

Notice

Repeal and Replacement of National Instrument 43-101 Standards of Disclosure for Mineral Projects, Form 43-101F1 Technical Report, and **Companion Policy 43-101CP**

April 8, 2011

Introduction

We, the Canadian Securities Administrators (CSA), are adopting new versions of National Instrument 43-101 Standards of Disclosure for Mineral Projects (the New Instrument), Form 43-101F1 Technical Report (the New Form), and Companion Policy 43-101CP (the New Companion Policy) (together, the New Mining Rule).

The New Mining Rule will replace the previous versions of these documents (the Previous Mining Rule), which came into effect in all CSA jurisdictions on December 30, 2005.

Concurrently with this Notice, we are publishing the New Mining Rule, the Consequential Amendments (see below), and blacklines of the New Instrument and the New Form showing all changes from the versions of these documents currently in force. These documents are also available on the websites of CSA members, including the following:

- www.bcsc.bc.ca
- www.albertasecurities.com
- www.sfsc.gov.sk.ca
- www.osc.gov.on.ca
- www.lautorite.gc.ca
- www.nbsc-cvmnb.ca

In some jurisdictions, Ministerial approvals are required for these changes. Subject to obtaining all necessary approvals, the New Mining Rule and the Consequential Amendments will come into force on June 30, 2011.

Substance and Purpose of the New Mining Rule

The changes in the New Mining Rule

- eliminate or reduce the scope of certain requirements
- provide more flexibility to mining issuers and qualified persons in certain areas
- provide more flexibility to accept new foreign professional associations, professional designations, and reporting codes as they arise or evolve
- reflect changes that have occurred in the mining industry, and
- clarify or correct areas where the Previous Mining Rule was not having the effect we intended

Background

We have been monitoring the Previous Mining Rule since its adoption. In the spring of 2009, CSA members carried out focus group discussions with market participants from various sectors, consulted with their advisory committees, and solicited written comments concerning a range of issues related to the Previous Mining Rule. We developed proposed changes to the Previous Mining Rule and published them for a 90-day comment period on April 23, 2010 (the April 2010 Materials).

The New Mining Rule reflects our further consideration of these proposed changes in light of the comments we received, the results of a survey we conducted of the costs of filing technical reports in connection with short form prospectuses, and other developments during the comment period.

Written Comments

The comment period expired on July 23, 2010. During the comment period, we received submissions from 50 commenters. We have considered these comments and we thank all the commenters. A list of the 50 commenters and a summary of their comments, together with our responses, are contained in Appendices B and C.

Summary of Changes to the April 2010 Materials

We have made some revisions to the April 2010 Materials, including changes of a minor nature or made only for the purposes of clarification or further streamlining. Appendix A describes the key changes made to the April 2010 Materials. As the changes are not material, we are not republishing the New Mining Rule for a further comment period.

Consequential Amendments

We are also adopting consequential amendments to

- National Instrument 44-101 Short Form Prospectus Distributions
- Form 51-102F1 Management's Discussion and Analysis
- Form 51-102F2 Annual Information Form
- National Instrument 45-106 *Prospectus and Registration Exemptions*
- National Instrument 45-101 *Rights Offerings*

(together, the Consequential Amendments).

The Consequential Amendments are contained in Appendices D through G.

Local Notices

Certain jurisdictions are publishing other information required by local securities legislation in Appendix H.

Questions

If you have any questions, please refer them to any of the following:

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Appendix A

Summary of Key Changes to the April 2010 Materials

The New Instrument

Part 1 Definitions and Interpretation

- Instead of defining the terms "preliminary feasibility study", "pre-feasibility study" and "feasibility study" in the Instrument, we incorporated by reference, in new section 1.4, the definitions of those terms under the CIM Definition Standards, as amended.
- In the definition of "mineral project", we added the words "a similar interest" to capture metals streaming agreements that are similar to royalty interests.
- We revised the proposed definition of "qualified person" as follows:
 - We applied the requirement for a university degree or equivalent accreditation to the qualified person, rather than to the membership designation in a foreign professional association.
 - We applied the requirement for continuing professional development to the professional association, rather than to the membership designation in a foreign professional association.
 - O With respect to membership designations in a foreign professional association that do not require a favourable confidential peer evaluation, we changed the alternative criteria from "at least ten years of post-degree practical experience" to "demonstrated expertise". We also reduced the minimum peer recommendations from three to two.

Part 2 Requirements Applicable to All Disclosure

• We clarified in paragraph 2.3(1)(c) that the restriction applies to the disclosure of gross value, not quantity, of metal or mineral in a deposit.

Part 4 Obligation to File a Technical Report

• In paragraph 4.2(1)(b), we restricted application of the technical report trigger for a preliminary short form prospectus to situations where the preliminary short form prospectus discloses for the first time mineral resources, mineral reserves, or the results of a preliminary economic assessment that constitute a material change in relation to the issuer, or a change in this information, if the

change constitutes a material change in relation to the issuer. This is Case 3 as described in the April 2010 Materials.

- We revised the 45-day exemption in subsection 4.2(5) to clarify that, if the disclosure is also included in a preliminary short form prospectus, the technical report must be filed by the earlier of the date of filing the preliminary short form prospectus and 45 days after the first time disclosure.
- We revised the new six-month exemption in subsection 4.2(7) to clarify that, if the disclosure is also contained in a preliminary short form prospectus, the technical report must be filed by the earlier of the date of filing the preliminary short form prospectus and 180 days after the first time disclosure.

Part 7 Use of Foreign Code

• In subsection 7.1(2), we re-instated a modified version of the reconciliation requirement in the Previous Mining Rule. An issuer must provide a reconciliation of any material differences between the mineral resource and mineral reserve categories used and the categories under the CIM Definition Standards.

Part 9 Exemptions

- In section 9.2, we added the words "or similar interest" to capture metals streaming agreements.
- We amended subparagraph 9.2(1)(a)(i) to include the requirement that the owner or operator be a reporting issuer, as reporting issuers are subject to more rigorous disclosure requirements.

The New Form

- We added an instruction to Item 6: History indicating the need to distinguish work done outside the current property boundaries, from work done within the boundaries.
- We added a similar instruction to Item 10: Drilling regarding drilling conducted by previous operators.
- In Item 15: Mineral Reserve Estimates, paragraph (a), we removed references to the preliminary feasibility study or feasibility study.
- In Item 19: Market Studies and Contracts, paragraph (a), we eliminated the requirement to disclose the results of relevant market studies and similar analyses. We substituted a requirement for the qualified person to discuss the general nature

of the studies done, and to confirm that they have reviewed the studies and that the results support the assumptions in the technical report.

The New Companion Policy

- We added general guidance on our expectations regarding updating the lists of "acceptable foreign codes" and "professional associations" in Appendix A.
- We added new guidance on
 - o our interpretation of the good standing requirement for "qualified persons" and the meaning of "demonstrated expertise"
 - o the restriction against disclosing gross value of contained metal or mineral
 - o triggers with permitted filing delays, and
 - o the exemptions for royalty or similar interests in section 9.2 of the New Instrument
- We removed the last paragraph of the guidance on section 2.4 of the New Instrument. We had intended this guidance to merely repeat the tests in paragraph 4.2(1)(j) of the New Instrument but concluded that it was unnecessary and confusing.
- We replaced the proposed guidance on the preliminary short form prospectus trigger because the trigger still applies in certain circumstances.
- We made some additions and clarifications to Appendix A to reflect the changes to the definition of "qualified person".

Appendix B

List of Commenters

1.	April 29, 2009	Canadian Council of Professional Geoscientists
2.	May 10, 2010	Wardrop
3.	May 19, 2010	Canadian Institute of Mining, Metallurgy and Petroleum Special Committee on Valuation of Mineral Properties
4.	June 2, 2010	SRK Consulting (UK) Limited
5.	June 10, 2010	Loewen, Ondaatje, McCutcheon Limited
6.	June 28, 2010	Stantec
7.	June 29, 2010	APEGM
8.	July 6, 2010	John T. Postle
9.	July 8, 2010	Scott Wilson
10.	July 9, 2010	Fonds de solidarité FTQ and translation
11.	July 9, 2010	Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists
12.	July 12, 2010	Neil Gow
13.	July 15, 2010	Geoscientists Nova Scotia
14.	July 16, 2010	Ted Eggleston
15.	July 16, 2010	Micon International Limited
16.	July 16, 2010	Canadian Institute of Mining, Metallurgy and Petroleum
17.	July 19, 2010	Capstone Mining Corp
18.	July 19, 2010	Goldcorp
19.	July 19, 2010 and July 23, 2010 addendum	Fasken Martineau

20.	July 20, 2010	Engineers Geoscientists New Brunswick
21.	July 20, 2010	Ordre des geologues du Quebec and translation
22.	July 20, 2010	Geoscientists Canada
23.	July 21, 2010	Fred Barnard
24.	July 21, 2010	Association of Professional Geoscientists of Ontario
25.	July 22, 2010	Coffey Mining
26.	July 22, 2010	Khalid Elhaj
27.	July 22, 2010	TD Asset Management Inc.
28.	July 22, 2010	Silver Wheaton
29.	July 22, 2010	Stephen Semeniuk
30.	July 23, 2010	Prospectors & Developers Association of Canada
31.	July 23, 2010	TMX Group Inc.
32.	July 23, 2010	VENMYN
33.	July 23, 2010	Bennett Jones
34.	July 23, 2010	Ausenco Minerals & Metals
35.	July 23, 2010	Cameco Corporation
36.	July 23, 2010	AMEC Americas Limited
37.	July 23, 2010	Cassels Brock
38.	July 23, 2010	Osler Hoskin & Harcourt LLP
39.	July 23, 2010	Golder Associates
40.	July 23, 2010	Canadian Coalition for Good Governance
41.	July 23, 2010	De Beers Canada Inc.
42.	July 23, 2010	Endeavour Financial
43.	July 23, 2010	Borden Ladner Gervais LLP
44.	July 23, 2010	Hunter Dickinson

45.	July 23, 2010	New Gold
46.	July 23, 2010	Sandstorm Resources Ltd.
47.	July 23, 2010	Association of Professional Engineers & Geoscientists of Saskatchewan
48.	July 26, 2010	Pincock Allen & Holt
49.	July 30, 2010	Davies, Ward, Phillips and Vineberg
50.	August 8, 2010	Australian Joint Ore Reserves Committee (JORC)

Appendix C

Summary of Comments and CSA Responses

Proposed National Instrument 43-101 Standards of Disclosure for Mineral Projects, Form 43-101F1 Technical Report and Companion Policy 43-101CP (together, NI 43-101) and related consequential amendments

Table of Contents

A. General Comments

1. General support for the proposed amendments to NI 43-101

B. Proposed National Instrument 43-101 (Instrument)

- 1. Part 1 Definitions and Interpretation
- 2. Part 2 Requirements Applicable to All Disclosure
- 3. Part 3 Additional Requirements for Written Disclosure
- 4. Part 4 Obligation to File a Technical Report
- 5. Part 5 Author of Technical Report
- 6. Part 6 Preparation of Technical Report
- 7. Part 7 Use of Foreign Code
- 8. Part 8 Certificates and Consents of Qualified Persons for Technical Reports
- 9. Part 9 Exemptions
- 10. Other general comments

C. Proposed Form 43-101F1 (Form)

- 1. General comments regarding the Form
- 2. Specific comments regarding the Form

D. Proposed Companion Policy 43-101CP (Companion Policy)

- 1. General comments regarding the Companion Policy
- 2. Specific comments regarding the Companion Policy

E. Proposed Consequential Amendments

- 1. Amendment to National Instrument 44-101 Short Form Prospectus Distributions (NI 44-101)
- 2. Amendment to Form 51-102F1 Management's Discussion and Analysis (MD&A)

F. Specific Questions – Short Form Prospectus Trigger

- 1. General responses to questions on short form prospectus trigger
- 2. Responses to specific questions
 - (a) Question #1
 - (b) Question #2
 - (c) Question #3
 - (d) Question #4

G. Specific Questions - New Exemption for Property Acquisition with Current Technical Report

1. Question #5

H. Specific Questions – Existing Exemption from Site Visit Requirement

1. Question #6

I. General Comments Not Specifically Related to Proposals

- 1. Disclosure requirements
- 2. Technical report review

A. GENERAL COM	IMENTS	
* *		
the proposed amendments to NI 43-101	26 commenters express general support for the proposed amendments to NI 43-101. Several commenters thanked CSA for the opportunity to participate in focus group discussions and for CSA's efforts to undertake a broad consultation process in developing the proposed amendments.	We thank the commenters for their support. We found the feedback very useful in identifying key industry issues and thank all the contributors for their time and input.
B. PROPOSED NA	ΓΙΟΝΑL INSTRUMENT 43-101 (INSTRUMENT)	
General comments i	regarding the Instrument	
Drafting comment	One commenter suggests that the introductory phrases in the current Instrument, such as "subject to", "except for", etc., should be retained as they make the Instrument easier to read and understand for the many users of the Instrument that are not legal professionals.	While we do not disagree with the commenter, the inclusion of these phrases is contrary to legislative drafting conventions in some jurisdictions.
Cautionary language	A commenter strongly supports the various new requirements in the Instrument for cautionary language, including the requirements for prominence and proximity. The commenter would further support cautionary language being bolded or otherwise brought to the attention of readers.	We acknowledge the comment but think that the proposed requirement to give cautionary language equal prominence will provide sufficient notice to readers.
Scope of Instrument	A commenter thinks the 43-101 process is designed to regulate disclosure of mineral resources, but is used to disclose mineral reserves, which is beyond the realm of geology and geostatistics. A parallel process is needed to regulate disclosure of mineral reserves where the onus is not on geologists and geostatisicians.	We disagree. NI 43-101 applies to all disclosure of scientific and technical information, including mineral reserves. Qualified persons, as defined in the Instrument, include engineers who are customarily involved in the preparation of reserve estimates.
	Cautionary language Scope of Instrument	B. PROPOSED NATIONAL INSTRUMENT 43-101 (INSTRUMENT) General comments regarding the Instrument One commenter suggests that the introductory phrases in the current Instrument, such as "subject to", "except for", etc., should be retained as they make the Instrument easier to read and understand for the many users of the Instrument that are not legal professionals. Cautionary language A commenter strongly supports the various new requirements in the Instrument for cautionary language, including the requirements for prominence and proximity. The commenter would further support cautionary language being bolded or otherwise brought to the attention of readers. Scope of A commenter thinks the 43-101 process is designed to regulate disclosure of mineral resources, but is used to disclose mineral reserves, which is beyond the realm of geology and geostatistics. A parallel process is needed to regulate disclosure of mineral reserves where the onus is not

#	Theme	Comments	Responses
1.	Part 1 Definitions an	nd Interpretation	
	Definition of "acceptable foreign code"	Two commenters expressly support the proposed changes to this definition and moving to an objective test.	
		A commenter generally supports the proposed broader definition, but would have concerns if the phrase "generally accepted in a foreign jurisdiction" includes Russian-based codes. In the commenter's experience, these codes are seriously at odds with CIM standards and are misleading to investors.	We do not think the proposed definition of acceptable foreign code would include Russian-based codes because they are not consistent with CIM standards, and therefore would not satisfy the test in the definition.
		A commenter notes that the definition includes SEC Industry Guide 7 but this is missing from the related section in the Companion Policy.	We included SEC Industry Guide 7 as an acceptable foreign code because of the large number of cross-border issuers in Canada. We did not refer to it in the guidance because it does not use mineral resource and reserve categories consistent with other acceptable foreign codes.
		One commenter that is an exchange says it will only accept foreign codes expressly accepted by CSA, and suggests that CSA maintain a list of currently acceptable foreign codes.	The codes specifically identified in the definition are the codes that staff think currently satisfy the definition. We plan to publish CSA Staff Notices on a timely basis identifying the additional codes that we think satisfy the definition of "acceptable foreign code", based on our own research or submissions from market participants made in accordance with subsection 1.1(1) of the Companion Policy.
		A commenter recommends that CSA include in this definition "The SME Guide for Reporting Exploration Results, Mineral Resources, and Mineral Reserves", which is being used by major mining companies in the USA and SME is lobbying the SEC to adopt. The SME code should be recognized because SME members participate on CRIRSCO and have worked to improve technical disclosure standards and to develop a code in the USA that is consistent with CIM definitions.	We understand that mining companies in the USA that elect to use the SME code are still required to comply with SEC Industry Guide 7. As a result, we do not think the SME code currently satisfies the test that the foreign code must be "generally accepted in a foreign jurisdiction". We will continue to monitor the situation.

#	Theme	Comments	Responses
	Definition of "advanced property"	Two commenters express concerns about including a property that has been the subject of only a preliminary economic assessment because these early stage assessments are unreliable and it is not appropriate to describe the property as "advanced".	We do not share these concerns. The term "advanced property" is intentionally broad as its sole use under the Instrument is to identify a general category of properties (those with an economic analysis) that are subject to additional disclosure requirements under the Form.
		A commenter notes that not all pre-feasibility or feasibility studies result in the declaration of mineral reserves, and therefore these properties would not qualify as "advanced properties".	We agree, and have amended the definition to include this scenario.
		A commenter thinks the paragraph relating to reserves should simply require the property to have reserves, because reserves by definition must be economically mineable as demonstrated by at least a preliminary feasibility study.	We agree, and have amended the definition accordingly.
	Definition of "advanced property" and other property categories	A commenter notes the proposed definition of "advanced property" does not specifically include "development property" or "producing issuer", so technical reports for development and producing properties would include unnecessary disclosure of drill results in Item 10 (c) of the Form.	We think that "advanced property" is sufficiently broad to capture development and producing properties. The proposed amended definition, together with the proposed elimination of the definition of "development property", should clarify this.
		The commenter suggests defining a new category of mineral project possibly called "Deposit Delineation Property" to capture properties where drilling is proposed or which have mineral resources but no economic analysis. This commenter also thinks it is not clear which term to use to describe small scale producing properties that do not meet the "producing issuer" definition, such as projects deriving revenue from pilot plants.	We have not adopted these suggestions, as it is not necessary for purposes of the Instrument or Form to provide definitions for all stages of a mineral project. We only include those definitions that are necessary to differentiate properties for purposes of application of the rule.

#	Theme	Comments	Responses
	Definition of "Certification Code"	A commenter expressly supports the recognition of Chile's Certification Code in the Instrument.	
	Definition of "development property"	A commenter suggests this definition is not necessary as it is used only once, in the Instruction to Item 26 of Form 43-101F1, where it arguably does not need a precise definition.	We agree, and have deleted this definition. We note though that the definition is also used in paragraphs (b) and (c) of the Instructions to Illustrations, and have amended the wording of these references accordingly.
	Definition of "effective date"	A commenter expressly supports this new definition and distinguishing it from the date of signature. Another commenter finds the current wording confusing as it is unclear how the date would be selected, who would select it, and where it would be stated. They propose amending the definition to the date of the technical report or the date specified in the report by the qualified person.	We do not think it is necessary to amend the definition because paragraph 8.1(2)(c) of the Instrument and the Date and Signature Page section of the Form specify these details. However, we have added guidance to the Companion Policy to clarify the meaning and purpose of "effective date".
	Definition of "feasibility study"	A commenter proposes that issuers should not be permitted to add descriptions to the defined term such as "bankable", which are potentially misleading. Consider providing guidance in the Companion Policy.	We do not think such descriptions are necessarily misleading because the definition of feasibility study refers to a study acceptable to a financial institution.

#	Theme	Comments	Responses
	Definition of "historical	Seven commenters expressly support the proposed changes to this definition	
	estimate"	One of these commenters notes however that very old and recent estimates will be accorded equal status.	Our decision to treat all historical estimates consistently is based on industry feedback. We think the requirements of section 2.4 of the Instrument should mitigate any potential concerns.
		Another suggests that, if the historical estimate is post-2001, the issuer should name the qualified person responsible for the estimate as well as the system they used for classifying the resources.	We think the requirement in section 3.1 of the Instrument for the issuer to name a qualified person is sufficient in this case. We agree that the classifying system would be useful information. We have added guidance in the Companion Policy that the issuer can comply with paragraph 2.4(d) of the Instrument by identifying the acceptable foreign code used, if applicable.
		A commenter proposes revising this definition to include estimates previously made by the issuer itself. Sometimes a property is in inventory but dormant and historical estimates, although not current, are important information.	We have not adopted this suggestion. This situation would only arise for estimates that have been dormant since at least 2001, which we think would be relatively rare. In most cases, the issuer will have all the data necessary to upgrade the estimate to current mineral resources or reserves.
	Definition of "preliminary economic assessment"	Change to permit preliminary assessment after completion of a pre-feasibility or feasibility study Ten commenters expressly support this change.	
		A commenter thinks this change is potentially confusing as assessments done after a feasibility study are based on much more accurate information concerning the deposit, metallurgy and costs of the project than an early stage study.	We do not see this as a significant concern because these assessments include inferred mineral resources that have a low confidence level and any economic analysis should be considered preliminary.
		Another commenter supports allowing an issuer to disclose some form of "assessment" when new material information becomes available after a pre-feasibility or feasibility study,	See our response to the comment above.

#	Theme	Comments	Responses
		but does not think these assessments should be described as "preliminary". Addition of word "economic" Four commenters disagree with the proposed change in the defined term from "preliminary assessment" to "preliminary economic assessment". Their reasons include: It could imply a level of analysis that is not supported by an early stage study. The change shifts the focus from "preliminary" where it should be, to "economic".	We think the word "economic" adds accuracy to the definition because these studies include an economic analysis and their purpose is to assess the potential economic viability of the deposit. Disclosure of the results of these studies must include required cautionary language to ensure the disclosure is not misleading.
		Other A commenter finds the proposed changes in this definition confusing because the related guidance says preliminary economic assessments are commonly referred to as "scoping studies" - this term implicitly means a study done before a pre-feasibility or feasibility study. The commenter also suggested that use of inferred resources in preliminary economic assessments over-rides the CIM definitions, which exclude inferred resources from "feasibility or other economic studies".	We understand that 'scoping study' is an informal industry term that has essentially the same meaning as a preliminary economic assessment. However, we are not aware of any industry-accepted published standard for scoping studies and acknowledge there might be some confusion around the use of the two terms. We have amended the guidance in the Companion Policy to clarify that preliminary economic assessments could include scoping studies but do not necessarily have the same meaning.
		The commenter suggests splitting this definition into two: (i) a preliminary economic assessment/scoping study; and (ii) an economic assessment of inferred resources that may be included in a life of mine plan but not in a pre-feasibility or feasibility study.	See our response to the comment above. The definition of "preliminary economic assessment" is not meant to capture life of mine plans as they are typically used to update mineral reserves for mining purposes. We do not think a life of mine plan is an economic analysis of the potential viability of mineral resources.
		Another commenter thinks the proposed definition is too broad because it would include a lesser study than a scoping study. Leaving the definition as proposed would permit most	See our response to the comment above. We also note that the only exemption for advanced properties is in Item 10(c) of the Form and they are otherwise subject to

#	Theme	Comments	Responses
		issuers to call their properties "advanced properties" and rely on the exemptions for "advanced properties" under NI 43-101. The definition should require that the study achieve at least the standard for a scoping study.	additional disclosure requirements under Items 15 to 22.
	Definition of "producing issuer"	Two commenters think there is a loophole in the definition because it only specifies a revenue test and not a production test. This means a company could cease production, but still be exempt from the requirement to provide an independent technical report. The only issuers that should be able to rely on this exemption are issuers that are currently producing.	The revenue test, while not perfect, provides a simple and verifiable test that captures most production situations. Moving to a production test would be difficult and complex due to problems with defining "production". Although we acknowledge the concern, we do not think it is significant enough to justify a more complicated and untested definition.
		A commenter suggests including in part (b) of the definition gross revenues derived from mining operations on properties acquired by the issuer in the last three years. An issuer should be able to include in its calculations revenues of an acquired property. Employees of a producing mine customarily become employees of the new owner so the new owner will have the internal expertise to prepare the technical reports.	We have not adopted this suggestion. We think we should consider these situations on a case by case basis. Also, in our experience, these situations do not occur frequently.

#	Theme	Comments	Responses
	Definition of "professional association"	Three commenters expressly support the proposed changes to this definition and moving to an objective test. One commenter thinks the broader definition will provide issuers with more flexibility, and encourages CSA to maintain an updated list of acceptable foreign associations in Appendix A to the Companion Policy.	
		A commenter generally supports the proposed broader definition, but would have concerns about weaker jurisdictions opening the potential for unqualified persons to act as qualified persons under the Instrument.	We do not think the new objective test lowers the current standard. Applying the new test results in a list of associations that is substantially similar to the list under the current rule. The new test simply provides flexibility so that we can more easily update the list in Appendix A, when appropriate.
		One commenter believes that NI 43-101 should provide a mechanism for a person to apply for "qualified person" status based on their qualifications, experience, and peer recommendations, even though the person is not a member of a professional association. Subparagraph (a)(ii) – foreign association	Qualified person is not a professional designation or a license to practice. The securities regulatory authorities do not have the mandate or resources to determine if an individual is qualified in a given situation. Professional associations are best equipped to provide ongoing registration, oversight and discipline of qualified persons.
		One commenter that is an exchange says they will assume the only acceptable foreign qualified persons are those that are members of an association listed in Appendix A to the Companion Policy. The commenter has concerns about CSA's ability to update the list readily and suggests maintaining a link to a current approved list of foreign associations. CSA should also consider how it will notify the public and other regulators of updates to the list.	The test for determining whether a foreign association qualifies for purposes of the Instrument is contained in the definition in the rule. Appendix A represents our views regarding which associations currently satisfy the test in the definition. We plan to update Appendix A periodically to identify additional associations that we think satisfy the definition of "professional association", based on our own research or submissions from issuers made in accordance with subsection 1.1(5) of the Companion Policy.
		Paragraph (e) – disciplinary powers A commenter that is a Canadian professional association proposes removing paragraph (e) of the definition because the association does not have legal authority to apply	We understand that other Canadian professional associations are not subject to a similar restriction. We think it is essential that a professional association be able to apply disciplinary powers to members that reside or

#	Theme	Comments	Responses
		disciplinary powers outside the geographic limits of the province. A commenter notes the US professional engineering bodies are not included in the list of approved foreign associations of the Australian Stock Exchange. The commenter understands the US state boards did not apply because it is unlikely they would have the power to discipline members for failure to comply with the JORC Code. The commenter imagines the same issue would arise under NI 43-101 and questions the inclusion of the US professional engineering bodies in Appendix A of the Companion Policy.	practice in foreign jurisdictions because of the international nature of the mining industry. We do not have any information indicating this is an issue. However, we question whether most professional associations generally would consider it within their mandates to discipline a member for failure to comply with a reporting code in a foreign jurisdiction.
	Definition of "qualified person"	Three commenters expressly support the proposed changes to this definition and moving to an objective test. Paragraphs (a), (b) and (c) — experience requirements A commenter notes these paragraphs impose a different experience requirement than for all other foreign jurisdictions reporting under the various CRIRSCO standards. The CRIRSCO standards require at least five years experience relevant to the situation under consideration, while the Canadian definition requires only five years of general experience. The commenter recommends that CSA align its definition with international standards. Paragraph (d) — good standing with professional association Eight commenters that are Canadian professional associations think the Instrument should require any qualified person acting for an issuer in Canada to be registered, as well as in good standing, with a Canadian	We have not experienced any problems with this component of the definition and therefore do not propose to amend it. We acknowledge that paragraphs (a), (b) and (c) taken together are somewhat broader than the Competent Person definition for certain foreign codes. However, we think paragraph (c) is narrower in scope than the corresponding part of the Competent Person definition because it requires experience relevant to the specific mineral project and specific technical report under consideration. We think that the requirement to be in good standing with a professional association necessarily includes satisfying any applicable registration or licensing requirements. That is how we have always interpreted the "good standing" requirement. We therefore do not think it is
		professional association. Such a requirement would align the Instrument with provincial/territorial laws regarding registration of geoscientists.	necessary to refer specifically to registration in the definition. We have however added guidance to the Companion Policy to clarify our interpretation of the "good standing" requirement. Another factor influencing

#	Theme	Comments	Responses
			our decision is that specifically referring to registration in the definition of "qualified person" would necessitate other amendments to the definition as some foreign associations do not have a registration requirement, and other foreign associations might have a similar requirement but label it differently.
		These commenters also think the Instrument should require a qualified person evaluating a property in Canada to be licensed in the jurisdiction where that property is located. One of these commenters believes that current registration processes across Canada and mutual recognition agreements under negotiation would reduce the regulatory onus for foreign qualified persons acting for Canadian issuers.	The requirement for a Canadian qualified person to be licensed in the jurisdiction where the property is located is already required under other Canadian legislation. Adding such a requirement to NI 43-101 would be duplicative and also, in our view, beyond our mandate. We think it is the responsibility of the qualified person and the relevant professional association to ensure that all relevant licensing requirements are met.
		Three of these commenters recognize the complexities of imposing a registration requirement on foreign qualified persons who are reporting on properties located outside Canada, and feel that the proposed changes to NI 43-101 go part way to addressing the risks and concerns to the investing public. However, these commenters believe imposing a registration requirement is still desirable for investor protection as legal process and disciplinary action would be easier to pursue.	Please see our responses to the comments above.
		Subparagraph (e)(ii)A – peer evaluation A commenter requests that CSA specify how many persons constitute a "peer evaluation".	This is a description of criteria applicable to a membership designation in a foreign professional association. As such, we do not think it is appropriate for us to specify the number of persons required for a peer evaluation. This will vary depending on the association.
		Subparagraph (e)(ii)B – post-degree experience Eight commenters do not support the requirement that a foreign qualified person have at least ten years experience.	This provision was not meant to require a foreign qualified person to have at least ten years experience. This provision merely describes a feature of a membership designation that is an alternative to the

#	Theme	Comments	Responses
		 Their reasons include: A Canadian qualified person is only required to have five years experience. NI 43-101 should not require higher experience levels than specified by the foreign codes it recognizes. It is unnecessary and inconsistent with the experience requirements in paragraphs (b) and (c) of the definition. 	confidential peer evaluation in what is now subparagraph (e)(ii)(A). We provided the alternative test to include certain professional designations that may not require a confidential peer review but compensate for this by having more stringent experience requirements. To clarify our intention and allow more flexibility, we have replaced the ten years experience threshold with the concept of "demonstrated expertise", and provided guidance on this in the Companion Policy.
		Australian professional associations Three commenters have concerns about the impact of the proposed changes to this definition on Members of the Australian professional associations, AusIMM and AIG. One of these commenters is concerned that the proposed changes to the definition will disenfranchise a large group of engineers and geoscientists who have been Members (Fellows are not affected) of the AusIMM and AIG for many years, who have acted or are currently acting as qualified persons. The commenter is particularly concerned about the requirements in (e)(i) [position of responsibility] and (e)(ii)(B) [at least ten years post-degree experience in the field of mineral exploration or mining], which are not requirements of Canadian professional associations.	As mentioned above, we have replaced the ten years experience threshold with a test of "demonstrated expertise". We have provided guidance in the Companion Policy regarding this test. We have added AIG Members to Appendix A based on this test. We think that those Members of AusIMM who satisfy the "demonstrated expertise" test and other aspects of the definition of "qualified person" in most cases should be able to upgrade their membership designation in AusIMM to Fellow, or obtain the Chartered Professional (CP) title.
		Another commenter notes that Members of AusIMM will no longer qualify even though AusIMM satisfies all the criteria for a professional association except that it does not require ten years post-graduate experience, while a Registered Member of SME will qualify even though SME only requires five years of post-graduate experience. The commenter proposes applying the ten-year experience requirement to "qualified person" rather than "professional association", which would allow individuals with an appropriate level of experience to act as qualified persons.	See our response to the comment above.

#	Theme	Comments	Responses
		Another commenter notes that the exclusion of Members is not consistent with the Competent Person definition in the JORC Code. That definition excludes Associates, Graduates, and Students, but does not exclude Members. Only 16% of the AusIMM membership are Fellows, while over 62% are Members. Many of the Members otherwise would meet the NI 43-101 definition but have not upgraded their membership to Fellow. The requirements for Fellow in AIG go far beyond the stated requirements in NI 43-101.	See our response to the comment above.
		This commenter also notes that the AusIMM designation of "Chartered Professional (CP)" in Appendix A is not a membership class as such.	We have amended Appendix A accordingly.
		Other A commenter believes that, to serve investors' and clients' interests, an individual acting as a qualified person for a company should not be an insider, director, or promoter of other mining companies as it compromises the qualified person's independence and diverts the qualified person's time and attention.	Section 1.5 of the Instrument sets out the test for independence, which we think is sufficiently broad to protect investors and clients in cases where an independent technical report is required. We think to go further than this would be unduly restrictive.

#	Theme	Comments	Responses
	Definition of "specified exchange"	Three commenters suggest moving the list of specified exchanges to the Companion Policy or including generic language that would permit other foreign exchanges to be specified, as international markets develop over time. One commenter suggests that CSA consider adding the Mexican, Santiago, and Lima exchanges to the list. Another commenter asks CSA to consider providing a link to a current list of specified exchanges.	We do not think it would be appropriate to include generic language in this particular definition. The exemptions for producing issuers that trade on a specified exchange are intentionally restricted to situations where the exchange, as well as requiring mining issuers to disclose under an acceptable foreign code, also provides satisfactory oversight and enforcement of the disclosure standards. This aspect can only be determined on a case by case review. With respect to the exchanges currently specified, we were able to obtain sufficient information indicating that they satisfy these criteria. We also note that these exemptions extend to cross-listings, as well as primary listings, on a specified exchange. We expect that many producing issuers would have at least a secondary listing on one of the exchanges currently listed.
	Proposed new definition – "filed"	A commenter suggests adding a definition of "filed" to mean filing on SEDAR.	CSA instruments generally do not include a definition of "filed" because the definition and filing requirements are set out in the SEDAR rule, National Instrument 13-101. That rule also includes certain exemptions and as a result, not all issuers are required to file on SEDAR.
	Proposed new definition – "economic analysis"	A commenter recommends adding a definition of "economic analysis" as there appear to be inconsistencies between Form 43-101F1 and the Companion Policy. Form 43-101F1 separates Item 21 Capital and Operating Costs, from Item 22 Economic Analysis, thereby suggesting that capital and operating costs do not constitute an economic analysis. However, the guidance on the meaning of "preliminary economic assessment" says that economic analyses include capital and operating costs. Alternatively, the commenter suggests reconciling these inconsistencies through additional guidance in the Companion Policy.	We do not agree that there is an inconsistency between the Form and the Companion Policy. Item 21 focuses specifically on capital and operating costs, while Item 22 is a much broader item that specifies the content of an economic analysis included in a technical report. Item 22 Economic Analysis includes capital and operating costs as a component in paragraph (e). This is consistent with the guidance in the Companion Policy. We do not think additional guidance is necessary.

