

## APPENDIX 3F

# MINING STANDARDS GUIDELINES

## 1. Introduction

### 1.1 General

- (a) This Appendix establishes standards and guidelines for scientific and technical disclosure by Issuers on mineral properties. These standards and guidelines should be applied prudently and with common sense by those Issuers in conjunction with the applicable requirements of section 1.2.
- (b) This Appendix incorporates and expands upon the minimum standards prescribed by Securities Laws and applies to all oral statements and written disclosure made by an Issuer or on behalf of an Issuer involving mineral properties.
- (c) This Appendix is not intended to be exhaustive or all-encompassing and greater detail may be appropriate and required in certain situations. Issuers are encouraged to contact Exchange technical staff where they are not certain about the requirement for disclosure on mineral properties.

### 1.2 Applicable Requirements

An Issuer must disclose the results of exploration and development activity on mineral properties in compliance with applicable Securities Laws, Exchange Requirements and the applicable requirements of:

- (a) National Instrument 43-101 *Standards of Disclosure for Mineral Projects* and Companion Policy 43-101CP and Form 43-101F1 – *Technical Report* (collectively, “NI 43-101”);
- (b) Policy 3.3 - *Timely Disclosure*;
- (c) the Canadian Institute of Mining, Metallurgy and Petroleum (“CIM”) Exploration Best Practices Guidelines;
- (d) Guidelines for the Reporting of Diamond Exploration Results, adopted by CIM Council March 2003; and
- (e) Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines, adopted by CIM Council on November 23, 2003.

## **2. Directors' Responsibilities**

Each director, regardless of geological experience is responsible to ensure that scientific and technical information collected and reported to the public is timely, balanced, accurate and complies with the requirements of this Appendix.

## **3. Geological Reports**

### **3.1 Requirements and Public Access**

- (a) A Geological Report must comply with the requirements of NI 43-101 and must be filed with the Exchange in the circumstances outlined in Table 1, attached to this Appendix.
- (b) All Geological Reports referred to in a news release or submitted as part of an Exchange filing should be directly available from the Issuer or posted on the Issuer's website.

### **3.2 Qualified Persons and Independence**

- (a) In the context of a filing the Exchange will only consider Geological Reports that are prepared by, or the preparation is supervised by, a qualified person (a "QP").
- (b) A QP who prepares a Geological Report must be independent of the property and the property vendor. Generally the Exchange does not consider a QP independent if that QP is living at the same address as a family member holding an interest in the property or property vendor
- (c) The Exchange may not require that a QP be independent of the Issuer acquiring the property for certain transactions outlined in Table 1.

## **4. Verification Programs**

### **4.1 Recognition of CIM Best Practices**

The Exchange recognizes the CIM Exploration Best Practices Guidelines for quality assurance programs, check programs, assay laboratories, assay results, non-fire assay results, field procedures, and the application of conventional mining techniques. The Exchange encourages an Issuer conducting mineral exploration to follow the CIM Exploration Best Practices Guidelines.

## **4.2 Check Programs**

The Exchange may require an Issuer to undertake certain check programs if reported results are, in the Exchange's opinion, inconsistent with historic results from the property, the geological environment or other pertinent factors.

# **5. Disclosure**

## **5.1 General**

- (a) An Issuer must disclose material scientific and technical information, both positive and negative, on a timely basis, even if the results of exploration may not be at a stage where definitive conclusions can be drawn.
- (b) An Issuer must report and disclose exploration information and opinions on mineral properties in accordance with NI 43-101 and this Appendix.

## **5.2 Qualified Person**

When disclosing scientific and technical information on mineral properties, an Issuer must identify the QP responsible for the reported information. A QP must read and approve the scientific and technical disclosure. If this information is based on a Geological Report, the report date and author's name, including the author's relationship to the Issuer, must be disclosed.

