered mature enough for commercial development due to one or more contingencies.
Prospective Resources	Prospective Resources are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from undiscovered accumulations.

APPENDIX I PROPOSED RISK FACTORS AND ANALYSIS

Although other jurisdictions do not have a specific risk factor requirement, a listing of significant risk factors provides investors with a summary of significant risks to the company and its properties.

This classification of risks aims to ensure that risks are assessed on objective basis for comparability. Risk has been classified from minor to major, which can be further clarified as:

- **Major Risk:** the factor poses an immediate danger of a failure, which if uncorrected, will have a material effect (>15% to 20%) on the project cash flow and performance and could potentially lead to project failure.
- **Moderate Risk:** the factor, if uncorrected, could have a significant effect (10% to 15% or 20%) on the project cash flow and performance unless mitigated by some corrective action.
- **Minor Risk:** the factor, if uncorrected, will have little or no effect (<10%) on project cash flow and performance.

The likelihood of a risk must also be considered. Likelihood within a 7-year time frame can be considered as:

- Likely: will probably occur
- Possible: may occur
- Unlikely: unlikely to occur

The degree or consequence of a risk and its likelihood are combined into an overall risk assessment as presented in Table 1.1.

Table 1.1			
Overall Risk Assessment			
Likelihood of Risk (within 7 years)	Consequence of Risk		
	Minor	Moderate	Major
Likely	Medium	High	High
Possible	Low	Medium	High
Unlikely	Low	Low	Medium

Table 1.2 presents an example of a risk assessment for a coal project and shows how the likelihood and consequences of a risk are combined into an overall rating. Note that the detailed items considered are project specific

**Table 1.2
Project Risk Assessment Table Before Mitigation**

Hazard/Risk Issue	Likelihood	Consequence Rating	Risk
Geological			
Lack of Significant Resource	Unlikely	Minor	Low
Loss of Significant Reserve	Possible	Major	High
Significant Unexpected Faulting	Likely	Major	High
Significant Subsidence	Possible	Moderate	Medium
Poor Geological Roof	Likely	Moderate	Medium
Unexpected Groundwater Ingress	Possible	Moderate	Medium
Unexpected Seam Gas Outburst	Unlikely	Moderate	Low
Mining			
Significant Production Shortfalls	Possible	Major	High
Production Pumping System Adequacy	Unlikely	Major	Medium
Adverse Pre-Mining Stress	Possible	Moderate	Medium
Excessive Gas	Possible	Moderate	Medium
Spontaneous Combustion	Unlikely	Major	Medium
Significant Geological Structures	Likely	Moderate	High
Poor Development Roof/Rib Conditions	Possible	Minor	Low
Poor Development Floor Conditions	Unlikely	Moderate	Low
Poor Production Roof	Unlikely	Major	Medium
Excess Surface Subsidence	Possible	Major	High
Outbursts	Unlikely	Major	Medium
Windblasts	Unlikely	Moderate	Low
Processing/Handling			
Lower Yields	Possible	Minor	Low
Lower Plant Production Levels	Possible	Moderate	Medium
Higher Plant Production Costs	Possible	Moderate	Medium
Plant Reliability	Possible	Moderate	Medium
Handling System	Unlikely	Moderate	Low
Environmental			
Water Discharge Non-Compliance	Possible	Minor	Low
Significant Unpredicted Subsidence	Possible	Moderate	Medium
Regulatory Consent/Variation Delays	Possible	Minor	Low
Capital and Operating Costs			
Project Timing Delays	Possible	Moderate	Medium
Mine Management – Plan	Unlikely	Minor	Low
Capital Cost Increases – Start-Up	Possible	Moderate	Medium
Capital Costs – Ongoing	Unlikely	Minor	Low
Operating Costs Underestimated	Possible	Moderate	Medium
Project Implementation			
Critical Path Delays	Possible	Moderate	Medium

There are five high risk areas identified in Table 1.2. While this approach is necessarily subjective and a number of issues are related, the areas with high risk rating may be summarized as follows:

- loss of significant reserve,
- significant production shortfalls,
- significant unexpected faulting,
- significant geological structures, and
- excess surface subsidence.

The areas of high risk, ranked by their importance, should be an important part of technical and valuation reports. Although general areas such as geology, reserve estimation, production, processing, financial issues, social and environmental issues are common major topics in risk assessments, the specific risks appropriate to each property and each company will differ from property to property and company to company. For a particular property or company, the number and order of risk factors will vary from year to year. In periods of low commodity prices, a risk factor relating to commodity prices will be far more important than during periods when commodity prices are high. Availability of needed equipment (drill rigs, trucks, shovels, etc.) also varies from year to year. The issuer is responsible for ensuring that appropriate risk factor disclosures are made.