#	Theme	Comments	Responses
	1.2 and 1.3 – definitions of mineral resource and mineral reserve	A commenter prefers the current wording of these sections to the proposed wording, as it will allow CIM to amend these definitions without impacting NI 43-101. Another commenter does not think the proposed additional wording improves the clarity of the sections. A commenter has concerns about the CIM Definition Standards for mineral resources becoming too restrictive, in particular CIM's latest recommendation to show resources at only one cut-off grade. It is appropriate to recommend a single cut-off grade but to understand a deposit's potential it is also necessary to know the effect of changes in price on a range of grades.	We do not think the changed wording affects CIM's ability to amend the definitions. The words "as amended" preserve this ability. We have removed references to the adoption date of the original CIM definitions. While NI 43-101 requires the issuer to identify the base case mineral resource, it does not prohibit disclosing a range of estimates using different cut-off grades to show grade or price sensitivity.
2.	Part 2 Requirements Applicable to All Disclosure		
	2.1(b) – approved by a qualified person	Five commenters expressly support allowing scientific and technical information to be approved by a qualified person, as an alternative to prepared by or under the supervision of a qualified person.	
		One commenter that is an exchange suggests reconciling the option that information may be prepared by or under the supervision of a qualified person with the more stringent exchange requirement, which requires the qualified person to have read and approved the disclosure.	The current Instrument does not require a qualified person to approve the issuer's disclosure in all cases and we do not think it would be appropriate to impose this requirement. We provided the option for the qualified person to approve the disclosure to cover situations where the issuer might not know or have access to the qualified person who prepared the information.
	2.2(c) – inferred mineral resources	Two commenters recommend that CSA remove the restriction against adding inferred mineral resources to other categories of resources. Their reasons include:	While we did consider this option, we received feedback from industry organizations, other regulators, and our mining advisory groups indicating that this is an important requirement and removing it would not align with industry best practices.
İ		• This particular rule is impractical to apply, generally	

#	Theme	Comments	Responses
		 ignored by industry, and does not add credibility to the Canadian capital markets. Other major mining jurisdictions do not have a similar rule so large companies in foreign jurisdictions use inferred resources in economic analyses. This puts small Canadian companies at a disadvantage. NI 43-101 already provides sufficient protection to the market by requiring disclosure of the tonnes and grades of each category of mineral resources. Measured and indicated resources do not have 100% certainty and the level of confidence in inferred resources varies, even in a bulk tonnage deposit. 	
	2.3(1) – restricted disclosure	Three commenters expressly support the new restrictions against disclosing gross contained metal values, and metal equivalent grades unless individual metal grades are also disclosed.	
		One commenter does not support the new restrictions because metal equivalents and gross metal values are useful for comparing the results between drill holes and in presenting results for polymetallic resources. They are not misleading if appropriate back-up information is provided, and should be allowed as long as the grade and metal price of each element is clearly stated.	Subsection 2.3(1) does allow issuers to disclose metal equivalent grades provided they also include the individual metal grades that comprise the equivalent grade. We disagree with the commenter regarding the disclosure of gross metal values. We think disclosure of such values is misleading because it is often a large number that does not take into consideration the potential costs, recoveries, or other factors relating to the extraction and recovery of the metals. Therefore, we think that the risk of this type of disclosure being misleading generally outweighs any benefit it might provide to the market.
		This commenter also thinks a thorough and systematic assessment of a deposit is usually achieved only at the advanced exploration stage. For earlier stage properties, it is less misleading to use a stated recovery of 100%, with a	The current restriction does not require issuers to include assumed recoveries. Therefore, we do not think the commenter's concern about the restriction for metal equivalent disclosure is warranted.

#	Theme	Comments	Responses
		caveat that recoveries will change subject to final metallurgical testwork, than to use recoveries based on ongoing and incomplete metallurgical testwork.	
		 Paragraph (c) – gross contained metal Other commenters said the following about paragraph (c): It is unclear if the restriction is against disclosing metal value or contained metal value. The commenter suggests removing the word "contained". It is confusing when read with paragraph (d). The language should be clearer that it captures only gross contained metal or mineral value and not total pounds, ounces, or karats contained in a deposit. Clarify whether the restriction applies to the quantity (in weight) of contained metal or minerals, or the value (in currency) of the contained metal or minerals. If the restriction is against disclosing the amount of contained metal or minerals, this would conflict with standard practice for international issuers to disclose a deposit's contained metal or minerals. 	For greater clarity, we have removed the word "contained". We have also added guidance in the Companion Policy to explain what we mean by gross metal or mineral value. Our intention is to restrict the disclosure of gross monetary value, not the quantity, of metals or minerals, the latter of which is permitted under paragraph 2.2(d) of the Instrument. For greater clarity, we have slightly revised the wording of this paragraph.
		Paragraph (d) – metal equivalent grade Four commenters recommend expanding paragraph (d) to require disclosure of other relevant factors such as commodity price, plant recovery, and smelter payment assumptions, to align this paragraph with CIM Best Practice Guidelines or Item 19(m) of current Form 43-101F1.	Because subsection 2.3(1) imposes restrictions that apply to all disclosure, we think it is appropriate to include only the minimum requirements we think are necessary to prevent misleading disclosure, this being the individual metal grades. The requirement in the technical report applies only to mineral resource and mineral reserve estimates (Items 14(c) and 15(c) of the Form). We think it is appropriate to require this additional disclosure in the technical report because it is a detailed, supporting document.
		One commenter thinks an issuer should be able to rely on the exemption in section 3.5 of the Instrument if this information was previously disclosed.	We have not adopted this suggestion. We think the disclosure of metal or mineral equivalent grades has the potential to be misleading without the context provided

#	Theme	Comments	Responses
	2.3(2) – exploration	A commenter asks whether paragraph (d) will apply to disclosure made prior to implementation of the new Instrument. It would be helpful to have a "grandfather provision" for old technical reports, or a transitional time period. A commenter expressly supports the proposed changes to	by the additional detail. Item 19(m) of the current technical report form requires this disclosure so this provision does not impose a new requirement for technical reports. Rather, it is a clarification that conforms the Instrument to the Form and our current practical guidance.
	targets	Another commenter supports the proposed changes but thinks the section should require the cautionary language to be proximate to the disclosure, as well as of "equal prominence".	In subsection 2.3(6) of the Companion Policy, we indicate that we interpret the "equal prominence" requirement to include proximity.
	2.3(3) – disclosure of preliminary economic assessments	Two commenters expressly support the fact that NI 43-101 allows preliminary assessments to include inferred resources. One commenter expressly supports the proposed changes to this section and the definition of "preliminary economic assessment" as they will allow issuers to disclose the full potential of their assets within reasonable parameters and with appropriate cautionary language. A commenter thinks it is unclear why an issuer would compile a preliminary economic assessment on "the results of any pre-feasibility or feasibility study" referred to in paragraph (c). If the intention is to provide for economic analyses of the potential viability of inferred resources, this should be explicitly stated.	We understand there are situations where an issuer might want to prepare a preliminary economic assessment after completion of a pre-feasibility or feasibility study. In these situations, paragraph (c) requires the issuer to disclose the impact of the preliminary economic assessment on the results of the pre-feasibility or feasibility study. We have provided guidance on paragraph (c), which we have now moved to subsection
	2.4 – historical	A commenter says the proposed changes appear to allow use	2.3(4) of the Companion Policy. The Instrument already contains this prohibition in

#	Theme	Comments	Responses
	estimates	of a "historical estimate" in an economic analysis, and suggests adding a prohibition against this.	paragraph 2.3(1)(b).
		A commenter thinks "using the original terminology" is potentially confusing – does it mean the terminology in a technical report prepared under the previous Instrument, or the terminology in the document containing the historical estimate? The commenter suggests deleting the phrase.	Although we made a drafting change in the new Instrument, the meaning of this requirement has not changed. Therefore, the terminology used in the technical report should be the same as the terminology of the historical estimate. We have not removed this requirement because we think it could be misleading to convert historical categories to equivalent current resource categories without verifying the estimate meets current definitions.
		A commenter recommends that CSA delete paragraph (f) as it could result in misleading statements. Historical estimates frequently do not have sufficient documentation for an issuer to assess what needs to be done to upgrade or verify the estimate. Issuers would have to predict what success they will have with additional drilling, etc., which could give the historical estimate unwarranted credibility. Alternatively, compliance with paragraph (f) should be necessary only if the information is known to a reasonable level of confidence. The commenter also requests additional guidance on what is expected to comply with this requirement.	We do not share the commenter's concern. The presence or lack of documentation will be an important factor in determining what the issuer will need to do to verify or upgrade the historical estimate. We do not see this as an impediment to the issuer complying with paragraph (f). We think the qualified person is in the best position to determine what additional work is necessary in each case.
3.	Part 3 Additional Re	equirements for Written Disclosure	
	3.1 – name of qualified person	Three commenters expressly support new paragraph (b) which would allow an issuer to name the qualified person who approved the disclosure.	
		A commenter generally supports the proposed streamlining, but has concerns about the potential coercion of qualified persons employed by consulting firms to approve disclosure when the original qualified person is not available. The commenter proposes that new paragraph (b) apply only to	The purpose of paragraph (b) is to provide issuers with more flexibility so they can rely on a qualified person who has current knowledge of the project, as an alternative to naming the qualified person who prepared the original information. In most cases, we expect the

#	Theme	Comments	Responses
		qualified persons employed by the issuer.	qualified person approving the disclosure would be an employee of the issuer. In other cases we expect the issuer would have to contract for the services on terms and conditions that are acceptable to both parties.
	3.2 – data verification	A commenter would welcome guidelines for the acceptance/rejection of legacy data. Many projects include data collected and analyzed using procedures standard for the time and use of the data depends entirely on the qualified person's opinion. Sometimes this data is used to declare indicated (or better) mineral resources.	The qualified person is the expert and is in the best position to determine the reliability and suitability of legacy data for the purpose used. We do not think it is appropriate for the securities regulatory authorities to provide guidance on industry best practices.
		A commenter thinks this requirement is too broad because it captures any written disclosure of scientific or technical information about a mineral project on a property material to the issuer. For example, if an issuer discloses in its interim MD&A quarterly mine production from a material property, a production forecast for that mine or reserve or resource estimates, the requirement applies. The commenter believes the requirement should be limited to disclosure of material scientific and technical information relating to exploration and drilling.	This provision is in the current Instrument and we are not aware of any problems with its practical application. Therefore, we have not made any changes.
	3.3 – exploration information	Subsection (1) – disclosure of exploration information A commenter is concerned about the amount of information that is required given the broad definition of "exploration information" in the Instrument. This definition could include brief statements that broadly indicate the type of results from ordinary course ongoing exploration activities at a producing property. For summary disclosure of this nature, the requirements are excessive relative to the importance of the information. The commenter recommends reducing these requirements where drill hole data is not provided or the disclosure relates to exploration activities on a producing property. Section 3.5 does not provide enough of an accommodation.	This provision is in the current Instrument and we are not aware of any problems with its practical application. Therefore, we have not made any changes.

#	Theme	Comments	Responses	
		Paragraph (2)(a) – location and type of samples A commenter suggests also requiring disclosure of the number of samples.	We do not think the number of samples is critical information that needs to be disclosed in every case.	
		Paragraph (2)(b) – location, azimuth, and dip of drill holes A commenter thinks this paragraph requires a company to provide too much detail, which can result in unwanted complications. For example, analysts sometimes use the details incorrectly and issue misleading information. It should be sufficient for the company to provide an interpretation of the results disclosed. There is also strategic value in not providing too much information to competitors.	This requirement is consistent with the existing requirement to disclose sample locations recognizing that azimuth, dip, and depth are important in locating the intersections in 3-D space. We think this provides important information for investors to assess the relative location and potential continuity of mineralization between drill holes. We have slightly revised the drafting to clarify that the information required is only with respect to the results being disclosed. We also think that disclosure of such third party interpretations by or on behalf of an issuer would likely be misleading and contrary to NI 43-101.	
	3.4 – mineral resources and mineral reserves	Paragraph (c) – key assumptions A commenter proposes modifications to require disclosure of the commodity price and exchange rate used, as these are the most important assumptions for mineral resource and mineral reserve estimates, and comment on the estimate's sensitivity to these assumptions.	As these are key assumptions, we think discussion of these factors is already required and it is not necessary to add further detail.	
		Paragraph (d) – risk factors A commenter suggests retaining the words "title, taxation, socio-political or other relevant issues' in the text. Paragraph (e) – cautionary language A commenter suggests that CSA provide guidance on the meaning of "equally prominent" including confirmation that tabular or graphic disclosure may be accompanied by footnoted narrative disclosure in satisfaction of this requirement.	If these risks could materially affect the potential development of the mineral resources or reserves, we think they are already caught by the words "other risks" We have already provided guidance on this topic in subsection 2.3(6) of the Companion Policy.	

#	Theme	Comments	Responses
		New proposal A commenter notes that disclosed resource and reserve estimates often change significantly with no explanation and proposes adding a requirement that an issuer must reconcile current with previously disclosed estimates and comment on contributing factors.	We do not think it is necessary to impose this requirement because the supporting technical report will include a summary of all new information. Issuers are already required to disclose material exploration information so we think the market should know on what new information the revised estimate is based.
	3.5 – exception for previously filed disclosure	A commenter notes that the common interpretation of this section is that it refers to disclosure previously filed by the issuer itself. Because the proposed amendments, in particular new subsection 4.2(7), sometimes contemplate referring to the disclosure of another issuer, section 3.5 needs clarification.	We have made this change for greater clarity.
		A commenter thinks this exception should extend to paragraph (b) of section 3.4, as well as paragraphs (a), (c), and (d). It can be costly to include tables in news releases and other documents disclosing the quantity and grade of each category of mineral resources and mineral reserves. Cross-referenced documents are readily available in electronic format.	We think it would be confusing and potentially misleading if an issuer were allowed to refer to previous documents for the quantity and grade of each category of mineral resource or reserve. It would also likely be in breach of section 2.2 of the Instrument. We do not think this requirement imposes a significant burden on issuers.
4.	Part 4 Obligation to	File a Technical Report	
	General comment – foreign issuers	A commenter thinks the requirements in Part 4 are too broad because a foreign issuer that becomes a reporting issuer is required to file technical reports even if the number of Canadian shareholders is very few. CSA should consider including a <i>de minimis</i> Canadian shareholder exemption for foreign issuers with respect to the filing of technical reports.	We considered including a <i>de minimis</i> exemption as part of the 2005 amendment process but decided not to because this situation occurs infrequently. We think that these situations are best dealt with case by case through the discretionary relief process.
		The commenter also asks CSA to consider adding, in paragraphs 4.2(1)(c) [information circular], (d) [offering memorandum], (e) [rights offering circular], (g) [valuation] and (h) [Short Form Offering Document], a <i>de minimis</i> Canadian shareholder exemption for foreign issuers, or an	See our response to the comment above. Also, de minimis is generally interpreted to mean a 2% threshold, while designated foreign issuers under NI 71-102 can have up to 10% of their securities held by Canadian residents. The question of whether we should provide an exemption for

#	Theme	Comments	Responses
		exemption for designated foreign issuers under NI 71-102, as these provisions are unclear and costly for foreign issuers to comply with.	designated foreign issuers was specifically considered, and rejected, when we adopted NI 71-102. We do not think the policy reasons for this decision have changed.
	General comment – removal of certain technical report triggers	A commenter asks CSA to consider, in addition to the short form prospectus trigger, removing the triggers in paragraphs 4.2(1)(c) [information circular], (d) [offering memorandum], (e) [rights offering circular], and (i) [takeover bid circular], for an issuer that is short form eligible. The commenter notes that, as with a short form prospectus, the need to obtain technical reports can affect the ability of mining issuers to complete capital market transactions. Also, the technical disclosure in the issuer's annual information form is incorporated by reference into these documents and a qualified person is required to approve any subsequent technical disclosure.	We have not adopted these suggestions. These other documents do not provide the same degree of investor protection with respect to statutory liability or consents of experts, as a prospectus.
		Another commenter asks CSA to consider removing the triggers in paragraphs 4.2(1)(c) [information circular] and (i) [takeover bid circular] because, if shares can be issued under a short form prospectus without requiring a technical report, the same should apply to information circulars and takeover bid circulars. Further, issuers might choose to structure their transactions using cash raised through a short form prospectus offering rather than as a share exchange transaction; the technical report requirement should not drive transaction structures.	See our response to the comment above. In the case of an issuer that is not short form eligible, the issuer will not have a current annual information form that is supported by a technical report. We also think there are many factors influencing how an issuer chooses to structure a transaction.
	4.2(1) – introductory language	A commenter thinks the current wording could mean an issuer must file a technical report even if the scientific and technical information relates to a non-material property and suggests a drafting change to prevent this possible interpretation.	While we have not experienced any problems with how issuers are interpreting this, for greater clarity we have made the suggested drafting change.
	4.2(1)(f) – annual information form	A commenter questions the proposed removal of the qualifying language that the scientific and technical	We have not removed this exemption for annual information forms. We have moved it to subsection

#	Theme	Comments	Responses
		information must be material and not contained in a previously filed technical report and is concerned that this change will force a company with even slightly active projects to file technical reports every year.	4.2(8) and it now applies to all technical report triggers.
	4.2(1)(g) – valuation required to be prepared and filed under securities legislation	A commenter suggests that CSA should require or recommend that all valuation of mineral properties should be prepared in accordance with CIMVal Standards and Guidelines.	We do not think this change is necessary. It is sufficient that technical reports supporting valuations be prepared by a qualified person and we do not think it is appropriate for the securities regulatory authorities to impose or endorse specific valuation methodologies.
	4.2(1)(i) – takeover bid circular	A commenter proposes permitting a time delay for the filing of a technical report by a reporting issuer, similar to the delay provided for directors' circulars in paragraph 4.2(5)(a). Reporting issuers will have previously disclosed relevant scientific and technical information about their properties and (as with a short form prospectus) any updated information in the bid circular would be supported by a qualified person. The requirement to file the technical report concurrently with the bid circular affects the ability of the bidder to act in a timely fashion and creates a disadvantage for reporting issuers in the mining industry as compared to issuers in other industries.	The Instrument permits more time for the filing of a technical report to support disclosure in a directors' circular because the offeree often has little or no control over the timing of the bid. In contrast, the offeror generally can control the timing and is in a better position to organize its affairs for purposes of making the bid. We are not convinced that, in this case, the burden imposed by the requirement generally outweighs the benefit to the market of having the technical report available at the same time as the takeover bid circular.
	4.2(1)(j) – any written disclosure	Three commenters expressly support the proposed expansion of this trigger to apply to all first-time written disclosure. A commenter suggests changing the words "in respect of the affairs of the issuer" to "in relation to the issuer" to more precisely invoke the definition of "material change" in the Ontario Securities Act.	We agree, and have made this change.
		A commenter suggests that a summary of the technical report be filed at the same time as the news release disclosing mineral resources or mineral reserves because management	We do not think this is necessary, as the Instrument requires that the mineral resource or reserve estimates be prepared or approved by a qualified person, and the

#	Theme	Comments	Responses
		prepares the news release, rather than the independent qualified person.	estimates will be supported by a full technical report.
	4.2(6) – 45-day filing delay	Two commenters think the 45 days should be extended to 60 days as it is extremely difficult to achieve the desired standard of work required to file within 45 days, especially when there are multiple reports.	We think that 45 days is sufficient as this period is intended to allow the technical reports to be finalized, not prepared in their entirety. We previously extended the filing deadline from 30 to 45 days and think that further extending the filing deadline would present an unacceptable risk to the market.
		Another commenter thinks the 45-day period should be extended to a uniform six-month period as 45 days is inadequate in most cases, particularly where reports have to be prepared for multiple properties, and the likelihood of boilerplate, formulaic disclosure increases when filing periods are unduly short.	We disagree. The six-month timeframe is only appropriate where there is a current technical report filed by another issuer, which reduces the risk of unsupported or misleading disclosure. The exemption permitting a sixmonth filing delay is also subject to significant additional conditions.
	4.2(8) – current technical report on file	Eight commenters expressly support the proposed elimination of the requirement to provide updated consents and certificates for a previously filed technical report.	
		One commenter encourages CSA to work closely with the SEC to harmonize certificate and consent requirements for the filing of continuous disclosure documents to realize full benefits for cross-border issuers.	
		A commenter notes that paragraph (a) seems inconsistent with paragraph (b) as the previously filed technical report would not support the scientific or technical information if that information has changed in a non-material way since the filing of the technical report.	We think paragraph (a) must be read in conjunction with paragraph (b). The wording of paragraph (a) is consistent with the filing obligation in subsection 4.2(1), which is to file a technical report that supports "scientific or technical information" in the document. The issuer must have satisfied this basic requirement to qualify to use the exemption in subsection 4.2(8). However, paragraph (b) acknowledges that only "material" new information will trigger the filing of an updated report.

#	Theme	Comments	Responses
		Another commenter thinks the test in paragraph (b) is wrong because it refers to material information about the subject property rather than information that is material to the issuer as a whole. This imposes a burden on issuers that is not commensurate with the benefit to investors. Paragraph (b) should be eliminated, or alternatively the Instrument should retain the safe harbour in the current Instrument for annual information forms that repeat information from a prior annual information form that was supported by a technical report.	We disagree with the conclusion that NI 43-101 imposes a burden on issuers that is not commensurate with the benefit to investors. NI 43-101 applies to disclosure about mineral projects; therefore, it is appropriate for materiality to apply to the mineral project, not the issuer. Also, we have not removed the exemption for annual information forms. It has been moved to subsection 4.2(8) and now applies to all technical report triggers.
	4.3 – required form of technical report	A commenter notes that CSA is providing the option to prepare a technical report in French, and suggests requiring that all supporting documentation under section 4.3 be provided in English to maintain the consistency and transparency of information given to the marketplace.	The option to prepare a technical report in French is available under the current Instrument, although not explicitly stated. We have provided guidance in the Companion Policy explaining the purpose of this new provision.
5.	Part 5 Author of Technical Report		
	5.1 – prepared by a qualified person	Two commenters recommend specifying in this section that at least one qualified person must take responsibility for each section or item of the technical report, as indicated in subsection 5.1(5) of the Companion Policy.	We think this is already sufficiently clear as the provision refers to "a technical report", which includes all parts of the technical report.
		A commenter thinks the requirement in section 5.1 should follow section 2.1 and allow a technical report to be approved by a qualified person, rather than prepared or supervised by a qualified person. This would permit greater flexibility in the preparation of technical reports and improve the timeliness of information provided to the capital markets.	Although we think it is appropriate for a qualified person to approve an issuer's general disclosure of scientific and technical information, we do not agree we should permit this with respect to the technical report. The technical report is the detailed, expertised document that supports the issuer's disclosure. We think it is critical that the information in the technical report be prepared by or under the supervision of a qualified person as the qualified person is the only person with the appropriate qualifications to prepare and assess that information.
	5.2 – execution of	A commenter expressly supports the requirement to have a	

#	Theme	Comments	Responses
	technical report	technical report sealed by the qualified person.	
	5.3(2) – issuer whose securities trade on a specified exchange	Three commenters expressly support the proposed new exemption from the independence requirement for a technical report of a producing issuer whose securities trade on a specified exchange.	
	5.3(3) – producing issuer exemptions	A commenter expressly supports the expanded exemptions from the independence requirement for a technical report of a producing issuer.	
6.	Part 6 Preparation of	f Technical Report	
	6.2(3)(b) – current personal inspection	A commenter questions the requirement for an issuer relying on the site visit exemption to re-file the technical report with updated certificates and consents after completion of the site visit. It would be equally useful to have the issuer file a short report confirming completion of the site visit and the results.	We think it is appropriate that the technical report be refiled due to the importance of the site visit requirement and its potential impact on the content of the report and the assertions made by the qualified person in their certificate and consent.
	6.3 – maintenance of records	A commenter thinks the required seven-year retention period is a minimum, and that drill core proving a deposit should be kept until the deposit has been mined. Core that is more than 30 years old is essential for validation of history and often resource and reserve estimates.	Although there might be value in maintaining records for longer than seven years, we do not think it would be appropriate to mandate a longer retention period in all cases.
	6.4 – limitation on disclaimers	A commenter suggests replacing the words "reliance by another party on" in paragraph (a), with the words "assigns or attributes responsibility to another party for".	The purpose of this phrase is to prohibit a qualified person from advising another party that they cannot rely on the technical report (or part the qualified person is responsible for). We have made a drafting change to clarify this.
7.	Part 7 Use of Foreig	n Code	1
	7.1 - reconciliation to CIM Definition Standards	One commenter expressly supports removing the requirement to reconcile mineral resource and mineral reserves prepared under an acceptable foreign code, to the	

#	Theme	Comments	Responses
		CIM Definition Standards. The requirement is not beneficial for investors and often difficult for issuers to implement. Another commenter supports removing the reconciliation requirement, but proposes that mineral resource and mineral reserve disclosure under an acceptable foreign code should state with equal prominence that such disclosure has not been prepared in accordance with CIM standards and briefly summarize any material differences between the mineral resource and mineral reserve categories.	While we think that in most cases categories under CIM and an acceptable foreign code will be largely consistent, we appreciate that there are some differences. Therefore, we have reinstated this requirement only for cases where there are material differences.
		 Four commenters do not support removing the reconciliation requirement. Their reasons include: It could become problematic if a foreign code adopted definitions that were less harmonized with CIM. By agreement, CIM must notify CSA of any changes in the CIM Definition Standards, while no foreign jurisdiction has such an obligation. The reconciliation obligation is not a significant burden and gives investors better information to compare properties. 	See our response to the comment above.
	7.1 - other comments	A commenter suggests extending the permission to use a foreign code to a co-owner of a property located in a foreign jurisdiction where the partner is registered in a foreign jurisdiction.	We think this situation is already covered by paragraph 7.1(1) (b).
		A commenter suggests mandating the disclosure of which acceptable foreign code is used to prepare the technical report.	We think this requirement is implicit in Items 14(b) and 15(b) of the Form. These sections require the issuer to comply with all the disclosure requirements of the Instrument, including paragraph 2.2(a), which requires disclosure in accordance with the CIM Definition Standards. If an issuer is disclosing under an acceptable foreign code instead of the CIM Definition Standards, it will have to disclose the code it is using.

#	Theme	Comments	Responses
8.	Part 8 Certificates an	nd Consents of Qualified Persons for Technical Reports	
	8.1 – certificates of qualified persons	A commenter notes this section does not specify when a certificate should be dated. They suggest the certificate should be dated the date of filing the technical report or within three days of filing.	We think it is implicit that the date of the certificate is the date the qualified person signs the certificate, since subsection 8.1(1) requires the certificate to be dated and signed. We do not think the certificate date should necessarily be tied to the filing date of the technical report as filing is the responsibility of the issuer. However, the issuer is encouraged to file the technical report on a timely basis because the technical report must contain all material scientific and technical information about the property in order to be a current report.
		A commenter thinks that a qualified person taking responsibility for resource or reserve estimation should have to provide additional details about their relevant experience to support their suitability to do mineral resource/reserve estimation, and proposes adding a new requirement.	We think this disclosure is already required. Under paragraph 8.1(2)(c), the qualified person must provide a summary of their relevant experience and certify that they are a qualified person for purposes of the Instrument. Paragraph (c) of the definition of "qualified person" requires the qualified person to have "experience relevant to the subject matter of the mineral project and the technical report".
		A commenter proposes specifying in this section that at least one qualified person must take responsibility in the certificates for each section or item of a technical report.	We think this is already covered by section 5.1 of the Instrument, which requires "a technical report" to be prepared by or under the supervision of one or more qualified persons.
	8.3 – consents of qualified persons	Two commenters propose that the exemption from the consent requirement in subsection (2) should also apply to stand-alone technical reports that an issuer files voluntarily.	Reports in the form of a technical report that are filed voluntarily are not "technical reports" as defined in the Instrument and therefore do not have any consent requirement. Subsection 4.2(12) of the Companion Policy provides guidance on consents included with voluntarily filed reports.
		One of these commenters thinks the updated consent	The Instrument provides an option to name the qualified

#	Theme	Comments	Responses
		required under subsection (3) should only apply where the document contains an extract from or summary of the technical report. If the document only contains mineral resources or reserves supported by a technical report, the requirement that the qualified person approve the written disclosure obviates the need for an additional consent, in both the case of a new reporting issuer and a voluntarily filed report.	person who approved the issuer's disclosure of scientific and technical information, but does not mandate approval in all circumstances. Even if the qualified person has approved the disclosure, we think it is important that the qualified person provide a full written consent for the first time disclosure of mineral resources or reserves to verify they have reviewed the issuer's disclosure of the estimates.
		A commenter supports the proposed modifications of the consent requirements in subsections (2) and (3), but raises a question about secondary market liability. Which qualified person is responsible for the report at the time of investment?	We think that, in most cases, a qualified person will be an expert as defined in securities legislation and is responsible for the information in the technical report as at the effective date of the report, regardless of the time of investment. However, whether secondary market liability applies in any particular case is a question of law that can only be determined on a case by case basis.
9.	Part 9 Exemptions		
	9.2(1) – exemptions for royalty interests	Six commenters expressly support the proposed new exemption for royalty interest holders from the requirement to file a technical report.	
		Five commenters think the exemption should extend to other types of carried interests (for example, metals streaming agreements, which are economically similar to royalty interests but have different legal and tax attributes).	We agree that the exemption should extend to metals streaming agreements. As is the case for a royalty holder, the relevant information for a purchaser under such an agreement is the information provided by the operator. We have re-inserted the words "or similar interest" into the definition of "mineral project" and relevant provisions of the Instrument. We have also provided guidance on these exemptions in section 9.2 of the Companion Policy.
		Two of these commenters also suggest that the lead-in language specifically refer to a project "on a property material to the issuer".	We do not think this change is necessary because the requirement to file a technical report only applies to material properties.

		One of these commenters suggests that references to the operator should also include the owner.	We agree, and have made this change.
		Paragraph (c) – operator has disclosed information Three commenters recommend that paragraph (c) be amended to recognize that the "scientific or technical information" disclosed by the operator of the property might not be at the same level as would be disclosed under Canadian securities law given the potential difference in the materiality of the information to the operator, or the requirements of the specified exchange. Two commenters suggest qualifying "scientific or technical information" with the word "material" or replacing the phrase with "a preliminary economic assessment, mineral resources, or mineral reserves".	We think it is important that the owner or operator has disclosed the scientific and technical information that is material to the royalty holder, and therefore have made an amendment to this effect. We have also amended subparagraph 9.2(1)(a)(i) to include the requirement that the owner or operator be a reporting issuer, as reporting issuers are subject to more rigorous disclosure requirements.
10	Other general comme	ents	
	Liability	A commenter has concerns about the potential liability of qualified persons and issuers that they think NI 43-101 does not adequately address. • It is unclear whether a qualified person is acting as an "expert" when they prepare or supervise the preparation of scientific and technical information that forms the basis for disclosure, or in the proposed Instrument, approve the disclosure. If the qualified person is an expert, the consequence is that the issuer is relieved of liability for the disclosure. The commenter does not think this is the intention of NI 43-101 and submits it is not an appropriate result, particularly in the case of a non-independent qualified person. • The proposed Instrument refers in various places to use of scientific and technical disclosure of, or	For a qualified person to be subject to the civil liability provisions in securities legislation relating to experts, all the conditions in the relevant legislation would have to be met, including the provision of an expert consent. Therefore, we do not think a qualified person would be potentially subject to civil liability in all capacities they act in under NI 43-101, nor is that the intent of the Instrument. Whether secondary market liability applies in any particular case is a question of law that can only be determined on a case by case basis. We think the conditions to the exemption in subsection 4.2(7) of the Instrument are appropriate because the new

#	Theme	Comments	Responses
		4.2(7), 5.3(4) and 9.2(1)(b)]. In cases where an issuer is entitled to extract from or rely on the disclosure of a third party, the issuer should have to satisfy conditions equivalent to those under paragraph 4.2(7)(b) of the proposed Instrument. It should also be clear that the third party is not responsible to the issuer or its investors for the use of the information.	technical report. However, we do not think it is necessary to impose equivalent conditions for the other exemptions mentioned. Subsection 5.3(4) is an exemption from the independence requirement only; a qualified person must still take responsibility for the technical report and provide the related consent and certificate. The exemption for royalty holders in subsection 9.2(1) is only an exemption from the requirement to file a technical report. The royalty holder must still comply with all other provisions of NI 43-101, including naming a qualified person who is responsible for the royalty holder's scientific and technical disclosure.
	C. PROPOSED FO	RM 43-101F1 (FORM)	
1.	General comments regarding the Form	14 commenters express general support for the proposed changes to the Form. Four of these commenters specifically endorse the new format with expanded items for operations and the greater consistency with a pre-feasibility or feasibility study.	
		Another commenter thinks the revised Form will address the current problem of too much important information being included under "Other Relevant Data and Information".	
		One commenter generally supports NI 43-101 as industry best practice primarily because of the emphasis placed on verification of results. The commenter encourages CSA to take the lead in developing a global template for technical reports, as Canada is the only jurisdiction that identifies the technical report content.	
		This commenter does however have the following suggestions for improvement. • The form prescribes the ordering of items within the	The Form was developed and amended in consultation

#	Theme	Comments	Responses
		report and the required order is sometimes confusing. For example, property history, a very comprehensive section, precedes any discussion of the geological setting, deposit type, or mineralization of the property. • The commenter questions the benefit of multiple technical reports and proposes a simplified shorter report format it has developed for companies with multiple properties that report on foreign exchanges. • There are some discrepancies between the Instrument and other documents comprising NI 43-101. In the case of any inconsistency, the Instrument should take precedence, and the governing principles should always be relevance and materiality. For example, under section 3.5 of the Instrument, no discussion of socio-political risk is required when updating exploration project reports. However, this risk is especially important in early-stage projects because of their volatility.	with industry. While the headings are prescribed, there is flexibility regarding where to disclose information such as historical exploration and drilling results that we think addresses the commenter's concern. We have not adopted this suggestion as the Form currently allows issuers to include multiple properties in a single report. We do not think this is a concern. Section 3.5 does not apply to disclosure in technical reports because the form and contents of the technical report are prescribed by the Instrument. Therefore, the technical report must include all the required information even if the issuer has disclosed it in another document.
2.	Specific comments re	egarding the Form	
	General Instructions	A commenter expressly supports the General Instructions, but asks that CSA consider additional instructions concerning the requirements for cautionary language to be prominently displayed and used immediately after the relevant data, interpretations or conclusions in the technical report.	We do not think this is necessary. The requirement in the Instrument that cautionary language be disclosed with equal prominence applies to technical reports. Subsection 2.3(6) of the Companion Policy also provides guidance on how we interpret equal prominence.
	General instructions, section (3) – intended audience	Two commenters do not agree that the intended audience for a technical report is the investing public and their advisors. These commenters think a technical report is an expert report primarily aimed at regulators and analysts, the true purpose of which is to confirm and verify the issuer's scientific and technical disclosure.	We disagree. Technical reports are filed in the public domain to support disclosure of scientific and technical information.

#	Theme	Comments	Responses
		These commenters also do not support the plain language requirement because: • Technical reports, by their nature, and unlike other continuous disclosure documents such as news releases and annual information forms, are difficult to write using plain language. • The authors of technical reports are not trained to write in plain language and re-writing by professional writers can result in incorrect disclosure. • Technical reports are usually time-sensitive and to write them in plain language would require significant additional time and resources.	We acknowledge that our use of the term "plain language" may imply the need for specific language training and expertise. This is not our intention. We also acknowledge that scientific and technical information does not always lend itself well to plain language. However, we think that it is appropriate for the authors of technical reports to use, where possible, simplified language that is more likely to be understood by the public. We have amended the instruction to more clearly reflect this and to remove the reference to plain language.
	General Instructions, section (5) – previously filed technical report	Three commenters expressly support the proposal to allow a qualified person, subject to certain conditions, to refer to information in a previously filed technical report.	
	General Instructions, section (9) – certificate of qualified person	A commenter suggests requiring the certificate to be given equal prominence with the Date and Signature Page, to ensure the certificates are submitted.	We do not think this is necessary because the Instrument already requires the issuer to file the certificates with the technical report.
	Illustrations	 A commenter proposes the following: Consider requiring detailed maps to be shown relative to property boundary (inset page). Consider requiring the scale in bar form only as scales in grid form can be confusing. If UTM coordinates are used, the projection/ellipsoid and zone should be disclosed. All maps should be required to contain grid coordinates using an easily recognizable geographic grid location system. 	While these suggestions might make sense in many cases, we think imposing them as specific requirements would be too prescriptive.

