

Consultation Questions**July 27, 2022**

My response to these questions come from the perspective of one who has written technical reports and one who has reviewed technical reports for investment firms who require professional opinions on the merits of projects and whether technical reports comply with NI43-101 and the Form.

In general, I find that technical reports submitted for listing on “early stage exploration properties” are poorly written in terms of English grammar and usage, poorly organized, frequently long winded, and non-compliant with the Form and the Instrument. Qualified person(s) either fail to check all of the “boxes” or fail to adequately address the issues requested under items of the Form when writing reports, which is somewhat surprising when in their Certificates they claim to have read NI43-101 and prepared their report in compliance with the Form. NI43-101F1 is quite prescriptive. It should be quite easy to address the points requested under each Item of the Form and in the order that they are found under each Item. Having stronger guiding language in the Introduction of the Form may help overcome these problems for found in reports presenting early stage projects for listing – projects that need clear and unambiguous disclosure. While updating and improving the Instrument and Form sound like a good idea educating the qualified persons who will be writing technical report compliant with the Instrument and Form might be a better idea. Having Professional Associations implement mandatory CPE requirements for professional geoscientists registered in Canada to complete training modules on writing technical reports and writing NI43-101F1 technical reports would be very helpful, especially if and when the Form and Instrument are revised. I favour a more prescriptive approach, as the structure of the Form directs a qualified person to the information that needs to be summarized in order to provide investors with a clear understanding of the merits and risks of a project. The trick is compliance.

I also find that the listing requirements of the Canadian Stock Exchange make it relatively easy, particularly during risk tolerant market cycles, to list properties on which the issuer has done nothing and on which prior exploration work ranges from nil to considerable. While there needs to be a place to access risk capital for these types of projects, Qualified Person(s) will still need to follow the Form. The Exchanges need to emphasize this to issuers.

Technical reports for projects announcing resources and advanced projects with resources and reserves tend to follow the Form more closely and are better written, probably because a team of qualified persons is involved. However, the conclusions in reports for advanced projects typically rely on more assumptions that need full disclosure in order for investors to assess project risk.

A. Improvement and Modernization of NI 43-101**1. Do the disclosure requirements in the Form for a pre-mineral resource stage project provide information or context necessary to protect investors and fully inform investment decisions? Please explain.**

Additional language to focus investors’ attention on the very high risks posed by pre-mineral resource projects and “early stage exploration properties” is warranted in my opinion. Language in Item 1 and repeated in Item 25 stating that “There is no guarantee that further exploration work will locate mineral resources having economic potential”, or alternatively “the deposit model proposed for the project/property is conceptual in nature, there has been insufficient exploration to define a mineral resource, and it is uncertain if further exploration will result in the determination of a

mineral resource”, should be considered for inclusion in technical reports on pre-mineral resource projects.

*Statements declaring that there are **no** mineral resource or reserve estimates for these projects are often lacking in Item 1 of technical reports submitted by QP(s) who claim to have read NI43-101 and have prepared their report in compliance with NI43-101F1.*

- 2. a) Is there an alternate way to present relevant technical information that would be easier, clearer, and more accessible for investors to use than the Form? For example, would it be better to provide the necessary information in a condensed format in other continuous disclosure documents, such as a news release, annual information form or annual management’s discussion and analysis, or, when required, in a prospectus?**

No. The need to use the Form is primarily triggered by specific events in a company’s development, such as: i) on listing, ii) announcing an initial resource estimate for a project, iii) announcing resource updates, iv) issuing Preliminary Economic Evaluations, v) reporting Pre-feasibility Studies, and vi) Feasibility Studies. Technical reports at these stages present investors with important compilations of work done and allow them to judge the projects merits based on disclosure presented in these compilations, rather than trying to piece together a picture through the continuous disclosure in new releases.

In condensing the Form the risk is that some significant information that an investor may need to assess the merits of a project may be left out, inadvertently or otherwise. Assumptions on which a projects potential is based may not be properly disclosed in a summary; as a consequence information that an investor should have access to may be lost. Such documents could be constructed to bias investor’s decisions by forward looking speculation put forth by less than scrupulous management and promoters.

Items 1 and 25 should capture a brief overview of a project, providing an “easier, clearer, and more accessible” presentation of a project’s “relevant technical information.” However, with more advanced projects the “devil is in the details” without those details investors are left in the dark.

- 2. b) If so, for which stages of mineral projects could this alternative be appropriate, and why?**

None. As projects advance the amount and complexity of information increases, again, the risk is that condensing the information may leave out important aspects needed to provide a fulsome assessment of the merits and risks of a project.

- 3. a) Should we consider greater alignment of NI 43-101 disclosure requirements with the disclosure requirements in other influential mining jurisdictions?**

Yes.

- 3. b) If so, which jurisdictions and which aspects of the disclosure requirements in those jurisdictions should be aligned, and why?**

CRIRSCO International Reporting Template, 2019 should be the guiding document, in my opinion.

- 4. Paragraph 4.2(5)(a) of NI 43-101 permits an issuer to delay up to 45 days the filing of a technical report to support the disclosure in circumstances outlined in paragraph 4.2(1)(j) of**

NI 43-101. Please explain whether this length of time is still necessary, or if we should consider reducing the 45-day period.

Is the present 45-day period enforced? Are requests for extensions easily granted?

It would seem to me that if a disclosure of information has been made by way of an issuer's news release, then they must have most, if not all of the information needed to prepare the technical report. Consequently, 30 days should be sufficient. If extensions are allowed the issuer should be required to issue a news release stating that it has been granted an extension to file its technical report and stating the reasons for the extension in order to keep investors apprised of the situation.