APPENDIX II MATTERS FOR INCORPORATION IN CPRs FOR OIL AND GAS COMPANIES

A CPR must be prepared on all the resources and reserves of the applicant (or the assets to be acquired or disposed of), and reproduced in full without adjustment in the prospectus or circular. The following represents matters which should be included in a CPR (Note: the report must be updated to state any material facts which have occurred since the Effective Date).

Table of Contents

Executive Summary

Introduction

- Description of CP's terms of reference.
- A statement of qualification and independence of the CP.
- Statement that Resources/Reserves have been substantiated by evidence (from a site visit, if appropriate), supported by analyses and take account of information supplied to CP.
- A statement as to the Effective Date of the estimates.
- Description of the nature and source of information used in the preparation of the Report. A clear statement of data source and any limitations on data availability must be made. Where data is provided by the client, CP reliance on the data must be stated.
- Standard used.
- Abbreviated definitions of the categories of Reserves and Resources used in the CPR shall be clearly set out.
- A statement as to whether or not a site visit has been carried out must be made, (including details of who undertook such visit and when). If no site visit was made a satisfactory reason as to why this was not carried out must be included. The CP must determine whether or not a site visit is necessary.

Summary of Assets

- Description/Table of assets and client's Interest holdings with gross and net acreage;
- Summary of Gross and Net Proved and Proved + Probable Reserves (net revenue interest and/or net entitlement interests as appropriate) as of [date];
- Gross (100% of field) Production Profiles (consolidated) for Proved and Proved + Probable Reserves (listed separately);
- Summary of upside, if any, in the form of Possible Reserves, Contingent and Prospective Resources;
- Summary of NPVs attributable to the Proved and Proved + Probable Reserves followed by caveat;
- Summary of NPVs for Possible Reserves, if appropriate.

Note: volumetric or monetary results of differing classes of Reserves/Resources with other classes must not be summed. Prospective Resources must not be summed (either to each other or to other classes).

Discussion

General

- General description of petroleum history of region in question.
- Regional/basin generalized geology and evident petroleum system.

Field(s), Licence(s) or Asset(s)

For individual fields, licences or assets, or a number of fields, licences or assets, reporting must be divided into four explicitly different sections:

1. Reserves;
2. Contingent Resources;
3. Prospective Resources; and
4. Other assets material to the applicant (e.g. a pipeline which is not part of the producing assets facilities or an evacuation pipeline or a petrochemical plant).

For each of the above Sections 1-3 the following must be covered, as applicable:

- Nature and extent of rights to explore and extract hydrocarbons, duration, responsibility for rehab/abandonment costs, etc;
- Description of geological characteristics – include stratigraphic column (if not previously included);
- Characteristics of the reservoir (thickness, porosity, permeability, pressure, recovery mechanism), or that judged to be expected in the case of Prospective Resources;
- Exploration drilling details including depth of zone tested, rock formation encountered, and any liquids/gases encountered/recovered;
- Date production commenced;
- Details of any developments;
- Details of commercial risk for Contingent Resources;
- Details of geological risk assessment for Prospective Resources;
- Methods employed for exploration and/or extraction;
- Plans, maps for each field demonstrating geological characteristics, platforms, pipelines, wells, bore holes, sample pits, trenches and similar, to the extent they exist;
- Discussion on field development plan;
- Comments on plant and machinery – suitability, expected life capability in terms of rates, conditions, costs of maintaining;
- Production schedules and basis for estimate; and
- Comments on any production forecasts made by the company.

Note specifically that:

- Statement of Reserves including split between Proved and Proved + Probable, method of estimation, expected recovery factor must be made.
- If other than Proved and Probable Reserves, these Resources (including Possible Reserves) may be independently stated but they must be combined with a clear statement that they are entirely excluded from any asset valuation or statement of Reserves.

Corporate/Other

- Statement of long term prospects of company;
- Assessment of technical staff employed; and
- Any other factors that should be mentioned (e.g. transportation difficulties, marketing) that might affect value perceptions.

Economic Evaluation

Economic evaluation will be based on Discounted Cash Flow analyses of various cases.

- For Reserves (Proved and Proved + Probable), separate NPVs will be calculated for each case.
- Oil Prices used in Forecast and Constant cases must be clearly stated, including discounts or premiums of quality, transportation or logistics.
- Gas price scenarios must be based on existing gas sales contract terms. Otherwise Spot price applicable to other localities must be stated and used, if appropriate.
- A summary of the fiscal terms under which the licence(s) or permit(s) are held;
- The CP must apply varying discount rates including the weighted average cost of capital or the minimum acceptable rate of return applicable to the entity at the time of the evaluation.

