

## Chapter 5

# Rules and Policies

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### 5.1.1 National Instrument 43-101 - Standards of Disclosure for Mineral Projects, Form 43-101F1 and Companion Policy 43-101CP

#### NATIONAL INSTRUMENT 43-101 STANDARDS OF DISCLOSURE FOR MINERAL PROJECTS

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**NATIONAL INSTRUMENT 43-101  
STANDARDS OF DISCLOSURE FOR MINERAL PROJECTS**

**PART 1 DEFINITIONS AND INTERPRETATION**

**1.1 Definitions** - In this Instrument

“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;

“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 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;

“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 mineral resources or mineral reserves prepared prior to February 1, 2001;

“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 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 Mineral 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*;

“preliminary assessment” means a study 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 for the issuer’s most recently completed financial year; and
- (b) gross revenues, derived from mining operations, of at least \$90 million 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 listed in Appendix A;
- (b) admits individuals on the basis of their academic qualifications and experience;
- (c) requires compliance with the professional standards of competence and ethics established by the organization; and
- (d) has disciplinary powers, including the power to suspend or expel a member;

“qualified person” means an individual who

- (a) is an engineer or geoscientist with at least five years of experience in mineral exploration, mine development or operation or mineral project assessment, or any combination of these;
- (b) has experience relevant to the subject matter of the mineral project and the technical report; and
- (c) 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;

“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 Reporting of Mineral Resources and Mineral Reserves prepared by the South African Mineral Committee (SAMREC) under the auspices of the South African Institute of Mining and Metallurgy (SAIMM), 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;

“technical report” means a report prepared and filed in accordance with this Instrument and Form 43-101F1 Technical Report that does not omit any material scientific and technical information in respect of the subject property as of the date of the filing of the report; and

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

**1.2 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 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, 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 based upon information prepared by or under the supervision of 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) 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.

### **2.3 Prohibited Disclosure**

- (1) An issuer must not make any disclosure of the
  - (a) 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) results of an economic analysis that includes inferred mineral resources.
- (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 further exploration if the disclosure
  - (a) includes a statement 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.
- (3) Despite paragraph (1)(b), an issuer may disclose a preliminary assessment that includes inferred mineral resources if
  - (a) the results of the preliminary assessment are a material change or a material fact with respect to the issuer; and
  - (b) the disclosure
    - (i) includes a statement that the preliminary 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 assessment will be realized; and

- (ii) states the basis for the preliminary assessment and any qualifications and assumptions made by the qualified person.
- (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 1.1.

**2.4 Disclosure of Historical Estimates** – Despite section 2.2, an issuer may disclose an historical estimate using the historical terminology if the disclosure

- (a) identifies the source and date of the historical estimate;
- (b) comments on the relevance and reliability of the historical estimate;
- (c) 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
- (d) includes any more recent estimates or data available to the issuer.

**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 prepared or supervised the preparation of the information that forms the basis for the written disclosure.

**3.2 Written Disclosure to Include Data Verification** - Subject to section 3.5, 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 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 an issuer discloses in writing sample, analytical or test results on a property material to the issuer, the issuer must include in the written disclosure
  - (a) a summary description of the geology, mineral occurrences 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;
- (d) any drilling, sampling, recovery or other factors that could materially affect the accuracy or reliability of the data referred to in this subsection;
- (e) 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 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; and
- (e) a 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.

**3.5 Exception for Written Disclosure Already Filed** - Sections 3.2 and 3.3 and paragraphs 3.4 (a), (c) and (d) do not apply if the issuer includes in the written disclosure a reference to the title and date of a previously filed document 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 mineral project on each 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.

**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 a mineral project on a property material to the issuer, or in the case of paragraph (c) below, the resulting issuer:
  - (a) a preliminary prospectus, other than a preliminary short form prospectus filed in accordance with NI 44-101;
  - (b) a preliminary short form prospectus filed in accordance with NI 44-101 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;
  - (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 the TSX Venture Exchange policy;
  - (i) a take-over bid circular that discloses a preliminary assessment or mineral resources or mineral reserves on a 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
    - (i) first time disclosure of a preliminary assessment or mineral resources or mineral reserves on a property material to the issuer that constitutes a material change in respect of the affairs of the issuer; or
    - (ii) a change in a preliminary assessment or in mineral resources or mineral reserves from the most recently filed technical report that constitutes a material change in respect of the affairs of the issuer.
- (2) Subsection (1) does not apply for disclosure of an historical estimate in a document referred to in paragraph (j) of that subsection if the disclosure
- (a) is in accordance with section 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 filed under paragraph (a) or (b) of subsection (1) before the filing of the final version of a 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), the technical report referred to in subsection (1) must be filed not later than the time the document listed in subsection (1) that it 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 must

- (a) be filed not later than 45 days after the news release; and
  - (b) if there are any material differences in the mineral resources or mineral reserves between the technical report filed and the news release, be accompanied by a news release that reconciles those differences.
- (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.
- (8) Subsection (1) does not apply if
- (a) the issuer has 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
  - (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.

