

OSC Staff Notice 43-705
REPORT ON STAFF'S REVIEW OF TECHNICAL REPORTS BY ONTARIO MINING ISSUERS

Publication date: June 27, 2013

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1. INTRODUCTION

Staff of the Ontario Securities Commission (**OSC**) conducted a review (the **Review**) of a subset of Form 43-101F1 *Technical Reports* (**Form 43-101F1**) filed by Ontario mining issuers. The purposes of the Review was to assess whether the technical reports filed by Ontario mining issuers (the **Technical Reports**) complied with the recent revisions to National Instrument 43-101 *Standards of Disclosure for Mineral Projects* (**NI 43-101**) and Form 43-101F1 adopted by the Canadian Securities Administrators (**CSA**).

The purpose of this notice is to:

- summarize the results of the Review and
- provide guidance for mining issuers and qualified persons on compliance with Form 43-101F1 in the areas of concern identified during the Review.

Summary of results and future action

We found an unacceptable level of compliance with Form 43-101F1. Forty (80%) of the total number of Technical Reports reviewed had some form of non-compliance with the requirements of Form 43-101F1. Approximately 40% of the Technical Reports reviewed had at least one major non-compliance concern. We view this level of major non-compliance with the disclosure requirements of Form 43-101F1 to be unacceptable. Although significant efforts have been made to comply with the disclosure requirements in NI 43-101, issuers and qualified persons need to further improve their disclosure. We will continue to actively review Technical Reports by Ontario mining issuers as part of our overall continuous disclosure (**CD**) review program.

Issuers should anticipate staff requests for refilings, additional disclosure, or other staff action, where appropriate, if an issuer and qualified person have not fully met the requirements of Form 43-101F1 and NI 43-101. Please note that the issues raised in a review will be taken into consideration when determining whether a prospectus receipt should be issued. Unresolved issues may delay the prospectus receipt, particularly for short form prospectus filings.

1.1 Background

As outlined in CSA Notice *Repeal and Replacement of National Instrument 43-101 Standards of Disclosure for Mineral Projects, Form 43-101F1 Technical Reports, and Companion Policy 43-101CP* dated April 8, 2011, the revised NI 43-101 came into force in all CSA jurisdictions on June 30, 2011.

NI 43-101 became effective on February 1, 2001 with minor revisions made in December 2005. The goal of the June 30, 2011 revisions was to maintain the benefits of NI 43-101, including investor protection, transparent disclosure and promoting market integrity, while making compliance simpler in some areas and less costly for mining issuers. NI 43-101 applies to all disclosure of scientific or technical information made by an issuer, including disclosure of mineral resources and mineral reserves, and requires a technical report be filed on a material mineral property when triggered by NI 43-101. In all cases, public disclosure of scientific or technical information must be prepared by or under the supervision of a qualified person or approved by a qualified person.

While the qualified person is responsible for preparing the Technical Report, the issuer is responsible for retaining a qualified person with the appropriate relevant experience and filing the Technical Report prepared in compliance with Form 43-101F1 and NI 43-101.

As at December 31, 2012, there were 457 Ontario mining issuers with a combined market capitalization of more than \$181 billion, representing 21% of Ontario's overall market capitalization. Approximately 41% of Ontario mining issuers are listed on the Toronto Stock Exchange (**TSX**) and represent 98% of the market capitalization of the mining issuers in Ontario.

2. REVIEW RESULTS

2.1 Scope of Review

There were 460 Technical Reports by 238 Ontario mining issuers filed on SEDAR between June 30, 2011 and June 29, 2012. The scope of the Review was limited to a sample of 50 Technical Reports chosen based on certain identifiable characteristics including the main exchange listing of the issuer, the location of the mineral property, the type of mineral deposit and the stage of development of the mineral property. The selection process was aimed at finding a representative sample of issuers in the Ontario public markets for the Review.

The Review focused on compliance with various aspects of NI 43-101, including:

- the revised Form 43-101F1
- the revised definitions of “qualified person” and “professional association”
- changes in the requirement to file a Technical Report and
- the certificate of the qualified person.

2.2 Technical Reports reviewed

We reviewed approximately 10% of the Technical Reports (50 out of 460) filed on SEDAR by Ontario mining issuers. Our sample included 27 Technical Reports by issuers listed on the TSX and 16 listed on

the TSX Venture Exchange (**TSXV**). The remaining seven Technical Reports were by issuers either listed on the Canadian National Stock Exchange or unlisted.