#	Theme	Comments	Responses
		Another commenter thinks the new guidelines will decrease the amount of information available to investors. The qualified person should determine the content of the illustrations.	The new requirements represent the minimum requirements for illustrations. The qualified person always has the discretion to provide more detail if necessary.
	Item 2: Introduction	A commenter supports the amendments to this Item, but thinks that if the site inspection is more than two years old and the issuer describes the property as dormant, the qualified person should be required to state what steps they took to independently verify there has been no additional work done on the property.	We think this is best dealt with in guidance and have amended subsection 6.2(1) of the Companion Policy.
	Item 3: Reliance on Other Experts	Six commenters expressly support the proposed changes to this Item. Two commenters specifically support the new exemption for diamond valuation. One commenter thinks the proposed changes significantly clarify the Item.	
		Another commenter understands the rationale for the proposed changes, but thinks one must be careful to avoid instances where nobody is ultimately responsible for the information.	The qualified person has a duty to ensure that the information they are relying on is prepared by an expert with appropriate qualifications, and that it is reasonable for the qualified person to rely on the information. This should mitigate any concerns the commenter might have in this area.
		A commenter thinks the qualified person should also be able to rely on another expert or the issuer for Item 19 information, market studies and contracts, but this is no longer possible due to the removal of the catchall language "other issues and factors relevant to the technical report".	We think we have addressed this concern with the changes we have made to Item 19 (a).
	Item 6: History	A commenter supports the amendments to this item, but suggests reinforcing that this section refers to historical work completed on the issuer's property and not outside the property.	We do not agree that this section should exclude historical work on adjoining areas. However, we recognize the importance of differentiating between historical work done on and off the property and have added an instruction to this effect.

#	Theme	Comments	Responses
		6(c) – historical estimates A commenter suggests providing guidance on what should be reported for historical estimates. For example, a uranium deposit in Utah has five estimates dating from the 1970s – should all be commented on or just the latest? Consider an instruction giving the QP the flexibility to include only what they consider material.	We agree, and have amended this section to require only the disclosure of significant historical estimates.
	Item 9: Exploration	A commenter agrees with the merging of current Item 14 (Sampling method and approach) with the exploration and drilling sections of the technical report.	
		Paragraph (a) – procedures and parameters A commenter suggests clarifying that paragraph (a) also applies to geophysical surveys.	We do not think this is necessary because geophysical work is a survey and is included in the definition of exploration information.
		Paragraphs (b) and (c) – sampling methods and information A commenter suggests also requiring the disclosure of measurement methods and information, as well as sampling.	We think this is covered generally by the requirement in paragraph (a) to disclose procedures and parameters.
	Item 10: Drilling	A commenter generally supports the amendments to this Item, but proposes clarifying that this section refers to drilling completed by the issuer.	We disagree. In many cases, it makes sense to disclose the results of previous and current drilling together. However, we recognize the importance of differentiating between the historical drilling and that done by the issuer
		10(c) – property other than an advanced property	and have added an instruction to this effect.
		A commenter suggests • restricting the comprehensive drilling results disclosure to "early stage exploration properties", properties for which drilling is proposed and/or mineral resources have been reported but no preliminary economic assessment, pre-feasibility study or feasibility study has been completed, and those parts of "advanced properties" which do not yet contribute to a mineral resource estimate • converting the instruction to this item, which is aimed at properties with mineral resource estimates,	We have not made these changes. We think the amendments to the definition of "advanced property", and the removal of the definition of "development property", are sufficient to clarify this situation.

#	Theme	Comments	Responses
		to a new item 10(d) 10(c)(i) – drill holes A commenter notes this section seems to require a drill hole collar table and a table of significant intercepts. The commenter finds this vague and requests more specific language. The commenter notes that in the past a drill hole location map showing traces of the holes was sufficient and	We do not think we need to specify that the information must be in table form. We do not think that a drill hole location map ever was sufficient on its own and it will not be in future.
		asks if this is still the case. Instruction (1) to Item Two commenters suggest applying this Instruction to other pre-mineral resource projects.	We think the current threshold is appropriate and that it would be too difficult to determine where to draw the line for projects that have not reached the mineral resource stage.
		One of the commenters also expresses concern that this could lead to the elimination of drill hole location maps and proper cross sections in reports on properties without resource estimates.	We do not think this will happen because drilling will usually be material information required to be shown in an illustration.
	Item 11: Sample Preparation, Analyses, and Security	A commenter agrees with the proposed amendments to this Item, but proposes clarifying that it refers to sampling completed by the issuer.	We disagree. We think Item 11 should, and does, apply to all analytical results included in the technical report.
	Security	This commenter also suggests moving the recommendations under paragraph (c) to Item 26 Recommendations.	We do not think this change is necessary because paragraph (c) relates specifically to QA/QC, and might not be a recommendation in the overall context of the report.
		Another commenter thinks "estimation process" in paragraph (c) is inappropriate and proposes replacing those words with "data processing".	We agree, and have made this change.
	Item 12: Data Verification	A commenter notes this Item omits any mention of legacy data for which there are no assay certificates or QA-QC data.	We think it is the responsibility of the qualified person to determine how to deal with this situation in accordance

#	Theme	Comments	Responses
		They would like to see an instruction or some guidance on what is generally acceptable.	with industry best practices.
		Another commenter suggests that where data is derived from an earlier technical report the new qualified person should comment on the adequacy of the data.	We think this is already required because the qualified person must describe the steps taken to verify all data being reported. We have amended the wording to make this clearer.
	Item 13: Mineral Processing and Metallurgical	A commenter expressly supports the greater specificity in this Item.	
	Testing	The same commenter notes: • Where should the qualified person present process engineer data verification, site/lab visit information, especially with the advanced mineral project?	We do not think we need to specify where to disclose this information as long as it is included in the technical report to the extent required.
		 As representative samples are key in process plant design, this discussion should be placed ahead of the test results discussion. 	We do not think this change is necessary. The Form sets out the information that must be included, not the order in which it must be presented.
		A commenter recommends combining this Item with Item 17 Recovery Methods, as both Items seem to cover the same topics.	We have not made this change. While there may be some overlap between these two items, Item 13 applies to preliminary metallurgical and process testing done at an exploration stage, while Item 17 applies to the more detailed plant and process design required for advanced stage projects.
		Another commenter thinks the new titles of Items 13 and 17 will not resolve the existing confusion over where to include recovery information. The commenter suggests re-naming this Item as "Metallurgical Sampling and Testwork" and Item 17 as "Mineral Processing Design".	We do not think this change is necessary. To the extent there are overlapping requirements, the disclosure of information under one item will satisfy the requirement to disclose it under the other. We think that changing the title of Item 13 could be confusing as people might think the basic requirements of this item have changed.
		13(a) – summary of test results A commenter suggests this should require testwork facilities to be named and reports to be referenced.	We think this is already covered by the requirement in Item 11 to name the analytical or testing laboratory.

#	Theme	Comments	Responses
		This commenter also proposes adding a new section (e) that would require the qualified person to opine on the impact on variables that should be modeled and incorporated in mine production plans and mill feed qualities in any resultant cash flow model.	We think this requirement would be too prescriptive and that this level of detail may not be necessary in all cases. We think the qualified person is best able to determine the materiality of this information in the context of the specific mineral project.
		 13(d) – deleterious elements A commenter asks: Is it possible to clearly explain what the processing factors are? Should we include by-product elements? These elements can be concentrated in the final product and are usually priced 	It is up to the qualified person, who is the expert, to determine what processing factors are important to a particular mineral project and whether a particular element is deleterious.
	Item 14: Mineral Resource Estimates	 A commenter thinks this Item should also require the QP to disclose basic cost, recovery and revenue assumptions used to derive the base case cut-off grade encourage the QP to comment on the sensitivity to cut-off grade in the case of jointly-owned properties, state whether or not the mineral resource estimate is on an attributable basis 	We have not made these changes. We do not think that the "reasonable prospects of economic extraction" test necessarily requires a supporting economic analysis. Most technical reports already include tables showing cut-off grade sensitivity and we do not think it is necessary to mandate this in all cases. Since the technical report applies to the property as a whole, it should include the whole resource estimate. The report must also disclose the issuer's interest, so we do not think it is necessary to report the estimate on an attributable basis.
		A commenter asks CSA to consider retaining the current requirement, in this Item as well as Items 15 through 22, to name the qualified person responsible for the resource estimate.	We think this is already required under section 3.1 of the Instrument and in the certificate of qualified person filed with the technical report.
		Paragraph (b) – disclosure requirements in Instrument A commenter thinks CSA should clarify that section 3.5 of the Instrument does not apply to the technical report. Instructions	We do not think this is necessary because the form and content of the technical report are prescribed by the Instrument.

#	Theme	Comments	Responses
		A commenter expressly supports the new Instructions to this Item.	
		Two commenters suggest revising the second line of Instruction (2) to clarify that it refers to the mineral resources reported <i>for each of</i> the cut-off grade scenarios.	We have made this change for greater clarity.
		A commenter proposes changing "reported under" in Instruction (2) to "resulting from", to avoid potential confusion.	We have made this change for greater clarity.
		A commenter observes that the test of "reasonable prospect of economic extraction" seems equivalent to the requirement in the JORC definition.	
	Item 15: Mineral Reserve Estimates	 A commenter thinks this Item should also require in (d) more explicit discussion around mining selectivity, dilution, losses and extraction factors require the QP to disclose revenue assumptions used in deriving the cut-off grade in the case of jointly-owned properties, state whether on not the mineral reserve estimate is on an attributable basis 	We have not made these changes because we feel they would be too prescriptive and generally are covered by the current requirements of Items 15 and 16. See also our response to the comment regarding attributable basis under Item 14.
		A commenter suggests including this Item in Item 22 because most of the information in Items 16–22 is used to support conversion of mineral resources to mineral reserves.	We have not made this change. We developed the structure of the current Form in consultation with industry. We think that the content is more important than specifying the order of presentation.
		Paragraph (a) – key assumptions, parameters, and methods A commenter suggests removing "used in the preliminary feasibility or feasibility study" because these words are not necessary for the regulatory objective and imply a requirement to update the studies, which is not consistent with industry practice and would impose a new, onerous regulatory burden. The assumptions, parameters, and	We agree with the commenters and we have made this change.

#	Theme	Comments	Responses
		methods used for the initial reserve estimate will evolve over time, especially for mines with an extended mine life.	
		Another commenter agrees, and notes that the disclosure obligation should apply to the key assumptions, parameters, and methods used in current reserve estimates. The inclusion of the words "used in the pre-feasibility or feasibility study" ties the disclosure obligation to specific historical reports that might no longer be current.	
	Item 16: Mining Methods	16(c) – requirements for stripping, underground development, and backfilling A commenter suggests adding specific reference to waste dumps and stockpiles.	We think this is covered under Item 18 Project Infrastructure, but have added a specific reference to stockpiles in Item 18.
	Item 17: Recovery Methods	A commenter suggests using "Mineral Processing Methods" or "Processing Methods" as the title for this Item.	We do not think these changes are necessary. See our responses to the comments under Item 13 above.
		A commenter that proposed re-naming Item 13 also suggests re-naming this Item as "Mineral Processing Design".	
	Item 18: Infrastructure	A commenter suggests adding specific reference to "water" in the last line.	We think this is already covered under Item 17 (c)
		A commenter thinks the title for this Item is very general and it might be confused with Item 5. The commenter suggests using the title "Planned Infrastructure" or another more specific title.	We agree and have changed the title to Project Infrastructure so that it will also cover existing mine infrastructure.
	Item 19: Market Studies and	A commenter thinks this Item could cause significant economic and competitive prejudice to many of Canada's	We reconsidered our proposed requirements in light of the strong concerns expressed by the commenters about
	Contracts	mining producers as it would require disclosure of commercially sensitive pricing information that, to date, has remained confidential. It could be especially damaging in international commodities markets where a material portion of global sales are controlled by a limited number of	the disclosure of proprietary and confidential information. We have adopted the approach suggested by some of the commenters, that the technical report confirm the qualified person has reviewed the relevant information and that the information supports the

#	Theme	Comments	Responses
		producers. The commenter recommends that this disclosure not be required from producing issuers. The value of this disclosure to investors is marginal as investors already have access to sales information in the financial statements and MD&A.	assumptions in the technical report. We have also added a requirement for the qualified person to discuss the nature of the studies or analyses done (but not the specific results) so the reader has some idea of the level of work that has been done in this area.
		19(a) – summary of marketing information Six commenters oppose this section as it would require the disclosure of confidential or proprietary information that would provide existing producers with significant unfair competitive advantages over emerging producers, place mining issuers in a disadvantageous position compared to issuers in other industries and, with respect to certain restricted commodities, raise significant competition law concerns.	See our response to the comment above.
		Some of these commenters recommend instead that the qualified person be required to confirm there is a market entry strategy and the strategy supports the assumptions in the technical report.	
		One commenter notes that currently the qualified person reviews relevant marketing studies and simply states that proper marketing studies have been completed that are adequate to support the resource/reserve declarations.	
		This commenter also notes that product specifications are sometimes very tightly controlled and known only to the producer and the consumer. Public disclosure of these specifications could harm the issuer.	
		Another commenter thinks the results will be beneficial if this Item will require more rigorous market research to support the commodity pricing assumptions and allow more discretion in commodity pricing, for example to use forecast rather than market prices.	We think that the level and adequacy of market research is best determined by the qualified person and should not be mandated by the Form.

#	Theme	Comments	Responses
	Item 20: Environmental Studies, Permitting and Social or	A commenter thinks that waste disposal should be included with the mining method (Item 16) and tailings considerations should be included with recovery methods (Item 17).	We have not made these changes. We think Instruction (4) allows the qualified person flexibility to decide where to present information in the context of the specific report and situation.
	Community Impact	This commenter also questions whether most qualified persons or regulatory staff have the appropriate background to assess social impact, as it is a complex subject. If social impact is included, it should be in a separate section and the content should be factual, for example, describing data collection and the progress on socioeconomic planning.	We disagree with this comment. We think this information is largely factual, important for advanced properties, and related to the permitting process. To the extent that this information is legal, political or environmental, Item 3 might apply.
	Item 21: Capital and Operating Costs	A commenter recommends separating capital costs and operating costs into two sections. Typically, different qualified persons estimate these costs; the change would also make a technical report more consistent with a pre-feasibility or feasibility study.	We have not made this change. Instruction (4) allows the qualified person to use sub-headings to separate these costs if they think it is necessary.
	Item 22: Economic Analysis	22(c) – discussion of NPV A commenter suggests this should require disclosure of whether NPV, etc. are pre- or post-tax, pre- or post-finance and, in the case of jointly owned properties, whether or not the economic analysis is on an attributable basis.	We think this would be too prescriptive and might not be necessary in all cases. If tax or financing would have a significant effect on the economic analysis, we think they would be principal assumptions that should be disclosed under Item 22(a). See also our response to the comment regarding attributable basis under Item 14.
		A commenter thinks the discussion of payback will depend heavily on the standing of the issuer and the investment climate at the time of reporting. As a result, the qualified person will need to provide more details of how discount rates are actually calculated, as opposed to taking an industry norm and applying this to similar discounted cash flow models.	We agree that this additional information might be necessary in some cases, but think the level of detail should be left to the qualified person to determine.
		Instruction 1 Two commenters expressly support this new instruction,	

#	Theme	Comments	Responses
		which relieves producing issuers from the requirement to include an economic analysis for properties currently in production.	
		A commenter observes that, because this instruction is relevant only for producing issuers, Item 22 will continue to be problematic for non-producing issuers. They cite an example where disclosure of cash flow information by a junior partner in a joint venture created problems for the operator when the government in the foreign jurisdiction used the information to extract payments from the operator. They also question how a non-operating partner in a joint venture can obtain this information when the operator refuses to provide it. The commenter recommends rewording this instruction or making additional exemptions available as cash flow information is not relevant for an operating mine if the actual operating costs, cut-off grades, and reserves are available.	We think that this situation is best dealt with on a case by case basis through the discretionary relief process.
		One commenter does not support allowing producing issuers to exclude economic analyses for producing or material expansion properties, as they are important information for investors. Under the Instrument, producing issuers already have cost and information advantages over exploration issuers.	We removed this requirement for producing issuers because of industry concerns that this information on an individual project level provided too much detail that could put producing issuers at a competitive disadvantage with foreign producing issuers, unions, governments, and other entities. Producing issuers have a demonstrated production track record and must report economic information on an aggregated basis in their financial disclosure. Therefore, we do not think this information is necessary for producing issuers at the project level.
	Item 23: Adjacent Properties	A commenter suggests moving this Item to follow or be part of Item 4 Property Description and Location, and cross-referencing it where necessary in other items.	We moved this Item to its current location because of industry concerns that it was located too close to disclosure of the issuer's exploration results and might be confusing to the reader. Since this requirement already
		Another commenter suggests moving this item forward as it applies to both exploration and development properties.	applies to both exploration and advanced properties, we do not think it is necessary to move it again.

#	Theme	Comments	Responses
		A commenter thinks the real purpose of this Item is to ensure the assay data are from the subject property, except in very limited cases. The qualified person should be required to state that samples and assays used to define the mineral resources were taken entirely from the subject property or, if some were taken from an adjacent property, to discuss the nature, amount, credibility, and importance of those samples and assays.	We disagree that the purpose of this Item is to ensure that assay data is only from the subject property. We think it should be up to the qualified person to determine if data from adjacent properties is relevant and appropriate to include in the resource estimation. However, Item 23(d) requires the qualified person to differentiate information from adjacent properties.
		A commenter suggests requiring an issuer to disclose 43-101-compliant resources on an adjacent property and to provide full details of the report on SEDAR, instead of the company website, so the information remains available even if the company dissolves or sells the property.	If resources on an adjacent property are material information concerning the subject property, we expect that the qualified person would include this information in their technical report and a reference to the technical report for the adjacent property under Item 27 References. In general, we do not think it would be appropriate to require an issuer to disclose information about another issuer's property.
		23(e) – historical estimates Two commenters note that this requirement does not exclude paragraph (f) of section 2.4 of the Instrument, which requires the qualified person to comment on the work needed to upgrade or verify the historical estimate. It would be difficult or impossible for the qualified person to comply with this requirement in respect of an adjacent property.	We agree with the commenters. In reconsidering this provision, we concluded that only paragraph 2.4(a) of the Instrument was relevant for adjacent properties. We have amended this Item accordingly.
		One of these commenters also suggests carving out paragraph (g) of section 2.4 of the Instrument as the issuer would not be treating the historical estimate on an adjacent property as current resources or reserves of the issuer.	
	Item 24: Other Relevant Data and Information	A commenter asks that CSA add an instruction discussing the nature of data that should be included here.	This is a general, catch-all provision and we think it is up to the qualified person to determine what, if any, additional information should be included here.
	Item 25:	Two commenters recommend creating a new item "Project	We do not think it is necessary to make this change. We

#	Theme	Comments	Responses
	Interpretation and Conclusions	Risks", to separate out the requirement to discuss risks and uncertainties and their reasonably foreseeable impact. In Item 25 the qualified person summarizes their major conclusions, which could appear unbalanced or unduly negative as a result of the detailed risk discussion. Another commenter notes that risk discussion is in at least	think the Form allows a qualified person to discuss risks and uncertainties in a separate section if they prefer that approach. Also, Item 25 does not required a detailed risk discussion so we do not think this will necessarily result in unbalanced or unduly negative disclosure. We have not adopted this suggestion. We think that
		four different sections of the proposed Form and recommends that this Item include discussion of all risk factors so the reader will have a comprehensive view.	integrating the discussion of specific risk factors with the relevant topic results in clearer disclosure.
	Item 26: Recommendations	A commenter thinks this section should focus on what needs to be done to address gaps in data. Qualified persons are sometimes required to establish or revise a budget to meet corporate capabilities rather than the recommended work program. A budget should be required only for a technical report that supports a new listing.	We have not made this change. We think the budget is important information as in most cases the issuer is raising money for work on the property and investors should know how much money is needed to progress the project to the next stage or decision point.
		Instruction One commenter says the new instruction to this Item is a welcome change.	
	D. PROPOSED CO	MPANION POLICY 43-101CP (COMPANION POLICY)	
1.	General comments regarding the Companion Policy	Two commenters expressly support the proposed changes and additions to the Companion Policy.	
2.	Specific comments re	egarding the Companion Policy	
	General Guidance, paragraph (1)	A commenter suggests that CSA consider adding "brines" to the list of substances that NI 43-101 does not apply to, as the question comes up on a regular basis.	We have not made this change. We think the Instrument is suitable for reporting results for brine projects and do not want to discourage issuers from using it.
	General Guidance,	A commenter suggests, for clarification, including the word	We do not think it is necessary to make this distinction

#	Theme	Comments	Responses
	paragraph 5(i) – several non- material properties	"geological" before "area or region".	because geography can also be important in determining collective materiality.
	General Guidance, section 6 – Industry Best Practice Guidelines	Two commenters propose eliminating or re-wording paragraph (d), the specific guideline on rock hosted diamonds, as this is an addendum to Estimation of Mineral Resources and Mineral Reserves, Best Practice Guidelines, in paragraph (c).	We have made this change.
		A commenter does not support listing the various best practice guidelines, as these will change from time to time; alternatively, consider including a catchall provision.	We think it is useful to list the current best practice guidelines and have already included a catchall provision "as amended and supplemented".
		Another commenter suggests providing a link to a current list of industry best practice guidelines to facilitate updating.	The Companion Policy includes a link to the CIM website. Some CSA jurisdictions also provide direct links to the specific guidelines on their websites.
	1.1(1) – Definition of "acceptable foreign code"	A commenter who proposes adding the SME Code to the definition of "acceptable foreign code" in the Instrument says it should also be included here.	See our response to this issue in section B.1 above under - Definition of "acceptable foreign code".
		A commenter recommends that the Companion Policy include a summary of the process undertaken to assess the various codes, including the criteria applied.	While we are not proposing any formal process, we have provided some general guidance on our expectations for submissions.
	1.1(4) – Definition of "preliminary economic assessment"	A commenter observes that by equating a preliminary economic assessment with a scoping study, industry's use of the term "scoping study" has been severely restricted. They recommend removing the reference to "scoping study" as scoping studies have a much broader range than preliminary economic assessments as defined.	We have amended the guidance to indicate that the two terms might not be completely analogous.
	1.1(5) and (7) - Definitions of "professional	Three commenters that are Canadian professional associations acknowledge the new guidance concerning Canadian registration requirements for geoscientists, but	See our response to this issue in section B.1 above under - Definition of "professional association".

#	Theme	Comments	Responses
	association" and "qualified person"	think that the Instrument should require registration with a Canadian professional association.	
		A commenter thinks several of the professional associations in Appendix A to the Companion Policy have broad categories of registration that do not meet the new tests in the definition of "qualified person", for example, SACNASP.	The membership designation of SACNASP Professional Natural Scientist satisfies the criterion in subparagraph (e)(ii)(A) of the definition of "qualified person" If a SACNASP Professional Natural Scientist also meets the tests under paragraphs (a), (b), (c) and (d) of the definition of 'qualified person", they would be a "qualified person" for purposes of the Instrument
		 Another commenter raises certain concerns about the foreign professional associations listed in Appendix A. Unlike Canadian professional associations that are established under law, some of the foreign associations are industry groups with no legal status. Their ability to mete out discipline is not clear, which puts investors at risk. Canadian-based experts are subject to civil liability whereas foreign experts might not be. This is a disadvantage for Canadian experts and puts issuers at risk as damages not collectible from foreign professionals might be transferred to issuers. 	Most foreign jurisdictions do not have statutory registration requirements and imposing such requirements would severely limit the pool of qualified persons available to issuers operating in these jurisdictions. As regards discipline, one of the requirements of a professional association is that it has and applies disciplinary powers. See our response to the issue of civil liability in section B.10 above, under – Other general comments. We think imposing a requirement that a Canadian issuer must always use a Canadian qualified person, regardless of the location of the issuer's property, would impose a burden disproportionate to the risk identified.
		This commenter also recommends that the Companion Policy should: • include a summary of the process used to assess the different associations, including the criteria applied, with the characteristics of each association presented as a matrix so market participants can compare them; and • state that the associations in Appendix A are the only ones recognized for purposes of the Instrument and describe how other associations can apply to become recognized.	See our response to this issue in section B.1 above, under – Definition of "professional association". While we are not proposing any formal process, we have provided some general guidance on our expectations for submissions from issuers regarding adding new associations to Appendix A.

#	Theme	Comments	Responses
	1.1(8) - Definition of "technical report"	A commenter notes that the Instrument, the Form, and the Companion Policy generally require the issuer to determine materiality, but this guidance says the qualified person determines materiality for the technical report. The commenter suggests replacing materiality with relevance or some other appropriate term to avoid confusion.	We have not made this change. While the issuer is responsible for determining materiality regarding its disclosure and affairs, we think the qualified person is in a better position to determine the materiality of information that needs to be included in the technical report.
	2.1(3) – use of plain language	Two commenters that commented on General Instruction (3), plain language, in Form 43-101F1 have the same comments regarding this guidance.	Because this guidance applies to an issuer's disclosure generally, we think the references to plain language are appropriate. The guidance recognizes that the technical report does not always lend itself well to plain language.
	2.2 – use of GSC Paper 88-21	A commenter expressly supports the guidance in this section.	
	2.3(1) – economic analysis	A commenter finds this guidance inconsistent with the section in the Instrument because the section in the Instrument only restricts the use of inferred resources in an economic analysis and does not mention a preliminary economic analysis.	We do not share this concern. However, we have removed the references to preliminary economic assessment, pre-feasibility study, and feasibility study for greater clarity.
	2.3(3) – exceptions	A commenter thinks the current wording allows the use of inferred resources in an economic analysis, and that the reference to "economic analysis" should be to "preliminary economic analysis".	We do not think this differentiation is required because a preliminary economic assessment includes an economic analysis.
	4.2(1) – information circular trigger	A commenter finds it unclear what would trigger the technical reports after completion of the transaction. Subsection 1.1(8) of the proposed Companion Policy clarifies that a technical report does not meet the definition unless there is a trigger for it to be filed.	We do not share the commenter's concern because the technical report will have been filed by the other party to the transaction in satisfaction of a technical report trigger. The purpose of subparagraph 4.2(1)(c)(iii) is to ensure the technical report is available on the SEDAR profile of the issuer resulting from the transaction.
	4.2(4) – property acquisitions - 45-	A commenter has concerns about this guidance and questions how a property not yet owned can be material to an	We disagree with the commenter. Due to the nature of option agreements, properties frequently become material

#	Theme	Comments	Responses
	day filing requirement	issuer. Letters of intent are often non-binding and do not proceed to a definitive transaction. Forcing an issuer to prepare a technical report at this stage adds another cost to property acquisitions, which will discourage otherwise beneficial property transfers.	at the letter of intent stage. It could be many years, if ever, before there is a formal agreement or vesting of an interest.
	4.2(5) – property acquisitions – other alternatives for disclosure	A commenter recommends clarifying at the end of the second paragraph that historical estimates cannot be added to current mineral resources or mineral reserves.	We already provide this guidance in subsection 2.4(5) of the Companion Policy.
	4.2(6) – production decision	A commenter does not think this guidance is appropriate in all circumstances. In the case of sophisticated mining companies with significant internal expertise that are able to self-finance the development of a mine, the costs of completing a comprehensive feasibility study might outweigh the benefits. The proposed supplementary disclosure suggests that a production decision made by such an issuer is less sound.	The guidance refers to the increased risk of putting a project into production without a feasibility study. We think this statement is accurate and does not reflect on the soundness of management's decision.
	4.2(7) – shelf life of technical reports	Two commenters find this guidance generally useful, but think it implies the issuer should file a new technical report. The commenters suggest modifying the guidance to clarify that because economic information in a technical report has become outdated does not, in itself, trigger the requirement to file a new technical report.	We have made this change for greater clarity.
	4.2(9) – preliminary economic assessments	A commenter recommends adding reference in the first sentence to a Life of Mine plan of a developed mine, as a Life of Mine plan of a developed mine can be used to establish mineral reserves.	We have not made this change because "Life of Mine Plan" is not a term defined or used in the Instrument. We have also moved this guidance to subsection 2.3(4) of the Companion Policy because it relates to disclosure of preliminary economic assessments.
		This commenter also proposes adding a reference to "prefeasibility study" in the second sentence.	We have made this change.

#	Theme	Comments	Responses
	4.2(12) – technical reports not required under the Instrument	A commenter thinks the second paragraph of this guidance contradicts the first paragraph of subsection 1.1(8) of the guidance.	We have replaced references to "technical report" in this section with the more generic "report" to differentiate more clearly between technical reports and those reports that are prepared in the form of a technical report but are not filed due to a requirement of the Instrument.
	4.2(13) – preliminary short form prospectus	A commenter recommends adding guidance in the second paragraph encouraging issuers to consult with qualified persons who authored previously filed technical reports before referring to those reports in the final prospectus and well in advance of the time when their expert consents will be required under NI 44-101. Sometimes these technical reports are years old and have been superseded by more recent reports.	Since the most recent technical report must include a summary of all material information about the property, there should be no need for the issuer to reference previous technical reports in prospectuses.
	5.1(5) – responsibility for all items of technical report	A commenter supports the requirements referred to in this guidance but thinks they are not in fact included in section 5.2 and Part 8 of the Instrument.	We agree these requirements are not expressly included in section 5.2 and Part 8 of the Instrument. We think these requirements are implicit in section 5.1 of the Instrument, which requires "a technical report" to be prepared by or under the supervision of one or more qualified persons. We have amended the guidance to clarify this.
	6.1(1) – summary of material information	A commenter that commented on General Instruction (3), intended audience, in Form 43-101F1 makes the same comments regarding this guidance.	See our response to the comment on General Instruction (3)
	6.2(3) – current personal inspection	A commenter recommends changing this guidance to clarify that it is the qualified persons responsible for the technical report, rather than the issuer, who should determine the need for more than one personal inspection of the property.	We have made this change.
	7.1 – use of foreign code	A commenter that does not support elimination of the reconciliation requirement from section 7.1 of the Instrument proposes corresponding modifications to the guidance.	We have amended the Instrument to include a reconciliation requirement only where there is a material difference. We do not think additional guidance is required.

#	Theme	Comments	Responses
	8.3(1) – consent of experts	A commenter notes the reference to "the consent of qualified person required under the Instrument"; however, if the technical report is still current or the short form prospectus trigger is removed, no consent would be required under the Instrument.	We have amended the wording to include this possibility.
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	E. PROPOSED CO.	NSEQUENTIAL AMENDMENTS	
1.	Amendment to National Instrument 44-101 Short Form Prospectus Distributions (NI 44-101)	12 commenters expressly support the proposed amendment to NI 44-101. One commenter cites an example where several qualified persons within a firm were involved in a project and subsequently left or changed employment. Another commenter thinks this amendment balances investor protection and the potential costs and delay involved in obtaining consents from individual qualified persons.	We thank the commenters for their support.
		A commenter supports the proposed amendment but does not think it goes far enough, as it is still costly and burdensome to seek the consent of the firm that employed the qualified person. The commenter proposes a carve-out from the expert consent provisions under NI 44-101 if there is a current technical report on file and, in support, refers to proposed subsection 4.2(8) of the Instrument, which will eliminate the need to provide updated consents and certificates under the Instrument where there is a current technical report.	We have not made this change. The expert consent provisions under the prospectus rules, unlike the consents under NI 43-101, apply specifically to the disclosure in the prospectus. They also apply to all experts, not just qualified persons under NI 43-101.
		A commenter asks CSA to consider providing a similar exemption with respect to disclosure in other documents such as takeover bid circulars, information circulars, and rights offering circulars, provided the disclosure is not first-time disclosure of the technical information.	We have not adopted these suggestions. We have not received any indications from market participants that they experience difficulty obtaining expert consents in connection with these other documents.
		Two commenters recommend extending the proposed exemption to allow issuers, in the same circumstances, to	We do not think it would be appropriate to allow the issuer to provide an expert consent with respect to its

#	Theme	Comments	Responses
		consent to the use of internally prepared technical reports. Issuers face the same logistical challenges where an employee whose consent is required is working in a remote location or has left the issuer's employment.	own disclosure. The purpose of the expert consent is to provide additional assurance to that provided by the issuer in its prospectus certificate.
		One commenter supports the proposed amendment, but does not think qualified persons should ever be required to provide consents to support any disclosure documents after the filing of the technical report. Often qualified persons are asked to provide their consent on the basis of draft documents which might change before they are filed. If a consent is required, the qualified person should be allowed a certain period, say 20 days, to prepare the consent after the final document has been filed.	See our response to the comment above regarding expert consents under the prospectus rules. The purpose of the consent is to validate the disclosure in the filed document so it would not be appropriate to allow the consent to be filed at a later time than the document.
		Another commenter finds it anomalous to require a consent from the author of a technical report for a short form prospectus when no consent is required for the same information included in the annual information form incorporated by reference into the short form prospectus. In particular, under the proposed amendments to section 3.1 of the Instrument, an issuer could rely on its own internal qualified person to approve the technical disclosure in its annual information form, without obtaining the consent of the qualified person who authored the supporting technical report. There is potential for greater recourse by a new investor relying on the prospectus than for an existing investor relying on the same disclosure in the AIF. The commenter proposes a further amendment to the prospectus expert consent provisions that would exempt any qualified person named in a document solely for the purpose of describing a technical report.	See our response to the comment above regarding expert consents under the prospectus rules.
2.	Amendment to Form 51-102F1 Management's	A commenter expressly supports the proposed amendment. A commenter supports the proposed amendment but feels the	We do not think it is necessary to mandate this additional

#	Theme	Comments	Responses
	Discussion and Analysis (MD&A)	requirement should go further. A company that makes a production decision without a technical report should be obligated to provide basic information such as capital cost, contingencies, operating costs per tonne and per unit of metal produced.	disclosure in the MD&A form. Although a production decision is not itself a technical report trigger, in most cases an issuer will have done an economic analysis that includes this information, the disclosure of which would have triggered the filing of a technical report.
	F. SPECIFIC QUES	STIONS – SHORT FORM PROSPECTUS TRIGGER – PA	RAGRAPH 4.2(1)(b) OF INSTRUMENT
1.	Do you rely on technical reports when making or advising on investment decisions in a short form prospectus offering?	Six commenters say they rarely rely, or their experience suggests that investors or advisors rarely rely, on technical reports to make an investment decision. Some of these commenters indicate they rely more on the information disclosed in the prospectus, the protections inherent in the short form system such as the prospectus disclosure standard or the underwriters' discharge of their due diligence obligations, or the approval of technical information or expert consent from the qualified person. Three commenters say they do, or understand that investors and advisors do, rely on technical reports when making an investment decision. One commenter thinks that technical reports, along with other disclosure such as news releases and annual information forms, provide key information that influences investment decisions. However, the commenter thinks it is sufficient to rely on the certification or consent by the qualified person that the information in the short form prospectus is complete and current.	We thank the commenters for their feedback on these issues.
	If yes, please explain how the content of a technical report, or	One commenter thinks the information in the technical report represents the most up-to-date assessment of a property and is an integral part of the investment decision process. Another commenter thinks the content of technical reports is	

#	Theme	Comments	Responses
	the certification of a technical report by a qualified person, could influence your investment decisions or your recommendations.	important in financial modeling and formulating views on valuation, and technical reports can play a primary role in investment decisions concerning smaller-scale, lesser-known issuers. One commenter thinks an independent qualified person should certify the technical report and its influence would depend on the reputation of the qualified person.	
2.	Do you think we should keep, or eliminate, the short form prospectus trigger? Please explain your reasoning.	 17 commenters support eliminating the short form prospectus trigger in all three cases outlined in the Notice and Request for Comment. Their reasons include: Removing the trigger is consistent with the policy objectives of the short form prospectus system. Financing windows, especially for exploration and development companies, are generally short and provide limited opportunities to raise required funds. The time required to prepare or update technical reports can be significant and cause companies to lose financing opportunities. The trigger can be very costly, especially where multiple technical reports are required or delays in preparing or updating the reports increase the company's financing costs. Although the "buy side" may attribute some value to having access to a technical report, they also welcome the opportunity for issuers to complete financings on a timely basis with considerably less cost and disruption. A technical report is of little benefit in many short form offerings because they are completed on a "bought deal" basis or through an overnight marketed offering, where there is insufficient time to review a technical report. 	We thank the commenters for their thoughtful responses to questions 2 and 3. Many persuasive arguments were presented on both sides of the issue. After due consideration of all the comments received and the various options identified in the Notice and Request for Comment, as well as the results of the issuer costs survey we conducted, we have decided to • eliminate the short form prospectus trigger in Cases 1 and 2 as described in the table in the Notice and Request for Comment; and • keep the short form prospectus trigger in Case 3 as described in the table in the Notice and Request for Comment. Some of the factors influencing our decision are: • Removing the trigger is a substantive change to the Instrument and it is difficult to anticipate all the possible ramifications. Some commenters representing the buy side raised various investor protection concerns and questions, primarily with respect to Case 3. • Case 3 represents an acceleration of a technical report filing that would already be required under other provisions of the Instrument. • We have decided to adopt the new exemption for a property acquisition with a current technical

#	Theme	Comments	Responses
		 Investors are sufficiently protected because the prospectus must disclose all material facts, there is a reasonably current technical report on file, a qualified person is named in the prospectus who is responsible for new information about the property, and underwriters and issuers must undertake due diligence regarding information in the prospectus. As the proposed guidance in the Companion Policy suggests, appropriate cautionary language in the prospectus would alert investors to any risk associated with the potential for information in a subsequently filed technical report to vary from information in the prospectus. If the trigger is removed, industry will develop practices that will reduce any potential risk to acceptable levels. In Case 3, the most problematic, an issuer at significant risk would likely prefer a private placement to a prospectus that might require amendment and raise rescission rights, so the practical risk is minimized. Eliminating the trigger would address some asymmetries between the primary and secondary markets. Investors in both markets should be treated equally. Currently issuers might do a private placement rather than a short form prospectus to avoid the time and costs of having to prepare a technical report. Existing investors can suffer increased dilution as a result. One commenter notes the short form prospectus trigger has caused some issuers to undertake special warrant transactions rather than bought deals because IIROC has granted exemptions allowing short form eligible issuers to use special warrants where the unavailability of a technical 	report. In these circumstances, if we did not keep the short form prospectus trigger in Case 3, there would be a six-month delay before the issuer filed its own technical report. Some commenters expressed concerns about this scenario. • The results of the issuer cost survey we conducted confirmed that there are significant costs associated with technical reports and that the technical report requirement for a short form prospectus can result in lost financing opportunities. These results are consistent with many of the comments we received.