## **5.3 Reporting of Exploration Results**

An Issuer must comply with the following requirements for reporting and disclosing exploration results:

- (a) the Issuer must state the source of the scientific and technical information on its properties, especially when that information was not obtained as a result of the Issuer's work.
- (b) if early exploration activity results such as geophysical surveys or soil and outcrop sampling, is disclosed, it must not be reported as conclusive evidence of the likelihood of the occurrence of a mineral deposit.
- (c) sample or assay results, whether of drilling, trenching, underground or preliminary surface sampling must be disclosed together with the following details where applicable:

(i) *Geological Description*

A general description of the geological environment, including any known problems, such as erratic sample results or potential metallurgical extraction difficulties.

(ii) *Sampling*

Details as to the type, nature, density, and size of samples collected. For example, relevant information must be included with respect to:

- (A) preliminary geochemical surveys including number and type of samples collected, sample spacing or density, horizon or material sampled, and the area covered;
- (B) trench or outcrop sampling including information on sample type (select, grab, chip, channel, etc.), sample interval/length, sample continuity, material sampled, spatial relationship of such sampling to other known and/or previously reported samples, or mineralized structures;
- (C) drill sample results including information on the type of drilling (such as core or reverse circulation), size (such as BQ, or NQ), sample interval, and spatial relationship with other nearby drill holes or mineralized structures. Reporting of aggregate intervals must be done on an interval-weighted average basis. Details must be given of any structural controls or cut-off grades used to establish the reporting interval. Significantly higher-grade intervals within lower grade intersections must also be reported separately.

In many situations, it will be necessary for the Issuer to include plans and/or sections that provide appropriate details.

In all cases, an Issuer must disclose any drilling, sampling or recovery problems that could materially impact the accuracy and reliability of results. The Issuer must provide estimated true widths whenever possible or state that the true width is not known.

(iii) *Analytical Results*

An Issuer must report analytical results in a timely manner and include relevant details such as:

- (A) analytical process, including analytical method (ICP, AA, fire assay, etc.), and sample size analyzed;
- (B) name and location of assay laboratory together with its relationship to the Issuer, if any; and
- (C) certification of each laboratory used, or lack thereof.

Disclosure of analytical results by an Issuer in the form of “values up to...” may be misleading and irrelevant, particularly if such samples are selectively collected. Such disclosure should be supported with appropriate sample descriptions and relevant statistical details such as range and distribution of sample values.

Disclosure by an Issuer of metal equivalents is only acceptable when disclosed in accordance with Item 19(m) of Form 43-101F1.

Analytical results must be reported by individual metal-element-compound. Reporting aggregated grades of different metals/element/compound alone is not acceptable.

- (d) specific details of any unusual or non-standard sampling, preparation or analytical procedures must be made by the Issuer and must include results of a duplicate set of samples processed by industry standard procedures for comparative purposes.
- (e) the disclosure must clearly distinguish between new and previously issued information. Complete disclosure of check assay results is not required. The Issuer must, however, disclose the nature of the check assay program and whether the results are confirmatory.
- (f) the disclosure of selective results is prohibited. If, for example, six holes are drilled and three return mineralization of interest, details of all six holes must be released, including location, direction, geological formations encountered, etc., so as to provide the reader with as complete a picture as possible as to the nature of the prospect.
- (g) the reporting of gross metal value is not acceptable.
- (h) estimates of quantity and grade, or quality of mineralization must not be reported unless supported by assay results.
- (i) an announcement of a planned work program must briefly describe the proposed program, the estimated cost and timetable of the program, and whether the Issuer has funds available to complete the program.

## 5.4 Reporting and Estimation of Mineral Resources and Mineral Reserves

An Issuer must comply with the following requirements for reporting and disclosing mineral resources/reserves:

- (a) the reporting and disclosure of resources/reserves must include and conform to the definitions prescribed by NI 43-101, which adopts definitions published by the CIM. Resource and reserve estimation should follow the CIM's Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines dated May 30, 2003 and adopted November 23, 2003. Foreign reporting codes acceptable to NI 43-101 must be reconciled to the CIM categories.
- (b) reported resources/reserves estimates must be supported by a Geological Report prepared by a QP in accordance with NI 43-101. Notwithstanding the filing requirement prescribed by NI 43-101, the Exchange may require that an Issuer submit a copy of the Geological Report when disclosure is made.
- (c) appropriate details of tonnage and grade for each category of mineral resource and mineral reserve must be included as part of the disclosure. The disclosure by an Issuer of an estimate of contained metal only or unclassified or non-segregated tonnage is unacceptable.
- (d) first time disclosure of mineral resources/reserves estimate, revised mineral resources/reserves estimate or a historical mineral resources/reserves estimate must be pre-filed by the Issuer with Market Regulation Services Inc. ("RS") and must include:
  - (i) a summary of the number, type and spacing of drill holes used to prepare the estimate, and
  - (ii) a description of other key assumptions, parameters and methodologies used, as required by NI 43-101.
- (e) subsequently disclosed mineral resource/reserve estimate must include details of tonnage and grade for each category and reference to either:
  - (i) the news release filed on SEDAR containing first time disclosure of the mineral resource/reserve estimate, or
  - (ii) the technical report filed on SEDAR.
- (f) historical estimates require certain additional statements about relevance and reliability, which must be made every time the historical mineral resource estimate is presented by the Issuer, all in accordance with section 2.4 of NI 43-101.

## 5.5 Economic Analyses

- (a) There are three types of studies that include economic analyses:
  - (i) a preliminary assessment which is at a scoping study level and is defined in NI 43-101. If the study uses inferred resources in the economic analysis, certain proximate statements must be made every time the Issuer discloses the results of the preliminary assessment;
  - (ii) a preliminary feasibility study, commonly referred to as a pre-feasibility study, as defined in NI 43-101; and
  - (iii) a feasibility study, as defined in NI 43-101.
- (b) An Issuer must ensure that the appropriate term is applied to the study, which should not overstate the stage of the study. For example, it is not acceptable for an Issuer to state that a feasibility study has been commissioned when the scope of the work would be considered, based on industry standards, to be at the level of a pre-feasibility study.
- (c) An Issuer must comply with the following requirements for any disclosure of an economic analysis of mineral properties made by the Issuer:
  - (i) The economic analysis must be based on current mineral resources or reserves;
  - (ii) The economic analysis must be prepared by an independent QP;
  - (iii) Initial disclosure of project economic analyses must be pre-filed by the Issuer with RS and must include:
    - (A) the purpose, scope of the study, effective date and conclusions;
    - (B) the identity and qualifications of the firm or individuals that prepared the Geological Report as well as their relationship to the Issuer; and
    - (C) key assumptions and parameters including details regarding operating costs, mine and metallurgical recoveries, discount rates applied to net present value, mine life, production rate, capital costs, environmental costs, closure and rehabilitation costs and metal price and how each was determined.

- (iv) The economic analysis for a project should not lead investors to conclude prematurely that a mine is in production or is about to be placed in production or that the project will definitely be put into production. For an Issuer that is also a producer, care should be taken to distinguish between current and planned production rates.

## **5.6 Production**

An Issuer must comply with Appendix B of the Toronto Stock Exchange Company Manual pertaining to disclosure about mine production, including costs of production,

## **6. News Releases**

- 6.1 An Issuer must ensure that its news release complies with applicable Securities Laws, Exchange Requirements and the following requirements:
  - (a) A news release must be a stand alone document to the greatest extent possible. However, the prescribed information in a news release may be cross referenced by the Issuer to previous news releases or other documents, as long as they are readily obtainable on SEDAR or from the Issuer by fax, mail or on a Web site, but not to the point where the information contained in the news release is cryptic. For instance, when an Issuer initially announces exploration information from a property, the news release must describe the geological environment of the property. However, it may not be necessary to repeat that information in every subsequent news release regarding the same property.
  - (b) When an Issuer is reporting exploration information, it must state the interest that it holds in the property, particularly if its interest is less than 100%.
  - (c) If an Issuer releases partial exploration results, (e.g., the first two holes of a six hole program), it must ensure that the balance of the results are disclosed in a timely manner in a subsequent news release whether the results are positive or negative.
  - (d) A news release concerning mineral properties must identify the QP that is responsible for the work conducted on the property. The Issuer must ensure that prior to the issuance of the news release; a QP has reviewed and approved of the disclosure of the exploration information in that news release.
  - (e) If a news release makes reference to plans or sections, these must be included with the news release when it is filed on SEDAR.