**4.3 Required Form of Technical Report** - A technical report that is required to be filed under this Part must be prepared in accordance with Form 43-101F1.

#### **PART 5 AUTHOR OF TECHNICAL REPORT**

**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) 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.

#### **5.3 Independent Technical Report**

- (1) Subject to subsection (2), a technical report required under any of the following provisions of this Instrument must be prepared by or under the supervision of a qualified person that is, at the date of the technical report, 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), (j) of subsection 4.2(1) if the document discloses
    - (i) for the first time a preliminary assessment or mineral resources or mineral reserves on a property material to the issuer, or
    - (ii) a 100 percent or greater change, from 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.
- (2) A technical report required to be filed by a producing issuer under paragraph (c) of subsection (1) is not required to be prepared by or under the supervision of an independent qualified person.

- (3) 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, 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 producing issuer that is a participant in the joint venture.

## **PART 6 PREPARATION OF TECHNICAL REPORT**

**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.

### **6.2 Current Personal Inspection**

- (1) Subject to subsections (2) and (3), 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.
- (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.
- (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** – An issuer must not file a technical report that contains a disclaimer by any qualified person responsible for preparing or supervising the preparation of the report that

- (a) disclaims responsibility for, or reliance on, that portion 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.

## **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;

may make disclosure and file a technical report that utilizes 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 a reconciliation to the mineral resource and mineral reserve 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

### 8.1 Certificates of Qualified Persons

- (1) An issuer must, when filing a technical report, file a certificate of each qualified person responsible for preparing or supervising the preparation of each portion of the technical report and the certificate must be dated, signed and, if the signatory has a seal, sealed.
- (2) A certificate under subsection (1) must state
  - (a) the name, address and occupation of the qualified person;
  - (b) the title and 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 1.4;
  - (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 has been prepared in compliance with this Instrument; and
  - (i) that, as of the date of the certificate, to the best of the qualified person's knowledge, information and belief, the technical report 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** - An issuer must, when filing a technical report, file a statement of each qualified person responsible for preparing or supervising the preparation of each portion 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 to extracts from, or a summary of, the technical report in the written disclosure being filed; and
- (b) confirming that the qualified person has read the written disclosure being filed and that it fairly and accurately represents the information in the technical report that supports the disclosure.

## PART 9 EXEMPTIONS

### 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.
- (2) Despite subsection (1), in Ontario, only the regulator may grant such an exemption.
- (3) Except in Ontario, an exemption referred to in subsection (1) is granted under the statute referred to in Appendix B of National Instrument 14-101 *Definitions* opposite the name of the local jurisdiction.

**9.2 Limited Exemption for Royalty Interests or Similar Interests**

- (1) 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
  - (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.
- (2) Paragraphs (1)(a) and (b) only apply if the issuer
  - (a) has requested but has not received access to the necessary data from the operating company 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 company 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 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 10 EFFECTIVE DATE**

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

APPENDIX A

RECOGNIZED FOREIGN ASSOCIATIONS AND DESIGNATIONS

Foreign Association	DESIGNATION
American Institute of Professional Geologists (AIPG)	Certified Professional Geologist
Any state in the United States of America	Licensed or certified as a professional engineer
Mining and Metallurgical Society of America (MMSA)	Qualified Professional
European Federation of Geologists (EFG)	European Geologist
Australasian Institute of Mining and Metallurgy (AusIMM)	Fellow or member
Institute of Materials, Minerals and Mining (IMMM)	Fellow or professional member
Australian Institute of Geoscientists (AIG)	Fellow or member
South African Institute of Mining and Metallurgy (SAIMM)	Fellow
South African Council for Natural Scientific Professions (SACNASP)	Professional Natural Scientist
Institute of Geologists of Ireland (IGI)	Professional Member
Geological Society of London (GSL)	Chartered Geologist
National Association of State Boards of Geology (ASBOG)	Licensed or certified in: Alabama, Arizona, 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

