NATIONAL POLICY No. 2-A

GUIDE FOR ENGINEERS, GEOLOGISTS AND PROSPECTORS SUBMITTING REPORTS ON MINING PROPERTIES TO CANADIAN PROVINCIAL SECURITIES ADMINISTRATORS

General

Reports submitted must be engineering documents. They must be factual and the recommendations must be warranted in the light of the information and data presented in the report. The author must state that, in his judgment, the venture is of sufficient merit to make the work recommended a worthwhile undertaking.

Authors with professional affiliations will use their seal.

Reports will be accepted only for the purposes of a prospectus if prepared by an engineer, geologist or prospector who has gained a minimum of three years practical experience, unless the author holds exceptional qualifications and there are unusual circumstances.

Where the proceeds of the issue are being applied to the property being reported upon, the person making the report required to be filed with the administrator (Commission) must be free of any association with the issuer. Therefore, except where specifically provided for in the Regulations, the report shall not be written by a director, officer or employee of the issuer or of an affiliate of the issuer or who is a partner, employer or employee of such director, officer or employee or who is an associate of any director or officer or of the issuer or of an affiliate of the issuer or officer or employee or who is an associate of any director or officer of the issuer or of an affiliate of the issuer. The report shall not be submitted if the person making it or any partner or employer of or associate to him beneficially owns, directly or indirectly, any securities of the issuer or of a subsidiary thereof or, if the issuer is a subsidiary, any securities of the parent issuer. This latter restriction does not apply to a person, partner, employer or associate, as the case may be, if the person, partner, employer, or associate is not empowered to decide whether securities of the issuer or the parent issuer, as the case may be, are to be beneficially owned, directly or indirectly, by him, or if he is not entitled to vote in respect thereof.

Source of Information

If any of the information and data are not based on the author's own observations and investigations, their source should be clearly stated, giving exact reference to published reports and records. When such information is derived from unpublished or private reports or records, a photostatic or other authenticated copy of the original should be submitted, together with a letter of consent and a certificate of qualification respecting the author's professional qualification, except where the report is a matter of public record such as those on open file in a provincial or federal natural resources department.

Wherever reasonable and practicable, reports must be based upon the author's personal inspection of the property being reported upon.

Content of Reports

A complete report should include a description of the properties of the issuer in accordance with the requirements of the appropriate provincial legislation and regulations and should contain all pertinent exploration data including plans and sections. The report should be presented under the following headings as applicable:

Table of Contents

Summary

Preamble or Introduction including author's terms of reference

Property, Description and Location

Accessibility, Climate, Local Resources

History-comprehensive, with references to all previous work for which records are available

Geology

Mineral Deposits and their state of Development

The report must clearly distinguish between mineral showings which occur on the issuer's property being reported upon and those elsewhere in the area.

Reserves and Production

Conclusions and Recommendations with Cost Estimates

In Intermediate (Development) and Senior Financing (Production) Reports, the following vital considerations must be explored:

Recoverability and amenability of the raw material

Tonnage and grade versus optimum profitability

Markets

Smelter Contracts, tolls and transportation

Taxes

Cash flow, capital and operating cost estimates

Payback of capital with interest

The description of the properties must include claim numbers, whether patented or unpatented and if contiguous. The percentage of interest held in the properties should be stated.

If the potential merit of a property is predicated entirely or in part on results obtained on neighbouring ground, the known history of the latter should also be covered.

A description of mineralization encountered on the property should be given detailing the strike length, width, continuity and the basis of such measurement together with a description of the type, character and distribution of the mineralization.

References as to its grade should be substantiated by assays with the dates thereof, and by assay plans and sections. In addition to giving the widths of the individual samples it should be stated whether these are the author's own samples or those of other parties. The method of sampling should be described making it clear whether assay results are based on channel samples, chip samples, grab samples, character samples or core samples.

Values in precious metals should be expressed in ounces per ton or grams per metric ton and the content of other metals, etc., in percentages or pounds per ton, but not in dollars or other currency.