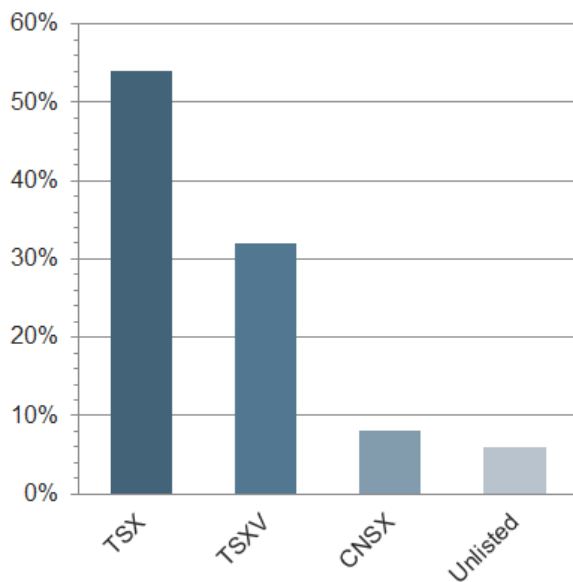
Fifty percent of the issuers had a market capitalization of over \$25 million with 25% of these having a market capitalization of greater than \$100 million. In terms of stage of development, the majority (59%) of issuers were at the mineral resource stage, 26% at the development or production stage and 15% at the exploration stage.

Most of the mineral properties described in the Technical Reports were located in North America (44%) while others were located in either South America (22%), Africa (20%), Russia or China (8%) or Australia (6%). The three primary mineral commodities discussed in the Technical Reports were gold (46%), copper (12%) or iron (10%).

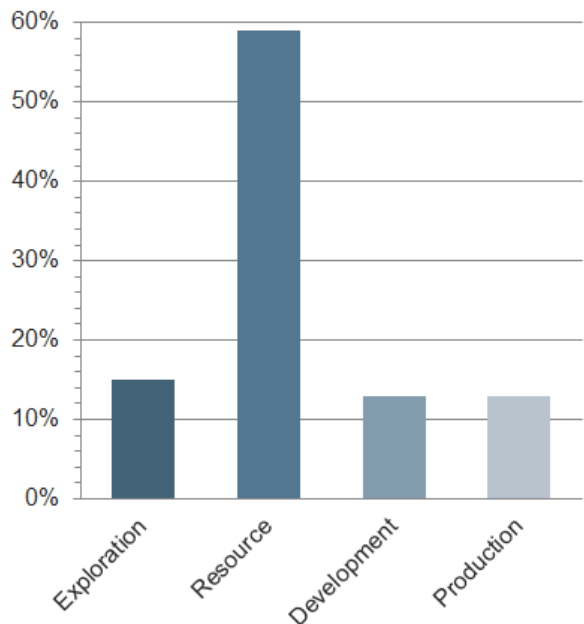
The majority of the Technical Reports were authored by qualified persons from independent consulting firms with 54% from regional firms and 20% from global firms. Independent sole proprietor qualified persons authored 14% of the Technical Reports while 12% were prepared by in-house qualified persons.

A summary of the characteristics of the Ontario mining issuers, their stage of development and the location and main type of commodity based on the 50 Technical Reports reviewed is set out below:

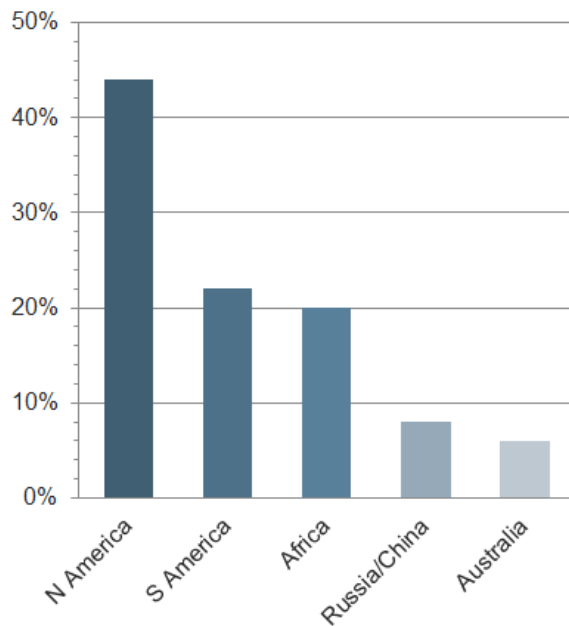
Issuer's main stock exchange listing



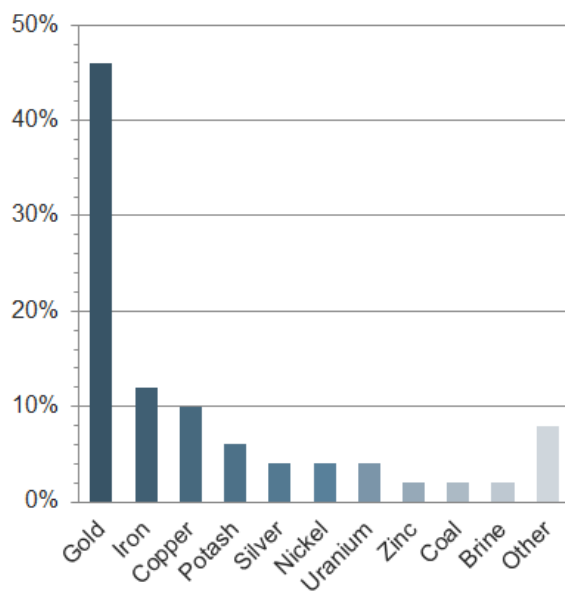
Issuer's stage of development



Location of the mineral property



Primary mineral commodity



In most cases (58%), the Technical Reports were filed pursuant to subparagraph 4.2(1)(j)(i) of NI 43-101, the first time disclosure trigger, which is informally known as a “property success” trigger. This trigger relates to the first time disclosure of mineral resources, mineral reserves or the results of a preliminary economic assessment (**PEA**), on a property material to an issuer that constitutes:

- a material change in relation to the issuer or
- a change in mineral resources, mineral reserves or the results of a PEA from the most recently filed Technical Report if the change constitutes a material change in relation to the issuer.

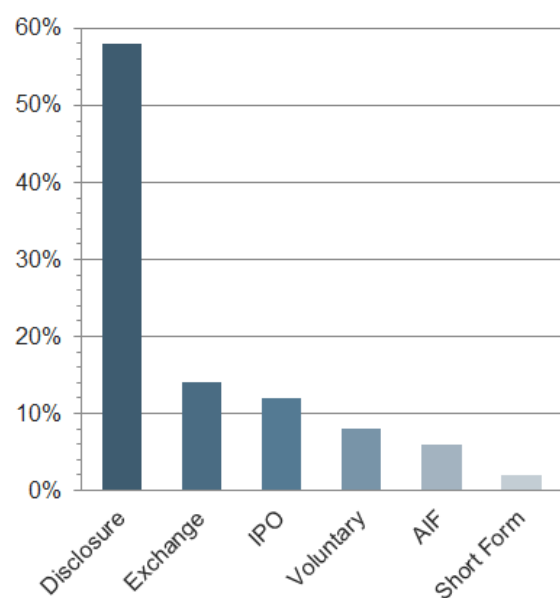
Technical Reports were also triggered due to situations informally known as an “issuer event” trigger. These Technical Reports were filed:

- in connection with the issuer’s initial public offering (12%) pursuant to paragraph 4.2(1)(a) of NI 43-101
- where the issuer’s annual information form included scientific or technical information that related to a mineral project on a property material to the issuer (6%) pursuant to paragraph 4.2(1)(f) of NI 43-101 or
- with the filing of a short form preliminary prospectus (2%) (where the prospectus disclosed for the first time mineral resources, mineral reserves or the results of a PEA that constituted a material change in relation to the issuer or a change in this information, if the change results in a material change in relation to the issuer pursuant to subparagraph 4.2(1)(b) of NI 43-101.

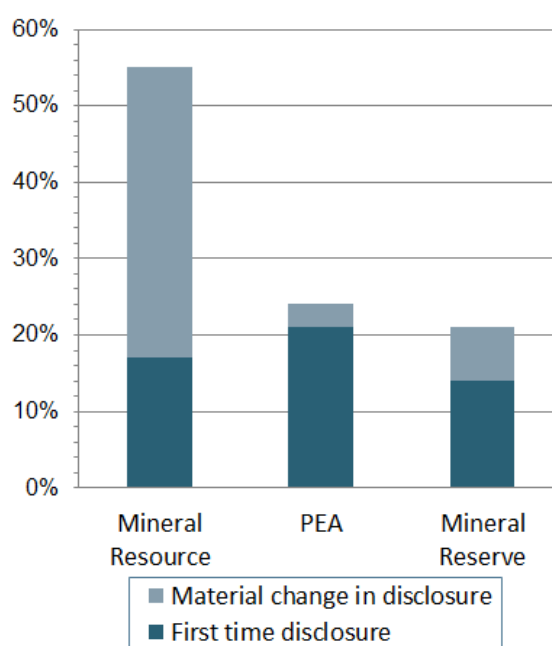
Issuers also filed a Technical Report in connection with Policy 4.6 *Public Offerings by Short Form Offering Document* and Exchange Form 4H – *Short Form Offering Document* of the TSXV (14%) pursuant to paragraph 4.2(1)(h) of NI 43-101. Other issuers voluntary filed a Technical Report (8%).