**FORM 43-101F1  
TECHNICAL REPORT**

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**FORM 43-101F1  
TECHNICAL REPORT**

INSTRUCTIONS

- (1) *The objective of the technical report is to provide a summary of 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 specific 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 bear 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.*
- (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. 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.*
- (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.*
- (7) *The technical report may only contain disclaimers that are in accordance with section 6.4 of the Instrument and Item 5 of this Form.*

## CONTENTS OF THE TECHNICAL REPORT

- Item 1:** **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.
- Item 2:** **Table of Contents** - Provide a table of contents listing the contents of the technical report, including figures and tables.
- Item 3:** **Summary** - Provide a summary that briefly describes the property, its location, ownership, geology and mineralization, the exploration concept, the status of exploration, development and operations and the qualified person's conclusions and recommendations.
- Item 4:** **Introduction** - Include a description of
- (a) who the technical report is prepared for;
  - (b) the 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 scope of the personal inspection on the property by each qualified person and author or, if applicable, the reason why a personal inspection has not been completed.
- Item 5:** **Reliance on Other Experts** - If a qualified person preparing or supervising the preparation of all or a portion of the 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 disclaimer of responsibility in which the qualified person identifies the report, opinion or statement relied upon, the maker of that report, opinion or statement, the extent of reliance and the portions of the technical report to which the disclaimer applies.
- Item 6:** **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) 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, 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) 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) to the extent known, all environmental liabilities to which the property is subject; and
  - (i) 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.
- Item 7:** **Accessibility, Climate, Local Resources, Infrastructure and Physiography** - With respect to each property reported on, 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 8: 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) 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.

**Item 9: Geological Setting** - Include a concise description of the regional, local and property geology.

**Item 10: 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: Exploration** - Describe the nature and extent of all relevant exploration work 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;
- (c) a discussion of the sample quality, including whether the samples are representative, and any factors that may have resulted in sample biases;

- (d) a description of rock types, geological controls, widths of mineralized zones and other parameters used to establish the sampling interval and identification 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.

**Item 15: Sample Preparation, Analyses and Security** - Describe 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 regarding sample preparation, assaying and analytical procedures used, the name and location of the analytical or testing laboratories 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
- (d) a statement of the author's opinion on the adequacy of sample preparation, security and analytical procedures.

**Item 16: Data Verification** - Include

- (a) a discussion of quality control measures and data verification procedures applied;
- (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 such verification; and
- (d) the reasons for any failure to verify the data.

**Item 17: Adjacent Properties** - A technical report may include 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 adjacent property and mineralization on the property being reported on; and
- (e) if any historical estimates of resources or reserves are included in the technical report, they are disclosed in accordance with section 2.4 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:** **Other Relevant Data and Information** - Include any additional information or explanation necessary to make the technical report understandable and not misleading.

**Item 21:** **Interpretation and Conclusions** - Summarize the results and interpretations of all field surveys, analytical and testing data and other relevant information. Discuss the adequacy of data density and the data reliability as well as any areas of uncertainty. 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:** **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.

**Item 23:** **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.*

**COMPANION POLICY 43-101CP  
TO NATIONAL INSTRUMENT 43-101  
STANDARDS OF DISCLOSURE FOR MINERAL PROJECTS**

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**COMPANION POLICY 43-101CP  
TO NATIONAL INSTRUMENT 43-101  
STANDARDS OF DISCLOSURE FOR MINERAL PROJECTS**

This companion policy sets out the views of the Canadian Securities Administrators (the “CSA”) as to the manner in which the CSA interprets and applies certain provisions of National Instrument 43-101 and Form 43-101F1 (the “Instrument”), and how the securities regulatory authorities or regulators (the “Securities Regulatory Authorities”) may exercise their discretion in respect of certain applications for exemption from provisions of the Instrument.