#	Theme	Comments	Responses
		report precludes the use of a short form prospectus. This has had the unfortunate consequence of undermining the short form prospectus pre-marketing rules, as these rules do not apply to special warrant transactions.	
		One commenter thinks CSA should keep the short form prospectus trigger in all three cases because: • The costs associated with this trigger are marginal compared to all the costs of a short form prospectus. • Eliminating the trigger would not generate benefits that outweigh the risks, particularly given the low ratio of short form prospectus financings to other types of financings.	
		Another commenter thinks CSA should keep the trigger, but proposes using a shorter form of technical report, or summary, similar to that endorsed by various foreign exchanges. These short form reports provide information that is useful to investors and are approved by the equivalent of a qualified person, but are not as costly for issuers.	
3.	Please discuss how your answers to questions 1 and 2 might change in each of the three cases described in the table.	Three commenters support eliminating the short form prospectus trigger in Cases 1 and 2 described in the table, but keeping it in Case 3. Their reasons include: • In Case 3 the technical report is key to deciding the economic viability and potential value of a project and company. • The issuer will have to file a technical report anyway. If the information is both material and previously unreported it seems the technical report	See our response to the comments on question 2.
		 would be in the investor's interest prior to filing the short form prospectus. The proposed six-month filing delay confers a significant benefit on issuers, but in the case of a 	

#	Theme	Comments	Responses
		short form offering, if the trigger is eliminated, the timing gap between the offering and the filing of the new technical report could be detrimental to investors.	
		One of these commenters suggests that, if CSA removes the trigger in Case 3, CSA consider implementing a form of escrow arrangement so issuers do not miss financing windows but investors still have the benefit of the most current information.	
		One commenter shares the views of other commenters regarding eliminating the trigger in Case 1 and keeping it in Case 3, but does not wholly support eliminating the trigger in Case 2. The commenter thinks that, although the technical report would not necessarily provide incremental information relevant to the investment decision, a technical report is still considered valuable to investors, particularly in the context of a short form offering where the time for making a decision is limited. It may be appropriate to develop an exemption to accommodate this specific situation.	
		One commenter supports eliminating the trigger in Cases 1 and 3, but keeping it in Case 2, provided the technical report would only have to be filed within six months of closing the prospectus financing, rather than with the prospectus.	
4.	If we decide to eliminate the short form prospectus trigger, is the proposed guidance in subsection 4.2(13) of the Amended	13 commenters find the proposed guidance useful.	

#	Theme	Comments	Responses
	Companion Policy useful?		
	Do you have any suggestions concerning this guidance?	A commenter that is a law firm would welcome specific guidance on how to remedy a situation where a technical report that contains information inconsistent with the prospectus is filed after the final short form prospectus.	As we have decided to keep the short form prospectus trigger in Case 3, we have replaced the proposed guidance in the Companion Policy.
		A commenter notes the last sentence of the second paragraph says the qualified person "could be required to provide an expert consent" under NI 44-101, while the Notice and Request for Comment says the qualified person "would likely be considered an expert and so would be required to provide an expert consent". If CSA's view is that an expert consent would likely be required, the guidance should be more definitive.	See our response to the comment above.
		STIONS – NEW EXEMPTION FOR PROPERTY ACQUIS 4.2(7) OF INSTRUMENT	SITION WITH CURRENT TECHNICAL REPORT –
1.	Question #5 – Is the proposed new exemption relating to an acquired property helpful?	14 commenters expressly support the proposed new exemption and think it will be helpful. One of these commenters notes it will allow an issuer to prepare a technical report within a more reasonable timeframe and provides a useful alternative to disclosing the estimate as a historical estimate or having the existing technical report re-addressed to it. Another commenter thinks it will provide new owners sufficient time to prepare a technical report that reflects their strategies and plans for developing a new property, without the time and expense required to file effectively what is an interim report of little value to the market. A commenter that is an exchange does not support the	We thank the commenters for their support. We have decided to keep the proposed exemption in the Instrument.

#	Theme	Comments	Responses
		 proposed new exemption. Its reasons include: The proposed exemption conflicts with the revised definition of "historical estimate". If the issuer has not yet verified the estimate as current, it is a "historical estimate" by definition and the issuer should disclose it as such. The commenter has concerns about the qualifications and suitability of an internal qualified person who signs off on the current resource for purposes of the news release, particularly in cases where the property will be "flipped" within six months such that the issuer will have no obligation to file the technical report. In practice, many venture issuers will not benefit from the new exemption because exchange rules require the filing of technical reports in conjunction with the review of a variety of transactions. 	We do not agree that the new exemption conflicts with the revised definition of "historical estimate". The new exemption provides the issuer with another alternative for disclosing a material property acquisition in circumstances where the issuer believes the estimate to be current. In such circumstances, it could be misleading for the issuer to disclose the estimate as a "historical estimate". With respect to a potential sale of the property, once the requirement to file a technical report has been triggered under the Instrument, the issuer remains subject to that requirement.
		Proposed modifications One commenter proposes that the new exemption should also be available where the previous owner is a producing issuer whose securities trade on a specified exchange and that has disclosed mineral resources and mineral reserves under an acceptable foreign code. This exemption would then align with the proposed new exemption for royalty interest holders in subsection 9.2(1).	We have not adopted this suggestion. The new exemption for royalty holders is from the obligation to file a technical report, which we think is appropriate given the unique nature of a royalty interest. Where an issuer has acquired a new material property we think the issuer should be required to file a technical report to support its disclosure and it would not be appropriate to allow the issuer to rely on information from another source that is less than what would be required under a technical report.
		Another commenter questions why the new owner should have to file a technical report within six months (particularly if there is no new scientific or technical information) rather than rely on the existing technical report triggers to determine when the new report is required.	This exemption applies in cases where the new owner is disclosing significant new scientific and technical information that is a material change for the issuer and that must be supported, in all other cases, by a technical report filed by the issuer. Given the importance of the information to the issuer and its investors, we do not think it would be appropriate to allow the issuer to rely indefinitely on a technical report filed by a previous

#	Theme	Comments	Responses
			owner.
		One commenter thinks the proposed exemption is practical in theory, but questions whether additional minimum standards are needed to ensure the prior report is reasonably current before it can be relied upon, as it is not always in the seller's interest to update a technical report.	We think the conditions that currently apply to this exemption provide sufficient protection for investors. However, as this is a substantive new provision, we will monitor its application.
		One commenter suggests an independent qualified person should review the previous owner's technical report and the results of the review be filed on SEDAR.	See our response to the comment above.
	Is it reasonable to expect that issuers will use the new exemption in light of the attached conditions?	The six commenters who responded to this specific question all think it is reasonable to expect that issuers will use the new exemption in light of the attached conditions.	
	H. SPECIFIC QUE INSTRUMENT	ESTIONS – EXISTING EXEMPTION FROM SITE VISIT I	REQUIREMENT – SUBSECTION 6.2(2) OF
1.	Question #6 – Do market participants use this exemption?	Eight commenters say that market participants do not use or rarely use this exemption. Three commenters believe that market participants do use	
		the exemption.	
	Should we keep it in the Amended Instrument?	The 12 commenters who responded to this specific question all think CSA should keep this exemption in the Amended Instrument.	We have decided to keep this exemption in the Instrument.
		One commenter suggests clarifying in paragraph 6.2(3)(b) that a second technical report with certificates and consents is required.	We think this is implicit, as subsection 6.2(2) requires the technical report initially filed to explain why a site visit was not completed and the intended timeframe for

#	Theme	Comments	Responses
			completion.
	I. GENERAL CON	MENTS NOT SPECIFICALLY RELATED TO PROPOSA	ALS
1.	Disclosure requirements	A commenter thinks disclosure requirements for private placements are not rigorous enough and for prospectus offerings are too rigorous. The disparity is not appropriate given the large number of private placements compared to prospectus offerings.	We acknowledge the comment, but it is beyond the mandate of this committee.
2.	Technical report review	A commenter does not think CSA should have unlimited flexibility in determining when to review a technical report, but should be subject to a deadline (say 90 days) beyond which a report cannot be rejected.	The securities regulatory authorities carry out targeted reviews of technical reports as part of their continuous disclosure review program. However, ultimately it is the responsibility of the issuer to ensure its technical report is in compliance irrespective of regulatory review.

Appendix D

THE MANITOBA SECURITIES COMMISSION MSC RULE 2011-2

(Section 149.1, The Securities Act)

AMENDMENTS TO NATIONAL INSTRUMENT 44-101 SHORT FORM PROSPECTUS DISTRIBUTIONS

- 1. National Instrument 44-101 Short Form Prospectus Distributions is amended by this Instrument.
- 2. Part 4 is amended by adding the following section:

"Alternative consent

- **4.2.1(1)** Despite subparagraph 4.2(a)(vii), if the expert whose consent is required is a "qualified person" as defined in NI 43-101, the issuer is not required to file the consent of the qualified person if
 - (a) the qualified person's consent is required in connection with a technical report that was not required to be filed with the preliminary short form prospectus,
 - (b) the qualified person was employed by a person or company at the date of signing the technical report,
 - (c) the principal business of the person or company is providing engineering or geoscientific services, and
 - (d) the issuer files the consent of the person or company.
- **4.2.1(2)** A consent filed under subsection (1) must be signed by an individual who is an authorized signatory of the person or company and who falls within paragraphs (a), (b), (d) and (e) of the definition of "qualified person" in NI 43-101."
- 3. This Instrument comes into force on June 30, 2011.
- 4. This Instrument may be cited as MSC Rule 2011-2.

Appendix E

THE MANITOBA SECURITIES COMMISSION MSC RULE 2011-3

(Section 149.1, *The Securities Act*)

AMENDMENTS TO FORM 51-102F1 MANAGEMENT'S DISCUSSION AND ANALYSIS AND FORM 51-102F2 ANNUAL INFORMATION FORM

- 1. Form 51-102F1 *Management's Discussion and Analysis* and Form 51-102F2 *Annual Information Form* are amended by this Instrument.
- 2. Form 51-102F1 is amended by repealing paragraph (e) of section 1.4 and substituting the following:
 - "(e) for resource issuers with producing mines or mines under development, identify any milestone, including, without limitation, mine expansion plans, productivity improvements, plans to develop a new deposit, or production decisions, and whether the milestone is based on a technical report filed under National Instrument 43-101 *Standards of Disclosure for Mineral Projects*;"
- 3. Form 51-102F2 is amended by repealing Instruction (i) to Item 16 Interests of Experts.
- 4. This Instrument comes into force on June 30, 2011.
- 5. This Instrument may be cited as MSC Rule 2011-3.

Appendix F

THE MANITOBA SECURITIES COMMISSION MSC RULE 2011-4

(Section 149.1, The Securities Act)

AMENDMENTS TO NATIONAL INSTRUMENT 45-106 PROSPECTUS AND REGISTRATION EXEMPTIONS

- 1. National Instrument 45-106 Prospectus and Registration Exemptions is amended by this Instrument.
- 2. Section 2.9 is amended by repealing subsection (18).
- 3. This Instrument comes into force on June 30, 2011.
- 4. This Instrument may be cited as MSC Rule 2011-4.

Appendix G

THE MANITOBA SECURITIES COMMISSION MSC RULE 2011-5

(Section 149.1, The Securities Act)

AMENDMENTS TO NATIONAL INSTRUMENT 45-101 RIGHTS OFFERINGS

- 1. National Instrument 45-101 Rights Offerings is amended by this Instrument.
- 2. Subsection 3.1(1) is amended by repealing item 4 and substituting the following:
 - "4. A copy of the technical reports, certificates, and consents required under National Instrument 43-101 *Standards of Disclosure for Mineral Projects.*"
- 3. This Instrument comes into force on June 30, 2011.
- 4. This Instrument may be cited as MSC Rule 2011-5.

THE MANITOBA SECURITIES COMMISSION MSC RULE 2011-1

(Section 149.1, *The Securities Act*)

NATIONAL INSTRUMENT 43-101 STANDARDS OF DISCLOSURE FOR MINERAL PROJECTS

Table of Contents

PART	TITL	E	PAGE
PART 1	DEFI	NITIONS AND INTERPRETATION	1
	1.1	Definitions	1
	1.2	Mineral resource	4
	1.3	Mineral reserve	4
	1.4	Mining studies	4
	1.5	Independence	4
PART 2	REQU	UIREMENTS APPLICABLE TO ALL DISCLOSURE	4
	2.1	Requirements applicable to all disclosure	4
	2.2	All disclosure of mineral resources or mineral reserves	4
	2.3	Restricted disclosure	5
	2.4	Disclosure of historical estimates	5
PART 3	ADD:	ITIONAL REQUIREMENTS FOR WRITTEN DISCLOSURE	6
	3.1	Written disclosure to include name of qualified person	6
	3.2	Written disclosure to include data verification	6
	3.3	Requirements applicable to written disclosure of exploration information	6
	3.4	Requirements applicable to written disclosure of mineral resources and mineral reserves	7
	3.5	Exception for written disclosure already filed	7
PART 4	OBLIGATION TO FILE A TECHNICAL REPORT		7
	4.1	Obligation to file a technical report upon becoming a reporting issuer	7
	4.2	Obligation to file a technical report in connection with certain written disclosure about mineral projects on material properties	8
	4.3	Required form of technical report	10
			10
PART 5	AUTI	HOR OF TECHNICAL REPORT	10
	5.1	Prepared by a qualified person	10
	5.2	Execution of technical report	10
	5.3	Independent technical report	11
PART 6	PREPARATION OF TECHNICAL REPORT		
	6.1	The technical report	11
	6.2	Current personal inspection	11
	6.3	Maintenance of records	12
	6.4	Limitation on disclaimers	12
PART 7	USE OF FOREIGN CODE		
	7.1	Use of foreign code	12

PART 8	CERTIFICATES AND CONSENTS OF QUALIFIED PERSONS FOR	13				
	TECHNICAL REPORTS					
	8.1 Certificates of qualified persons	13				
	8.2 Addressed to issuer	13				
	8.3 Consents of qualified persons	13				
PART 9	EXEMPTIONS					
	9.1 Authority to grant exemptions	14				
	9.2 Exemptions for royalty or similar interests	14				
	9.3 Exemption for certain types of filings	15				
PART 10	EFFECTIVE DATE AND REPEAL					
	10.1 Effective date	15				
	10.2 Repeal	15				
	10.3 Citation					

THE MANITOBA SECURITIES COMMISSION MSC RULE 2011-1

(Section 149.1, *The Securities Act*)

National Instrument 43-101 Standards of Disclosure for Mineral Projects

PART 1 – DEFINITIONS AND INTERPRETATION

Definitions

1.1 In this Instrument

"acceptable foreign code" means the JORC Code, the PERC Code, the SAMREC Code, SEC Industry Guide 7, the Certification Code, or any other code, generally accepted in a foreign jurisdiction, that defines mineral resources and mineral reserves in a manner that is consistent with mineral resource and mineral reserve definitions and categories set out in sections 1.2 and 1.3;

"adjacent property" means a property

- (a) in which the issuer does not have an interest;
- (b) that has a boundary reasonably proximate to the property being reported on; and
- (c) that has geological characteristics similar to those of the property being reported on;

"advanced property" means a property that has

- (a) mineral reserves, or
- (b) mineral resources the potential economic viability of which is supported by a preliminary economic assessment, a pre-feasibility study or a feasibility study;
- "Certification Code" means the Certification Code for Exploration Prospects, Mineral Resources and Ore Reserves prepared by the Mineral Resources Committee of the Institution of Mining Engineers of Chile, as amended;
- "data verification" means the process of confirming that data has been generated with proper procedures, has been accurately transcribed from the original source and is suitable to be used;
- "disclosure" means any oral statement or written disclosure made by or on behalf of an issuer and intended to be, or reasonably likely to be, made available to the public in a jurisdiction of Canada, whether or not filed under securities legislation, but does not include written disclosure that is made available to the public only by reason of having been filed with a government or agency of government pursuant to a requirement of law other than securities legislation;

"early stage exploration property" means a property for which the technical report being filed has

- (a) no current mineral resources or mineral reserves defined; and
- (b) no drilling or trenching proposed;

"effective date" means, with reference to a technical report, the date of the most recent scientific or technical information included in the technical report;

"historical estimate" means an estimate of the quantity, grade, or metal or mineral content of a deposit that an issuer has not verified as a current mineral resource or mineral reserve, and which was prepared before the issuer acquiring, or entering into an agreement to acquire, an interest in the property that contains the deposit;

"JORC Code" means the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia, as amended;

"mineral project" means any exploration, development or production activity, including a royalty or similar interest in these activities, in respect of diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal, and industrial minerals;

"PERC Code" means the Pan-European Code for Reporting of Exploration Results, Mineral Resources and Reserves prepared by the Pan-European Reserves and Resources Reporting Committee, as amended;

"preliminary economic assessment" means a study, other than a pre-feasibility or feasibility study, that includes an economic analysis of the potential viability of mineral resources;

"producing issuer" means an issuer with annual audited financial statements that disclose

- (a) gross revenue, derived from mining operations, of at least \$30 million Canadian for the issuer's most recently completed financial year; and
- (b) gross revenue, derived from mining operations, of at least \$90 million Canadian in the aggregate for the issuer's three most recently completed financial years;

"**professional association**" means a self-regulatory organization of engineers, geoscientists or both engineers and geoscientists that

- (a) is
 - (i) given authority or recognition by statute in a jurisdiction of Canada, or
 - (ii) a foreign association that is generally accepted within the international mining community as a reputable professional association;
- (b) admits individuals on the basis of their academic qualifications, experience, and ethical fitness;
- (c) requires compliance with the professional standards of competence and ethics established by the organization;
- (d) requires or encourages continuing professional development; and

(e) has and applies disciplinary powers, including the power to suspend or expel a member regardless of where the member practises or resides;

"qualified person" means an individual who

- (a) is an engineer or geoscientist with a university degree, or equivalent accreditation, in an area of geoscience, or engineering, relating to mineral exploration or mining;
- (b) has at least five years of experience in mineral exploration, mine development or operation, or mineral project assessment, or any combination of these, that is relevant to his or her professional degree or area of practice;
- (c) has experience relevant to the subject matter of the mineral project and the technical report;
- (d) is in good standing with a professional association; and
- (e) in the case of a professional association in a foreign jurisdiction, has a membership designation that
 - (i) requires attainment of a position of responsibility in their profession that requires the exercise of independent judgment; and
 - (ii) requires
 - A. a favourable confidential peer evaluation of the individual's character, professional judgement, experience, and ethical fitness; or
 - B. a recommendation for membership by at least two peers, and demonstrated prominence or expertise in the field of mineral exploration or mining;
- "quantity" means either tonnage or volume, depending on which term is the standard in the mining industry for the type of mineral;
- "SAMREC Code" means the South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves prepared by the South African Mineral Resource Committee (SAMREC) under the Joint Auspices of the Southern African Institute of Mining and Metallurgy and the Geological Society of South Africa, as amended;
- "SEC Industry Guide 7" means 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 United States Securities and Exchange Commission, as amended;
- "**specified exchange**" means the Australian Stock Exchange, the Johannesburg Stock Exchange, the London Stock Exchange Main Market, the Nasdaq Stock Market, the New York Stock Exchange, or the Hong Kong Stock Exchange;
- "technical report" means a report prepared and filed in accordance with this Instrument and Form 43-101F1 Technical Report that includes, in summary form, all material scientific and technical information in respect of the subject property as of the effective date of the technical report; and
- "written disclosure" includes any writing, picture, map, or other printed representation whether produced, stored or disseminated on paper or electronically, including websites.

Mineral resource

1.2 In this Instrument, the terms "mineral resource", "inferred mineral resource", "indicated mineral resource" and "measured mineral resource" have the meanings ascribed to those terms by the Canadian Institute of Mining, Metallurgy and Petroleum, as the CIM Definition Standards on Mineral Resources and Mineral Reserves adopted by CIM Council, as amended.

Mineral reserve

1.3 In this Instrument, the terms "mineral reserve", "probable mineral reserve" and "proven mineral reserve" have the meanings ascribed to those terms by the Canadian Institute of Mining, Metallurgy and Petroleum, as the CIM Definition Standards on Mineral Resources and Mineral Reserves adopted by CIM Council, as amended.

Mining studies

1.4 In this Instrument, the terms "preliminary feasibility study", "pre-feasibility study" and "feasibility study" have the meanings ascribed to those terms by the Canadian Institute of Mining, Metallurgy and Petroleum, as the CIM Definition Standards on Mineral Resources and Mineral Reserves adopted by CIM Council, as amended.

Independence

1.5 In this Instrument, a qualified person is independent of an issuer if there is no circumstance that, in the opinion of a reasonable person aware of all relevant facts, could interfere with the qualified person's judgment regarding the preparation of the technical report.

PART 2 – REQUIREMENTS APPLICABLE TO ALL DISCLOSURE

Requirements applicable to all disclosure

- **2.1** All disclosure of scientific or technical information made by an issuer, including disclosure of a mineral resource or mineral reserve, concerning a mineral project on a property material to the issuer must be
 - (a) based upon information prepared by or under the supervision of a qualified person; or
 - (b) approved by a qualified person.

All disclosure of mineral resources or mineral reserves

- **2.2** An issuer must not disclose any information about a mineral resource or mineral reserve unless the disclosure
 - (a) uses only the applicable mineral resource and mineral reserve categories set out in sections 1.2 and 1.3;
 - (b) reports each category of mineral resources and mineral reserves separately, and states the extent, if any, to which mineral reserves are included in total mineral resources:
 - (c) does not add inferred mineral resources to the other categories of mineral resources; and
 - (d) states the grade or quality and the quantity for each category of the mineral resources and mineral reserves if the quantity of contained metal or mineral is included in the disclosure.

Restricted disclosure

- **2.3(1)** An issuer must not disclose
 - (a) the quantity, grade, or metal or mineral content of a deposit that has not been categorized as an inferred mineral resource, an indicated mineral resource, a measured mineral resource, a probable mineral reserve, or a proven mineral reserve;
 - (b) the results of an economic analysis that includes or is based on inferred mineral resources or an estimate permitted under subsection 2.3(2) or section 2.4;
 - (c) the gross value of metal or mineral in a deposit or a sampled interval or drill intersection; or
 - (d) a metal or mineral equivalent grade for a multiple commodity deposit, sampled interval, or drill intersection, unless it also discloses the grade of each metal or mineral used to establish the metal or mineral equivalent grade.
- **2.3(2)** Despite paragraph (1)(a), an issuer may disclose in writing the potential quantity and grade, expressed as ranges, of a target for further exploration if the disclosure
 - (a) states with equal prominence that the potential quantity and grade is conceptual in nature, that there has been insufficient exploration to define a mineral resource and that it is uncertain if further exploration will result in the target being delineated as a mineral resource; and
 - (b) states the basis on which the disclosed potential quantity and grade has been determined.
- **2.3(3)** Despite paragraph (1)(b), an issuer may disclose the results of a preliminary economic assessment that includes or is based on inferred mineral resources if the disclosure
 - (a) states with equal prominence that the preliminary economic assessment is preliminary in nature, that it includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the preliminary economic assessment will be realized;
 - (b) states the basis for the preliminary economic assessment and any qualifications and assumptions made by the qualified person; and
 - (c) describes the impact of the preliminary economic assessment on the results of any pre-feasibility or feasibility study in respect of the subject property.
- **2.3(4)** An issuer must not use the term preliminary feasibility study, pre-feasibility study or feasibility study when referring to a study unless the study satisfies the criteria set out in the definition of the applicable term in section 1.4.

Disclosure of historical estimates

- **2.4** Despite section 2.2, an issuer may disclose an historical estimate, using the original terminology, if the disclosure
 - (a) identifies the source and date of the historical estimate, including any existing technical report;
 - (b) comments on the relevance and reliability of the historical estimate;
 - (c) to the extent known, provides the key assumptions, parameters, and methods used to prepare the historical estimate;

- (d) states whether the historical estimate uses categories other than the ones set out in sections 1.2 and 1.3 and, if so, includes an explanation of the differences;
- (e) includes any more recent estimates or data available to the issuer;
- (f) comments on what work needs to be done to upgrade or verify the historical estimate as current mineral resources or mineral reserves; and
- (g) states with equal prominence that
 - (i) a qualified person has not done sufficient work to classify the historical estimate as current mineral resources or mineral reserves; and
 - (ii) the issuer is not treating the historical estimate as current mineral resources or mineral reserves.

PART 3 – ADDITIONAL REQUIREMENTS FOR WRITTEN DISCLOSURE

Written disclosure to include name of qualified person

- **3.1** If an issuer discloses in writing scientific or technical information about a mineral project on a property material to the issuer, the issuer must include in the written disclosure the name and the relationship to the issuer of the qualified person who
 - (a) prepared or supervised the preparation of the information that forms the basis for the written disclosure; or
 - (b) approved the written disclosure.

Written disclosure to include data verification

- **3.2** If an issuer discloses in writing scientific or technical information about a mineral project on a property material to the issuer, the issuer must include in the written disclosure
 - (a) a statement whether a qualified person has verified the data disclosed, including sampling, analytical, and test data underlying the information or opinions contained in the written disclosure;
 - (b) a description of how the data was verified and any limitations on the verification process; and
 - (c) an explanation of any failure to verify the data.

Requirements applicable to written disclosure of exploration information

- **3.3(1)** If an issuer discloses in writing exploration information about a mineral project on a property material to the issuer, the issuer must include in the written disclosure a summary of
 - (a) the material results of surveys and investigations regarding the property;
 - (b) the interpretation of the exploration information; and
 - (c) the quality assurance program and quality control measures applied during the execution of the work being reported on.

- **3.3(2)** If an issuer discloses in writing sample, analytical or testing results on a property material to the issuer, the issuer must include in the written disclosure, with respect to the results being disclosed,
 - (a) the location and type of the samples;
 - (b) the location, azimuth, and dip of the drill holes and the depth of the sample intervals;
 - (c) a summary of the relevant analytical values, widths, and to the extent known, the true widths of the mineralized zone:
 - (d) the results of any significantly higher grade intervals within a lower grade intersection;
 - (e) any drilling, sampling, recovery, or other factors that could materially affect the accuracy or reliability of the data referred to in this subsection; and
 - (f) a summary description of the type of analytical or testing procedures utilized, sample size, the name and location of each analytical or testing laboratory used, and any relationship of the laboratory to the issuer.

Requirements applicable to written disclosure of mineral resources and mineral reserves

- **3.4** If an issuer discloses in writing mineral resources or mineral reserves on a property material to the issuer, the issuer must include in the written disclosure
 - (a) the effective date of each estimate of mineral resources and mineral reserves;
 - (b) the quantity and grade or quality of each category of mineral resources and mineral reserves;
 - (c) the key assumptions, parameters, and methods used to estimate the mineral resources and mineral reserves;
 - (d) the identification of any known legal, political, environmental, or other risks that could materially affect the potential development of the mineral resources or mineral reserves; and
 - (e) if the disclosure includes the results of an economic analysis of mineral resources, an equally prominent statement that mineral resources that are not mineral reserves do not have demonstrated economic viability.

Exception for written disclosure already filed

3.5 Sections 3.2 and 3.3 and paragraphs (a), (c) and (d) of section 3.4 do not apply if the issuer includes in the written disclosure a reference to the title and date of a document previously filed by the issuer that complies with those requirements.

PART 4 – OBLIGATION TO FILE A TECHNICAL REPORT

Obligation to file a technical report upon becoming a reporting issuer

- **4.1**(1) Upon becoming a reporting issuer in a jurisdiction of Canada an issuer must file in that jurisdiction a technical report for each mineral property material to the issuer.
- **4.1(2)** Subsection (1) does not apply if the issuer is a reporting issuer in a jurisdiction of Canada and subsequently becomes a reporting issuer in another jurisdiction of Canada.

4.1(3) Subsection (1) does not apply if

- (a) the issuer previously filed a technical report for the property;
- (b) at the date the issuer becomes a reporting issuer, there is no new material scientific or technical information concerning the subject property not included in the previously filed technical report; and
- (c) the previously filed technical report meets any independence requirements under section 5.3.

Obligation to file a technical report in connection with certain written disclosure about mineral projects on material properties

- **4.2(1)** An issuer must file a technical report to support scientific or technical information that relates to a mineral project on a property material to the issuer, or in the case of paragraph (c), the resulting issuer, if the information is contained in any of the following documents filed or made available to the public in a jurisdiction of Canada:
 - (a) a preliminary prospectus, other than a preliminary short form prospectus filed in accordance with National Instrument 44-101 *Short Form Prospectus Distributions*;
 - (b) a preliminary short form prospectus filed in accordance with National Instrument 44-101 *Short Form Prospectus Distributions* that discloses for the first time
 - (i) mineral resources, mineral reserves or the results of a preliminary economic assessment on the property that constitute a material change in relation to the issuer; or
 - (ii) a change in mineral resources, mineral reserves or the results of a preliminary economic assessment from the most recently filed technical report if the change constitutes a material change in relation to the issuer:
 - (c) an information or proxy circular concerning a direct or indirect acquisition of a mineral property where the issuer or resulting issuer issues securities as consideration;
 - (d) an offering memorandum, other than an offering memorandum delivered solely to accredited investors as defined under securities legislation;
 - (e) for a reporting issuer, a rights offering circular;
 - (f) an annual information form;
 - (g) a valuation required to be prepared and filed under securities legislation;
 - (h) an offering document that complies with and is filed in accordance with Policy 4.6 *Public Offering by Short Form Offering Document* and Exchange Form 4H *Short Form Offering Document*, of the TSX Venture Exchange, as amended;
 - (i) a take-over bid circular that discloses mineral resources, mineral reserves or the results of a preliminary economic assessment on the property if securities of the offeror are being offered in exchange on the take-over bid; and
 - (j) any written disclosure made by or on behalf of an issuer, other than in a document described in paragraphs (a) to (i), that discloses for the first time

- (i) mineral resources, mineral reserves or the results of a preliminary economic assessment on the property that constitute a material change in relation to the issuer; or
- (ii) a change in mineral resources, mineral reserves or the results of a preliminary economic assessment from the most recently filed technical report if the change constitutes a material change in relation to the issuer.
- **4.2(2)** Subsection (1) does not apply for disclosure of an historical estimate in a document referred to in paragraph (1)(j) if the disclosure is made in accordance with subsection 2.4.
- **4.2(3)** If a technical report is filed under paragraph (1)(a) or (b), and new material scientific or technical information concerning the subject property becomes available before the filing of the final version of the prospectus or short form prospectus, the issuer must file an updated technical report or an addendum to the technical report with the final version of the prospectus or short form prospectus.
- **4.2(4)** The issuer must file the technical report referred to in subsection (1) not later than the time it files or makes available to the public the document listed in subsection (1) that the technical report supports.
- **4.2(5)** Despite subsection (4), an issuer must
 - (a) file a technical report supporting disclosure under paragraph (1)(j) not later than
 - (i) if the disclosure is also contained in a preliminary short form prospectus, the earlier of 45 days after the date of the disclosure and the date of filing the preliminary short form prospectus;
 - (ii) if the disclosure is also contained in a directors' circular, the earlier of 45 days after the date of the disclosure and 3 business days before expiry of the take-over bid; and
 - (iii) in all other cases, 45 days after the date of the disclosure;
 - (b) issue a news release at the time it files the technical report disclosing the filing of the technical report and reconciling any material differences in the mineral resources, mineral reserves or results of a preliminary economic assessment, between the technical report and the issuer's disclosure under paragraph (1)(j).
- **4.2**(6) Despite subsection (4), if a property referred to in an annual information form first becomes material to the issuer less than 30 days before the filing deadline for the annual information form, the issuer must file the technical report within 45 days of the date that the property first became material to the issuer.
- **4.2**(7) Despite subsection (4) and paragraph (5)(a), an issuer is not required to file a technical report within 45 days to support disclosure under subparagraph (1)(j)(i), if
 - (a) the mineral resources, mineral reserves or results of a preliminary economic assessment
 - (i) were prepared by or on behalf of another issuer who holds or previously held an interest in the property;
 - (ii) were disclosed by the other issuer in a document listed in subsection (1); and
 - (iii) are supported by a technical report filed by the other issuer;
 - (b) the issuer, in its disclosure under subparagraph (1)(j)(i),

- (i) identifies the title and effective date of the previous technical report and the name of the other issuer that filed it:
- (ii) names the qualified person who reviewed the technical report on behalf of the issuer; and
- (iii) states with equal prominence that, to the best of the issuer's knowledge, information, and belief, there is no new material scientific or technical information that would make the disclosure of the mineral resources, mineral reserves or results of a preliminary economic assessment inaccurate or misleading; and
- (c) the issuer files a technical report supporting its disclosure of the mineral resources, mineral reserves or results of a preliminary economic assessment;
 - (i) if the disclosure is also contained in a preliminary short form prospectus, by the earlier of 180 days after the date of the disclosure and the date of filing the short form prospectus; and
 - (ii) in all other cases, within 180 days after the date of the disclosure.
- **4.2(8)** Subsection (1) does not apply if
 - (a) the issuer previously filed a technical report that supports the scientific or technical information in the document;
 - (b) at the date of filing the document, there is no new material scientific or technical information concerning the subject property not included in the previously filed technical report; and
 - (c) the previously filed technical report meets any independence requirements under section 5.3.

Required form of technical report

- **4.3** A technical report that is required to be filed under this Part must be prepared
 - (a) in English or French; and
 - (b) in accordance with Form 43-101F1.

PART 5 – AUTHOR OF TECHNICAL REPORT

Prepared by a qualified person

5.1 A technical report must be prepared by or under the supervision of one or more qualified persons.

Execution of technical report

- 5.2 A technical report must be dated, signed and, if the qualified person has a seal, sealed by
 - (a) each qualified person who is responsible for preparing or supervising the preparation of all or part of the report; or
 - (b) a person or company whose principal business is providing engineering or geoscientific services if each qualified person responsible for preparing or supervising the preparation of all or part of the report is an employee, officer, or director of that person or company.