Care should be taken in the use of the word "ore". The term is defined in the most recent Ontario Regulations as follows:

- (a) "Ore" means a natural aggregate of one or more minerals which, at a specified time and place, may be mined and sold at a profit, or from which some part may be profitably separated;
- (b) "Proven Ore" or "measured ore" means that material for which tonnage is computed from dimensions revealed in outcrops or trenches or underground workings or drill holes and for which the grade is computed from the results of adequate sampling, and for which the sites for inspection, sampling and measurement are so spaced and the geological character so well defined that the size, shape and mineral content are established, and for which the computed tonnage and grade are judged to be accurate within limits which shall be stated and for which it shall be stated whether the tonnage and grade of proven ore or measured

ore are 'in situ' or extractable, with dilution factors shown, and reasons for the use of these dilution factors clearly explained;

- (c) "Probable ore" or "indicated ore" means that material for which tonnage and grade are computed partly from specific measurements, samples or production data, and partly from projection for a reasonable distance on geological evidence, and for which the sites available for inspection, measurement and sampling are too widely or otherwise inappropriately spaced to outline the material completely or to establish its grade throughout;
- (d) "Possible ore" or "inferred ore" means that material for which quantitative estimates are based largely on broad knowledge of the geological character of the deposit and for which there are few, if any, samples or measurements, and for which the estimates are based on an assumed continuity or repetition for which there are reasonable geological indications, which indications may include comparison with deposits of similar type, and bodies that are completely concealed may be included if there is specific evidence of their presence, and
 - (i) estimates of "possible ore" or "inferred ore" shall include a statement of conditions within which the inferred material occurs, and
 - (ii) since the arithmetical average of any amount of sampling is not necessarily representative unless the distribution of values and number of samples are properly taken into account, a statement of how samples were taken shall be given, and where mineralization is erratic, the method of treating the erratic values shall be given in the narrative of the report.
 - (iii) possible or inferred reserves must not be added to other categories of reserves and their inclusion is not acceptable in any economic analysis or feasibility study of a project.

Where the word "ore" may not properly be used, such terms as "mineralization", "mineralized bodies" or "concentrations", etc. should be used.

The information supplied in the report should be sufficient and positive enough to warrant the recommendations made. An estimate of costs for the proposed programme should be included.

Maps

Reports must be well illustrated by plans and by sections to give an adequate picture of the property. All reports must be accompanied by a location or index map and a more detailed plan showing all important features described in the text. If nearby properties have an important bearing on the

possibilities of the ground under consideration, their location should be shown on the maps. Where the mineralized or ore-bearing structures are expected to pass from one property to the other, this should be indicated clearly on the map.

In case the potential merit of a property is predicated on geophysical or geochemical results, maps showing result of the surveys and the interpretations should be submitted.

All maps should show a scale, a North arrow, and should be signed and dated. If geological features or other data have been taken from Government maps or from drawings of other engineers or geologists, this should be properly acknowledged.

Consent to Use of Name in Prospectus

Where the author of the report or valuation is named as having prepared or certified any part of a prospectus or is named as having prepared or certified a report or valuation used in connection with a prospectus, the written consent of such author to the inclusion of such report or valuation shall accompany the report or valuation when filed with the administrator. It is the responsibility of the author when giving such consent to have assured himself that it can properly be given.

Certificate of the Author

All reports must be submitted in duplicate with the author's certificate attached, both dated and signed. The certificate shall state:

- (a) the name, address and occupation of the author;
- (b) the qualification of such person;
- (c) whether or not the report is based on personal examination;
- (d) the date of any such examination;
- (e) if the report is not based on personal examination, the source of the information contained in the report; and
- (f) whether he has, directly or indirectly, received or expects to receive any interest, direct or indirect, in the property of the issuer or any affiliate, or beneficially owns, directly or indirectly, any securities of the issuer or any affiliate and if so give particulars