**PART 1 APPLICATION AND TERMINOLOGY**

- 1.1 Supplements Other Requirements** – The Instrument supplements other continuous disclosure requirements of securities legislation that apply to reporting issuers in all business sectors.
- 1.2 Evolving Industry Standards and Modifications to the Instrument** - Mining industry practice and professional standards are evolving in Canada and internationally. The Securities Regulatory Authorities will monitor developments in these fields and will solicit and consider recommendations from their staff and external advisers as to whether modifications to the Instrument are appropriate.
- 1.3 Application of the Instrument** - The definition of “disclosure” under 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.
- 1.4 Mineral Resources and Mineral Reserves Definitions** - The Instrument incorporates by reference the definitions and categories of mineral resources and mineral reserves as set out in the Canadian Institute of Mining, Metallurgy and Petroleum (the “CIM”) Definition Standards on Mineral Resources and Mineral Reserves (the “CIM Definition Standards”) adopted by the CIM Council on November 14, 2004, as amended.
- 1.5 Best Practices Guidelines for Mineral Resources and Mineral Reserves** - A qualified person classifying a mineral deposit as a mineral resource or mineral reserve should follow the CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines adopted by CIM on November 23, 2003, as amended. These guidelines are posted on [www.cim.org](http://www.cim.org).

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, issuers are required by section 2.2 of the Instrument 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. The CSA believes it is not reasonable to apply Paper 88-21 to foreign coal properties.

- 1.6 Best Practices Guidelines for Mineral Exploration** - Issuers and qualified persons should follow the Mineral Exploration Best Practices Guidelines adopted by CIM, published in June 2000, as amended.

Disclosure regarding the reporting of diamond exploration sampling results should conform to the CIM Guidelines for Reporting of Diamond Exploration Results adopted by CIM in March 2003, as amended.

These guidelines are posted on [www.cim.org](http://www.cim.org).

- 1.7 Preliminary Assessments** - The term “preliminary assessment”, commonly referred to as a scoping study, is defined in the Instrument. A preliminary assessment may be based on measured, indicated, or inferred mineral resources, or a combination of any of these. The CSA considers these types of economic analyses to include disclosure of forecast mine production rates that may contain capital costs to develop and sustain the mining operation, operating costs, and projected cash flows. A preliminary assessment must be either in the form of a technical report or be supported by a technical report. In some cases the technical report must be independent.

Although preliminary assessments can provide important information to the market, because of the early stage of the project the information has a high degree of uncertainty. An issuer may mislead investors if it does not disclose this information properly. Under general securities laws, an issuer must disclose a preliminary assessment that is a material change in its affairs. In so doing, an issuer may trigger a technical report under section 4.2(1)(j) of the Instrument. When an issuer discloses the results of a preliminary assessment, section 3.4(e) of the Instrument requires a

cautionary statement. If the preliminary assessment includes inferred mineral resources, an issuer must provide the cautionary statement required by section 2.3(3)(b) of the Instrument. The purpose of these cautionary statements is to alert investors to the limitations of the information. We expect the issuer to include these cautionary statements in the same paragraph as, or immediately following, the disclosure of the preliminary assessment.

- 1.8 Objective Standard of Reasonableness** - Issuers should apply an objective standard of reasonableness in making a determination about the definitions or application of a requirement in the Instrument. Where a determination turns on reasonableness, the test is what a person acting reasonably would conclude. It is not sufficient for an officer of an issuer or a qualified person to determine that he or she personally believes the matter under consideration. The person must form an opinion as to what a reasonable person would believe in the circumstances. Formulating definitions using an objective test strengthens the basis upon which the Securities Regulatory Authority may object to a person's unreasonable application of a definition.
- 1.9 Improper Use of Terms in the French Language** - An issuer that prepares its disclosure using the French language must ensure that it uses the proper terms when referring to a mineral deposit. In the French language, an issuer must not use the words "gisement" and "gîte" interchangeably. 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. An issuer must use these terms properly so that investors understand whether the deposit has demonstrated economic viability.
- 1.10 Royalty Interests and Other Similar Interests** - The definition of "mineral project" under the Instrument includes a royalty interest or other similar interest. Scientific and technical disclosure regarding all types of royalty interests in a mineral project is subject to NI 43-101. "Royalty interest or other similar interest" includes gross overriding royalty, net smelter return, net profit interest, free carried interest, and a product tonnage royalty.

A company that holds any such interest in a mineral project and has triggered one of the requirements to file a technical report under section 4.2(1) of the Instrument may rely on the limited relief under section 9.2 of the Instrument. Section 9.2 exempts the royalty holder from having to complete a personal inspection of the property and those items under Form 43-101F1 that the royalty holder is unable to complete because it meets the condition specified in section 9.2(2)(a). It must also comply with the disclosure requirements under section 9.2(2)(b) and (c). Generally, the CSA considers a company with a royalty interest or similar interest would meet the condition in section 9.2(2)(a) if the arrangements or agreements between the royalty holder and the operating company limit the royalty holder to auditing the production or financial records, without the ability to participate in decisions to expend funds on the mineral project. If the royalty holder's arrangements or agreements involve the sharing of capital costs or operating losses, the CSA expects the royalty holder will make arrangements to access the necessary data from the operating company.