Independent technical report

- **5.3(1)** A technical report required under any of the following provisions of this Instrument must be prepared by or under the supervision of one or more qualified persons that are, at the effective and filing dates of the technical report, all independent of the issuer:
 - (a) section 4.1;
 - (b) paragraphs (a) and (g) of subsection 4.2(1); or
 - (c) paragraphs (b), (c), (d), (e), (f), (h), (i) and (j) of subsection 4.2(1), if the document discloses
 - (i) for the first time mineral resources, mineral reserves or the results of a preliminary economic assessment on a property material to the issuer, or
 - (ii) a 100 percent or greater change in the total mineral resources or total mineral reserves on a property material to the issuer, since the issuer's most recently filed independent technical report in respect of the property.
- **5.3(2)** Despite subsection (1), a technical report required to be filed by a producing issuer under paragraph (1)(a) is not required to be prepared by or under the supervision of an independent qualified person if the securities of the issuer trade on a specified exchange.
- **5.3**(3) Despite subsection (1), a technical report required to be filed by a producing issuer under paragraph (1)(b) or (c) is not required to be prepared by or under the supervision of an independent qualified person.
- **5.3(4)** Despite subsection (1), a technical report required to be filed by an issuer concerning a property which is or will be the subject of a joint venture with a producing issuer is not required to be prepared by or under the supervision of an independent qualified person, if the qualified person preparing or supervising the preparation of the report relies on scientific and technical information prepared by or under the supervision of a qualified person that is an employee or consultant of the producing issuer.

PART 6 – PREPARATION OF TECHNICAL REPORT

The technical report

6.1 A technical report must be based on all available data relevant to the disclosure that it supports.

Current personal inspection

- **6.2(1)** Before an issuer files a technical report, the issuer must have at least one qualified person who is responsible for preparing or supervising the preparation of all or part of the technical report complete a current inspection on the property that is the subject of the technical report.
- **6.2(2)** Subsection (1) does not apply to an issuer provided that
 - (a) the property that is the subject of the technical report is an early stage exploration property;
 - (b) seasonal weather conditions prevent a qualified person from accessing any part of the property or obtaining beneficial information from it; and

- (c) the issuer discloses in the technical report, and in the disclosure that the technical report supports, that a personal inspection by a qualified person was not conducted, the reasons why, and the intended time frame to complete the personal inspection.
- **6.2(3)** If an issuer relies on subsection (2), the issuer must
 - (a) as soon as practical, have at least one qualified person who is responsible for preparing or supervising the preparation of all or part of the technical report complete a current inspection on the property that is the subject of the technical report; and
 - (b) promptly file a technical report and the certificates and consents required under Part 8 of this Instrument.

Maintenance of records

6.3 An issuer must keep for 7 years copies of assay and other analytical certificates, drill logs, and other information referenced in the technical report or used as a basis for the technical report.

Limitation on disclaimers

- **6.4(1)** An issuer must not file a technical report that contains a disclaimer by any qualified person responsible for preparing or supervising the preparation of all or part of the report that
 - (a) disclaims responsibility for, or limits reliance by another party on, any information in the part of the report the qualified person prepared or supervised the preparation of; or
 - (b) limits the use or publication of the report in a manner that interferes with the issuer's obligation to reproduce the report by filing it on SEDAR.
- **6.4(2)** Despite subsection (1), an issuer may file a technical report that includes a disclaimer in accordance with Item 3 of Form 43-101F1.

PART 7 – USE OF FOREIGN CODE

Use of foreign code

- **7.1(1)** Despite section 2.2, an issuer may make disclosure and file a technical report that uses the mineral resource and mineral reserve categories of an acceptable foreign code, if the issuer
 - (a) is incorporated or organized in a foreign jurisdiction; or
 - (b) is incorporated or organized under the laws of Canada or a jurisdiction of Canada, for its properties located in a foreign jurisdiction.
- **7.1(2)** If an issuer relies on subsection (1), the issuer must include in the technical report a reconciliation of any material differences between the mineral resource and mineral reserve categories used and the categories set out in sections 1.2 and 1.3.

PART 8 – CERTIFICATES AND CONSENTS OF QUALIFIED PERSONS FOR TECHNICAL REPORTS

Certificates of qualified persons

8.1(1) An issuer must, when filing a technical report, file a certificate that is dated, signed, and if the signatory has a seal, sealed, of each qualified person responsible for preparing or supervising the preparation of all or part of the technical report.

8.1(2) A certificate under subsection (1) must state

- (a) the name, address, and occupation of the qualified person;
- (b) the title and effective date of the technical report to which the certificate applies;
- (c) the qualified person's qualifications, including a brief summary of relevant experience, the name of all professional associations to which the qualified person belongs, and that the qualified person is a "qualified person" for purposes of this Instrument;
- (d) the date and duration of the qualified person's most recent personal inspection of each property, if applicable;
- (e) the item or items of the technical report for which the qualified person is responsible;
- (f) whether the qualified person is independent of the issuer as described in section 1.5;
- (g) what prior involvement, if any, the qualified person has had with the property that is the subject of the technical report;
- (h) that the qualified person has read this Instrument and the technical report, or part that the qualified person is responsible for, has been prepared in compliance with this Instrument; and
- (i) that, at the effective date of the technical report, to the best of the qualified person's knowledge, information, and belief, the technical report, or part that the qualified person is responsible for, contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Addressed to issuer

8.2 All technical reports must be addressed to the issuer.

Consents of qualified persons

- **8.3(1)** An issuer must, when filing a technical report, file a statement of each qualified person responsible for preparing or supervising the preparation of all or part of the technical report, dated, and signed by the qualified person
 - (a) consenting to the public filing of the technical report;
 - (b) identifying the document that the technical report supports;
 - (c) consenting to the use of extracts from, or a summary of, the technical report in the document; and
 - (d) confirming that the qualified person has read the document and that it fairly and accurately represents the information in the technical report or part that the qualified person is responsible for.

- **8.3(2)** Paragraphs (1)(b), (c) and (d) do not apply to a consent filed with a technical report filed under section 4.1.
- **8.3**(3) If an issuer relies on subsection (2), the issuer must file an updated consent that includes paragraphs (1)(b), (c) and (d) for the first subsequent use of the technical report to support disclosure in a document filed under subsection 4.2(1).

PART 9 – EXEMPTIONS

Authority to grant exemptions

- **9.1(1)** The regulator or the securities regulatory authority may, on application, grant an exemption from this Instrument, in whole or in part, subject to such conditions or restrictions as may be imposed in the exemption in response to an application.
- **9.1(2)** Despite subsection (1), in Ontario, only the regulator may grant such an exemption.
- **9.1(3)** Except in Ontario, an exemption referred to in subsection (1) is granted under the statute referred to in Appendix B to National Instrument 14-101 *Definitions* opposite the name of the local jurisdiction.

Exemptions for royalty or similar interests

- **9.2(1)** An issuer whose interest in a mineral project is only a royalty or similar interest is not required to file a technical report to support disclosure in a document under subsection 4.2(1) if
 - (a) the operator or owner of the mineral project is
 - (i) a reporting issuer in a jurisdiction of Canada, or
 - (ii) a producing issuer whose securities trade on a specified exchange and that discloses mineral resources and mineral reserves under an acceptable foreign code;
 - (b) the issuer identifies in its document under subsection 4.2(1) the source of the scientific and technical information; and
 - (c) the operator or owner of the mineral project has disclosed the scientific and technical information that is material to the issuer.
- **9.2(2)** An issuer whose interest in a mineral project is only a royalty or similar interest and that does not qualify to use the exemption in subsection (1) is not required to
 - (a) comply with section 6.2; and
 - (b) complete those items under Form 43-101F1 that require data verification, inspection of documents, or personal inspection of the property to complete those items.
- **9.2(3)** Paragraphs (2)(a) and (b) only apply if the issuer
 - (a) has requested but has not received access to the necessary data from the operator or owner and is not able to obtain the necessary information from the public domain;

- (b) under Item 3 of Form 43-101F1, states the issuer has requested but has not received access to the necessary data from the operator or owner and is not able to obtain the necessary information from the public domain and describes the content referred to under each item of Form 43-101F1 that the issuer did not complete; and
- (c) includes in all scientific and technical disclosure a statement that the issuer has an exemption from completing certain items under Form 43-101F1 in the technical report required to be filed and includes a reference to the title and effective date of that technical report.

Exemption for certain types of filings

9.3 This Instrument does not apply if the only reason an issuer files written disclosure of scientific or technical information is to comply with the requirement under securities legislation to file a copy of a record or disclosure material that was filed with a securities commission, exchange, or regulatory authority in another jurisdiction.

PART 10 – EFFECTIVE DATE AND REPEAL

Effective date

10.1 This Instrument comes into force on June 30, 2011.

Repeal

10.2 National Instrument 43-101 *Standards of Disclosure for Mineral Projects*, which came into force on December 30, 2005, is repealed.

Citation

This Instrument may be cited as MSC Rule 2011-1.

National Instrument 43-101 Standards of Disclosure for Mineral Projects

Table of Contents

<u>PART</u>	TITLE
PART 1	DEFINITIONS AND INTERPRETATION
	1.1 Definitions
	1.2 Mineral Resource
	1.3 Mineral Reserve
	1.4 Mining Studies
	1.5 Independence
PART 2	REQUIREMENTS APPLICABLE TO ALL DISCLOSURE
	2.1 Requirements Applicable to All Disclosure
	2.2 All Disclosure of Mineral Resources or Mineral Reserves
	2.3 ProhibitedRestricted Disclosure
	2.4 Disclosure of Historical Estimates
PART 3	ADDITIONAL REQUIREMENTS FOR WRITTEN DISCLOSURE
	3.1 Written Disclosure to Include Name of Qualified Person
	3.2 Written Disclosure to Include Data Verification
	3.3 Requirements Applicable to Written Disclosure of Exploration Information
	3.4 Requirements Applicable to Written Disclosure of Mineral
	Resources and Mineral Reserves
	3.5 Exception for Written Disclosure Already Filed
PART 4	OBLIGATION TO FILE A TECHNICAL REPORT
	4.1 Obligation to File a Technical Report Upon Becoming a Reporting
Issuer	
	4.2 Obligation to File a Technical Report in Connection with Certain
	Written Disclosure About Mineral Projects on Material Properties
	4.3 Required Form of Technical Report
PART 5	AUTHOR OF TECHNICAL REPORT
	5.1 Prepared by a Qualified Person
	5.2 Execution of Technical Report
	5.3 Independent Technical Report_

	PART 6	PREPARATION OF TECHNICAL REPORT 6.1 The Technical Report 6.2 Current Personal Inspection
		6.3 Maintenance of Records
		6.4 Limitation on Disclaimers
ĺ		
	PART 7	USE OF FOREIGN CODE
		7.1 Use of Foreign Code
	PART 8	CERTIFICATES AND CONSENTS OF QUALIFIED PERSONS FOR TECHNICAL REPORTS
		8.1 Certificates of Qualified Persons
		8.2 Addressed to Issuer
		8.3 Consents of Qualified Persons
	PART 9	EXEMPTIONS
		9.1 Authority to Grant Exemptions
		9.2 <u>Limited Exemption Exemptions</u> for Royalty <u>Interests</u> or Similar
		Interests
		9.3 Exemption for Certain Types of Filings
İ	PART 10	EFFECTIVE DATE AND REPEAL
		10.1 Effective Date
	Appendix A	Recognized Foreign Associations and Designations
		10.2 Repeal

National Instrument 43-101 Standards of Disclosure for Mineral Projects

Part 1 DEFINITIONS AND INTERPRETATION

1.1 Definitions — In this Instrument

"acceptable foreign code" means the JORC Code, the PERC Code, the SAMREC Code, SEC Industry Guide 7, the Certification Code, or any other code, generally accepted in a foreign jurisdiction, that defines mineral resources and mineral reserves in a manner that is consistent with mineral resource and mineral reserve definitions and categories set out in sections 1.2 and 1.3;

"adjacent property" means a property

- (a) (a) in which the issuer does not have an interest;
- (b) (b) that has a boundary reasonably proximate to the property being reported on; and
- (e) (c) that has geological characteristics similar to those of the property being reported on;

"advanced property" means a property that has

- (a) mineral reserves, or
- (b) mineral resources the potential economic viability of which is supported by a preliminary economic assessment, a pre-feasibility study or a feasibility study;

"Certification Code" means the Certification Code for Exploration Prospects, Mineral Resources and Ore Reserves prepared by the Mineral Resources Committee of the Institution of Mining Engineers of Chile, as amended;

"data verification" means the process of confirming that data has been generated with proper procedures, has been accurately transcribed from the original source and is suitable to be used;

"development property" means a property that is being prepared for mineral production and for which economic viability has been demonstrated by a feasibility study;

"disclosure" means any oral statement or written disclosure made by or on behalf of an issuer and intended to be, or reasonably likely to be, made available to the public in a jurisdiction of Canada, whether or not filed under securities legislation, but does not include written disclosure that is made available to the public only by reason of having been filed with a government or agency of government pursuant to a requirement of law other than securities legislation;

"early stage exploration property" means a property that for which the technical report being filed has

(a) no current mineral resources or mineral reserves defined; and

(b) no drilling or trenching proposed; in a technical report being filed in a local jurisdiction;

"effective date" means, with reference to a technical report, the date of the most recent scientific or technical information included in the technical report;

"exploration information" means geological, geophysical, geochemical, sampling, drilling, trenching, analytical testing, assaying, mineralogical, metallurgical, and other similar information concerning a particular property that is derived from activities undertaken to locate, investigate, define, or delineate a mineral prospect or mineral deposit;

"feasibility study" means a comprehensive study of a mineral deposit in which all geological, engineering, legal, operating, economic, social, environmental and other relevant factors are considered in sufficient detail that it could reasonably serve as the basis for a final decision by a financial institution to finance the development of the deposit for mineral production;

"historical estimate" means an estimate of the quantity, grade, or metal or mineral content of a deposit that an issuer has not verified as a current mineral resource or mineral resources or mineral reserves reserve, and which was prepared prior to February 1, 2001 before the issuer acquiring, or entering into an agreement to acquire, an interest in the property that contains the deposit;

"IMMM Reporting Code" means the classification system and definitions of mineral resources and mineral reserves approved by The Institution of Materials, Minerals, and Mining in the United Kingdom, as amended;

"JORC Code" means the Australasian Code for Reporting of <u>Exploration Results</u>, Mineral Resources and Ore Reserves prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia, as amended;

"mineral project" means any exploration, development or production activity, including a royalty interest or similar interest in these activities, in respect of diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal, and industrial minerals;

"NI 44-101" means National Instrument 44-101 Short Form Prospectus Distributions:

"PERC Code" means the Pan-European Code for Reporting of Exploration Results, Mineral Resources and Reserves prepared by the Pan-European Reserves and Resources Reporting Committee, as amended;

"preliminary <u>economic</u> assessment" means a study, <u>other than a pre-feasibility or feasibility study</u>, that includes an economic analysis of the potential viability of mineral resources taken at an early stage of the project prior to the completion of a preliminary feasibility study;

"preliminary feasibility study" and "pre-feasibility study" each mean a comprehensive study of the viability of a mineral project that has advanced to a stage where the mining method, in the case of underground mining, or the pit configuration, in the case of an open pit, has been established and an effective method of mineral processing has been determined, and includes a financial analysis based on reasonable assumptions of technical, engineering, legal, operating, economic, social, and environmental factors and the evaluation of other relevant factors which are sufficient for a qualified person, acting reasonably, to determine if all or part of the mineral resource may be classified as a mineral reserve;

"producing issuer" means an issuer with annual audited financial statements that disclose

- (a) gross revenues, derived from mining operations, of at least \$30 million Canadian for the issuer's most recently completed financial year; and
- (d) (b) gross revenues, derived from mining operations, of at least \$90 million <u>Canadian</u> in the aggregate for the issuer's three most recently completed financial years;

"professional association" means a self-regulatory organization of engineers, geoscientists or both engineers and geoscientists that

(a) is

(i) (i) given authority or recognition by statute in a jurisdiction of Canada, or

- (ii) (ii) a foreign association listed in Appendix Athat is generally accepted within the international mining community as a reputable professional association;
- (e) (b) admits individuals on the basis of their academic qualifications-and, experience, and ethical fitness;
- (f) (c) requires compliance with the professional standards of competence and ethics established by the organization; and
- (d) requires or encourages continuing professional development; and
- (e) has <u>and applies</u> disciplinary powers, including the power to suspend or expel a member; <u>regardless of where the member practises or resides</u>;

"qualified person" means an individual who

- is an engineer or geoscientist with <u>a university degree</u>, or equivalent accreditation, in an area of geoscience, or engineering, relating to <u>mineral exploration or mining</u>;
- (b) has at least five years of experience in mineral exploration, mine
 _____ development or operation, or mineral project assessment, or any
 _____ combination of these, that is relevant to his or her professional degree
 _____ or area of practice;
- (c) has experience relevant to the subject matter of the mineral project and the technical report; and
- (i) (d) _____ is in good standing with a professional association; and, in the case of a foreign association listed in Appendix A, has the corresponding designation in Appendix A;
- (e) in the case of a professional association in a foreign jurisdiction, has a membership designation that
 - (i) requires attainment of a position of responsibility in their profession that requires the exercise of independent judgment; and
 - (ii) requires
 - A. a favourable confidential peer evaluation of the individual's character, professional judgement, experience, and ethical fitness; or

B. a recommendation for membership by at least two peers, and demonstrated prominence or expertise in the field of mineral exploration or mining;

"quantity" means either tonnage or volume, depending on which term is the standard in the mining industry for the type of mineral;

"SAMREC Code" means the South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves prepared by the South African Mineral Resource Committee (SAMREC) under the Joint & Auspices of the Southern African Institute of Mining and Metallurgy (SAIMM), and the Geological Society of South Africa, as amended;

"SEC Industry Guide 7" means 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 United States Securities and Exchange Commission, as amended;

"specified exchange" means the Australian Stock Exchange, the Johannesburg Stock Exchange, the London Stock Exchange Main Market, the Nasdaq Stock Market, the New York Stock Exchange, or the Hong Kong Stock Exchange;

"technical report" means a report prepared and filed in accordance with this Instrument and Form 43-101F1 Technical Report that does not omit any includes, in summary form, all material scientific and technical information in respect of the subject property as of the effective date of the filing of thetechnical report; and

"written disclosure" includes any writing, picture, map, or other printed representation whether produced, stored or disseminated on paper or electronically, including websites.

- Mineral Resource In this Instrument, the terms "mineral resource", "inferred mineral resource", "indicated mineral resource" and "measured mineral resource" have the meanings ascribed to those terms by the Canadian Institute of Mining, Metallurgy and Petroleum, as the CIM Definition Standards on Mineral Resources and Mineral Reserves adopted by CIM Council, as those definitions may be amended.
- 1.3 Mineral Reserve In this Instrument, the terms "mineral reserve", "probable mineral reserve" and "proven mineral reserve" have the meanings ascribed to those terms by the Canadian Institute of Mining, Metallurgy and Petroleum, as the CIM Definition Standards on Mineral Resources and Mineral Reserves adopted by CIM Council, as those definitions may be amended.
- 1.4 Mining Studies In this Instrument, the terms "preliminary feasibility study", "pre-feasibility study" and "feasibility study" have the meanings ascribed to those terms

by the Canadian Institute of Mining, Metallurgy and Petroleum, as the CIM Definition Standards on Mineral Resources and Mineral Reserves adopted by CIM Council, as amended.

1.4 <u>1.5</u> Independence - In this Instrument, a qualified person is independent of an issuer if there is no circumstance that could, in the opinion of a reasonable person aware of all relevant facts, could interfere with the qualified person's judgment regarding the preparation of the technical report.

Part 2 REQUIREMENTS APPLICABLE TO ALL DISCLOSURE

- **2.1** Requirements Applicable to All Disclosure All disclosure of scientific or technical information made by an issuer, including disclosure of a mineral resource or mineral reserve, concerning a mineral project on a property material to the issuer must be
 - 2.1 (a) based upon information prepared by or under the supervision of a qualified person; or
 - (b) approved by a qualified person.
- 2.2 All Disclosure of Mineral Resources or Mineral Reserves An issuer must not disclose any information about a mineral resource or mineral reserve unless the disclosure
 - (a) <u>(a)</u> uses only the applicable mineral resource and mineral reserve categories set out in sections 1.2 and 1.3;
 - (b) reports each category of mineral resources and mineral reserves separately, and states the extent, if any, to which mineral reserves are included in total mineral resources;
 - (c) does not add inferred mineral resources to the other categories of mineral resources; and
 - (d) states the grade or quality and the quantity for each category of the mineral resources and mineral reserves if the quantity of contained metal or mineral is included in the disclosure.

Prohibited

2.3 Restricted Disclosure

- (1) (1) An issuer must not make any disclosure of the disclose
 - (a) the quantity, grade, or metal or mineral content of a deposit that has not been categorized as an inferred mineral resource, an indicated

- mineral resource, a measured mineral resource, a probable mineral reserve, or a proven mineral reserve; or
- (b) (b) the results of an economic analysis that includes <u>or is based on inferred</u> mineral resources, <u>or an estimate permitted under subsection 2.3(2) or section 2.4;</u>
- (c) the gross value of metal or mineral in a deposit or a sampled interval or drill intersection; or
- (d) a metal or mineral equivalent grade for a multiple commodity deposit, sampled interval, or drill intersection, unless it also discloses the grade of each metal or mineral used to establish the metal or mineral equivalent grade.
- (2) Despite paragraph (1)(a), an issuer may disclose in writing the potential quantity and grade, expressed as ranges, of a potential mineral deposit that is to be the target of for further exploration if the disclosure includes a statement
 - (a) states with equal prominence that the potential quantity and grade is conceptual in nature, that there has been insufficient exploration to define a mineral resource and that it is uncertain if further exploration will result in the target being delineated as a mineral resource; and
 - (c) (b) states the basis on which the disclosed potential quantity and grade has been determined.
- (2) (3) Despite paragraph (1)(b), an issuer may disclose the results of a preliminary economic assessment that includes or is based on inferred mineral resources if the disclosure
 - (a) the results of the preliminary assessment are a material change or a material fact with respect to the issuer; and

the disclosure includes a statement

- (i) (a) states with equal prominence that the preliminary economic assessment is preliminary in nature, that it includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the preliminary economic assessment will be realized; and
- (ii) (b) states the basis for the preliminary <u>economic</u> assessment and any qualifications and assumptions made by the qualified person; and
- (c) describes the impact of the preliminary economic assessment on the results of any pre-feasibility or feasibility study in respect of the subject property.

- (3) (4) An issuer must not use the term preliminary feasibility study, pre-feasibility study or feasibility study when referring to a study unless the study satisfies the criteria set out in the definition of the applicable term in section 1.44.
- **2.4 Disclosure of Historical Estimates** Despite section 2.2, an issuer may disclose an historical estimate, using the historical original terminology, if the disclosure
 - (a) identifies the source and date of the historical estimate, including any existing technical report;
 - (a) (b) comments on the relevance and reliability of the historical estimate;
 - (c) to the extent known, provides the key assumptions, parameters, and methods used to prepare the historical estimate;
 - (b) (d) states whether the historical estimate uses categories other than the ones set out in sections 1.2 and 1.3 and, if so, includes an explanation of the differences; and
 - (e) includes any more recent estimates or data available to the issuer-;
 - (f) comments on what work needs to be done to upgrade or verify the
 historical estimate as current mineral resources or mineral reserves;
 and
 - (g) states with equal prominence that
 - (i) a qualified person has not done sufficient work to classify the historical estimate as current mineral resources or mineral reserves; and
 - (ii) the issuer is not treating the historical estimate as current mineral resources or mineral reserves.

2.5

PART 3 ADDITIONAL REQUIREMENTS FOR WRITTEN DISCLOSURE

- **3.1 Written Disclosure to Include Name of Qualified Person -** If an issuer discloses in writing scientific or technical information about a mineral project on a property material to the issuer, the issuer must include in the written disclosure
 - (a)—the name; and
 - (b) __the relationship to the issuer

of the qualified person who

- <u>(a)</u> prepared or supervised the preparation of the information that forms the basis for the written disclosure; or
- (b) approved the written disclosure.
- 3.2 Written Disclosure to Include Data Verification Subject to section 3.5, if If an issuer discloses in writing scientific or technical information about a mineral project on a property material to the issuer, the issuer must include in the written disclosure
 - (a) a statement whether a qualified person has verified the data disclosed, including sampling, analytical, and test data underlying the information or opinions contained in the written disclosure;
 - (b) a description of how the data was verified and any limitations on the verification process; and
 - (c) an explanation of any failure to verify the data.

3.3 Requirements Applicable to Written Disclosure of Exploration Information

- (1) Except as provided in section 3.5, if If an issuer discloses in writing exploration information about a mineral project on a property material to the issuer, the issuer must include in the written disclosure
- (a) the results, or a summary of
 - the material results, of surveys and investigations regarding the property;
 - (b) a summary of the interpretation of the exploration information; and
 - (c) a description of the quality assurance program and quality control measures applied during the execution of the work being reported on.
- (2) Except as provided in section 3.5, if If an issuer discloses in writing sample, analytical or test testing results on a property material to the issuer, the issuer must include in the written disclosure, with respect to the results being disclosed,
 - (a) a summary description of the geology, mineral occurrences location and nature of mineralization found:
 - (b) a summary description of rock types, geological controls and dimensions of mineralized zones, and the identification of any significantly higher grade intervals within a lower grade intersection;

- (c) the location, number, type, nature and spacing or density of the samples collected and the location and dimensions of the area sampled;
- (b) the location, azimuth, and dip of the drill holes and the depth of the sample intervals;
- (c) a summary of the relevant analytical values, widths, and to the extent known, the true widths of the mineralized zone;
- (d) the results of any significantly higher grade intervals within a lower grade intersection;
- <u>(e)</u> any drilling, sampling, recovery, or other factors that could materially affect the accuracy or reliability of the data referred to in this subsection; <u>and</u>
- (ef) a summary description of the type of analytical or testing procedures utilized, sample size, the name and location of each analytical or testing laboratory used, and any relationship of the laboratory to the issuer; and.
- (f) a summary of the relevant analytical values, widths and, to the extent known to the issuer, the true widths of the mineralized zone.
- 3.4 Requirements Applicable to Written Disclosure of Mineral Resources and Mineral Reserves If an issuer discloses in writing mineral resources or mineral reserves on a property material to the issuer, the issuer must include in the written disclosure
 - (a) the effective date of each estimate of mineral resources and mineral reserves;
 - (b) details of the quantity and grade or quality of each category of mineral resources and mineral reserves;
 - (c) details of the key assumptions, parameters, and methods used to estimate the mineral resources and mineral reserves;
 - (d) a general discussion of the extent to which the estimate of mineral resources or mineral reserves may be materially affected by any known environmental, permitting, legal, title, taxation, socio political, marketing, or other relevant issues (d) the identification of any known legal, political, environmental, or other risks that could

- materially affect the potential development of the mineral resources or mineral reserves; and
- (e) <u>aif the disclosure includes the results of an economic analysis of mineral resources, an equally prominent</u> statement that mineral resources that are not mineral reserves do not have demonstrated economic viability, if the results of an economic analysis of mineral resources are included in the disclosure.
- **Exception for Written Disclosure Already Filed -** Sections 3.2 and 3.3 and paragraphs 3.4 (a), (c) and (d) of section 3.4 do not apply if the issuer includes in the written disclosure a reference to the title and date of a document previously filed document by the issuer that complies with those requirements.

PART 4 OBLIGATION TO FILE A TECHNICAL REPORT

4.1 Obligation to File a Technical Report Upon Becoming a Reporting Issuer

- (1) Upon becoming a reporting issuer in a jurisdiction of Canada an issuer must file in that jurisdiction a technical report for a <u>each</u> mineral <u>project on each</u> property material to the issuer.
- (2) Subsection (1) does not apply if the issuer is a reporting issuer in a jurisdiction of Canada and subsequently becomes a reporting issuer in another jurisdiction of Canada.
- (3) Subsection (1) does not apply if
 - (a) the issuer previously filed a technical report for the property;
 - (b) at the date the issuer becomes a reporting issuer, there is no new material scientific or technical information concerning the subject property not included in the previously filed technical report; and
 - (c) the previously filed technical report meets any independence requirements under section 5.3.

4.2 Obligation to File a Technical Report in Connection with Certain Written Disclosure About Mineral Projects on Material Properties

(1) An issuer must file a technical report to support scientific or technical information in any of the following documents filed or made available to the public in a jurisdiction of Canada describing that relates to a mineral project on a property material to the issuer, or in the case of paragraph (c) below, the resulting issuer, if the information is contained in any of the following documents filed or made available to the public in a jurisdiction of Canada:

- (a) a preliminary prospectus, other than a preliminary short form prospectus filed in accordance with NINational Instrument 44-101 Short Form Prospectus Distributions;
- (b) a preliminary short form prospectus filed in accordance with NINational Instrument 44-101 that includes material scientific or technical information about a mineral project on a property material to the issuer but not contained in Short Form Prospectus Distributions that discloses for the first time
 - (i) an annual information form, prospectus, or material change report filed before February 1, 2001; or (i) mineral resources, mineral reserves or the results of a preliminary economic assessment on the property that constitute a material change in relation to the issuer; or
 - (ii) a previouslychange in mineral resources, mineral reserves or the results of a preliminary economic assessment from the most recently filed technical report if the change constitutes a material change in relation to the issuer;
- (c) an information or proxy circular concerning a direct or indirect acquisition of a mineral property where the issuer or resulting issuer issues securities as consideration:
- (d) an offering memorandum, other than an offering memorandum delivered solely to accredited investors as defined under securities legislation;
- (e) for a reporting issuer, a rights offering circular;
- (f) an annual information form that includes material scientific or technical information about a mineral project on a property material to the issuer but not contained in
 - (i) an annual information form, prospectus, or material change report filed before February 1, 2001; or
 - (ii) a previously filed technical report;
- (g) a valuation required to be prepared and filed under securities legislation;
- (h) an offering document that complies with and is filed in accordance with Policy 4.6 *Public Offering by Short Form Offering Document*

- and Exchange Form 4H Short Form Offering Document, of the TSX Venture Exchange policy; as amended;
- (i) a take-over bid circular that discloses a preliminary assessment or mineral resources-or, mineral reserves or the results of a preliminary economic assessment on athe property material to the offeror if securities of the offeror are being offered in exchange on the take-over bid; and
- (j) a news release or directors' circular that contains (j) any written disclosure made by or on behalf of an issuer, other than in a document described in paragraphs (a) to (i), that discloses for the first time
 - (i) first time disclosure of a preliminary assessment or mineral resources or, mineral reserves or the results of a preliminary economic assessment on a the property material to the issuer that constitutes a material change in respect of the affairs of relation to the issuer; or
 - (ii) a change in a preliminary assessment or in mineral resources or mineral reserves or the results of a preliminary economic assessment from the most recently filed technical report that constitutes a material if the change in respect of the affairs of constitutes a material change in relation to the issuer.
- (2) Subsection (1) does not apply for disclosure of an historical estimate in a document referred to in paragraph (1)(j) of that subsection if the disclosure
- (a) is made in accordance with subsection 2.4; and.
 - (b) includes a statement that
 - (i) a qualified person has not done sufficient work to classify the historical estimate as current mineral resources or mineral reserves;
 - (ii) the issuer is not treating the historical estimate as current mineral resources or mineral reserves as defined in sections 1.2 and 1.3 of this Instrument; and
 - (iii) the historical estimate should not be relied upon.
- (3) If there has been a material change to the information in the technical report is filed under paragraph (a) or (b) of subsection (1) 1)(a) or (b), and new material scientific or technical information concerning the subject property becomes available before the filing of the final version of a the prospectus or

short form prospectus, the issuer must file an updated technical report or an addendum to the technical report with the final version of the prospectus or short form prospectus.

- (4) Subject to subsections (5), (6), and (7), (4) The issuer must file the technical report referred to in subsection (1) must be filed not later than the time it files or makes available to the public the document listed in subsection (1) that it the technical report supports is filed or made available to the public.
- (5) Despite subsection (4), a technical report about mineral resources or mineral reserves that supports a news release an issuer must
 - (a) be filed file a technical report supporting disclosure under paragraph (1)(j) not later than
 - (i) if the disclosure is also contained in a preliminary short form prospectus, the earlier of 45 days after the date of the disclosure and the date of filing the preliminary short form prospectus;
 - (ii) if the disclosure is also contained in a directors' circular, the earlier of 45 days after the date of the disclosure and 3 business days before expiry of the take-over bid; and
 - (iii) in all other cases, 45 days after the date of the disclosure;
 - (b) issue a news release; at the time it files the technical report disclosing the filing of the technical report and
 - (b) if there are reconciling any material differences in the mineral resources or, mineral reserves or results of a preliminary economic assessment, between the technical report filed and the news release, be accompanied by a news release that reconciles those differences and the issuer's disclosure under paragraph (1)(j).
- (6) Despite subsection (4), if a property referred to in an annual information form first becomes material to the issuer less than 30 days before the filing deadline for the annual information form, the issuer must file the technical report within 45 days of the date that the property first became material to the issuer.
- (7) Despite subsection (4), a technical report that supports a directors' circular must be filed not less than 3 business days prior to the expiry of the take-over bid.
- (7) Despite subsection (4) and paragraph (5)(a), an issuer is not required to file a technical report within 45 days to support disclosure under subparagraph (1)(j)(i), if

- (a) the mineral resources, mineral reserves or results of a preliminary economic assessment
 - (i) were prepared by or on behalf of another issuer who holds or previously held an interest in the property;
 - (ii) were disclosed by the other issuer in a document listed in subsection (1); and
 - (iii) are supported by a technical report filed by the other issuer;
- (b) the issuer, in its disclosure under subparagraph (1)(j)(i),
 - (i) identifies the title and effective date of the previous technical report and the name of the other issuer that filed it;
 - (ii) names the qualified person who reviewed the technical report on behalf of the issuer; and
 - (iii) states with equal prominence that, to the best of the issuer's knowledge, information, and belief, there is no new material scientific or technical information that would make the disclosure of the mineral resources, mineral reserves or results of a preliminary economic assessment inaccurate or misleading; and
- (c) the issuer files a technical report supporting its disclosure of the mineral resources, mineral reserves or results of a preliminary economic assessment;
 - (i) if the disclosure is also contained in a preliminary short form prospectus, by the earlier of 180 days after the date of the disclosure and the date of filing the short form prospectus; and
 - (ii) in all other cases, within 180 days after the date of the disclosure.
- (8) Subsection (1) does not apply if
 - (a) the issuer has previously filed a technical report filed that supports the scientific or technical information contained in the disclosure and there has been no material change in the scientific and technical information concerning the property since the date of the filing of the technical report; and document;

- (b) the issuer files an updated certificate in accordance with subsection 8.1 and consent in accordance with subsection 8.3 of each qualified person who has been responsible for preparing or supervising the preparation of each portion of the technical report. (b) at the date of filing the document, there is no new material scientific or technical information concerning the subject property not included in the previously filed technical report; and
- (c) the previously filed technical report meets any independence requirements under section 5.3.
- **Required Form of Technical Report -** A technical report that is required to be filed under this Part must be prepared
 - (a) in English or French; and
 - (b) in accordance with Form 43-101F1.

Part 3 PART 5 AUTHOR OF TECHNICAL REPORT

- **3.1 5.1 Prepared by a Qualified Person -** A technical report must be prepared by or under the supervision of one or more qualified persons.
- **5.2 Execution of Technical Report -** A technical report must be dated, signed and, if the qualified person has a seal, sealed by
 - (a) each qualified person who is responsible for preparing or supervising the preparation of all or part of the report; or
 - (b) (b) a person or company whose principal business is providing engineering or geoscientific services if each qualified person responsible for preparing or supervising the preparation of all or part of the report is an employee, officer, or director of that person or company.