Other assumptions under the Base Case are outlined below:

1. All cash flows are discounted on a mid-year basis to [Effective Date];
 2. Cost inflation rate;
 3. Exchange rate (if applicable); and
 4. Brief description of salient fiscal terms and assumptions.
- Tabulate NPV results for company's net economic interests (but do not sum-up volumes or monetary conclusions for different categories).
 - Include sensitivity analyses (e.g. variations to capital expenditure, operating costs, discount rate, oil and gas prices etc) if appropriate but stating clearly the parameters chosen.
 - Include separate economic evaluation of plant and machinery (e.g. pipelines) if not used in the extraction of the reserves.

Social and Environmental

Include discussion on any social and or environmental issues, which are relevant to the exploration or exploitation of the hydrocarbons. This should include comments on, for example, difficulties of access, difficulties in laying pipelines, special environmental concerns (e.g. fishing grounds) etc.

Qualifications

Include a statement of qualification of the person(s) who prepared the report stating clearly their expertise, qualifications, years of experience and professional society affiliations, including membership details of a Recognised Professional Organisation.

Basis of Opinion

Include a statement of the basis of opinion i.e. conducted within the context of CP's understanding of the effects of petroleum legislation, taxation, and other regulations that currently apply to these properties and whether CP is or is not in a position to attest to rights to explore, mine or explore and mine the relevant minerals, financial interest relationships or encumbrances for any part of the appraised properties.

Additionally, it must be noted that the CPR is an independent opinion and must remain as such. However, the preparation of the document requires data to be supplied by the company and its inclusion in the offering documentation will need to be compatible with the rest of the document.

APPENDIX III PERSONAL INFORMATION COLLECTION AND PRIVACY POLICY STATEMENT

Provision of Personal Data

1. Your supply of Personal Data to HKEx is on a voluntary basis. “Personal Data” in these statements has the same meaning as “personal data” in the Personal Data (Privacy) Ordinance, Cap 486, which may include your name, identity card number, mailing address, telephone number, email address, login name and/or your opinion.

Personal Information Collection Statement

2. This Personal Information Collection Statement is made in accordance with the guidelines issued by the Privacy Commissioner for Personal Data. It sets out the purposes for which your Personal Data will be used after collection, what you are agreeing to in respect of HKEx’s use, transfer and retention of your Personal Data, and your rights to request access to and correction of your Personal Data.

Purpose of Collection

3. HKEx may use your Personal Data provided in connection with this consultation paper for purposes relating to this consultation and for one or more of the following purposes:
 - administration, processing and publication of the consultation paper and any responses received;
 - performing or discharging HKEx’s functions and those of its subsidiaries under the relevant laws, rules and regulations;
 - research and statistical analysis; and
 - any other purposes permitted or required by law or regulation.

Transfer of Personal Data

4. Your Personal Data may be disclosed or transferred by HKEx to its subsidiaries and/or regulator(s) for any of the above stated purposes.
5. To ensure that the consultation is conducted in a fair, open and transparent manner, any response together with your name may be published on an “as is” basis, in whole or in part, in document form, on the HKEx website or by other means. In general, HKEx will publish your name only and will not publish your other Personal Data unless specifically required to do so under any applicable law or regulation. If you do not wish your name to be published or your opinion to be published, please state so when responding to this paper.

Access to and Correction of Data

6. You have the right to request access to and/or correction of your Personal Data in accordance with the provisions of the Personal Data (Privacy) Ordinance. HKEx has the right to charge a reasonable fee for processing any data access request. Any such request for access to and/or correction of your Personal Data should be addressed to the Personal Data Privacy Officer of HKEx in writing by either of the following means:

By mail to: Personal Data Privacy Officer
Hong Kong Exchanges and Clearing Limited
12th Floor, One International Finance Centre
1 Harbour View Street
Central
Hong Kong

**Re: Consultation Paper on
New Listing Rules for Mineral and
Exploration Companies**

By email to: pdpo@hkex.com.hk

Retention of Personal Data

7. Your Personal Data will be retained for such period as may be necessary for the carrying out of the above-stated purposes.

Privacy Policy Statement

8. HKEx is firmly committed to preserving your privacy in relation to the Personal Data supplied to HKEx on a voluntary basis. Personal Data may include names, identity card numbers, telephone numbers, mailing addresses, e-mail addresses, login names, opinion, etc., which may be used for the stated purposes when your Personal Data are collected. The Personal Data will not be used for any other purposes without your consent unless such use is permitted or required by law or regulation.
9. HKEx has security measures in place to protect against the loss, misuse and alteration of Personal Data supplied to HKEx. HKEx will strive to maintain Personal Data as accurately as reasonably possible and Personal Data will be retained for such period as may be necessary for the stated purposes and for the proper discharge of the functions of HKEx and those of its subsidiaries.