## PART 2 DISCLOSURE

- 2.1 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. Issuers are strongly urged to have 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.
- 2.2 Use of Plain Language** - Disclosure made by or on behalf of an issuer regarding mineral projects on properties material to the issuer should be understandable. Issuers should present written disclosure in an easy to read format using clear and unambiguous language. Wherever possible, issuers should present data in table format. The CSA recognizes that the technical report does not lend itself well to plain language and therefore urge issuers to consult the responsible qualified person when restating the data and conclusions from a technical report in plain language in its public disclosure.
- 2.3 Prohibited Disclosure**
- (1) Section 2.3(1) of the Instrument prohibits the disclosure of the quantity, grade, or metal or mineral content of a deposit that has not been categorized as required. It also prohibits the disclosure of the results of an economic analysis, including a preliminary assessment, preliminary feasibility study, and a feasibility study, that includes inferred resources. However, pursuant to section 2.3(2) and (3), respectively, these prohibitions are excepted for quantity and grade of exploration targets expressed as ranges and for preliminary assessments that

include inferred mineral resources if the disclosure is accompanied by the cautionary statements required in those sections. Also, this disclosure must be based on information prepared by or under the supervision of a qualified person. For preliminary assessments, the cautionary statement under section 3.4(e) is also required. We expect the issuer to include these cautionary statements in the same paragraph as, or immediately following, the disclosure permitted by these exceptions.

- (2) An issuer may only rely on the exemption under section 2.3(3) to disclose an economic analysis that includes inferred resources if the project has not reached the preliminary feasibility study stage. If a project is in or has advanced past the preliminary feasibility study stage, the CSA considers that any economic analysis done later anywhere on the project is not a preliminary assessment. The CSA also considers a mine plan on a developed mine to have advanced past the preliminary feasibility study stage.

## 2.4 Materiality

- (1) Management of the issuer should determine materiality. It should be determined 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.
- (2) In assessing materiality, issuers should refer to the definition of material fact in securities legislation, which in most jurisdictions means a fact that significantly affects or would reasonably be expected to have a significant effect on the market price or value of the securities of the issuer. In making materiality judgements, issuers should take into account a number of factors that cannot be captured in a simple bright-line standard or test. An issuer must consider the 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 may be material tomorrow; an item of information that is immaterial alone may be material if it is aggregated with other items.

For example:

- (a) materiality of a property should be assessed in light of the extent of the interest in the property held, or to be acquired, by the issuer. A small interest in a sizeable property may, in the circumstances, not be material to the issuer;
- (b) in assessing whether interests represented by multiple claims or other documents of title constitute a single property for the purpose of the Instrument, issuers should consider that several non-material properties in a contiguous cluster may, when taken as a whole, be a property material to the issuer; and
- (c) when disclosing results of a drilling program the results from a single hole may not be material in itself. However, the results of several holes, in aggregate, could be material to the issuer.

**2.5 Material Information not yet Confirmed by a Qualified Person** - Issuers are reminded that they have an obligation under securities legislation to disclose material facts and to make timely disclosure of material changes. The CSA recognizes that there may be circumstances in which the 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 CSA suggests that issuers 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 should issue a news release and the basis of confidentiality will end. Issuers are also reminded that during the period of confidentiality, prohibitions against tipping and trading by persons in a special relationship to the issuer apply until the information is disclosed to the public. Issuers should also refer to National Policy 51-201 Disclosure Standards for further guidance about materiality and timely disclosure obligations.

**2.6 Exception for Disclosure Previously Filed** - Section 3.5 of the Instrument provides that the disclosure requirements of sections 3.2, 3.3, and 3.4 (a), (c), and (d) of the Instrument may be satisfied by referring to a previously filed document that includes the required disclosure. Issuers relying on this exception are reminded that all disclosure should provide sufficient information to permit market participants to make informed investment decisions and should not present or omit information in a manner that is misleading.

**2.7 Meaning of Technical Report** - A report may constitute a technical report, 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 there has been no material change in the scientific and technical information prior to the required filing date. A change to mineral resources or mineral reserves due to mining depletion from a producing property generally will not be

considered to be a material change to the property as it should be reasonably predictable based on a company's continuous disclosure record.