3.3 5.3 Independent Technical Report

Subject to subsection (2), a

- (1) <u>A</u> technical report required under any of the following provisions of this Instrument must be prepared by or under the supervision of <u>aone or more</u> qualified <u>personpersons</u> that <u>isare</u>, at the <u>dateeffective and filing dates</u> of the technical report, <u>all</u> independent of the issuer:
 - (a) section 4.1;
 - (b) paragraphs (a) and (g) of subsection 4.2(1); or

- (c) paragraphs (b), (c), (d), (e), (f), (h), (i), and (j) of subsection 4.2(1), if the document discloses
 - (i) for the first time a preliminary assessment or mineral resources or, mineral reserves or the results of a preliminary economic assessment on a property material to the issuer, or
 - (ii) a 100 percent or greater change, from in the most recently filed technical report prepared by a qualified person who is independent of the issuer, in total mineral resources or total mineral reserves on a property material to the issuer, since the issuer's most recently filed independent technical report in respect of the property.
- (2) Despite subsection (1), a technical report required to be filed by a producing issuer under paragraph (1)(a) is not required to be prepared by or under the supervision of an independent qualified person if the securities of the issuer trade on a specified exchange.
 - (3) <u>Despite subsection (1), a</u> technical report required to be filed by a producing issuer under paragraph (c) of subsection (11)(b) or (c) is not required to be prepared by or under the supervision of an independent qualified person.
 - (4) Despite subsection (1), a technical report required to be filed by an issuer that is or has contracted to become a joint venture participant, concerning a property which is or will be the subject of the joint venture's activities, a joint venture with a producing issuer is not required to be prepared by or under the supervision of an independent qualified person, if the qualified person preparing or supervising the preparation of the report relies on scientific and technical information prepared by or under the supervision of a qualified person that is an employee or consultant of a the producing issuer that is a participant in the joint venture.

Part 4 PART 6 PREPARATION OF TECHNICAL REPORT

4.1 6.1 The Technical Report - A technical report must be **prepared** on **the basis of** all available data relevant to the disclosure that it supports.

4.2 6.2 Current Personal Inspection

Subject to subsections (2) and (3), before

- (1) <u>Before</u> an issuer files a technical report, the issuer must have at least one qualified person who is responsible for preparing or supervising the preparation of all or part of the technical report complete a current inspection on the property that is the subject of the technical report.
- (2) Subsection (1) does not apply to an issuer provided that

- (a) the property that is the subject of the technical report is an early stage exploration property;
- (a) (b) seasonal weather conditions prevent a qualified person from accessing any part of the property or obtaining beneficial information from it; and
- (b) (c) the issuer discloses in the technical report, and in the disclosure that the technical report supports, that a personal inspection by a qualified person was not conducted, the reasons why, and the intended time frame to complete the personal inspection.
- (3) If an issuer relies on subsection (2), the issuer must
 - (a) as soon as practical, have at least one qualified person who is responsible for preparing or supervising the preparation of all or part of the technical report complete a current inspection on the property that is the subject of the technical report; and
 - (b) promptly file a technical report and the certificates and consents required under Part 8 of this Instrument.
- **6.3 Maintenance of Records -** An issuer must keep for 7 years copies of assay and other analytical certificates, drill logs, and other information referenced in the technical report or used as a basis for the technical report.

6.4 Limitation on Disclaimers –

- 4.4 (1) An issuer must not file a technical report that contains a disclaimer by any qualified person responsible for preparing or supervising the preparation of <u>all</u> or <u>part of</u> the report that
 - (a) disclaims responsibility for, or <u>limits</u> reliance on, that portion by another party on, any information in the part of the report the qualified person prepared or supervised the preparation of; or
 - (b) limits the use or publication of the report in a manner that interferes with the issuer's obligation to reproduce the report by filing it on SEDAR.
- (2) Despite subsection (1), an issuer may file a technical report that includes a disclaimer in accordance with Item 3 of Form 43-101F1.

Part 5 PART 7 USE OF FOREIGN CODE

7.1 Use of Foreign Code — Despite section 2.2, an issuer that

- (a) is incorporated or organized in a foreign jurisdiction; or
- (b) is incorporated or organized under the laws of Canada or a jurisdiction of Canada, for its properties located in a foreign jurisdiction;
- (1) Despite section 2.2, an issuer may make disclosure and file a technical report that utilizesuses the mineral resource and mineral reserve categories of the JORC Code, the SEC Industry Guide 7, the IMMM Reporting Code or the SAMREC Code if an acceptable foreign code, if the issuer
 - (a) is incorporated or organized in a foreign jurisdiction; or
 - (b) is incorporated or organized under the laws of Canada or a jurisdiction of Canada, for its properties located in a foreign jurisdiction.
- (2) If an issuer relies on subsection (1), the issuer must include in the technical report a reconciliation toof any material differences between the mineral resource and mineral reserve categories used and the categories set out in sections 1.2 and 1.3 is disclosed in the technical report.

Part 8 CERTIFICATES AND CONSENTS OF QUALIFIED PERSONS FOR TECHNICAL REPORTS

6.18.1 Certificates of Qualified Persons

- (1) An issuer must, when filing a technical report, file a certificate that is dated, signed, and if the signatory has a seal, sealed, of each qualified person responsible for preparing or supervising the preparation of each portionall or part of the technical report and the certificate must be dated, signed and, if the signatory has a seal, sealed.
- (4) (2) A certificate under subsection (1) must state
 - (a) the name, address, and occupation of the qualified person;
 - (b) the title and <u>effective</u> date of the technical report to which the certificate applies;
 - (c) the qualified person's qualifications, including a brief summary of relevant experience, the name of all professional associations to which the qualified person belongs, and that the qualified person is a "qualified person" for purposes of this Instrument;
 - (d) the date and duration of the qualified person's most recent personal inspection of -each property, if applicable;

- (e) the item or items of the technical report for which the qualified person is responsible;
- (f) whether the qualified person is independent of the issuer as described in section 1.45;
- (g) what prior involvement, if any, the qualified person has had with the property that is the subject of the technical report;
- (h) that the qualified person has read this Instrument and the technical report, or part that the qualified person is responsible for, has been prepared in compliance with this Instrument; and
- (i) that, as ofat the effective date of the eertificate technical report, to the best of the qualified person's knowledge, information, and belief, the technical report, or part that the qualified person is responsible for, contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.
- **8.2 Addressed to Issuer -** All technical reports must be addressed to the issuer.

8.3 Consents of Qualified Persons -

- 6.3 (1) An issuer must, when filing a technical report, file a statement of each qualified person responsible for preparing or supervising the preparation of each portionall or part of the technical report, addressed to the securities regulatory authority, dated, and signed by the qualified person
 - (a) consenting to the public filing of the technical report and;
 - (b) identifying the document that the technical report supports;
 - (a) (c) consenting to the use of extracts from, or a summary of, the technical report in the written disclosure being fileddocument; and
 - (b) (d) confirming that the qualified person has read the written disclosure being filed document and that it fairly and accurately represents the information in the technical report that supports the disclosure. or part that the qualified person is responsible for.
- (2) Paragraphs (1)(b), (c) and (d) do not apply to a consent filed with a technical report filed under section 4.1.
- (3) If an issuer relies on subsection (2), the issuer must file an updated consent that includes paragraphs (1)(b), (c) and (d) for the first subsequent use of the

technical report to support disclosure in a document filed under subsection 4.2(1).

Part 7 PART 9 EXEMPTIONS

7.1 9.1 Authority to Grant Exemptions

- (1) The regulator or the securities regulatory authority may, on application, grant an exemption from this Instrument, in whole or in part, subject to such conditions or restrictions as may be imposed in the exemption in response to an application.
- (5) (2) Despite subsection (1), in Ontario, only the regulator may grant such an exemption.
- (6) (3) Except in Ontario, an exemption referred to in subsection (1) is granted under the statute referred to in Appendix B of to National Instrument 14-101 *Definitions* opposite the name of the local jurisdiction.

Limited Exemption

9.2 Exemptions for Royalty Interests or Similar Interests

Subject to subsection (2), an issuer that has only a royalty interest or similar interest in a mineral project and is required to file a technical report in accordance with section 4.3 is not required to

- (1) An issuer whose interest in a mineral project is only a royalty or similar interest is not required to file a technical report to support disclosure in a document under subsection 4.2(1) if
 - (a) the operator or owner of the mineral project is
 - (i) a reporting issuer in a jurisdiction of Canada, or
 - (ii) a producing issuer whose securities trade on a specified exchange and that discloses mineral resources and mineral reserves under an acceptable foreign code;
 - (b) the issuer identifies in its document under subsection 4.2(1) the source of the scientific and technical information; and
 - (c) the operator or owner of the mineral project has disclosed the scientific and technical information that is material to the issuer.
- (2) An issuer whose interest in a mineral project is only a royalty or similar interest and that does not qualify to use the exemption in subsection (1) is not required to
 - (a) comply with section 6.2; and

- (b) complete those items under Form 43-101F1 that require data verification, inspection of documents, or personal inspection of the property to complete those items.
- (3) Paragraphs (42)(a) and (b) only apply if the issuer
 - (a) has requested but has not received access to the necessary data from the operating companyoperator or owner and is not able to obtain the necessary information from the public domain;
 - (b) under Item 3 of Form 43-101F1, states the issuer has requested but has not received access to the necessary data from the operating companyoperator or owner and is not able to obtain the necessary information from the public domain and describes the content referred to under each item of Form 43-101F1 that the issuer did not complete; and
 - (c) includes in all scientific and technical disclosure a statement that the issuer has an exemption from completing certain items under Form 43-101F1 in the technical report required to be filed and includes a reference to the title and effective date of that technical report.
- **9.3 Exemption for Certain Types of Filings -** This Instrument does not apply if the only reason an issuer files written disclosure of scientific or technical information is to comply with the requirement under securities legislation to file a copy of a record or disclosure material that was filed with a securities commission, exchange, or regulatory authority in another jurisdiction.

Part 8 PART 10 EFFECTIVE DATE AND REPEAL

8.1 10.1 Effective Date - This Instrument comes into force on **December June** 30, **2005**2011.

Appendix A

Recognized Foreign Associations and Designations

Foreign Association	Designation	
American Institute of Professional	Certified Professional Geologist	
Geologists (AIPG)		
Any state in the United States of America	Licensed or certified as a professional	
	engineer	
Mining and Metallurgical Society of	Qualified Professional	
America (MMSA)		
European Federation of Geologists (EFG)	European Geologist	
Australasian Institute of Mining and	Fellow or member	
Metallurgy (AusIMM)		
Institute of Materials, Minerals and Mining	Fellow or professional member	
(IMMM)		
Australian Institute of Geoscientists (AIG)	Fellow or member	
South African Institute of Mining and	Fellow	
Metallurgy (SAIMM)		
South African Council for Natural	Professional Natural Scientist	
Scientific Professions (SACNASP)		
Institute of Geologists of Ireland (IGI)	Professional Member	
Geological Society of London (GSL)	Chartered Geologist	
National Association of State Boards of	Licensed or certified in: Alabama, Arizona,	
Geology (ASBOG)	Arkansas, California, Delaware, Florida,	
	Georgia, Idaho, Illinois, Indiana, Kansas,	
	Kentucky, Maine, Minnesota, Mississippi,	
	Missouri, Nebraska, New Hampshire,	
	North Carolina, Oregon, Pennsylvania,	
	Puerto Rico, South Carolina, Texas, Utah,	
	Virginia, Washington, Wisconsin or	
	Wyoming	

Repeal - National Instrument 43-101 *Standards of Disclosure for Mineral Projects*, which came into force on December 30, 2005, is repealed.

Companion Policy 43-101CP to National Instrument 43-101 Standards of Disclosure for Mineral Projects

Table of Contents

PART	TITLE
	GENERAL GUIDANCE
PART 1	DEFINITIONS AND INTERPRETATION 1.1 Definitions 1.5 Independence
PART 2	REQUIREMENTS APPLICABLE TO ALL DISCLOSURE 2.1 Requirements Applicable to All Disclosure 2.2 All Disclosure of Mineral Resources or Mineral Reserves 2.3 Restricted Disclosure 2.4 Disclosure of Historical Estimates
PART 3	ADDITIONAL REQUIREMENTS FOR WRITTEN DISCLOSURE 3.3 Requirements Applicable to Written Disclosure of Exploration Information 3.5 Exception for Written Disclosure Already Filed
PART 4	OBLIGATION TO FILE A TECHNICAL REPORT 4.2 Obligation to File a Technical Report in Connection with Certain Disclosure about Mineral Projects on Material Properties 4.3 Required Form of Technical Report
PART 5	AUTHOR OF TECHNICAL REPORT 5.1 Prepared by a Qualified Person 5.2 Execution of Technical Report 5.3 Independent Technical Report
PART 6	PREPARATION OF TECHNICAL REPORT 6.1 The Technical Report 6.2 Current Personal Inspection 6.3 Maintenance of Records 6.4 Limitation on Disclaimers
PART 7	USE OF FOREIGN CODE 7.1 Use of Foreign Code
PART 8	CERTIFICATES AND CONSENTS OF QUALIFIED PERSONS FOR TECHNICAL REPORTS 8.1 Certificates of Qualified Persons

- 8.2 Addressed to Issuer
- 8.3 Consents of Qualified Persons

PART 9 EXEMPTIONS

9.2 Exemptions for Royalty or Similar Interests

APPENDICES

 $\label{lem:Appendix} A-Accepted\ Foreign\ Associations\ and\ Membership\ Designations$

Appendix B – Example of Consent of Qualified Person

Companion Policy 43-101CP to National Instrument 43-101 Standards of Disclosure for Mineral Projects

This companion policy (the "Policy") sets out the views of the Canadian securities regulatory authorities (the "securities regulatory authorities" or "we") as to how we interpret and apply certain provisions of National Instrument 43-101 and Form 43-101F1 (the "Instrument").

GENERAL GUIDANCE

- (1) **Application of the Instrument** The definition of "disclosure" in the Instrument includes oral and written disclosure. The Instrument establishes standards for disclosure of scientific and technical information regarding mineral projects and requires that the disclosure be based on a technical report or other information prepared by or under the supervision of a qualified person. The Instrument does not apply to disclosure concerning petroleum, natural gas, bituminous sands or shales, groundwater, coal bed methane, or other substances that do not fall within the meaning of the term "mineral project" in section 1.1 of the Instrument.
- (2) **Supplements Other Requirements** The Instrument supplements other continuous disclosure requirements of securities legislation that apply to reporting issuers in all business sectors.
- (3) **Forward-Looking Information** Part 4 of National Instrument 51-102 *Continuous Disclosure Obligations* (NI 51-102) sets out the requirements for disclosing forward-looking information. Frequently, scientific and technical information about a mineral project includes or is based on forward-looking information. A mining issuer must comply with the requirements of Part 4A of NI 51-102, including identifying forward-looking information, stating material factors and assumptions used, and providing the required cautions. Examples of forward-looking information include metal price assumptions, cash flow forecasts, projected capital and operating costs, metal or mineral recoveries, mine life and production rates, and other assumptions used in preliminary economic assessments, pre-feasibility studies, and feasibility studies.
- (4) **Materiality** An issuer should determine materiality in the context of the issuer's overall business and financial condition taking into account qualitative and quantitative factors, assessed in respect of the issuer as a whole.

In making materiality judgements, an issuer should consider a number of factors that cannot be captured in a simple bright-line standard or test, including the potential effect on both the market price and value of the issuer's securities in light of the current market activity. An assessment of materiality depends on the context. Information that is immaterial today could be material tomorrow; an item of information that is immaterial alone could be material if it is aggregated with other items.

- (5) **Property Material to the Issuer** An actively trading mining issuer, in most circumstances, will have at least one material property. We will generally assess an issuer's view of the materiality of a property based on the issuer's disclosure record, its deployment of resources, and other indicators. For example, we will likely conclude that a property is material if
 - (a) the issuer's disclosure record is focused on the property;
 - (b) the issuer's disclosure indicates or suggests the results are significant or important;
 - (c) the cumulative and projected acquisition costs or proposed exploration expenditures are significant compared to the issuer's other material properties; or
 - (d) the issuer is raising significant money or devoting significant resources to the exploration and development of the property.

In determining if a property is material, the issuer should consider how important or significant the property is to the issuer's overall business and in comparison to its other properties. For example

- (e) more advanced stage properties will, in most cases, be more material than earlier stage properties;
- (f) historical expenditures or book value might not be a good indicator of materiality for an inactive property if the issuer is focussing its resources on new properties;
- (g) a small interest in a sizeable property might, in the circumstances, not be material to the issuer:
- (h) a royalty or similar interest in an advanced property could be material to the issuer in comparison to its active projects; or
- (i) several non-material properties in an area or region, when taken as a whole, could be material to the issuer.
- (6) Industry Best Practices Guidelines While the Instrument sets standards for disclosure of scientific and technical information about a mineral project, the standards and methodologies for collecting, analysing, and verifying this information are the responsibility of the qualified person. The Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") has published and adopted several industry best practice guidelines to assist qualified persons and other industry practitioners. These guidelines, as amended and supplemented, are posted on www.cim.org, and include
 - (a) Exploration Best Practice Guidelines adopted August 20, 2000;

- (b) Guidelines for Reporting of Diamond Exploration Results adopted March 9, 2003; and
- (c) Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines adopted November 23, 2003, and related commodity-specific appendices.

The Instrument does not specifically require the qualified person to follow the CIM best practices guidelines. However, we think that a qualified person, acting in compliance with the professional standards of competence and ethics established by their professional association, will generally use procedures and methodologies that are consistent with industry standard practices, as established by CIM or similar organizations in other jurisdictions. Issuers that disclose scientific and technical information that does not conform to industry standard practices could be making misleading disclosure, which is an offence under securities legislation.

- (7) **Objective Standard of Reasonableness** Where a determination about the definitions or application of a requirement in the Instrument turns on reasonableness, the test is objective, not subjective. It is not sufficient for an officer of an issuer or a qualified person to determine that they personally believe the matter under consideration. The individual must form an opinion as to what a reasonable person would believe in the circumstances.
- (8) Improper Use of Terms in the French Language For an issuer preparing its disclosure using the French language, the words "gisement" and "gîte" have different meanings and using them interchangeably or in the wrong context may be misleading. The word "gisement" means a mineral deposit that is a continuous, well-defined mass of material containing a sufficient volume of mineralized material that can be or has been mined legally and economically. The word "gîte" means a mineral deposit that is a continuous, defined mass of material, containing a volume of mineralized material that has had no demonstration of economic viability.

PART 1 DEFINITIONS AND INTERPRETATION

1.1 Definitions

(1) "acceptable foreign code" – The definition of "acceptable foreign code" in the Instrument lists five internationally recognized foreign codes that govern the estimation and disclosure of mineral resources and mineral reserves. The JORC Code, PERC Code, SAMREC Code, and Certification Code use mineral resource and mineral reserve definitions and categories that are substantially the same as the CIM definitions mandated in the Instrument. These codes also use mineral resource and mineral reserve categories that are based on or consistent with the International Reporting Template, published by the Committee for Mineral

Reserves International Reporting Standards ("the CRIRSCO Template"), as amended.

We think other foreign codes will generally meet the test in the definition if they

- (a) have been adopted or recognized by appropriate government authorities or professional organizations in the foreign jurisdiction; and
- (b) use mineral resource and mineral reserve categories that are based on the CRIRSCO Template, and are substantially the same as the CIM definitions mandated in the Instrument, the JORC Code, the PERC Code, the SAMREC Code, and the Certification Code, as amended and supplemented.

We will publish CSA Staff Notices periodically listing the codes that CSA members' staff think satisfy the definition of "acceptable foreign code". We will also consider submissions from market participants regarding the proposed addition of foreign codes to the list. Submissions should explain the basis for concluding that the proposed foreign code meets the test in the definition and include appropriate supporting documentation.

- (2) "effective date" This is the cut-off date for the scientific and technical information included in the technical report. Under section 8.1 of the Instrument, the qualified person must provide their certificate as at the effective date of the technical report and specify this date in their certificate. The effective date can precede the date of signing the technical report but if there is too long a period between these dates, the issuer is exposed to the risk that new material information could become available and the technical report would then not be current.
- (3) "mineral project" The definition of "mineral project" in the Instrument includes a royalty or similar interest. Scientific and technical disclosure regarding all types of royalty interests in a mineral project is subject to the Instrument.
- (4) "preliminary economic assessment" The term "preliminary economic assessment", which can include a study commonly referred to as a scoping study, is defined in the Instrument. A preliminary economic assessment might be based on measured, indicated, or inferred mineral resources, or a combination of any of these. We consider these types of economic analyses to include disclosure of forecast mine production rates that might contain capital costs to develop and sustain the mining operation, operating costs, and projected cash flows.
- (5) "professional association" Paragraph (a)(ii) of the definition of "professional association" in the Instrument includes a test for determining what constitutes an acceptable foreign association. In assessing whether we think a foreign professional association meets this test, we will consider the reputation of the association and whether it is substantially similar to a professional association in a jurisdiction of Canada.

Appendix A to the Policy provides a list of the foreign associations that we think meet all the tests in the definition as of the effective date of the Instrument. We will publish updates to the list periodically. An issuer that wishes to rely on a qualified person that is a member of a professional association not included in Appendix A but which the issuer believes meets the tests in the Instrument, may make submissions to have the association added to Appendix A. Submissions should include appropriate supporting documentation. The issuer should allow sufficient time for its submissions to be considered before naming the qualified person in connection with its disclosure or filing any technical report signed by the qualified person.

The listing of a professional association on Appendix A is only for purposes of the Instrument and does not supersede or alter local requirements where geoscience or engineering is a regulated profession.

- (6) definitions that include "property" The Instrument defines two different types of properties (early stage exploration, advanced) and requires a technical report to summarize material information about the subject property. We consider a property, in the context of the Instrument, to include multiple mineral claims or other documents of title that are contiguous or in such close proximity that any underlying mineral deposits would likely be developed using common infrastructure.
- (7) "qualified person" The definition of "qualified person" in the Instrument does not include engineering and geoscience technicians, engineers and geoscientists in training, and equivalent designations that restrict the individual's scope of practice or require the individual to practise under the supervision of another professional engineer, professional geoscientist, or equivalent.

Paragraph (d) of the definition requires a qualified person to be "in good standing with a professional association". We interpret this to include satisfying any related registration, licensing, or similar requirements. Canadian provincial and territorial legislation requires a qualified person to be registered if practising in a jurisdiction of Canada. It is the responsibility of the qualified person, in compliance with their professional association's code of ethics, to comply with laws requiring licensure of geoscientists and engineers.

Paragraph (e) of the definition includes a test for what constitutes an acceptable membership designation in a foreign professional association. Appendix A to the Policy provides a list of the membership designations that we think meet this test as of the effective date of the Instrument. We will update the list periodically. In assessing whether we think a membership designation meets the test, we will consider whether it is substantially similar to a membership designation in a professional association in a jurisdiction of Canada.

Subparagraph (e)(ii)(B) includes the concept of "demonstrated expertise in the field of mineral exploration or mining". We generally interpret this to mean

having at least five years of professional experience and satisfying an additional entrance requirement relating to level of responsibility. Some examples of such a requirement are:

- (a) at least three years in a position of responsibility where the person was depended on for significant participation and decision-making;
- (b) experience of a responsible nature and involving the exercise of independent judgment in at least three of those years;
- (c) at least five years in a position of major responsibility, or a senior technical position of responsibility.
- (8) "technical report" A report may constitute a "technical report" as defined in the Instrument, even if prepared considerably before the date the technical report is required to be filed, provided the information in the technical report remains accurate and complete as at the required filing date. However, a report that an issuer files that is not required under the Instrument will not be considered a technical report until the Instrument requires the issuer to file it <u>and</u> the issuer has filed the required certificates and consents of qualified persons.

The definition requires the technical report to include a summary of all material information about the subject property. The qualified person is responsible for preparing the technical report. Therefore, it is the qualified person, not the issuer, who has the responsibility of determining the materiality of the scientific or technical information to be included in the technical report.

1.5 Independence

(1) **Guidance on Independence** – Section 1.5 of the Instrument provides the test an issuer and a qualified person must apply to determine whether a qualified person is independent of the issuer. When an independent qualified person is required, an issuer must always apply the test in section 1.5 to confirm that the requirement is met.

Applying this test, the following are examples of when we would consider that a qualified person is not independent. These examples are not a complete list of non-independence situations.

We consider a qualified person is not independent when the qualified person

- (a) is an employee, insider, or director of the issuer;
- (b) is an employee, insider, or director of a related party of the issuer;
- (c) is a partner of any person or company in paragraph (a) or (b);

- (d) holds or expects to hold securities, either directly or indirectly, of the issuer or a related party of the issuer;
- (e) holds or expects to hold securities, either directly or indirectly, in another issuer that has a direct or indirect interest in the property that is the subject of the technical report or in an adjacent property;
- (f) is an employee, insider, or director of another issuer that has a direct or indirect interest in the property that is the subject of the technical report or in an adjacent property;
- (g) has or expects to have, directly or indirectly, an ownership, royalty, or other interest in the property that is the subject of the technical report or an adjacent property; or
- (h) has received the majority of their income, either directly or indirectly, in the three years preceding the date of the technical report from the issuer or a related party of the issuer.

For the purposes of (d) above, a related party of the issuer means an affiliate, associate, subsidiary, or control person of the issuer as those terms are defined in securities legislation.

(2) **Independence Not Compromised** – In some cases, it might be reasonable to consider the qualified person's independence is not compromised even though the qualified person holds an interest in the issuer's securities, the securities of another issuer with an interest in the subject property, or in an adjacent property. The issuer needs to determine whether a reasonable person would consider such interest would interfere with the qualified person's judgement regarding the preparation of the technical report.

PART 2 REQUIREMENTS APPLICABLE TO ALL DISCLOSURE

2.1 Requirements Applicable to All Disclosure

(1) **Disclosure is the Responsibility of the Issuer** – Primary responsibility for public disclosure remains with the issuer and its directors and officers. The qualified person is responsible for preparing or supervising the preparation of the technical report and providing scientific and technical advice in accordance with applicable professional standards. The proper use, by or on behalf of the issuer, of the technical report and other scientific and technical information provided by the qualified person is the responsibility of the issuer and its directors and officers.

The onus is on the issuer and its directors and officers and, in the case of a document filed with a securities regulatory authority, each signatory to the document, to ensure that disclosure in the document is consistent with the related technical report or advice. An issuer should consider having the qualified person

review disclosure that summarizes or restates the technical report or the technical advice or opinion to ensure that the disclosure is accurate.

(2) Material Information not yet Confirmed by a Qualified Person – Securities legislation requires an issuer to disclose material facts and to make timely disclosure of material changes. We recognize that there can be circumstances in which an issuer expects that certain information concerning a mineral project may be material notwithstanding the fact that a qualified person has not prepared or supervised the preparation of the information. In this situation, the issuer may file a confidential material change report concerning this information while a qualified person reviews the information. Once a qualified person has confirmed the information, the issuer can issue a news release and the basis of confidentiality will end.

During the period of confidentiality, persons in a special relationship to the issuer are prohibited from tipping or trading until the information is disclosed to the public. National Policy 51-201 *Disclosure Standards* provides further guidance about materiality and timely disclosure obligations.

- (3) Use of Plain Language An issuer should apply plain language principles when preparing disclosure regarding mineral projects on its material properties, keeping in mind that the investing public are often not mining experts. An issuer should present written disclosure in an easy to read format using clear and unambiguous language and, wherever possible, should present data in table format. This includes information in the technical report, to the extent possible. We recognize that the technical report does not always lend itself well to plain language and therefore the issuer might want to consult the responsible qualified person when restating the data and conclusions from a technical report in its public disclosure.
- All Disclosure of Mineral Resources or Mineral Reserves Use of GSC Paper 88-21
 A qualified person estimating mineral resources or mineral reserves for coal may follow the guidelines of Paper 88-21 of the Geological Survey of Canada: A Standardized Coal Resource/Reserve Reporting System for Canada, as amended ("Paper 88-21"). However, for all disclosure of mineral resources or mineral reserves for coal, section 2.2 of the Instrument requires an issuer to use the equivalent mineral resource or mineral reserve categories set out in the CIM Definition Standards and not the categories set out in Paper 88-21.

2.3 Restricted Disclosure

(1) **Economic Analysis** – Subject to subsection 2.3(3) of the Instrument, paragraph 2.3(1)(b) of the Instrument prohibits the disclosure of the results of an economic analysis that includes or is based on inferred mineral resources, an historical estimate, or an exploration target.

CIM considers the confidence in inferred mineral resources is insufficient to allow the meaningful application of technical and economic parameters or to

enable an evaluation of economic viability worthy of public disclosure. The Instrument extends this prohibition to exploration targets because such targets are conceptual and have even less confidence than inferred mineral resources. The Instrument also extends the prohibition to historical estimates because they have not been demonstrated or verified to the standards required for mineral resources or mineral reserves and, therefore, cannot be used in an economic analysis suitable for public disclosure.

- (2) **Use of Term "Ore"** We consider the use of the word "ore" in the context of mineral resource estimates to be potentially misleading because "ore" implies technical feasibility and economic viability that should only be attributed to mineral reserves.
- (3) **Exceptions** The Instrument permits an issuer to disclose the results of an economic analysis that uses inferred mineral resources, provided the issuer complies with the requirements of subsection 2.3(3). The issuer must also include the cautionary statement under paragraph 3.4(e) of the Instrument, which applies to disclosure of all economic analyses of mineral resources, to further alert investors to the limitations of the information. The exception under subsection 2.3(3) does not allow an issuer to disclose the results of an economic analysis using an exploration target or an historical estimate.
- (4) Impact of Preliminary Economic Assessment on Previous Feasibility or Pre-Feasibility Studies An issuer may disclose the results of a preliminary economic assessment that includes inferred mineral resources, after it has completed a feasibility study or pre-feasibility study that establishes mineral reserves, if the disclosure complies with subsection 2.3(3) of the Instrument. Under paragraph 2.3(3)(c), the issuer must discuss the impact of the preliminary economic assessment on the mineral reserves and feasibility study or pre-feasibility study. This means considering and disclosing whether the existing mineral reserves and feasibility study or pre-feasibility study are still current and valid in light of the key assumptions and parameters used in the preliminary economic assessment.

For example, if the preliminary economic assessment considers the potential economic viability of developing a satellite deposit in conjunction with the main development project, then the existing mineral reserves, feasibility study, and production scenario could still be current. However, if the preliminary economic assessment significantly modifies the key variables in the feasibility study, including metal prices, mine plan, and costs, the feasibility study and mineral reserves might no longer be current.

(5) **Gross Value of Metal or Mineral** – We interpret gross metal value or gross mineral value to include any representation of the potential monetary value of the metal or mineral in the ground that does not take into consideration the costs, recoveries, and other relevant factors associated with the extraction and recovery

- of the metal or mineral. We think this type of disclosure is misleading because it overstates the potential value of the mineral deposit.
- (6) Cautionary Language and Explanations The requirements of subsections 2.3(2), 2.3(3), and 3.4(e) of the Instrument mean the issuer must include the required cautionary statements and explanations <u>each time</u> it makes the disclosure permitted by these exceptions. These subsections also require the cautionary statements to have equal prominence with the rest of the disclosure. We interpret this to mean equal size type and proximate location. The issuer should consider including the cautionary language and explanations in the same paragraph as, or immediately following, the disclosure permitted by these exceptions.

2.4 Disclosure of Historical Estimates

- (1) **Required Disclosure** An issuer may disclose an estimate of resources or reserves made before it entered into an agreement to acquire an interest in the property, provided the issuer complies with the conditions set out in section 2.4 of the Instrument. Under this requirement, the issuer must provide the required disclosure <u>each time</u> it discloses the historical estimate, until the issuer has verified the historical estimate as a current mineral resource or mineral reserve. The required cautionary statements must also have equal prominence (see the discussion in subsection 2.3(6) of the Policy).
- (2) **Source and Date** Under paragraph 2.4(a) of the Instrument, the issuer must disclose the source and date of the historical estimate. This means the original source and date of the estimate, not third party documents, databases or other sources, including government databases, which may also report the historical estimate.
- (3) **Suitability for Public Disclosure** Under paragraph 2.4(b) of the Instrument, an issuer that discloses an historical estimate must comment on its relevance and reliability. In determining whether to disclose an historical estimate, an issuer should consider whether the historical estimate is suitable for public disclosure.
- (4) **Historical Estimate Categories** Under paragraph 2.4(d) of the Instrument, an issuer must explain any differences between the categories used in the historical estimate and those set out in sections 1.2 and 1.3 of the Instrument. If the historical estimate was prepared using an acceptable foreign code, the issuer may satisfy this requirement by identifying the acceptable foreign code.
- (5) **Technical Report Trigger** The disclosure of an historical estimate will not trigger the requirement to file a technical report under paragraph 4.2(1)(j) of the Instrument if the issuer discloses the historical estimate in accordance with section 2.4 of the Instrument, including the cautionary statements required under paragraph 2.4(g).

An issuer could trigger the filing of a technical report under paragraph 4.2(1)(j) if it discloses the historical estimate in a manner that suggests or treats the historical

estimate as a current mineral resource or mineral reserve. We will consider an issuer is treating the historical estimate as a current mineral resource or mineral reserve in its disclosure if, for example, it

- (a) uses the historical estimate in an economic analysis or as the basis for a production decision;
- (b) states it will be adding on or building on the historical estimate; or
- (c) adds the historical estimate to current mineral resource or mineral reserve estimates.

PART 3 ADDITIONAL REQUIREMENTS FOR WRITTEN DISCLOSURE

- 3.3 Requirements Applicable to Written Disclosure of Exploration Information Adjacent Property Information It is an offence under securities legislation to make misleading disclosure. An issuer may disclose in writing scientific and technical information about an adjacent property. However, in order for the disclosure not to be misleading, the issuer should clearly distinguish between the information from the adjacent property and its own property and not state or imply the issuer will obtain similar information from its own property.
- **Exception for Written Disclosure Already Filed** Section 3.5 of the Instrument provides that the disclosure requirements of sections 3.2 and 3.3 and paragraphs 3.4(a), (c) and (d) of the Instrument may be satisfied by referring to a previously filed document that includes the required disclosure. However, the disclosure as a whole must be factual, complete, and balanced and not present or omit information in a manner that is misleading.

PART 4 OBLIGATION TO FILE A TECHNICAL REPORT

- 4.2 Obligation to File a Technical Report in Connection with Certain Written Disclosure about Mineral Projects on Material Properties
 - (1) Information Circular Trigger (4.2(1)(c))
 - (a) The requirement for "prospectus-level disclosure" in an information circular does not make this document a "prospectus" such that the prospectus trigger applies. The information circular is a separate trigger that applies only in certain situations specified in the Instrument.
 - (b) Paragraph 4.2(1)(c) of the Instrument requires the issuer to file technical reports for properties that will be material to the resulting issuer. Often the resulting issuer is not the issuer filing the information circular. In determining if it must file a technical report on a particular property, the issuer should consider if the property will be material to the resulting issuer after the completion of the proposed transaction.

- (c) Our view is that the issuer filing the information circular does not need to file a technical report on its SEDAR profile if
 - (i) the other party to the transaction has filed the technical report;
 - (ii) the information circular refers to the other party's SEDAR profile; and
 - (iii) on completion of the transaction, technical reports for all material properties are filed on the resulting issuer's SEDAR profile or the SEDAR profile of a wholly-owned subsidiary.
- (2) **Take-Over Bid Circular Trigger** (4.2(1)(i)) For purposes of the take-over bid circular, the issuer referred to in the introductory language of subsection 4.2(1) of the Instrument and the offeror referred to in paragraph (i) of this subsection are the same entity. Since the offeror is the issuer that files the circular, the technical report trigger applies to properties that are material to the offeror.
- (3) **First Time Disclosure Trigger (4.2(1)(j)(i))** In most cases, we think that first time disclosure of mineral resources, mineral reserves, or the results of a preliminary economic assessment, on a property material to the issuer will constitute a material change in the affairs of the issuer.
- (4) **Property Acquisitions 45-Day Filing Requirement** Subsection 4.2(5) of the Instrument requires an issuer in certain cases to file a technical report within 45 days to support first time disclosure of mineral resources, mineral reserves, or the results of a preliminary economic assessment, on a property material to the issuer. Property materiality is not contingent on the issuer having acquired an actual interest in the property or having formal agreements in place. In many cases, the property will become material at the letter of intent stage, even if subject to conditions such as the approval of a third party or completion of a due diligence review. In such cases, the 45-day period will begin to run from the time the issuer first discloses the mineral resources, mineral reserves, or results of a preliminary economic assessment.
- (5) **Property Acquisitions Other Alternatives for Disclosure of Previous Estimates –** If an issuer options or agrees to buy a property material to the issuer, any previous estimates of mineral resources or mineral reserves on the property will be in many cases material information that the issuer must disclose.