- (f) Upon acquisition of a material mineral property, the Issuer must disclose, to the extent known, the basic granting of rights for exploration and exploitation of minerals in the jurisdiction where the property is located. This typically includes a brief description of the permitting process, required environmental assessments and the progress made during the course of an exploration or development program.
- (g) An Issuer should also disclose successive stages of property development and any significant constraints or obligations, including:
  - (i) cash payments or securities issuances, work commitments and production royalties;
  - (ii) any adverse claims or disputes as to title or rights to the property including what steps the Issuer must take to resolve the dispute and how long it may take to reach a resolution, any agreements made with respect to dispute resolution or with local governments or organizations; and
  - (iii) in the case of properties located in foreign jurisdictions a more complete disclosure of tenure and permitting issues. The disclosure must address any constraints on access to the property including whether or not the Issuer owns the surface rights to the property and what impact this may have on the Issuer's ability to explore and develop a mine on the property.

6.2 If an Issuer issues a news release that does not comply with the disclosure requirements of section 6.1, the Exchange may halt trading in the Issuer's securities pending clarification in another news release.

6.3 An example of a hypothetical news release for a natural resource Issuer is included in Appendix 3E.

## **7. Issuer Web Site Disclosure**

An Issuer must ensure that the disclosure of its mineral properties on its website, complies with the following requirements:

- (a) Scientific and technical information must conform to Exchange Requirements and NI 43-101.
- (b) The name of the QP(s) responsible for preparing scientific and technical information that is posted on the website must be included on the website.

- (c) If an Issuer has information on its website pertaining to its mineral properties, it must promptly update that information, whenever it issues a news release containing revised material information about that mineral property. The Issuer must continue to make updates until it no longer has an interest in the mineral property.

## **8. Disclosure in Investor Relation Materials**

An Issuer must ensure that any Investor Relations Activities pertaining to the Issuer comply with the following requirements:

- (a) The Issuer is responsible for ensuring that any disclosure made on its behalf in the context of Investor Relations Activities complies with Exchange Requirements and NI 43-101
- (b) All investor relation materials that may be distributed by or on behalf of an Issuer, including through emails, brochures, pamphlets, other materials and presentations must comply with Exchange Requirements and NI 43-101.
- (c) Any material information that is included in investor relation materials must have been previously disclosed by the Issuer in a news release or other disclosure document filed on SEDAR.

## **9. Valuation of Mineral Properties**

- 9.1 The Exchange may require valuation reports in certain circumstances. The standards and guidelines for such reports are found in Appendix 3G - *Valuation Standards and Guidelines for Mineral Properties* which supplements the CIM Standards and Guidelines for Valuation of Mineral Properties (“CIMVal”).

**TABLE 1**

	<b>Exchange Requirement</b>
Reverse Takeover*	Report by independent QP to support an Information Circular / Filing Statement if securities are issuable
Change of Business*	Report by independent QP to support an Information Circular / Filing Statement if securities are issuable
Qualifying Transaction*	Report by independent QP to support an Information Circular / Filing Statement if securities are issuable
Listing Application*	Report by independent QP to support an initial application for listing or in conjunction with the filing of a prospectus respecting an IPO
Reviewable Transaction deemed to be a Fundamental Acquisition or Non-Arm's Length Party transaction	Report by independent QP
Reviewable Transaction	Report by non-independent QP acceptable, however, QP must be independent of vendor***
Tier Movement and Continued Listing*	Report by non-independent QP acceptable, however, QP must be independent of the vendor***
Short Form Offering Document	Report by non-independent QP acceptable, however, QP must be independent of the vendor***
Reporting Mineral Reserves and Resources**	Report by independent QP as required under NI 43-101
Completion of Preliminary Assessment, Preliminary or Feasibility Study**	Report by independent QP

\* For certain transactions when ILR/CLR must be met, the Issuer must demonstrate Approved Expenditures.

\*\* Notwithstanding the filing requirement prescribed by NI 43-101, the Exchange may require a copy of the Geological Report when disclosure is made.

\*\*\* In certain circumstances the Exchange may require that the Geological Report be prepared by an independent QP.