- 2.8 Exception from Requirement to File Technical Report if Information Previously Filed in a Technical Report** - The Instrument contains relief under section 4.2(1)(b), (f), and (8) from the technical report filing requirement in certain instances. If an issuer has disclosed scientific and technical information on a mineral property in any of the documents enumerated under section 4.2(1) of the Instrument, the issuer will not be required to prepare and file a technical report with that disclosure unless the disclosure contains new, material scientific and technical information about that mineral property not supported by a previously filed technical report. In order to rely on the exception to the requirement to re-file a previously filed technical report under section 4.2(8) of the Instrument, the issuer must file updated qualified persons' certificates and consents required under Part 8 of the Instrument with that disclosure.

For a preliminary short form prospectus and an annual information form, the issuer will not be required to file a technical report with the disclosure unless the disclosure contains new, material scientific and technical information about that mineral property not contained in an annual information form, prospectus, or material change report filed before February 1, 2001.

**2.9 Use of Historical Estimates**

- (1) An issuer can disclose an estimate of resources or reserves made before February 1, 2001 using the historical terminology of the estimate provided the issuer complies with the conditions set out in section 2.4 of the Instrument. An issuer will trigger the filing of a technical report if it makes disclosure of the historical estimate as if it is a current estimate.
- (2) Under section 2.4(a), we expect disclosure of historical estimates from third party reports, including government databases, to identify the original source and date of the estimates.
- (3) Under section 2.4(b), when commenting on relevance and reliability, we expect an issuer to discuss the key assumptions and parameters that were used for the historical estimate. An issuer should consider whether the estimates are suitable for public disclosure.
- (4) The announcement of an acquisition of a mineral project that includes the disclosure of an historical estimate will not trigger the requirement to file a technical report under section 4.2(1)(j) of the Instrument if the issuer makes the cautionary statements required under section 4.2(2)(b)(i) to (iii). We expect the issuer to include the cautionary statements required under this section in the same paragraph as, or immediately following, the disclosure of the historical estimate.
- (5) The CSA will conclude the issuer is treating the historical estimate as a current resource or reserve in its disclosure when, for example, it states it will be adding on or building on that resource or reserve base, includes them in an economic analysis, or adds them to current resource or reserve estimates. In that case, the issuer will have triggered the requirement to file a technical report within the 45-day period set out under section 4.2(5) of the Instrument if:
  - (a) the property, or interest in the property, is material to the issuer, and
  - (b) the acquisition of the resources or reserves is a material change in the affairs of the issuer.
- (6) If the issuer has not signed a formal agreement at the time of the disclosure, but is conducting its day to day operations in reliance on the terms of a letter of intent or memorandum of understanding, then the 45-day period will begin to run from the time the issuer first discloses the historical estimate as a current resource or reserve.
- (7) If the agreement is subject to conditions such as the approval of a third party or the completion of a due diligence review, the technical report is still required to be filed within 45 days after the issuer discloses the historical estimate as a current resource or reserve. However, the issuer may apply for relief to extend the 45-day period. Whether or not the securities regulators will grant such relief will depend on the circumstances.

- 2.10 Use of Other Foreign Codes** - Issuers are prohibited from disclosing mineral resources or mineral reserves using foreign codes other than those permitted under Part 7 of 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 historical and are not in accordance with the CIM Definition Standards or the alternative codes under Part 7, the issuer may apply for an exemption under section 9.1 of the Instrument.

Issuers are reminded that they have an obligation under securities legislation to disclose material facts and to make timely disclosure of material changes. Therefore, the issuer should arrange its affairs in advance to comply with those requirements and the requirements in the Instrument if it is considering the acquisition of a foreign property and wishes to disclose estimates using foreign codes not permitted under the Instrument. Issuers that have difficulty doing this should consider filing a confidential material change report and maintain a period of confidentiality until they obtain an exemption or convert the estimates and disclose them in accordance with the Instrument. Issuers should also refer to section 2.5 of this Companion Policy for further guidance about timely disclosure obligations.

Issuers may also consider disclosing the quantity and grade of mineralization as an exploration target as provided under section 2.3(2) of the Instrument.

### **PART 3 AUTHOR OF THE TECHNICAL REPORT**

**3.1 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 in the Instrument of qualified person, including having the relevant experience and competence for the subject matter of the technical report.

**3.2 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 person who is not a 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 and must take whatever steps are appropriate, in his or her professional judgement, to ensure that the work, information or advice that he or she relies upon is sound.