The issuer has a number of options available for disclosing the previous estimate without triggering a technical report within 45 days. If the previous estimate is not well-documented, the issuer may choose to disclose this information as an exploration target, in compliance with subsection 2.3(2) of the Instrument. Alternatively, the issuer may be able to disclose the previous estimate as an historical estimate, in compliance with section 2.4 of the Instrument. Both these options require the issuer to include certain cautionary language and prohibit the issuer from using the previous estimates in an economic analysis.

In circumstances where the previous estimate is supported by a technical report prepared for another issuer, the issuer may be able to disclose the previous estimate as a mineral resource or mineral reserve, in compliance with subsection 4.2(7) of the Instrument. In this case, the issuer will still be required to file a technical report. However, it will have up to 180 days to do so.

(6) **Production Decision** – The Instrument does not require an issuer to file a technical report to support a production decision because the decision to put a mineral project into production is the responsibility of the issuer, based on information provided by qualified persons. The development of a mining operation typically involves large capital expenditures and a high degree of risk and uncertainty. To reduce this risk and uncertainty, the issuer typically makes its production decision based on a comprehensive feasibility study of established mineral reserves.

We recognize that there might be situations where the issuer decides to put a mineral project into production without first establishing mineral reserves supported by a technical report and completing a feasibility study. Historically, such projects have a much higher risk of economic or technical failure. To avoid making misleading disclosure, the issuer should disclose that it is not basing its production decision on a feasibility study of mineral reserves demonstrating economic and technical viability and should provide adequate disclosure of the increased uncertainty and the specific economic and technical risks of failure associated with its production decision.

Under paragraph 1.4(e) of Form 51-102F1, an issuer must also disclose in its MD&A whether a production decision or other significant development is based on a technical report.

- (7) Shelf Life of Technical Reports Economic analyses in technical reports are based on commodity prices, costs, sales, revenue, and other assumptions and projections that can change significantly over short periods of time. As a result, economic information in a technical report can quickly become outdated. Continued reference to outdated technical reports or economic projections without appropriate context and cautionary language could result in misleading disclosure. Where an issuer has triggered the requirement to file a technical report under subsection 4.2(1), it should consider the current validity of economic assumptions in its existing technical report to determine if the technical report is still current. An issuer might be able to extend the life of a technical report by having a qualified person include appropriate sensitivity analyses of the key economic variables.
- (8) **Technical Reports Must be Current and Complete** A "technical report" as defined in the Instrument must include in summary form <u>all</u> material scientific and technical information about the property. Any time an issuer is required to file a technical report, that report must be complete and current. There should only be one current technical report on a property at any point in time. When an issuer

files a new technical report, it will replace any previously filed technical report as the current technical report on that property. This means the new technical report must include any material information documented in a previously filed technical report, to the extent that this information is still current and relevant.

If an issuer gets a new qualified person to update a previously filed technical report prepared by a different qualified person, the new qualified person must take responsibility for the entire technical report, including any information referenced or summarized from a previous technical report.

- (9) **Limited Provision for Addendums** The only exception to the requirement to file a complete technical report is under subsection 4.2(3) of the Instrument. An issuer may file an addendum if it is for a technical report that it originally filed with a preliminary short form prospectus or preliminary long form prospectus and new material scientific or technical information becomes available before the issuance of the final receipt.
- (10) Exception from Requirement to File Technical Report if Information
 Included in a Previously Filed Technical Report Subsection 4.2(8) of the
 Instrument provides an exemption from the technical report filing requirement if
 the disclosure document does not contain any new material scientific or technical
 information about a property that is the subject of a previously filed technical
 report.

In our view, a change to mineral resources or reserves due to mining depletion from a producing property generally will not constitute new material scientific or technical information as the change should be reasonably predictable based on an issuer's continuous disclosure record.

- (11) **Filing on SEDAR** If an issuer is required under National Instrument 13-101 System for Electronic Document Analysis and Retrieval (SEDAR) to be an electronic filer, then all technical reports must be prepared so that the issuer can file them on SEDAR. Figures required in the technical report must be included in the technical report filed on SEDAR and therefore should be prepared in electronic format.
- (12) **Reports Not Required by the Instrument** The securities regulatory authorities in most Canadian jurisdictions require an issuer to file, if not already filed with them, any record or disclosure material that the issuer files with any other securities regulator, including geological reports filed with stock exchanges. In other cases, an issuer might wish to file voluntarily a report in the form of a technical report. The Instrument does not prohibit an issuer from filing such reports in these situations. However, any document purporting to be a technical report must comply with the Instrument.

When an issuer files a report in the form of a technical report that is not required to be filed by the Instrument, the issuer is not required to file a consent of

qualified person that complies with subsection 8.3(1) of the Instrument. The issuer should consider filing a cover letter with the report explaining why the issuer is filing the report and indicating that it is not filing the report as a requirement of the Instrument. Alternatively, the issuer should consider filing a modified consent with the report that provides the same information.

(13) **Preliminary Short Form Prospectus** – Under paragraph 4.2(1)(b) of the Instrument, an issuer must file a technical report with a preliminary short form prospectus if the prospectus discloses for the first time mineral resources, mineral reserves, or the results of a preliminary economic assessment that constitute a material change in relation to the issuer, or a change in this information, if the change constitutes a material change in relation to the issuer.

If this information is not disclosed for the first time in the preliminary short form prospectus itself, but is repeated or incorporated by reference into the preliminary short form prospectus, the technical report must still be filed at the same time as the preliminary short form prospectus. Subsections 4.2(5) and (7) of the Instrument, in certain limited circumstances, permit the delayed filing of a technical report. For example, an issuer normally has 45 days, or in some cases 180 days, to file a technical report supporting the first time disclosure of a mineral resource. However, if a preliminary short form prospectus that includes the prescribed disclosure is filed during the period of the delay, subparagraphs 4.2(5)(a)(i) and 4.2(7)(c)(i) require the technical report to be filed on the date of filing the preliminary short form prospectus.

- (14) **Triggers with Thresholds** The technical report triggers in paragraphs 4.2(1)(b), (i) and (j) only apply if the relevant disclosure meets certain thresholds. In these cases, the technical report filing requirement is triggered only for the material property or properties that meet the thresholds.
- (15) **Triggers with Permitted Filing Delays** Subsections 4.2(5), (6) and (7) allow technical reports in certain circumstances to be filed later than the disclosure documents they support. In these cases, once the requirement to file the technical report has been triggered, the issuer remains subject to the requirement irrespective of subsequent developments relating to the property, including, for example, the sale or abandonment of the property.

4.3 Required Form of Technical Report

(1) **Review** – Disclosure and technical reports filed under the Instrument may be subject to review by the securities regulatory authorities. If an issuer that is required to file a technical report under the Instrument files a technical report that does not meet the requirements of the Instrument, the issuer has not complied with securities legislation. This includes filing certificates and consents that do not comply with subsections 8.1(2) and 8.3(1) of the Instrument.

- (2) **Filing Other Scientific and Technical Reports** An issuer might have other reports or documents containing scientific or technical information, prepared by or under the supervision of a qualified person, which are not in the form of a technical report. We consider that filing such information on SEDAR as a technical report could be misleading. An issuer wishing to provide public access to these documents should consider posting them on its website.
- (3) **Preparation in English or French** Section 4.3 of the Instrument requires a technical report to be prepared in English or French. Reports prepared in a different language and translated into English or French are not acceptable due to the highly technical nature of the disclosure and the difficulties of ensuring accurate and reliable translations.

PART 5 AUTHOR OF THE TECHNICAL REPORT

5.1 Prepared by a Qualified Person

- (1) **Selection of Qualified Person** It is the responsibility of the issuer and its directors and officers to retain a qualified person who meets the criteria listed under the definition of qualified person in the Instrument, including having the relevant experience and competence for the subject matter of the technical report.
- (2) **Assistance of Non-Qualified Persons** A person who is not a qualified person may work on a project. If a qualified person relies on the work of a non-qualified person to prepare a technical report or to provide information or advice to the issuer, the qualified person must take responsibility for that work, information, or advice. The qualified person must take whatever steps are appropriate, in their professional judgement, to ensure that the work, information, or advice that they rely on is sound.
- (3) **Exemption from Qualified Person Requirement** The securities regulatory authorities will rarely grant requests for exemption from the requirement that the qualified person belong to a professional association.
- (4) **More than One Qualified Person** Section 5.1 of the Instrument provides that one or more qualified persons must prepare or supervise the preparation of a technical report. Some technical reports, particularly for advanced properties, could require the involvement of several qualified persons with different areas of expertise. In that case, each qualified person taking responsibility for a part of the technical report must sign the technical report and provide a certificate and consent under Part 8 of the Instrument.

However, section 5.2 and Part 8 of the Instrument allow qualified persons who supervised the preparation of all or part of the technical report to take overall responsibility for the work conducted under their supervision by other qualified persons. While supervising qualified persons do not need to be experts in all aspects of the work they supervise, they should be sufficiently knowledgeable about the subject matter to understand the information and opinions for which

they are accepting responsibility. Where there are supervising qualified persons, only the supervising qualified persons must sign the technical report and provide their certificates and consents.

- (5) A Qualified Person Must Be Responsible for All Items of Technical Report Section 5.1 of the Instrument requires a technical report to be prepared by or under the supervision of one or more qualified persons. By implication, this means that at least one qualified person must take responsibility for each section or item of the technical report, including any information incorporated from previously filed technical reports. If the qualified person, in response to a particular item, refers to the equivalent item in a previously filed technical report, the qualified person is implicitly saying that the information is still reliable and current and there have been no material changes. This would normally involve the qualified person doing a certain amount of background work and validation.
- (6) **Previous Mineral Resources or Mineral Reserves** When a technical report includes a mineral resource or mineral reserve estimate prepared by another qualified person for a previously filed technical report, under section 5.2 and Part 8 of the Instrument, one of the qualified persons preparing the new technical report must take responsibility for those estimates. In doing this, that qualified person should make whatever investigations are necessary to reasonably rely on the estimates.
- **Execution of Technical Report** Section 5.2 and subsection 8.1(1) of the Instrument require the qualified person to date, sign, and if the qualified person has a seal, seal the technical report and certificate. Section 8.3 of the Instrument requires the qualified person to date and sign the consent. If a person's name appears in an electronic document with (signed by) or (sealed) next to the person's name or there is a similar indication in the document, the securities regulatory authorities will consider that the person has signed and sealed the document. Although not required, the qualified person may sign or seal maps and drawings in the same manner.

5.3 Independent Technical Report

- (1) **Independent Qualified Persons** Subsection 5.3(1) of the Instrument requires that one or more independent qualified persons prepare or supervise the preparation of the independent technical report. This subsection does not preclude non-independent qualified persons from co-authoring or assisting in the preparation of the technical report. However, to meet the independence requirement, the independent qualified persons must assume overall responsibility for all items of the technical report.
- (2) **Hundred Percent or Greater Change** Subparagraph 5.3(1)(c)(ii) of the Instrument requires the issuer to file an independent technical report to support its disclosure of a 100 percent or greater change in total mineral resources or total mineral reserves. We interpret this to mean a 100 percent or greater change in either the total tonnage or volume, or total contained metal or mineral content, of

the mineral resource or mineral reserve. We also interpret the 100 percent or greater change to apply to mineral resources and mineral reserves separately. Therefore, a 100 percent or greater change in mineral resources on a material property will require the issuer to file an independent technical report regardless of any changes to mineral reserves, and vice versa.

(3) **Objectivity of Author** – We could question the objectivity of the author based on our review of a technical report. In order to preserve the requirement for independence of the qualified person, we could ask the issuer to provide further information, additional disclosure, or the opinion or involvement of another qualified person to address concerns about possible bias or partiality on the part of the author of a technical report.

PART 6 PREPARATION OF TECHNICAL REPORT

Instrument defines a technical report as a report that provides a <u>summary</u> of all material scientific and technical information about a property. Instruction (1) to Form 43-101F1 includes similar language. The target audience for technical reports are members of the investing public, many of whom have limited geological and mining expertise. To avoid misleading disclosure, technical reports must provide sufficient detail for a reasonably knowledgeable person to understand the nature and significance of the results, interpretation, conclusions, and recommendations presented in the technical report. However, we do not think that technical reports need to be a repository of all technical data and information about a property or include extensive geostatistical analysis, charts, data tables, assay certificate, drill logs, appendices, and other supporting technical information.

In addition, SEDAR might not be able to accommodate large technical report files. An issuer could have difficulty filing, and more importantly, the public could have difficulty accessing and downloading, large technical reports. An issuer should consider limiting the size of its technical reports to facilitate filing and public access to the reports.

6.2 Current Personal Inspection

(1) **Meaning** – The current personal inspection referred to in subsection 6.2(1) of the Instrument is the most recent personal inspection of the property, provided there is no new material scientific or technical information about the property since that personal inspection. A personal inspection may constitute a current personal inspection even if the qualified person conducted the personal inspection considerably before the filing date of the technical report, if there is no new material scientific or technical information about the property at the filing date. However, since the qualified person is certifying that the technical report contains all material information about the property, the qualified person should consider taking the necessary steps to verify independently that there has been no material work done on the property since their last site visit.

(2) Importance of Personal Inspection – We consider current personal inspections under section 6.2 of the Instrument to be particularly important because they enable qualified persons to become familiar with conditions on the property. Qualified persons can observe the geology and mineralization, verify the work done and, on that basis, design or review and recommend to the issuer an appropriate exploration or development program. A current personal inspection is required even for properties with poor exposure. In such cases, it could be relevant for a qualified person to observe the depth and type of the overburden and cultural effects that could interfere with the results of the geophysics.

It is the responsibility of the issuer to arrange its affairs so that a qualified person can carry out a current personal inspection. A qualified person, or where required, an independent qualified person, must visit the site and cannot delegate the personal inspection requirement.

- (3) **More than One Qualified Person** Subsection 6.2(1) of the Instrument requires at least one qualified person who is responsible for preparing or supervising the preparation of the technical report to inspect the property. This is the minimum standard for a current personal inspection. There could be cases in advanced mineral projects where the qualified persons consider it necessary for more than one qualified person to conduct current personal inspections of the property, taking into account the nature of the work on the property and the different expertise required to prepare the technical report.
- **Maintenance of Records** Section 6.3 of the Instrument requires an issuer to keep copies of underlying or supporting exploration information for at least 7 years. In our view, the issuer could satisfy this requirement by keeping records in any accessible format, not necessarily in hard copies.
- **6.4 Limitation on Disclaimers** Paragraph 6.4(1)(a) of the Instrument prohibits certain disclaimers in technical reports.

These disclaimers are also potentially misleading disclosure because, in certain circumstances, securities legislation provides investors with a statutory right of action against a qualified person for a misrepresentation in disclosure that is based upon the qualified person's technical report. That right of action exists despite any disclaimer to the contrary that appears in the technical report. The securities regulatory authorities will generally require the issuer to have its qualified person remove any blanket disclaimers in a technical report that the issuer uses to support its public offering document.

Item 3 of Form 43-101F1 permits a qualified person to insert a limited disclaimer of responsibility in certain specified circumstances.

PART 7 USE OF FOREIGN CODE

7.1 Use of Foreign Code – Use of Foreign Codes other than Acceptable Foreign Codes – Section 2.2 and Part 7 of the Instrument require an issuer to disclose mineral resources or mineral reserves using either the CIM Definition Standards or an "acceptable foreign

code" as defined in the Instrument. If an issuer wishes to announce an acquisition or proposed acquisition of a property that contains estimates of quantity and grade that are not in accordance with the CIM Definition Standards or an acceptable foreign code, the issuer might be able to disclose the estimate as an historical estimate, in compliance with section 2.4 of the Instrument. However, it might be more appropriate for the issuer to disclose the estimate as an exploration target, in compliance with subsection 2.3(2) of the Instrument, if the supporting information for the estimate is not well-documented or if the estimate is not comparable to a category in the CIM Definition Standards or an acceptable foreign code.

PART 8 CERTIFICATES AND CONSENTS OF QUALIFIED PERSONS FOR TECHNICAL REPORTS

8.1 Certificates of Qualified Persons

- (1) Certificates Apply to the Entire Technical Report Section 8.1 of the Instrument requires certificates that apply to the entire technical report, including any sections that refer to information in a previously filed technical report. At least one qualified person must take responsibility for each Item required by Form 43-101F1.
- (2) **Deficient Certificates** Certificates must include all the statements required by subsection 8.1(2) of the Instrument. An issuer that files certificates with required statements that are missing or altered to change the intended meaning has not complied with the Instrument.
- **8.2 Addressed to Issuer** We consider that the technical report is addressed to the issuer if the issuer's name appears on the title page as the party for which the qualified person prepared the technical report. We also consider that the technical report is addressed to the issuer filing the technical report if it is addressed to an issuer that is or will become a wholly-owned subsidiary of the issuer filing the technical report.

8.3 Consents of Qualified Persons

- (1) **Consent of Experts** If the technical report supports disclosure in a prospectus, the qualified person will likely have to provide an expert consent under the prospectus rules (section 8.1 of National Instrument 41-101 *General Prospectus Requirements* and section 4.1 of National Instrument 44-101 *Short Form Prospectus Distributions*), in addition to any consent of qualified person required under the Instrument.
- (2) **Deficient Consents** Consents must include all the statements required by subsection 8.3(1) of the Instrument. An issuer that files consents with required statements that are missing or altered to change the intended meaning has not complied with the Instrument. Appendix B to the Policy provides an example of an acceptable consent of a qualified person.

- (3) Modified Consents under Subsection 8.3(2) Subsection 8.3(1) of the Instrument requires the qualified person to identify and read the disclosure that the technical report supports and certify that the disclosure accurately represents the information in the technical report. We recognize that an issuer can become a reporting issuer in a jurisdiction of Canada without the requirement to file a disclosure document listed in subsection 4.2(1) of the Instrument. In these cases, the issuer has the option of filing a modified consent under subsection 8.3(2) of the Instrument that excludes the statements in paragraphs 8.3(1)(b), (c) and (d).
- (4) **Filing of Full Consent Required** If an issuer files a modified consent under subsection 8.3(2) of the Instrument, it must still file a full consent the next time it files a disclosure document that would normally trigger the filing of a technical report under subsection 4.2(1) of the Instrument. This requirement is set out in subsection 8.3(3) of the Instrument.
- (5) Filing of Consent for Technical Reports Not Required by the Instrument Where an issuer files a technical report voluntarily or as a requirement of a Canadian stock exchange, and the filing is not also required under the Instrument, the report is not a "technical report" subject to the consent requirements under subsection 8.3(1) of the Instrument. Therefore, when the issuer subsequently files a disclosure document that would normally trigger the filing of a technical report under subsection 4.2(1) of the Instrument, the issuer must file the consents of qualified persons in accordance with subsection 8.3(1).

If an issuer files a Filing Statement or other prospectus-level disclosure document with a Canadian stock exchange, and the filing is not also required under the Instrument, the issuer may choose or be required by the stock exchange to file a full consent that includes paragraphs 8.3(1)(b), (c) and (d) of the Instrument as they relate to the Filing Statement or other disclosure document.

PART 9 EXEMPTIONS

9.2 Exemptions for Royalty or Similar Interests

- (1) **Royalty or Similar Interest** We consider a "royalty or similar interest" to include a gross overriding royalty, net smelter return, net profit interest, free carried interest, and a product tonnage royalty. We also consider a "royalty or similar interest" to include an interest in a revenue or commodity stream from a proposed or current mining operation, such as the right to purchase certain commodities produced from the operation.
- (2) **Limitation on Exemptions** The term "royalty or similar interest" does not include a participating or carried interest. Therefore, these exemptions do not apply where the issuer also has a participating or carried interest in the property or the mining operation, either direct or indirect.

- (3) **Non-Reporting Subsidiaries Included** Properties indirectly owned by an owner or operator that is a reporting issuer in a jurisdiction of Canada, through a subsidiary that is not a reporting issuer, would satisfy the condition of subparagraph 9.2(1)(a)(i) of the Instrument.
- (4) **Consideration of Liability** Holders of royalty or similar interests relying on the exemption in subsection 9.2(1) of the Instrument should consider, in the absence of a technical report of the royalty holder, who will be liable under applicable securities legislation for any misrepresentations in the royalty holder's scientific or technical information.

Appendix A Accepted Foreign Associations and Membership Designations

Foreign Association	Membership Designation
American Institute of Professional Geologists (AIPG)	Certified Professional Geologist (CPG)
The Society for Mining, Metallurgy and Exploration, Inc. (SME)	Registered Member
Mining and Metallurgical Society of America (MMSA)	Qualified Professional (QP)
Any state in the United States of America	Licensed or certified as a professional engineer
European Federation of Geologists (EFG)	European Geologist (EurGeol)
Institute of Geologists of Ireland (IGI)	Professional Member (PGeo)
Institute of Materials, Minerals and Mining (IMMM)	Professional Member (MIMMM), Fellow (FIMMM), Chartered Scientist (CSi MIMMM), or Chartered Engineer (CEng MIMMM)
Geological Society of London (GSL)	Chartered Geologist (CGeol)
Australasian Institute of Mining and Metallurgy (AusIMM)	Fellow (FAusIMM) or Chartered Professional Member or Fellow [MAusIMM (CP), FAusIMM (CP)]
Australian Institute of Geoscientists (AIG)	Member (MAIG), Fellow (FAIG) or Registered Professional Geoscientist Member or Fellow (MAIG RPGeo, FAIG RPGeo)
Southern African Institute of Mining and Metallurgy (SAIMM)	Fellow (FSAIMM)
South African Council for Natural Scientific Professions (SACNASP)	Professional Natural Scientist (Pr.Sci.Nat.)
Engineering Council of South Africa (ECSA)	Professional Engineer (Pr.Eng.) or Professional Certificated Engineer (Pr.Cert.Eng.)
Comisión Calificadora de Competencias en Recursos y Reservas Mineras (Chilean Mining Commission)	Registered Member

Appendix B Example of Consent of Qualified Person

[QP's Letterhead] or [Insert name of QP] [Insert name of QP's company] [Insert address of QP or QP's company]

CONSENT of QUALIFIED PERSON

I, [name of QP], consent to the public filing of the technical report titled [insert title of report] and dated [insert date of report] (the "Technical Report") by [insert name of issuer filing the report].

I also consent to any extracts from or a summary of the Technical Report in the [insert date and type of disclosure document (i.e. news release, prospectus, AIF, etc.)] of [insert name of issuer making disclosure].

I certify that I have read [date and type of document (i.e. news release, prospectus, AIF, etc.) that the report supports] being filed by [insert name of issuer] and that it fairly and accurately represents the information in the sections of the technical report for which I am responsible.

Dated this [insert date].	
Signature of Qualified Person	Seal or Stamp]
Print name of Qualified Person	

Form 43-101F1 Technical Report

Table of Contents

TITLE

Item 27:

References

CONTENTS OF THE TECHNICAL REPORT

Title Page
Date and Signature Page
Table of Contents
Illustrations

Item 1:	Summary
Item 2:	Introduction
Item 3:	Reliance on Other Experts
Item 4:	Property Description and Location
Item 5:	Accessibility, Climate, Local Resources, Infrastructure and Physiography
Item 6:	History
Item 7:	Geological Setting and Mineralization
Item 8:	Deposit Types
Item 9:	Exploration
Item 10:	Drilling
Item 11:	Sample Preparation, Analyses and Security
Item 12:	Data Verification
Item 13:	Mineral Processing and Metallurgical Testing
Item 14:	Mineral Resource Estimates
Item 15:	Mineral Reserve Estimates
Item 16:	Mining Methods
Item 17:	Recovery Methods
Item 18:	Project Infrastructure
Item 19:	Market Studies and Contracts
Item 20:	Environmental Studies, Permitting and Social or Community Impact
Item 21:	Capital and Operating Costs
Item 22:	Economic Analysis
Item 23:	Adjacent Properties
Item 24:	Other Relevant Data and Information
Item 25:	Interpretation and Conclusions
Item 26:	Recommendations

Form 43-101F1 Technical Report

INSTRUCTIONS:

- (1) The objective of the technical report is to provide a <u>summary</u> of material scientific and technical information concerning mineral exploration, development, and production activities on a mineral property that is material to an issuer. This Form sets out the requirements for the preparation and content of a technical report.
- (2) Terms used in this Form that are defined or interpreted in National Instrument 43-101 Standards of Disclosure for Mineral Projects (the "Instrument") will have that definition or interpretation. In addition, a general definition instrument has been adopted as National Instrument 14-101 Definitions that contains definitions of certain terms used in more than one national instrument. Readers of this Form should review both these national instruments for defined terms.
- (3) The qualified person preparing the technical report should keep in mind that the intended audience is the investing public and their advisors who, in most cases, will not be mining experts. Therefore, to the extent possible, technical reports should be simplified and understandable to a reasonable investor. However, the technical report should include sufficient context and cautionary language to allow a reasonable investor to understand the nature, importance, and limitations of the data, interpretations, and conclusions summarized in the technical report.
- (4) The qualified person preparing the technical report must use all of the headings of Items 1 to 14 and 23 to 27 in this Form and provide the information specified under each heading. For advanced properties, the qualified person must also use the headings of Items 15 to 22 and include the information required under each of these headings. The qualified person may create sub-headings. Disclosure included under one heading is not required to be repeated under another heading.
- (5) The qualified person preparing the technical report may refer to information in a technical report previously filed by the issuer for the subject property if the information is still current and the technical report identifies the title, date and author of the previously filed technical report. However, the qualified person must still summarize or quote the referenced information in the current technical report and may not disclaim responsibility for the referenced information. Except as permitted by subsection 4.2(3) of the Instrument, an issuer may not update or revise a previously filed technical report by filing an addendum.
- (6) While the Form mandates the headings and general format of the technical report, the qualified person preparing the technical report is responsible for determining the level of detail required under each Item based on the qualified person's assessment of the relevance and significance of the information.
- (7) The technical report may only contain disclaimers that are in accordance with section 6.4 of the Instrument and Item 3 of this Form.
- (8) Since a technical report is a summary document the inclusion and filing of comprehensive appendices is not generally necessary to comply with the requirements of the Form.

(9) The Instrument requires certificates and consents of qualified persons, prepared in accordance with sections 8.1 and 8.3 respectively, to be filed at the same time as the technical report. The Instrument does not specifically require the issuer to file the certificate of qualified person as a separate document. It is generally acceptable for the qualified person to include the certificate in the technical report and to use the certificate as the date and signature page.

CONTENTS OF THE TECHNICAL REPORT

Title Page - Include a title page setting out the title of the technical report, the general location of the mineral project, the name and professional designation of each qualified person, and the effective date of the technical report.

Date and Signature Page – The technical report must have a signature page, at either the beginning or end of the technical report, signed in accordance with section 5.2 of the Instrument. The effective date of the technical report and date of signing must be on the signature page.

Table of Contents - Provide a table of contents listing the contents of the technical report, including figures and tables.

Illustrations – Technical reports must be illustrated by legible maps, plans and sections, all prepared at an appropriate scale to distinguish important features. Maps must be dated and include a legend, author or information source, a scale in bar or grid form, and an arrow indicating north. All technical reports must be accompanied by a location or index map and a compilation map outlining the general geology of the property. In addition, all technical reports must include more detailed maps showing all important features described in the text, relative to the property boundaries, including but not limited to

- (a) for exploration projects, areas of previous or historical exploration, and the location of known mineralization, geochemical or geophysical anomalies, drilling, and mineral deposits;
- (b) for advanced properties other than properties under development or in production, the location and surficial outline of mineral resources, mineral reserves, and, to the extent known, areas for potential access and infrastructure; and
- (c) for properties under development or in production, the location of pit limits or underground development, plant sites, tailings storage areas, waste disposal areas, and all other significant infrastructure features.

If information is used from other sources in preparing maps, drawings, or diagrams, disclose the source of the information. If adjacent or nearby properties have an important bearing on the potential of the subject property, the location of the properties and any relevant mineralized structures discussed in the report must be shown in relationship to the subject property.

INSTRUCTION: Summarize and simplify the illustrations so that they are legible and suitable for electronic filing. For ease of reference, consider inserting the illustration in the text of the report in relative proximity to the text they illustrate.

Requirements for All Technical Reports

Item 1: Summary – Briefly summarize important information in the technical report, including property description and ownership, geology and mineralization, the status of exploration, development and operations, mineral resource and mineral reserve estimates, and the qualified person's conclusions and recommendations.

- **Item 2:** Introduction Include a description of
 - (a) the issuer for whom the technical report is prepared;
 - (b) the terms of reference and purpose for which the technical report was prepared;
 - (c) the sources of information and data contained in the technical report or used in its preparation, with citations if applicable; and
 - (d) the details of the personal inspection on the property by each qualified person or, if applicable, the reason why a personal inspection has not been completed.
- **Item 3:** Reliance on Other Experts A qualified person who prepares or supervises the preparation of all or part of a technical report may include a limited disclaimer of responsibility if:
 - (a) The qualified person is relying on a report, opinion, or statement of another expert who is not a qualified person, or on information provided by the issuer, concerning legal, political, environmental, or tax matters relevant to the technical report, and the qualified person identifies
 - (i) the source of the information relied upon, including the date, title, and author of any report, opinion, or statement;
 - (ii) the extent of reliance; and
 - (iii) the portions of the technical report to which the disclaimer applies.
 - (b) The qualified person is relying on a report, opinion, or statement of another expert who is not a qualified person, concerning diamond or other gemstone valuations, or the pricing of commodities for which pricing is not publicly available, and the qualified person discloses
 - (i) the date, title, and author of the report, opinion, or statement;
 - (ii) the qualifications of the other expert and why it is reasonable for the qualified person to rely on the other expert;
 - (iii) any significant risks associated with the valuation or pricing; and
 - (iv) any steps the qualified person took to verify the information provided.
- **Item 4:** Property Description and Location To the extent applicable, describe
 - (a) the area of the property in hectares or other appropriate units;
 - (b) the location, reported by an easily recognizable geographic and grid location system;
 - (c) the type of mineral tenure (claim, license, lease, etc.) and the identifying name or number of each;
 - (d) the nature and extent of the issuer's title to, or interest in, the property including surface rights, legal access, the obligations that must be met to retain the property, and the expiration date of claims, licences, or other property tenure rights;

- (e) to the extent known, the terms of any royalties, back-in rights, payments, or other agreements and encumbrances to which the property is subject;
- (f) to the extent known, all environmental liabilities to which the property is subject;
- (g) to the extent known, the permits that must be acquired to conduct the work proposed for the property, and if the permits have been obtained; and
- (h) to the extent known, any other significant factors and risks that may affect access, title, or the right or ability to perform work on the property.

Item 5: Accessibility, Climate, Local Resources, Infrastructure and Physiography - Describe

- (a) topography, elevation, and vegetation;
- (b) the means of access to the property;
- (c) the proximity of the property to a population centre, and the nature of transport;
- (d) to the extent relevant to the mineral project, the climate and the length of the operating season; and
- (e) to the extent relevant to the mineral project, the sufficiency of surface rights for mining operations, the availability and sources of power, water, mining personnel, potential tailings storage areas, potential waste disposal areas, heap leach pad areas, and potential processing plant sites.

Item 6: History - To the extent known, describe

- (a) the prior ownership of the property and ownership changes;
- (b) the type, amount, quantity, and general results of exploration and development work undertaken by any previous owners or operators;
- (c) any significant historical mineral resource and mineral reserve estimates in accordance with section 2.4 of the Instrument; and
- (d) any production from the property.

INSTRUCTION: If the technical report includes work that was conducted outside the current property boundaries, clearly distinguish this work from the work conducted on the property that is the subject of the technical report.

Item 7: Geological Setting and Mineralization - Describe

- (a) the regional, local, and property geology; and
- (b) the significant mineralized zones encountered on the property, including a summary of the surrounding rock types, relevant geological controls, and the length, width, depth, and continuity of the mineralization, together with a description of the type, character, and distribution of the mineralization.

- **Item 8:** Deposit Types Describe the mineral deposit type(s) being investigated or being explored for and the geological model or concepts being applied in the investigation and on the basis of which the exploration program is planned.
- **Item 9:** Exploration Briefly describe the nature and extent of all relevant exploration work other than drilling, conducted by or on behalf of, the issuer, including
 - (a) the procedures and parameters relating to the surveys and investigations;
 - (b) the sampling methods and sample quality, including whether the samples are representative, and any factors that may have resulted in sample biases;
 - (c) relevant information of location, number, type, nature, and spacing or density of samples collected, and the size of the area covered; and
 - (d) the significant results and interpretation of the exploration information.

INSTRUCTION: If exploration results from previous operators are included, clearly identify the work conducted by or on behalf of the issuer.

Item 10: Drilling - Describe

- (a) the type and extent of drilling including the procedures followed and a summary and interpretation of all relevant results;
- (b) any drilling, sampling, or recovery factors that could materially impact the accuracy and reliability of the results;
- (c) for a property other than an advanced property
 - (i) the location, azimuth, and dip of any drill hole, and the depth of the relevant sample intervals;
 - (ii) the relationship between the sample length and the true thickness of the mineralization, if known, and if the orientation of the mineralization is unknown, state this; and
 - (iii) the results of any significantly higher grade intervals within a lower grade intersection.

INSTRUCTIONS:

- (1) For properties with mineral resource estimates, the qualified person may meet the requirements under Item 10 (c) by providing a drill plan and representative examples of drill sections through the mineral deposit.
- (2) If drill results from previous operators are included, clearly identify the results of drilling conducted by or on behalf of the issuer.

Item 11: Sample Preparation, Analyses, and Security – Describe

(a) sample preparation methods and quality control measures employed before dispatch of samples to an analytical or testing laboratory, the method or process of sample splitting and

- reduction, and the security measures taken to ensure the validity and integrity of samples taken:
- (b) relevant information regarding sample preparation, assaying and analytical procedures used, the name and location of the analytical or testing laboratories, the relationship of the laboratory to the issuer, and whether the laboratories are certified by any standards association and the particulars of any certification;
- (c) a summary of the nature, extent, and results of quality control procedures employed and quality assurance actions taken or recommended to provide adequate confidence in the data collection and processing; and
- (d) the author's opinion on the adequacy of sample preparation, security, and analytical procedures.
- **Item 12:** Data Verification Describe the steps taken by the qualified person to verify the data in the technical report, including
 - (a) the data verification procedures applied by the qualified person;
 - (b) any limitations on or failure to conduct such verification, and the reasons for any such limitations or failure; and
 - (c) the qualified person's opinion on the adequacy of the data for the purposes used in the technical report.
- **Item 13:** Mineral Processing and Metallurgical Testing If mineral processing or metallurgical testing analyses have been carried out, discuss
 - (a) the nature and extent of the testing and analytical procedures, and provide a summary of the relevant results;
 - (b) the basis for any assumptions or predictions regarding recovery estimates;
 - (c) to the extent known, the degree to which the test samples are representative of the various types and styles of mineralization and the mineral deposit as a whole; and
 - (d) to the extent known, any processing factors or deleterious elements that could have a significant effect on potential economic extraction.
- **Item 14:** Mineral Resource Estimates A technical report disclosing mineral resources must
 - (a) provide sufficient discussion of the key assumptions, parameters, and methods used to estimate the mineral resources, for a reasonably informed reader to understand the basis for the estimate and how it was generated;
 - (b) comply with all disclosure requirements for mineral resources set out in the Instrument, including sections 2.2, 2.3, and 3.4;
 - (c) when the grade for a multiple commodity mineral resource is reported as metal or mineral equivalent, report the individual grade of each metal or mineral and the metal prices, recoveries, and any other relevant conversion factors used to estimate the metal or mineral equivalent grade; and

(d) include a general discussion on the extent to which the mineral resource estimates could be materially affected by any known environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors.