A summary of the triggering event for the 50 Technical Reports we reviewed is set out below:

Technical report triggers



Technical report triggers related to disclosure of mineral resources, PEA or mineral reserves



We reviewed each of the 50 Technical Reports to determine whether each Technical Report complied with the requirements in Form 43-101F1 and NI 43-101. We remind issuers and qualified persons that staff does not review all Technical Reports filed on SEDAR and cannot approve or certify compliance of any Technical Report.

2.3 Summary of Review and comments

Approximately 40% of the Technical Reports reviewed had at least one major non-compliance concern. We view this level of non-compliance with the disclosure requirements of Form 43-101F1 to be unacceptable. Although significant efforts have been made to comply with the requirements of Form 43-101F1, issuers and qualified persons need to further improve their disclosure.

2.4 Guidance

This notice sets out guidance to mining issuers and qualified persons on the existing requirements in NI 43-101 and Form 43-101F1. It is intended to clarify existing disclosure requirements relating to Technical Reports and does not create any new legal requirements or modify existing ones. It is also intended to alert mining issuers and qualified persons by identifying common deficiencies to assist in determining what information in Technical Reports needs to be disclosed, enhanced or supplemented to comply with Form 43-101F1. Issuers and qualified persons should consider this guidance when preparing their Technical Reports.

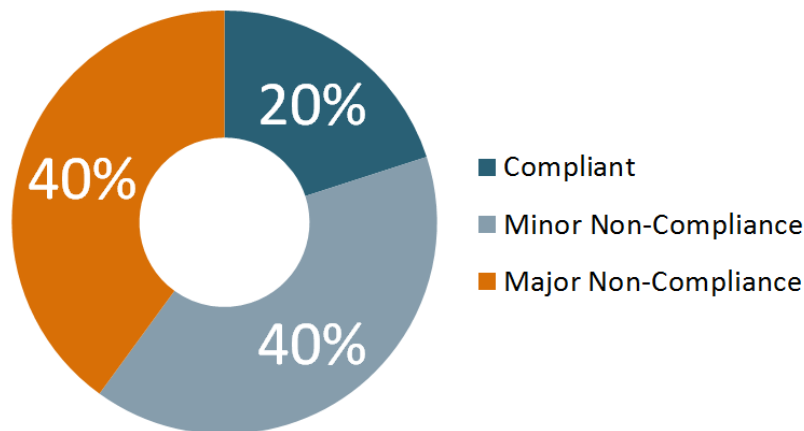
2.5 Summary of results

We found an unacceptable level of compliance with Form 43-101F1. Forty (80%) of the total number of Technical Reports reviewed had some form of non-compliance with the requirements of Form 43-101F1. Twenty (40%) of the Technical Reports reviewed had major non-compliance concerns.

We are particularly concerned with the major non-compliance issues noted in the Technical Reports reviewed as these deficiencies may have a significant impact on investors. Technical Reports are a key disclosure document for mining issuers and investors and their advisors may place significant reliance and make investment decisions based on the disclosure in Technical Reports.

A summary of our overall Review findings for the 50 Technical Reports is set out below:

Overall Technical Report compliance



The results of the Review identified frequent disclosure deficiencies, some of which may significantly impact investors.

The significant deficiencies include the following sections of the Technical Report:

- mineral resource estimates
- environmental studies, permitting and social or community impact
- capital and operating costs
- economic analysis
- interpretation and conclusions.