**3.3 More than One Qualified Person** - Section 5.1 of the Instrument provides that a technical report must be prepared by or under the supervision of one or more qualified persons. Several qualified persons may author different portions of the report. In that case, each of them must provide a certificate and consent required under Part 8 of the Instrument.

When one or more qualified persons prepare a technical report that includes a mineral resource or mineral reserve estimate prepared by another qualified person for a previously filed technical report, 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 that information.

### **3.4 Exemption from Qualified Person Requirement**

(1) The CSA recognizes that certain individuals who currently provide technical expertise to issuers will not be considered qualified persons for purposes of the Instrument. An issuer may apply under section 9.1 of the Instrument for an exemption from the requirement for involvement of a qualified person and the acceptance of another person. The application should demonstrate the person's experience, competence and qualification to prepare the technical report or other information in support of the disclosure despite the fact that he or she does not meet the requirements set out in the definition in the Instrument of qualified person.

(2) Requests for exemption from the requirement that the qualified person belong to a professional association will rarely be granted. Where an issuer wishes to retain a person who is well qualified and who does not belong to a professional association because no association exists in his or her jurisdiction or because it is not a requirement for members of his or her profession to be registered in the jurisdiction, Securities Regulatory Authorities will consider granting an exemption. However, if there is any other qualified person available to the issuer who has been or can get to the site and is able to co-author the report, then an exemption will not likely be granted.

### **3.5 Independence of Qualified Person**

(1) Section 1.4 of the Instrument provides the test an issuer and a qualified person should 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 1.4 of the Instrument to confirm that the requirement is met.

Applying this test, the following are examples of when the CSA 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 an adjacent property,
- (f) 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
- (g) 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 purpose of (d) above, related party of the issuer means an affiliate, associate, subsidiary, or control person of the issuer as those terms are defined under securities legislation.

There may be some instances where it would be reasonable to consider the qualified person's independence would not be compromised even though the qualified person holds an interest in the issuer's securities. 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.

If the issuer applies for relief, the Securities Regulatory Authorities may consider granting an exemption under section 9.1 of the Instrument if the issuer demonstrates why the involvement of an independent qualified person is not necessary in a particular circumstance.

- (2) There may be circumstances in which the Securities Regulatory Authorities question the objectivity of the author of the technical report. In order to ensure the requirement for independence of the qualified person has been preserved, the issuer may be asked to provide further information, additional disclosure or the opinion of another qualified person to address concerns about possible bias or partiality on the part of the author of the technical report.

#### **PART 4 PREPARATION OF TECHNICAL REPORT**

- 4.1 Addendums not Permitted** - Anytime an issuer is required to file a technical report, that report must be complete and current. If an issuer has a technical report previously filed, and is required to file another technical report because it triggered one of the circumstances listed under Part 4 of the Instrument, the issuer must update the outdated sections of the previously filed report and file a new, complete, current technical report if the contents of the previously filed technical report are no longer current. It is not sufficient for the issuer to only file the updated portions of the technical report. If an issuer gets a new qualified person to update a previously filed technical report prepared by a different qualified person, we expect the new qualified person to take responsibility for the whole technical report and certify that in his or her certificate required under section 8.1 of the Instrument.

The only exception to the requirement to file a complete technical report is under section 4.2(3) of the Instrument. An issuer may file an addendum if it is for a technical report that originally was filed with a preliminary short form prospectus or preliminary long form prospectus and there is a material change in the information before the issuance of the final receipt. In this case, the addendum must be attached to and filed with the previously filed technical report. The technical report and addendum must also have an updated certificate and consent of the qualified person filed with it.

- 4.2 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. Issuers are reminded that figures required in the technical report must be included in the technical report filed on SEDAR and therefore should be prepared in electronic format.

The qualified person must date, sign and, if the qualified person has a seal, seal the technical report, certificate and consent. If a person's name appears in an electronic document with (signed by) and (sealed) next to the person's name or there is a similar indication in the document, the Securities Regulatory Authorities will consider that the document has been signed and sealed by that person. Although not required, maps and drawings may be signed and sealed in the same manner.

- 4.3 Technical Documents Filed with Other Securities Regulatory Authorities or Exchanges** - Securities Regulatory Authorities in most CSA jurisdictions require an issuer to file, if not already filed with it, any record or disclosure material that the issuer files with another securities regulatory authority, agency, or body, or exchange, wherever situate. If an

issuer must complete such filing, and the record or disclosure material is not a technical report required by the Instrument, then the exemption provided under section 9.3 of the Instrument permits an issuer to do this without breaching the Instrument. The filing should be made by the issuer on SEDAR under the "Other" category.