INSTRUCTIONS:

- (1) A statement of quantity and grade or quality is an estimate and should be rounded to reflect the fact that it is an approximation.
- (2) Where multiple cut-off grade scenarios are presented, the qualified person must identify and highlight the base case, or preferred scenario. All estimates resulting from each of the cut-off grade scenarios must meet the test of reasonable prospect of economic extraction.

Additional Requirements for Advanced Property Technical Reports

- Item 15: Mineral Reserve Estimates A technical report disclosing mineral reserves must
 - (a) provide sufficient discussion and detail of the key assumptions, parameters, and methods used for a reasonably informed reader to understand how the qualified person converted the mineral resources to mineral reserves;
 - (b) comply with all disclosure requirements for mineral reserves set out in the Instrument, including sections 2.2, 2.3, and 3.4;
 - (c) when the grade for a multiple commodity mineral reserve is reported as metal or mineral equivalent, report the individual grade of each metal or mineral and the metal prices, recoveries, and any other relevant conversion factors used to estimate the metal or mineral equivalent grade; and
 - (d) discuss the extent to which the mineral reserve estimates could be materially affected by mining, metallurgical, infrastructure, permitting, and other relevant factors.
- **Item 16: Mining Methods** Discuss the current or proposed mining methods and provide a summary of the relevant information used to establish the amenability or potential amenability of the mineral resources or mineral reserves to the proposed mining methods. Consider and, where relevant, include
 - (a) geotechnical, hydrological, and other parameters relevant to mine or pit designs and plans;
 - (b) production rates, expected mine life, mining unit dimensions, and mining dilution factors used:
 - (c) requirements for stripping, underground development, and backfilling; and
 - (d) required mining fleet and machinery.

INSTRUCTION: Preliminary economic assessments, pre-feasibility studies, and feasibility studies generally analyse and assess the same geological, engineering, and economic factors with increasing detail and precision. Therefore, the criteria for Items 16 to 22 can be used as a framework for reporting the results of all three studies.

Item 17: Recovery Methods – Discuss reasonably available information on test or operating results relating to the recoverability of the valuable component or commodity and amenability of the mineralization to the proposed processing methods. Consider and, where relevant, include

- (a) a description or flow sheet of any current or proposed process plant;
- (b) plant design, equipment characteristics and specifications, as applicable; and
- (c) current or projected requirements for energy, water, and process materials.
- **Item 18: Project Infrastructure** Provide a summary of infrastructure and logistic requirements for the project, which could include roads, rail, port facilities, dams, dumps, stockpiles, leach pads, tailings disposal, power, and pipelines, as applicable.

Item 19: Market Studies and Contracts

- (a) Provide a summary of reasonably available information concerning markets for the issuer's production, including the nature and material terms of any agency relationships. Discuss the nature of any studies or analyses completed by the issuer, including any relevant market studies, commodity price projections, product valuations, market entry strategies, or product specification requirements. Confirm that the qualified person has reviewed these studies and analyses and that the results support the assumptions in the technical report.
- (b) Identify any contracts material to the issuer that are required for property development, including mining, concentrating, smelting, refining, transportation, handling, sales and hedging, and forward sales contracts or arrangements. State which contracts are in place and which are still under negotiation. For contracts that are in place, discuss whether the terms, rates or charges are within industry norms.
- **Item 20:** Environmental Studies, Permitting, and Social or Community Impact Discuss reasonably available information on environmental, permitting, and social or community factors related to the project. Consider and, where relevant, include
 - (a) a summary of the results of any environmental studies and a discussion of any known environmental issues that could materially impact the issuer's ability to extract the mineral resources or mineral reserves;
 - (b) requirements and plans for waste and tailings disposal, site monitoring, and water management both during operations and post mine closure;
 - (c) project permitting requirements, the status of any permit applications, and any known requirements to post performance or reclamation bonds;
 - (d) a discussion of any potential social or community related requirements and plans for the project and the status of any negotiations or agreements with local communities; and
 - (e) a discussion of mine closure (remediation and reclamation) requirements and costs.
- **Item 21:** Capital and Operating Costs Provide a summary of capital and operating cost estimates, with the major components set out in tabular form. Explain and justify the basis for the cost estimates.
- Item 22: Economic Analysis Provide an economic analysis for the project that includes
 - (a) a clear statement of and justification for the principal assumptions;
 - (b) cash flow forecasts on an annual basis using mineral reserves or mineral resources and an annual production schedule for the life of project;

- (c) a discussion of net present value (NPV), internal rate of return (IRR), and payback period of capital with imputed or actual interest;
- (d) a summary of the taxes, royalties, and other government levies or interests applicable to the mineral project or to production, and to revenue or income from the mineral project; and
- (e) sensitivity or other analysis using variants in commodity price, grade, capital and operating costs, or other significant parameters, as appropriate, and discuss the impact of the results.

INSTRUCTIONS:

- (1) Producing issuers may exclude the information required under Item 22 for technical reports on properties currently in production unless the technical report includes a material expansion of current production.
- (2) The economic analysis in technical reports must comply with paragraphs 2.3(1)(b) and (c), subsections 2.3(3) and (4), and paragraph 3.4(e), of the Instrument, including any required cautionary language.

Requirements for All Technical Reports

- **Item 23:** Adjacent Properties A technical report may include relevant information concerning an adjacent property if
 - (a) such information was publicly disclosed by the owner or operator of the adjacent property;
 - (b) the source of the information is identified;
 - (c) the technical report states that its qualified person has been unable to verify the information and that the information is not necessarily indicative of the mineralization on the property that is the subject of the technical report;
 - (d) the technical report clearly distinguishes between the information from the adjacent property and the information from the property that is the subject of the technical report; and
 - (e) any historical estimates of mineral resources or mineral reserves are disclosed in accordance with paragraph 2.4(a) of the Instrument.
- **Item 24:** Other Relevant Data and Information Include any additional information or explanation necessary to make the technical report understandable and not misleading.
- Item 25: Interpretation and Conclusions Summarize the relevant results and interpretations of the information and analysis being reported on. Discuss any significant risks and uncertainties that could reasonably be expected to affect the reliability or confidence in the exploration information, mineral resource or mineral reserve estimates, or projected economic outcomes. Discuss any reasonably foreseeable impacts of these risks and uncertainties to the project's potential economic viability or continued viability. A technical report concerning exploration information must include the conclusions of the qualified person.
- **Item 26:** Recommendations Provide particulars of recommended work programs and a breakdown of costs for each phase. If successive phases of work are recommended, each phase must culminate in a decision point. The recommendations must not apply to more than two phases of work. The recommendations must state whether advancing to a subsequent phase is contingent on positive results in the previous phase.

INSTRUCTION: In some specific cases, the qualified person may not be in a position to make meaningful recommendations for further work. Generally, these situations will be limited to properties under development or in production where material exploration activities and engineering studies have largely concluded. In such cases, the qualified person should explain why they are not making further recommendations.

Item 27: References - Include a detailed list of all references cited in the technical report.

Form 43-101F1 Technical Report

Table of Contents

TITLE

CONTENTS OF THE TECHNICAL REPORT

Item 1:	Title Page
	Table of Contents Date and Signature Page
10111 2.	T 11 C C
	Illustrations
	THE STATIONS
Item <u>31</u> :	Summary
Item 4 <u>2</u> :	Introduction
Item <u>53</u> :	Reliance on Other Experts
Item <u>64</u> :	Property Description and Location
Item 7 <u>5</u> :	Accessibility, Climate, Local Resources, Infrastructure and Physiography
Item <u>86</u> :	History
Item <u>97</u> :	Geological Setting
Item 10:	— Deposit Types
Item 11:	<u>and Mineralization</u>
Item 12 8:	Deposit Types
Item 9:	Exploration
Item <u>13</u> 10	: Drilling
Item 14:	Sampling Method and Approach
Item 1511	: Sample Preparation, Analyses and Security
Item 16 12	: Data Verification
Item 17:	Adjacent Properties
Item 1813	: Mineral Processing and Metallurgical Testing
Item 19 14	: Mineral Resource and Estimates
<u>Item 15:</u>	_Mineral Reserve Estimates
Item 20:	Other Relevant Data and Information
Item 21:	Interpretation and Conclusions
<u>Item 16:</u>	Mining Methods
	Recovery Methods
	Project Infrastructure
	Market Studies and Contracts
<u>Item 20:</u>	Environmental Studies, Permitting and Social or Community Impact
<u>Item 21:</u>	Capital and Operating Costs
Item 22:	Recommendations Economic Analysis
Item 23:	References Adjacent Properties
Item 24:	DateOther Relevant Data and Signature PageInformation
Item 25:	1 1
	Properties and Production Properties

Item 25: Interpretation and ConclusionsItem 26: IllustrationsItem 26: Illustrations

Item 27: References

Form 43-101F1 Technical Report

INSTRUCTIONS:

- (1) The objective of the technical report is to provide a <u>summary</u> of <u>material</u> scientific and technical information concerning mineral exploration, development, and production activities on a mineral property that is material to an issuer. This Form sets out <u>specific the</u> requirements for the preparation and contents of a technical report.
- (2) Terms used in this Form that are defined or interpreted in National Instrument 43-101 Standards of Disclosure for Mineral Projects (the "Instrument") will bearhave that definition or interpretation. In addition, a general definition instrument has been adopted as National Instrument 14-101 Definitions that contains definitions of certain terms used in more than one national instrument. Readers of this Form should review both these national instruments for defined terms.
- (3) The qualified person preparing the technical report must use all of the headings of the items in this Form and may create sub-headings. If unique or infrequently used technical terms are required, clear and concise explanations must be included. should keep in mind that the intended audience is the investing public and their advisors who, in most cases, will not be mining experts. Therefore, to the extent possible, technical reports should be simplified and understandable to a reasonable investor. However, the technical report should include sufficient context and cautionary language to allow a reasonable investor to understand the nature, importance, and limitations of the data, interpretations, and conclusions summarized in the technical report.
- (4) No disclosure need be given in respect of inapplicable items and, unless otherwise required by this Form, negative answers to items may be omitted (4) The qualified person preparing the technical report must use all of the headings of Items 1 to 14 and 23 to 27 in this Form and provide the information specified under each heading. For advanced properties, the qualified person must also use the headings of Items 15 to 22 and include the information required under each of these headings. The qualified person may create sub-headings. Disclosure included under one heading is not required to be repeated under another heading.
- (5) The technical report is not required to include the information required in Items 6 through 11 of this Form to the extent that the required information has been previously filed in a technical report for the property being reported on, the previous technical report is referred to in the technical report and there has not been any material change in the information (5) The qualified person preparing the technical report may refer to information in a technical report

previously filed by the issuer for the subject property if the information is still current and the technical report identifies the title, date and author of the previously filed technical report. However, the qualified person must still summarize or quote the referenced information in the current technical report and may not disclaim responsibility for the referenced information. Except as permitted by subsection 4.2(3) of the Instrument, an issuer may not update or revise a previously filed technical report by filing an addendum.

- (6) The technical report for development properties and production properties may summarize the information required in the items of this Form, except for Item 25, provided that the summary includes the material information necessary to understand the project at its current stage of development or production.

 (6) While the Form mandates the headings and general format of the technical report, the qualified person preparing the technical report is responsible for determining the level of detail required under each Item based on the qualified person's assessment of the relevance and significance of the information.
- (7) The technical report may only contain disclaimers that are in accordance with section 6.4 of the Instrument and Item 53 of this Form.
- (8) Since a technical report is a summary document the inclusion and filing of comprehensive appendices is not generally necessary to comply with the requirements of the Form.
- (9) The Instrument requires certificates and consents of qualified persons, prepared in accordance with sections 8.1 and 8.3 respectively, to be filed at the same time as the technical report. The Instrument does not specifically require the issuer to file the certificate of qualified person as a separate document. It is generally acceptable for the qualified person to include the certificate in the technical report and to use the certificate as the date and signature page.

CONTENTS OF THE TECHNICAL REPORT

Title Page - Include a title page setting out the title of the technical report, the general location of the mineral project, the name and professional designation of each qualified person, and the effective date of the technical report.

<u>Date and Signature Page – The technical report must have a signature page, at either the beginning or end of the technical report, signed in accordance with section 5.2 of the Instrument. The effective date of the technical report and date of signing must be on the signature page.</u>

Item 2: Table of Contents - Provide a table of contents listing the contents of the technical report, including figures and tables.

Summary Provide a summary that briefly describes the property, its location, Illustrations – Technical reports must be illustrated by legible maps, plans and sections, all prepared at an appropriate scale to distinguish important features. Maps must be dated and include a legend, author or information source, a scale in bar or grid form, and an arrow indicating north. All technical reports must be accompanied by a location or index map and a compilation map outlining the general geology of the property. In addition, all technical reports must include more detailed maps showing all important features described in the text, relative to the property boundaries, including but not limited to

- (a) for exploration projects, areas of previous or historical exploration, and the location of known mineralization, geochemical or geophysical anomalies, drilling, and mineral deposits;
- (b) for advanced properties other than properties under development or in production, the location and surficial outline of mineral resources, mineral reserves, and, to the extent known, areas for potential access and infrastructure; and
- (c) for properties under development or in production, the location of pit limits or underground development, plant sites, tailings storage areas, waste disposal areas, and all other significant infrastructure features.

If information is used from other sources in preparing maps, drawings, or diagrams, disclose the source of the information. If adjacent or nearby properties have an important bearing on the potential of the subject property, the location of the properties and any relevant mineralized structures discussed in the report must be shown in relationship to the subject property.

INSTRUCTION: Summarize and simplify the illustrations so that they are legible and suitable for electronic filing. For ease of reference, consider inserting the illustration in the text of the report in relative proximity to the text they illustrate.

Requirements for All Technical Reports

Item 3: Item 1: Summary — Briefly summarize important information in the technical report, including property description and ownership, geology and mineralization, the exploration concept, the status of exploration, development and operations, mineral resource and mineral reserve estimates, and the qualified person's conclusions and recommendations.

ltem 4: tem 2: Introduction - Include a description of

- (a) whothe issuer for whom the technical report is prepared for;
- (b) thethe terms of reference and purpose for which the technical report was prepared;
- (c) the sources of information and data contained in the technical report or used in its preparation, with citations if applicable; and

- (d) the <u>scopedetails</u> of the personal inspection on the property by each qualified person <u>and author</u> or, if applicable, the reason why a personal inspection has not been completed.
- R eliance on Other Experts If a A qualified person preparing who prepares or supervising supervises the preparation of all or a portion part of the a technical report is relying on a report, opinion or statement of a legal or other expert, who is not a qualified person, for information concerning legal, environmental, political or other issues and factors relevant to the technical report, the qualified person may include a limited disclaimer of responsibility in which the qualified person identifies the report, opinion or statement relied upon, the maker of that report, opinion or statement, if:
 - (a) The qualified person is relying on a report, opinion, or statement of another expert who is not a qualified person, or on information provided by the issuer, concerning legal, political, environmental, or tax matters relevant to the technical report, and the qualified person identifies
 - (i) the source of the information relied upon, including the date, title, and author of any report, opinion, or statement;
 - (ii) the extent of reliance; and
 - the portions of the technical report to which the disclaimer applies.
 - (b) The qualified person is relying on a report, opinion, or statement of another expert who is not a qualified person, concerning diamond or other gemstone valuations, or the pricing of commodities for which pricing is not publicly available, and the qualified person discloses
 - (i) the date, title, and author of the report, opinion, or statement;
 - (ii) the qualifications of the other expert and why it is reasonable for the qualified person to rely on the other expert;
 - (iii) any significant risks associated with the valuation or pricing; and
 - (iv) any steps the qualified person took to verify the information provided.
- ltem 6: tem 4: Property Description and Location To the extent applicable, with respect to each property reported on, describe
 - (a) the area of the property in hectares or other appropriate units;
 - (b) the location, reported by an easily recognizable geographic and grid location system;
 - (c) the type of mineral tenure (eg. claim, license, lease, etc.) and the identifying name or number of each:

- (d) the nature and extent of the issuer's title to, or interest in, the property including surface rights, <u>legal access</u>, the obligations that must be met to retain the property, and the expiration date of claims, licences, or other property tenure rights;
 - (e) how the property boundaries were located;
 - (f) the location of all known mineralized zones, mineral resources, mineral reserves and mine workings, existing tailing ponds, waste deposits and important natural features and improvements, relative to the outside property boundaries;
- (g)(e) to the extent known, the terms of any royalties, back-in rights, payments, or other agreements and encumbrances to which the property is subject;
- (h)(f) to the extent known, all environmental liabilities to which the property is subject; and
- (i)(g) to the extent known, the permits that must be acquired to conduct the work proposed for the property, and if the permits have been obtained—; and
- (h) to the extent known, any other significant factors and risks that may affect access, title, or the right or ability to perform work on the property.

Item 7: Item 5: Accessibility, Climate, Local Resources, Infrastructure and Physiography - With respect to each property reported on, describe Describe

- (a) topography, elevation, and vegetation;
- (b) the means of access to the property;
- (c) the proximity of the property to a population centre, and the nature of transport;
- (d) to the extent relevant to the mineral project, the climate and the length of the operating season; and
- (e) to the extent relevant to the mineral project, the sufficiency of surface rights for mining operations, the availability and sources of power, water, mining personnel, potential tailings storage areas, potential waste disposal areas, heap leach pad areas, and potential processing plant sites.

History - To the extent known, with respect to each property reported on, describe

- (a) the prior ownership of the property and ownership changes;
- (b) the type, amount, quantity, and general results of exploration and development work undertaken by any previous owners or operators;

- (c) <u>any significant</u> historical mineral resource and mineral reserve estimates in accordance with section 2.4 of the Instrument, including the reliability of the historical estimates and whether the estimates are in accordance with the categories set out in sections 1.2 and 1.3 of the Instrument; and
- (d) any production from the property.

INSTRUCTION: If the technical report includes work that was conducted outside the current property boundaries, clearly distinguish this work from the work conducted on the property that is the subject of the technical report.

- <u>Item 7:</u> Geological Setting <u>Include a concise description of and Mineralization Describe</u>
 - Item 9:(a) the regional, local, and property geology; and
 - (b) the significant mineralized zones encountered on the property, including a summary of the surrounding rock types, relevant geological controls, and the length, width, depth, and continuity of the mineralization, together with a description of the type, character, and distribution of the mineralization.
- ltem 10: ltem 8: Deposit Types Describe the mineral deposit type(s) being investigated or being explored for and the geological model or concepts being applied in the investigation and on the basis of which the exploration program is planned.
- Item 11: Mineralization Describe the mineralized zones encountered on the property, the surrounding rock types and relevant geological controls, detailing length, width, depth and continuity, together with a description of the type, character and distribution of the mineralization.
- Item 12: Item 9: Exploration Briefly describe the nature and extent of all relevant exploration work other than drilling, conducted by, or on behalf of, the issuer on each property being reported on, including
 - (a) results of surveys and investigations, and the procedures and parameters relating to the surveys and investigations;
 - (b) an interpretation of the exploration information; and
 - (c) a statement as to whether the surveys and investigations have been carried out by the issuer or by a contractor and, if the latter, identifying the contractor.
- INSTRUCTION: If exploration results from previous operators are included, the qualified person or author must clearly identify the work conducted by, or on behalf of, the issuer.
- Item 13: Drilling Describe the type and extent of drilling including the procedures followed and a summary and interpretation of all results. The relationship between the sample

length and the true thickness of the mineralization must be stated, if known, and if the orientation of the mineralization is unknown, state this.

Item 14: Sampling Method and Approach Provide

- (a) a brief description of sampling methods and relevant details of location, number, type, nature and spacing or density of samples collected, and the size of the area covered:
- (b) a description of any drilling, sampling or recovery factors that could materially impact the accuracy and reliability of the results;
- (e)(b) a discussion of the sample quality, including whether the samples are representative, and any factors that may have resulted in sample biases;
- (c) a description of rock types, geological controls, widths of mineralized zones and other parameters used to establish the sampling interval and identification relevant information of location, number, type, nature, and spacing or density of samples collected, and the size of the area covered; and
- (d) the significant results and interpretation of the exploration information.

INSTRUCTION: If exploration results from previous operators are included, clearly identify the work conducted by or on behalf of the issuer.

Item 10: Drilling - Describe

- (a) the type and extent of drilling including the procedures followed and a summary and interpretation of all relevant results;
- (b) any drilling, sampling, or recovery factors that could materially impact the accuracy and reliability of the results;
- (c) for a property other than an advanced property
 - (i) the location, azimuth, and dip of any drill hole, and the depth of the relevant sample intervals;
 - (ii) the relationship between the sample length and the true thickness of the mineralization, if known, and if the orientation of the mineralization is unknown, state this; and
 - (d)(iii) the results of any significantly higher grade intervals within a lower grade intersection; and.
 - (e) a summary of relevant samples or sample composites with values and estimated true widths.

INSTRUCTIONS:

- (1) For properties with mineral resource estimates, the qualified person may meet the requirements under Item 10 (c) by providing a drill plan and representative examples of drill sections through the mineral deposit.
- (2) If drill results from previous operators are included, clearly identify the results of drilling conducted by or on behalf of the issuer.

<u>Item 11:</u> Sample Preparation, Analyses, and Security — Describe

- Item 15:(a) sample preparation methods and quality control measures employed before dispatch of samples to an analytical or testing laboratory, the method or process of sample splitting and reduction, and the security measures taken to ensure the validity and integrity of samples taken. Include;
 - (a) a statement whether any aspect of the sample preparation was conducted by an employee, officer, director or associate of the issuer;
- (b) details relevant information regarding sample preparation, assaying and analytical procedures used, -the name and location of the analytical or testing laboratories. the relationship of the laboratory to the issuer, and whether the laboratories are certified by any standards association and the particulars of any certification;
 - (c) a summary of the nature and extent of all quality control measures employed and check assay and other check analytical and testing procedures utilized, including the results and corrective actions taken; and
- (c) a statement of a summary of the nature, extent, and results of quality control procedures employed and quality assurance actions taken or recommended to provide adequate confidence in the data collection and processing; and
- (d) the author's opinion on the adequacy of sample preparation, security, and analytical procedures.

ltem 16: Item 12: Data Verification — Include — Describe the steps taken by the qualified person to verify the data in the technical report, including

- (a) <u>a discussion of quality control measures and the</u> data verification procedures applied by the qualified person;
 - (b) a statement as to whether the qualified person has verified the data referred to or relied upon;
 - (c) a discussion of the nature of and any limitations on or failure to conduct such verification; and
- (d)(b) the reasons for any failure to verify the data. such limitations or failure; and

- (c) the qualified person's opinion on the adequacy of the data for the purposes used in the technical report.
- Item 13: Mineral Processing and Metallurgical Testing If mineral processing or metallurgical testing analyses have been carried out, include the results of the testing, details of the testing and analytical procedures, and discuss whether the sample are representative discuss
 - the nature and extent of the testing and analytical procedures, and provide a summary of the relevant results;
 - (b) the basis for any assumptions or predictions regarding recovery estimates;
 - (c) to the extent known, the degree to which the test samples are representative of the various types and styles of mineralization and the mineral deposit as a whole; and
 - (d) to the extent known, any processing factors or deleterious elements that could have a significant effect on potential economic extraction.

<u>Item 14: Mineral Resource Estimates – A technical report disclosing mineral resources must</u>

- (a) provide sufficient discussion of the key assumptions, parameters, and methods used to estimate the mineral resources, for a reasonably informed reader to understand the basis for the estimate and how it was generated;
- (b) comply with all disclosure requirements for mineral resources set out in the Instrument, including sections 2.2, 2.3, and 3.4;
- (c) when the grade for a multiple commodity mineral resource is reported as metal or mineral equivalent, report the individual grade of each metal or mineral and the metal prices, recoveries, and any other relevant conversion factors used to estimate the metal or mineral equivalent grade; and
- (d) include a general discussion on the extent to which the mineral resource estimates could be materially affected by any known environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors.

INSTRUCTIONS:

- (1) A statement of quantity and grade or quality is an estimate and should be rounded to reflect the fact that it is an approximation.
- (2) Where multiple cut-off grade scenarios are presented, the qualified person must identify and highlight the base case, or preferred scenario. All estimates resulting from each of the cut-off grade scenarios must meet the test of reasonable prospect of economic extraction.

Additional Requirements for Advanced Property Technical Reports

Item 15: Mineral Reserve Estimates - A technical report disclosing mineral reserves must

- (a) provide sufficient discussion and detail of the key assumptions, parameters, and methods used for a reasonably informed reader to understand how the qualified person converted the mineral resources to mineral reserves;
- (b) comply with all disclosure requirements for mineral reserves set out in the Instrument, including sections 2.2, 2.3, and 3.4;
- (c) when the grade for a multiple commodity mineral reserve is reported as metal or mineral equivalent, report the individual grade of each metal or mineral and the metal prices, recoveries, and any other relevant conversion factors used to estimate the metal or mineral equivalent grade; and
- (d) discuss the extent to which the mineral reserve estimates could be materially affected by mining, metallurgical, infrastructure, permitting, and other relevant factors.
- Item 16: Mining Methods Discuss the current or proposed mining methods and provide a summary of the relevant information used to establish the amenability or potential amenability of the mineral resources or mineral reserves to the proposed mining methods. Consider and, where relevant, include
 - (a) geotechnical, hydrological, and other parameters relevant to mine or pit designs and plans;
 - (b) production rates, expected mine life, mining unit dimensions, and mining dilution factors used;
 - (c) requirements for stripping, underground development, and backfilling; and
 - (d) required mining fleet and machinery.

INSTRUCTION: Preliminary economic assessments, pre-feasibility studies, and feasibility studies generally analyse and assess the same geological, engineering, and economic factors with increasing detail and precision. Therefore, the criteria for Items 16 to 22 can be used as a framework for reporting the results of all three studies.

- Item 17: Recovery Methods Discuss reasonably available information on test or operating results relating to the recoverability of the valuable component or commodity and amenability of the mineralization to the proposed processing methods. Consider and, where relevant, include
 - (a) a description or flow sheet of any current or proposed process plant;
 - (b) plant design, equipment characteristics and specifications, as applicable; and
 - (c) current or projected requirements for energy, water, and process materials.

Item 18: Project Infrastructure – Provide a summary of infrastructure and logistic requirements for the project, which could include roads, rail, port facilities, dams, dumps, stockpiles, leach pads, tailings disposal, power, and pipelines, as applicable.

<u>Item 19: Market Studies and Contracts</u>

- (a) Provide a summary of reasonably available information concerning markets for the issuer's production, including the nature and material terms of any agency relationships. Discuss the nature of any studies or analyses completed by the issuer, including any relevant market studies, commodity price projections, product valuations, market entry strategies, or product specification requirements.

 Confirm that the qualified person has reviewed these studies and analyses and that the results support the assumptions in the technical report.
- (b) Identify any contracts material to the issuer that are required for property development, including mining, concentrating, smelting, refining, transportation, handling, sales and hedging, and forward sales contracts or arrangements. State which contracts are in place and which are still under negotiation. For contracts that are in place, discuss whether the terms, rates or charges are within industry norms.
- Item 20: Environmental Studies, Permitting, and Social or Community Impact Discuss reasonably available information on environmental, permitting, and social or community factors related to the project. Consider and, where relevant, include
 - (a) a summary of the results of any environmental studies and a discussion of any known environmental issues that could materially impact the issuer's ability to extract the mineral resources or mineral reserves;
 - (b) requirements and plans for waste and tailings disposal, site monitoring, and water management both during operations and post mine closure;
 - (c) project permitting requirements, the status of any permit applications, and any known requirements to post performance or reclamation bonds;
 - (d) a discussion of any potential social or community related requirements and plans for the project and the status of any negotiations or agreements with local communities; and
 - (e) a discussion of mine closure (remediation and reclamation) requirements and costs.
- Item 21: Capital and Operating Costs Provide a summary of capital and operating cost estimates, with the major components set out in tabular form. Explain and justify the basis for the cost estimates.
- <u>Item 22:</u> E conomic Analysis Provide an economic analysis for the project that includes

- (a) a clear statement of and justification for the principal assumptions;
- (b) cash flow forecasts on an annual basis using mineral reserves or mineral resources and an annual production schedule for the life of project;
- (c) a discussion of net present value (NPV), internal rate of return (IRR), and payback period of capital with imputed or actual interest;
- a summary of the taxes, royalties, and other government levies or interests
 applicable to the mineral project or to production, and to revenue or income from the mineral project; and
- (e) sensitivity or other analysis using variants in commodity price, grade, capital and operating costs, or other significant parameters, as appropriate, and discuss the impact of the results.

INSTRUCTIONS:

- (1) Producing issuers may exclude the information required under Item 22 for technical reports on properties currently in production unless the technical report includes a material expansion of current production.
- (2) The economic analysis in technical reports must comply with paragraphs 2.3(1)(b) and (c), subsections 2.3(3) and (4), and paragraph 3.4(e), of the Instrument, including any required cautionary language.

Requirements for All Technical Reports

Item 17: Item 23: Adjacent Properties - A technical report may include relevant information concerning an adjacent property if

- (a) such information was publicly disclosed by the owner or operator of the adjacent property;
- (b) the source of the information is identified;
- (c) the technical report states that its qualified person has been unable to verify the information and that the information is not necessarily indicative of the mineralization on the property that is the subject of the technical report;
- (d) the technical report clearly distinguishes between mineralization on the information from the adjacent property and mineralization on the information from the property being reported on that is the subject of the technical report; and
- (e) <u>if</u> any historical estimates of <u>mineral</u> resources or <u>mineral</u> reserves are <u>included in</u> the technical report, they are disclosed in accordance with <u>section paragraph</u> 2.4(a) of the Instrument.

- Item 18: Mineral Processing and Metallurgical Testing—If mineral processing or metallurgical testing analyses have been carried out, include the results of the testing, details of the testing and analytical procedures, and discuss whether the samples are representative.
- Item 19: Mineral Resource and Mineral Reserve Estimates A technical report disclosing mineral resources or mineral reserves must
 - (a) use only the applicable mineral resource and mineral reserve categories set out in sections 1.2 and 1.3 of the Instrument;
 - (b) report each category of mineral resources and mineral reserves separately and if both mineral resources and mineral reserves are disclosed, state the extent, if any, to which mineral reserves are included in total mineral resources;
 - (c) not add inferred mineral resources to the other categories of mineral resources:
 - (d) disclose the name, qualifications and relationship, if any, to the issuer of the qualified person who estimated mineral resources and mineral reserves;
 - (e) include appropriate details of quantity and grade or quality for each category of mineral resources and mineral reserves:
 - (f) include details of the key assumptions, parameters and methods used to estimate the mineral resources and mineral reserves:
 - (g) include a general discussion on the extent to which the estimate of mineral resources and mineral reserves may be materially affected by any known environmental, permitting, legal, title, taxation, socio economic, marketing, political or other relevant issues;
 - (h) identify the extent to which the estimates of mineral resources and mineral reserves may be materially affected by mining, metallurgical, infrastructure and other relevant factors:
 - (i) use only indicated mineral resources, measured mineral resources, probable mineral reserves and proven mineral reserves when referring to mineral resources or mineral reserves in an economic analysis that is used in a preliminary feasibility study or a feasibility study of a mineral project;
 - (j) if inferred mineral resources are used in an economic analysis, state the required disclosure set out in subsection 2.3(3) of the Instrument;
 - (k) when the results of an economic analysis of mineral resources are reported, state "mineral resources that are not mineral reserves do not have demonstrated economic viability";

- (l) state the grade or quality, quantity and category of the mineral resources and mineral reserves if the quantity of contained metal or mineral is reported; and
- (m) when the grade for a polymetallic mineral resource or mineral reserve is reported as metal equivalent, report the individual grade of each metal, and consider and report the recoveries, refinery costs and all other relevant conversion factors in addition to metal prices and the date and sources of such prices.
- INSTRUCTION: A statement of quantity and grade or quality is an estimate and should be rounded to reflect the fact that it is an approximation.
- Item 20: Item 24: Other Relevant Data and Information Include any additional information or explanation necessary to make the technical report understandable and not misleading.
- Interpretation and Conclusions Summarize the relevant results and interpretations of all field surveys, analytical and testing data and other relevant the information. Discuss the adequacy of data density and the data reliability as well as any areas of uncertainty, and analysis being reported on. Discuss any significant risks and uncertainties that could reasonably be expected to affect the reliability or confidence in the exploration information, mineral resource or mineral reserve estimates, or projected economic outcomes. Discuss any reasonably foreseeable impacts of these risks and uncertainties to the project's potential economic viability or continued viability. A technical report concerning exploration information must include the conclusions of the qualified person. The qualified person must discuss whether the completed project met its original objectives.
- Item 22: Item 26: Recommendations Provide particulars of the recommended work programs and a breakdown of costs for each phase. If successive phases of work are recommended, each phase must culminate in a decision point. The recommendations must not apply to more than two phases of work. The recommendations must state whether advancing to a subsequent phase is contingent on positive results in the previous phase.

INSTRUCTION: In some specific cases, the qualified person may not be in a position to make meaningful recommendations for further work. Generally, these situations will be limited to properties under development or in production where material exploration activities and engineering studies have largely concluded. In such cases, the qualified person should explain why they are not making further recommendations.

- Item 23: Item 27: References Include a detailed list of all references cited in the technical report.
- Item 24: Date and Signature Page The technical report must have a signature page at the end, signed in accordance with section 5.2 of the Instrument. The effective date of the technical report and date of signing must be on the signature page.

- Item 25: Additional Requirements for Technical Reports on Development Properties and Production Properties—Technical reports on development properties and production properties must include
 - (a) Mining Operations information and assumptions concerning the mining method, metallurgical processes and production forecast;
 - (b) Recoverability information concerning all test and operating results relating to the recoverability of the valuable component or commodity and amenability of the mineralization to the proposed processing methods;
 - (c) Markets information concerning the markets for the issuer's production and the nature and material terms of any agency relationships;
 - (d) Contracts—a discussion of whether the terms of mining, concentrating, smelting, refining, transportation, handling, sales and hedging and forward sales contracts or arrangements, rates or charges are within industry norms;
 - (e) Environmental Considerations a discussion of bond posting, remediation and reclamation:
 - (f) Taxes a description of the nature and rates of taxes, royalties and other government levies or interests applicable to the mineral project or to production, and to revenues or income from the mineral project;
 - (g) Capital and Operating Cost Estimates capital and operating cost estimates, with the major components being set out in tabular form;
 - (h) Economic Analysis an economic analysis with cash flow forecasts on an annual basis using proven mineral reserves and probable mineral reserves only, and sensitivity analyses with variants in metal prices, grade, capital and operating costs;
 - (i) Payback a discussion of the payback period of capital with imputed or actual interest; and
 - (j) Mine Life a discussion of the expected mine life and exploration potential.

Item 26: Illustrations

(a) Technical reports must be illustrated by legible maps, plans and sections, which may be located in the appropriate part of the report. All technical reports must be accompanied by a location or index map and more detailed maps showing all important features described in the text. In addition, technical reports must include a compilation map outlining the general geology of the property and areas of historical exploration. The location of all known mineralization, anomalies, deposits, pit limits, plant sites, tailings storage areas, waste disposal areas and all other significant features must be

- shown relative to property boundaries. If information is used, from other sources, in preparing maps, drawings, or diagrams, disclose the source of the information.
- (b) If adjacent or nearby properties have an important bearing on the potential of the property under consideration, their location and any mineralized structures common to two or more such properties must be shown on the maps.
- (c) If the potential merit of a property is predicated on geophysical or geochemical results, maps showing the results of surveys and their interpretations must be included in the technical report.
- (d) Maps must include a scale in bar form and an arrow indicating north.

INSTRUCTION: Illustrations should be sufficiently summarized and simplified so that they are not oversized and are suitable for electronic filing.