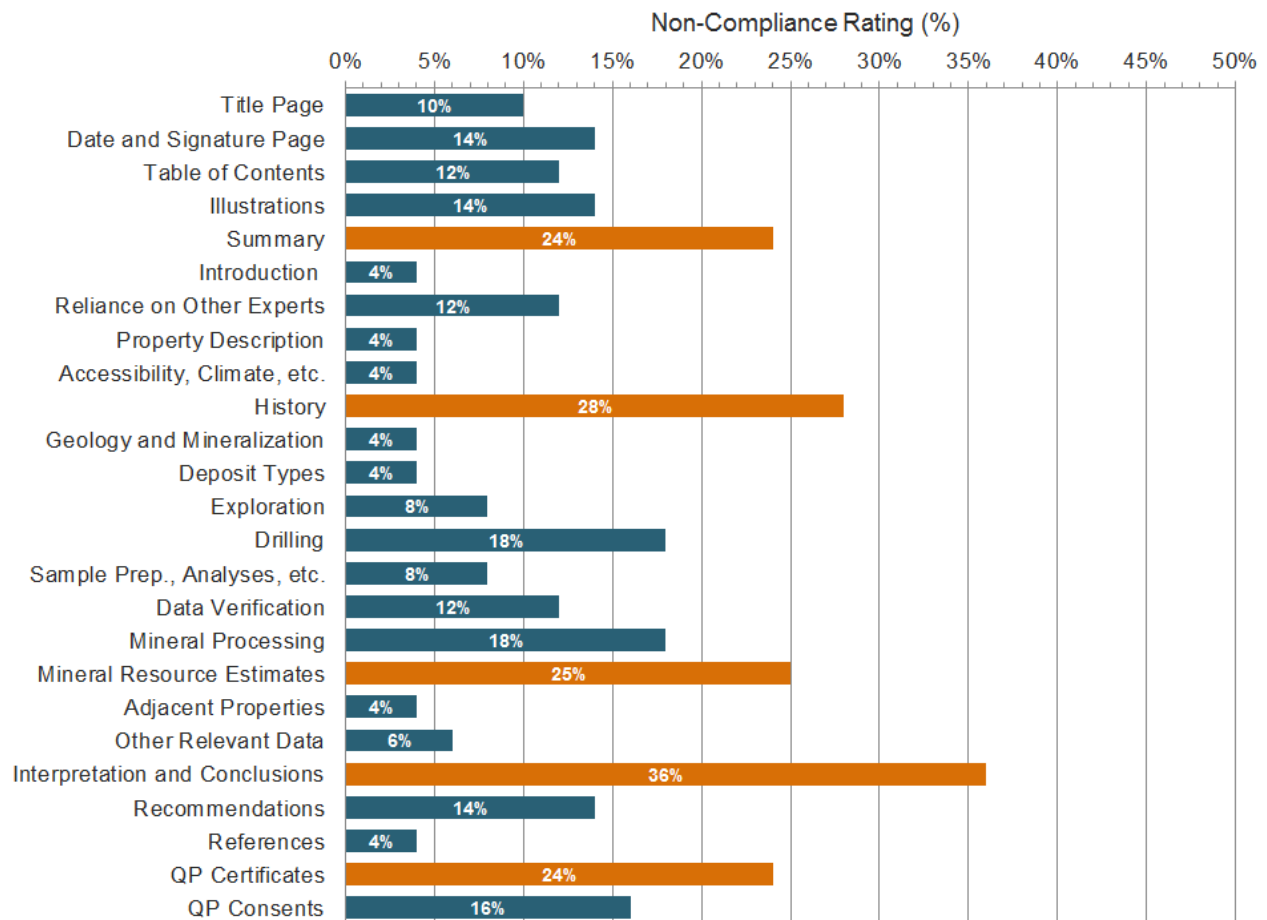
Other sections of the Technical Report where we noted frequent disclosure deficiencies include:

- summary
- history
- certificate of the qualified person.

Guidance on the disclosure requirements relating to the areas of significant deficiencies and other deficiencies noted in the Technical Reports is set out in Part 3 and Part 4 of this notice, respectively.

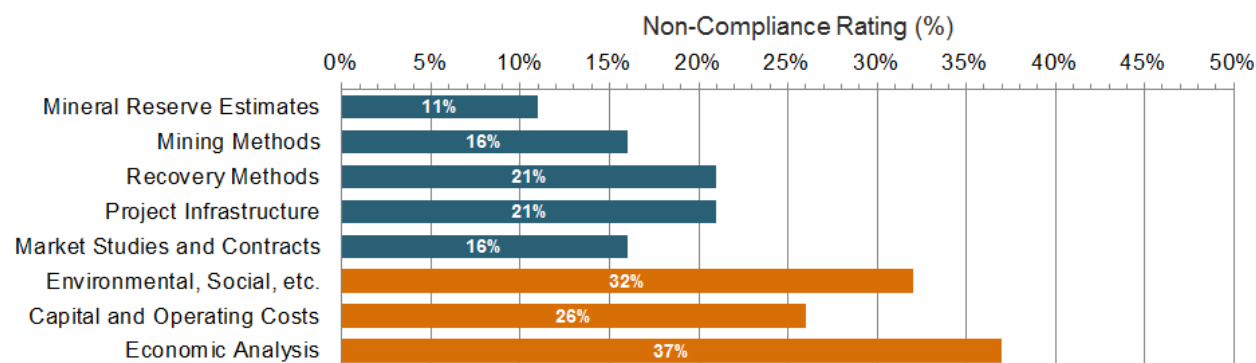
A summary of our Review findings for the 50 Technical Reports broken down by the content and item requirements of Form 43-101F1 is set out below:

Non-compliance rating for each section of the Technical Report



Out of the 50 Technical Reports reviewed, 19 were in relation to advanced properties. A summary of our Review findings for the additional requirements of Form 43-101F1 for an advanced property is set out below:

Non-compliance rating for each additional section for an “advanced property” Technical Report



Legend:

Blue bars – Technical Report sections with good to moderate compliance

Orange bars – Technical Report sections with poor compliance

3. GUIDANCE FOR MINING ISSUERS IN SIGNIFICANT AREAS OF CONCERN

To further assist mining issuers and qualified persons in complying with the disclosure requirements in Form 43-101F1, we have set out guidance for the Technical Report sections where we noted significant areas on concern in our Review.