## PART 5 USE OF INFORMATION

**5.1 Use of Information in Technical Reports** - The Instrument requires that technical reports be prepared and filed in local jurisdictions to support certain disclosure of mineral exploration, development and production activities and results in order to permit the public and analysts to have access to information that will assist them in making investment decisions and recommendations. Persons and companies, including registrants, who wish to make use of information concerning mineral exploration, development and production activities and results, including mineral resource and mineral reserve estimates, are encouraged to review the technical reports that will be on the public file for the issuer. If they are summarizing or referring to this information they are strongly encouraged to use the applicable mineral resource and mineral reserve categories and terminology found in the technical report.

**5.2 Disclaimers in Technical Reports** - Section 6.4 of the Instrument prohibits certain disclaimers in technical reports. The types of disclaimers prohibited by section 6.4 of the Instrument include blanket disclaimers that purport to disclaim responsibility for, or reliance on, that portion of the report that the qualified person prepared. Disclaimers are also prohibited when they create limitations on the use or publication of the report that would interfere with an issuer's obligation to reproduce the report by filing it on SEDAR.

The CSA considers blanket disclaimers potentially misleading. 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 expect 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 5 of the Form permits a qualified person to insert a disclaimer of responsibility if he or she relied on other experts who are not qualified persons for legal, environmental, political, or other issues relevant to the technical report that are not within the qualified person's area of expertise.

## PART 6 PERSONAL INSPECTION

**6.1 Meaning of Current Personal Inspection** - The current personal inspection referred to in section 6.2(1) of the Instrument is the most recent personal inspection of the property, provided that there has been no material change to the scientific and 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 has been no material change in the scientific and technical information about the property at the filing date.

**6.2 Personal Inspection** - The CSA considers current personal inspection particularly important because it enables the qualified person to become familiar with conditions on the property, to observe the geology and mineralization, to verify the work done and, on that basis, to design or review and recommend to the issuer an appropriate exploration or development program. A personal inspection is required even for properties with poor exposure. In such cases, it may 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 current personal inspection can be carried out by a qualified person. A qualified person, or where required an independent qualified person, must visit the site and cannot delegate the personal inspection requirement.

**6.3 Delay of Personal Inspection Requirement** - Section 6.2(2) of the Instrument permits an issuer to delay conducting a personal inspection in very limited circumstances. An issuer does not need to apply for this relief. The exemption applies automatically only where the issuer's mineral project is located on an early stage exploration property, as defined in the Instrument, provided the issuer complies with all conditions listed in section 6.2(2) of the Instrument. The exemption recognizes that there may be situations where an issuer is unable to access an early stage exploration property or obtain beneficial information on it because seasonal weather conditions prevent it from doing so by the time the issuer is required to file a technical report. Examples of such situations would include an early stage exploration property that is inaccessible because of seasonal flooding or it is completely covered in snow for an extended period of time.

Other than circumstances permitted by the exemption under section 6.2(2) of the Instrument, there may be circumstances in which it is not possible for a qualified person to inspect the property. In such instances the qualified

person or the issuer should apply in writing to the Securities Regulatory Authorities for relief, stating the reasons why a personal inspection is considered impossible. It would likely be a condition of any such relief that the technical report state that no inspection was carried out by a qualified person and the reasons why it was not done.

**6.4 More than One Qualified Person** - Section 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 a minimum standard for personal inspection. There may be cases in advanced mineral projects where the issuer should have personal inspections of the property conducted by more than one qualified person, taking into account the work being carried out on the property and the technical report being prepared by the qualified person or persons.

For example, for an advanced stage property with mineral resource and mineral reserve estimates, if several qualified persons prepare a different portion of the technical report because of their particular expertise in geology or mining engineering, then the Securities Regulatory Authorities expect that expertise makes each of them responsible for the preparation of the technical report and each of them relevant for a proper personal inspection of the property.

## **PART 7 REGULATORY REVIEW**

### **7.1 Review**

- (1) Disclosure and technical reports filed under the Instrument may be subject to review by Securities Regulatory Authorities.
- (2) 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 may be in breach of securities legislation. The issuer may be required to issue or file corrected disclosure, file a revised technical report or file revised consents, and may be subject to other sanctions.