A. Mineral resource estimate

Disclosure requirement

Assumptions regarding “reasonable prospects for economic extraction” must be disclosed under subsection 3.4(c) of the NI 43-101.

Item 14 of Form 43-101F1 requires a Technical Report disclosing mineral resources to provide, among other things, sufficient discussion of the key assumptions, parameters and methods used to estimate the mineral resources for a reasonably informed reader to understand the basis for the estimate and how it was generated.

Findings of Review

Our Review found that 25% of the Technical Reports disclosing mineral resource estimates did not provide the required information. In some cases the Technical Reports did not include disclosure as to

how “reasonable prospects for economic extraction” were established or what cut-off grade was used to estimate the mineral resource. We also found that many Technical Reports did not clearly disclose the assumed metal price or factors related to the mining scenario or mineral processing recovery. We have also noted that, where a mineral reserve is disclosed, the required statement whether the reserve is included in or excluded from the mineral resource may be absent or not prominent.

Commentary

Qualified persons are reminded that mineral resources, by definition, must have reasonable prospects for economic extraction based on justifiable technical and economic factors. These factors are typically reflected in the cut-off grade and metal price assumptions and other constraints such as the geological model, conceptual pit shell or mine model. The Canadian Institute of Mining, Metallurgy and Petroleum’s Best Practice Guidelines for Estimation of Mineral Resources and Mineral Reserves provide guidance on the constraints that should be considered in resource estimation and disclosed as part of a statement of mineral resources. We expect qualified persons to use procedures and methodologies that are consistent with industry best practices.

If an issuer discloses in writing mineral resources on a property material to the issuer, the issuer must include in the written disclosure, amongst other things, the key assumptions, parameters and methods used by the qualified person to estimate the mineral resources.

Qualified persons and issuers are reminded to provide the key assumptions, parameters and methods to support the basis for estimating the mineral resource as required under subsection 3.4(c) of NI 43-101.

B. Environmental studies, permitting and social or community impact

Disclosure requirement

Item 20 of Form 43-101F1 requires that a Technical Report for an “advanced property” discuss reasonably available information on environmental permits and social or community factors related to the mineral project. Specifically, with regards to social or community impact, Item 20 requires a discussion of any potential social or community related requirements and plans for the project and the status of any negotiations or agreements with local communities. It also requires the qualified person to include a discussion of mine closure (remediation and reclamation) requirements and costs.

Findings of Review

Our Review found that 32% of the Technical Reports on advanced properties did not adequately disclose information related to environmental permits or the social or community impacts of developing the mineral

project. We also found that some Technical Reports did not disclose how surface rights issues would be addressed or whether there was an exploration agreement in place or under negotiation with local First Nation communities.

Commentary

In some recent cases, the inability to advance projects has been related to surface and community issues rather than geological or technical issues.

Issuers are reminded that National Instrument 41-101 *General Prospectus Requirements* requires issuers to file material contracts that are entered in the ordinary course of business. A material contract is a contract to which a reporting issuer or any of its subsidiaries is a party that is material to the reporting issuer and generally includes a schedule, side letter or exhibit referred to in the material contract as well as any amendment to the material contract. When negotiating material contracts and agreements with local First Nation communities, issuers should consider this filing requirement, including with respect to any confidentiality obligations in such contracts.

Qualified persons are reminded to include a discussion of any potential social or community related requirements and plans for the project and the status of any negotiations or agreements with local communities and a discussion of mine closure (remediation and reclamation) requirements and costs in Technical Reports on an “advanced property”.

C. Capital and operating costs

Disclosure requirement

Item 21 of Form 43-101F1 requires the Technical Report for an “advanced property” to include a summary of capital and operating cost estimates, with the major components set out in tabular form. The summary must explain and justify the basis for the cost estimates.

Findings of Review

We found that 26% of the Technical Reports on advanced properties did not adequately disclose information required by Item 21 of Form 43-101F1. In some cases, the main components of the capital cost estimate were not provided. In other cases, the Technical Report did not provide justification for how the operating cost estimate was determined or why certain costs were assumed.

Commentary

It is important for qualified persons to include disclosure of the main components of the estimated capital and operating costs and the basis for these costs.

Cost estimates should not be a single bottom-line number. Qualified persons are reminded to provide more context and justification for capital and operating cost estimates included in Technical Reports for an “advanced property”.

D. Economic analysis

Disclosure requirement

Item 22 of Form 43-101F1 requires that the Technical Report for an “advanced property” provide an economic analysis for the mineral project. The economic analysis must include a clear statement of and justification for the principal assumptions and cash flow forecasts on an annual basis using mineral reserves or mineral resources and an annual production schedule for the life of the project. It must also include a discussion of net present value, internal rate of return and payback period of capital with imputed or actual interest. Specifically, Item 22(d) of Form 43-101F1 requires that the economic analysis include a summary of the taxes, royalties and other governmental levies or interests applicable to the mineral project or to production and to revenue or income from the mineral project. Finally, Item 22(e) of Form 43-101F1 requires that the economic analysis include sensitivity or other analysis using variants in commodity price, grade, capital and operating costs or other significant parameters as appropriate, and a discussion of the impact of the results.

Findings of Review

We found that 37% of the Technical Reports on advanced properties did not sufficiently disclose the economic analysis information required by Item 22 of Form 43-101F1. We found that some Technical Reports did not provide cash flows on an annual basis or provide an appropriate sensitivity analysis with related impacts on the economic analysis. We also found that 40% of the Technical Reports on mineral projects at a PEA-stage did not adequately address the issue of taxes applicable to the mineral project.

Commentary

Reporting of only pre-tax cash flows in a Technical Report for an advanced property which includes results of a PEA, pre-feasibility or feasibility study does not meet the disclosure requirement Item 22(d) of Form 43-101F1 or provide sufficient information for investors to properly assess the mineral project. Additionally, our Review noted some instances of very limited ranges of sensitivities or only up-side

sensitivities which may not reflect the true nature of the project risk as required by Item 22(e) of Form 43-101F1.

It is potentially misleading for a Technical Report on an “advanced property” to disclose only pre-tax cash flows and economic outcomes or to disclose only positive metal price changes or only up-side sensitivity analysis.

E. Interpretation and conclusions

Disclosure requirement

Item 25 of Form 43-101F1 requires the Technical Report to summarize the relevant results and interpretations of the information and analysis being reported on. Specifically, it includes a new requirement to discuss any significant risks and uncertainties and any related reasonably foreseeable impacts of these risks and uncertainties. The interpretation and conclusions section is required to include a discussion on any significant risks and uncertainties that could reasonably be expected to affect the reliability or confidence in the exploration information, mineral resource or mineral reserve estimates or projected economic outcomes. The Technical Report should also include a discussion of any reasonably foreseeable impacts of these risks and uncertainties to the project’s potential economic viability or continued viability. A Technical Report concerning exploration information must include the conclusions of the qualified person.

Findings of Review

Our Review revealed that 36% of Technical Reports reviewed did not disclose project specific risks and uncertainties such as the availability of water rights, use of a novel mineral processing technology or the potential impact of a civil war in the region.

Commentary

Item 25 of Form 43-101 requires the qualified person to include in the Technical Report a clear overview of the main risks, uncertainties and potential impacts of these risks and uncertainties on the mineral project and its potential future development. Some Technical Reports reviewed contained a concise summary table which clearly provided this information.

Qualified persons should consider including in the Technical Report a table showing the significant project specific risks, potential outcomes and mitigating factors along with supplementary discussions. Possible opportunities may also be included, if reasonable.

4. GUIDANCE FOR MINING ISSUERS IN OTHER AREAS OF CONCERN

To further assist mining issuers and qualified persons in complying with the disclosure requirements in Form 43-101F1, we have set out guidance for the Technical Report sections where we noted other areas of concern in our Review.

A. Summary

Disclosure requirement

Item 1 of Form 43-101F1 requires a brief summary of important information in the Technical Report, including property description, ownership, geology and mineralization, the status of exploration, development and operations, mineral resource and mineral reserve estimates and the qualified person's conclusions and recommendations.

Findings of Review

Our Review found that 24% of the Technical Reports did not provide a summary that met the requirements in Form 43-101F1 and did not provide a useful overview of the important information and key findings about the mineral project in particular. Some Technical Reports with mineral resource estimates or PEA outcomes did not include this information in the summary. Where other report items were deficient, the deficiencies often also appeared in the summary.

Commentary

The summary is a key part of the Technical Report and needs to include important information relative to the stage of development of the mineral property. If a mineral resource has been estimated or a PEA has been disclosed the actual numbers and key findings need to be included in the summary. A qualified person may refer to section 5.4 of Form 51-102F2 *Annual Information Form* as a possible template for what to include in the summary of a Technical Report.

A qualified person is reminded to briefly summarize important information and "key findings" about the property including:

- property description and ownership
- data verification and site visits
- mineral resource and mineral reserve estimates (if applicable)
- mining studies and economic analysis (if applicable)
- qualified person's conclusions and recommendations.

B. History

Disclosure requirement

Item 6 of Form 43-101F1 requires a description of:

- the prior ownership of the property and ownership changes
- the type, amount, quantity and general results of exploration and development work undertaken by any previous owners or operators
- any significant historical estimates in accordance with the requirements and cautionary language in section 2.4 of NI 43-101 and
- any production from the property.

If the Technical Report includes work that was conducted outside the issuer's current property boundaries, the disclosure should distinguish this work from the work conducted on the property that is the subject of the Technical Report.

Findings of Review

We observed that 28% of the Technical Reports reviewed did not include the cautionary statements required by section 2.4 of NI 43-101 when a historical estimate was disclosed.

Commentary

Simply stating that the historical estimate is not compliant with NI 43-101 does not satisfy the requirements of NI 43-101. Subsection 2.4(g) of the NI 43-101 requires that each time a historical estimate is disclosed, either in the Technical Report or in the issuer's other disclosure, the cautionary language must be stated with equal prominence that:

- a qualified person has not done sufficient work to classify the historical estimate as a current resource estimate and
- the issuer is not treating the historical estimate as a current resource estimate.

Qualified persons and issuers are reminded to include the required cautionary language as set out in section 2.4 of NI 43-101 every time a historical estimate is disclosed.

C. Qualified person certificate

Disclosure requirements

Subsection 8.1(1) of NI 43-101 requires an issuer, when filing a Technical Report, to file a certificate that is dated, signed, and if the signatory has a seal, sealed, for each qualified person responsible for preparing or supervising the preparation of all or part of the Technical Report.

Additionally, paragraph 8.1(2) of NI 43-101 provides a list of the specific information and statements required to be included in the qualified person(s) certificate including, but not limited to, the qualified person's qualifications, brief summary of their relevant experience and the item(s) of the Technical Report for which the qualified person is responsible.

Findings of Review

We found that 24% of the qualified person(s) certificates were deficient. In some instances, the certificate was not dated or signed. In other cases, the qualified person(s) did not include which items of the Technical Report they were responsible for or a summary of their relevant experience related to the commodity, type of mineral deposit and situation under consideration that they were responsible for in the Technical Report.

Commentary

It is important to ensure that each section of the Technical Report has a qualified person with the appropriate relevant experience taking responsibility for the information provided.

Qualified persons are reminded to include all the required statements as per subsection 8.1(2) of NI 43-101. The qualified person's certificate is one of the first things checked by the regulators when reviewing a Technical Report.

5. GOVERNANCE STRUCTURES AROUND FORM 43-101F1 AND NI 43-101

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 pursuant to section 2.1 of NI 43-101. Section 2.1 of the Companion Policy to NI 43-101 provides that primary responsibility for the disclosure in an issuer's Technical Report, and the proper use of the scientific and technical information provided by the qualified person, is the responsibility of the issuer and its directors and officers.

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

In our view, while there is no statutory requirement that directors review the issuer's Technical Reports in full, each issuer should determine how it can meet our expectations with regards to the disclosure responsibility set out in section 2.1 of the Companion Policy to NI 43-101. In fulfilling their oversight function relating to the Technical Report, a board of directors should consider the composition and technical skill set of the board of directors, its various committees and the management team in order to ensure that it can meet the issuer's responsibilities for mining-related disclosure.

6. CONCLUSIONS AND QUESTIONS

Mining issuers and qualified persons should consider NI 43-101, Form 43-101F1 and the guidance in this notice when preparing their Technical Reports to ensure that each Technical Report complies with securities legislation and provides investors with meaningful information for making investment decisions. It is important for investors to have accurate and meaningful information about a mineral property material to the issuer.

We will continue the review of Technical Reports of Ontario mining issuers as part of our overall CD program. Issuers should anticipate staff requests for re-filings or other staff action, where appropriate, if an issuer has not fully met the requirements of Form 43-101F1 and NI 43-101. Please note that the issues raised in a review will be taken into consideration when determining whether a prospectus receipt should be issued. Unresolved issues may delay the prospectus receipt, particularly for short form prospectus filings.

Please refer your questions to any of the following people:

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