5. a) Can the investor protection function of the current personal inspection requirement still be achieved through the application of innovative technologies without requiring the qualified person to conduct a physical visit to the project?

For early stage, pre-mineral resource projects LiDAR and high resolution digital imagery supplemented by geological information in online government geological survey data bases, assessment reports, should be sufficient, particularly for remote project sites. However, for road accessible projects every effort should be made for the QP to access and assess the project area. For advanced projects the QP(s) will need to conduct a site visit as part of data validation, checking drill core, drill hole locations, camp and associated mine buildings, infrastructure, as applicable to the particular project.

5. b) If remote technologies are acceptable, what parameters need to be in place in order to maintain the integrity of the current personal inspection requirement?

See 5(a).

B. Data Verification Disclosure Requirements

Data verification as defined in section 1.1 and outlined in section 3.2 of NI 43-101 applies to all scientific and technical disclosure made by the issuer on material properties. For example, data verification:

- **requires accurate transcription from the original source, such as an original assay certificate,**
- **is not adequate when limited to transcribing data from a previous technical report,**
- **is not limited to technical reports but also to other disclosure such as websites, news releases, corporate presentations, and other investor relations material, and**
- **is not limited to the drill hole database and must be completed for all data in a technical report.**

6. Is the current definition of data verification adequate, and are the disclosure requirements in section 3.2 of NI 43-101 sufficiently clear?

In my opinion, data verification is, or requires, an audit of the issuer's project data, which requires an audit plan that must be an adequate test, depending on the nature and extent of the data, to verify the data presented and used to reach conclusions and recommendation in the technical report. QP(s) should be required to lay out the data audit plan, whether the plan was fully carried

out, if any obstacles occurred that prevented the QP(s) from carrying out the data audit plan, and the findings of the data audit.

While the language in NI 43-101 3.2 appears to cover these points, stronger language would emphasize the importance of this task.

Professional bodies should provide their members (i.e. QPs) with CPE workshops/training sessions on project data audits that will provide them with appropriate skills, knowledge, and procedures necessary to perform appropriate data verification.

Item 12: Data Verification of the Form addresses a core principle of NI 43-101 and is a primary function of qualified persons. Mining Reviews demonstrate that disclosure in this item is often non-compliant. For example, we do not consider any of the following to be adequate data verification procedures by the qualified person:

- **QA/QC measures conducted by the issuer or laboratory;**
- **database cross-checking to ensure the functionality of mining software;**
- **reliance on data verification by the issuer or other qualified persons related to previously filed technical reports; and**
- **unqualified acceptance of legacy data, such as disclosing that former operators followed “industry standards”.**

In addition, qualified persons frequently limit data verification procedures to the drill hole data set, resulting in a general failure to meet the disclosure requirements of Item 12 of the Form, which apply to all scientific and technical information in a technical report.

7. How can we improve the disclosure of data verification procedures in Item 12 of the Form to allow the investing public to better understand how the qualified person ascertained that the data was suitable for use in the technical report?

Requirement for a formal data audit – see comments under 6 above.

8. Given that the current personal inspection is integral to the data verification, should we consider integrating disclosure about the current personal inspection into Item 12 of the Form rather than Item 2(d) of the Form?

Clearly, current personal inspection is a part of the data verification procedures, at least in my opinion. This is especially true for advanced projects (see comments under 5(a) above). It would therefore make sense to move Item 2(d) of the Form into Item 12.

C. Historical Estimate Disclosure Requirements

9. Is the current definition of historical estimate sufficiently clear? If not, how could we modify the definition?

The current definition of historical estimate needs to reference CIM definition standards for greater clarity, such as:

“historical estimate” means an estimate of the quantity, grade, or metal or mineral content of a deposit that an issuer has not verified as a current mineral resource or mineral reserve following CIM definition standards for mineral resources and mineral reserves, and which estimate was prepared

before the issuer acquiring, or entering into an agreement to acquire, an interest in the property that contains the deposit.

10. Do the disclosure requirements in section 2.4 of NI 43-101 sufficiently protect investors from misrepresentation of historical estimates? Please explain.

Yes, I believe they do. And the Form does require that QP(s) describe historical estimates according to 2.4 of NI 43-101 under Item 6(c). For greater clarity it would be helpful to include the language from the Instrument in the Form.

D. Preliminary Economic Assessments

11. Should we consider modifying the definition of preliminary economic assessment to enhance the study's precision? If so, how? For example, should we introduce disclosure requirements related to cost estimation parameters or the amount of engineering completed?

No.

12. Does the current cautionary statement disclosure required by subsection 2.3(3) of NI 43-101 adequately inform investors of the full extent of the risks associated with the disclosure of a preliminary economic assessment? Why or why not?

Yes. However, for greater clarity and guidance for qualified person(s) who write the reports, consider repeating the language in the Instrument in the Form.

13. Subparagraph 5.3(1)(c)(ii) of NI 43-101 triggers an independence requirement that may not apply to significant changes to preliminary economic assessments. Should we introduce a specific independence requirement for significant changes to preliminary economic assessments that is unrelated to changes to the mineral resource estimate? If so, what would be a suitable significance threshold?

My first reaction is no. Multiple PEA's for a project should not be allowed. Either a project advances to pre-feasibility from a PEA or it fails. However, if a project fails because of things unrelated to its resource estimate, but at a later date is resurrected by an issuer because of changes in, say, commodity prices or mining and/or recovery technology or other non-resource related things, then qualified person(s) independent of the issuer should be required to sign-off on the report - no threshold required. Investors will need disclosure of the changes that is supported by an independent qualified person(s) appraisal of the changes in order to have confidence in the project and to be aware of any changes in the risks the project may face to further development.

14. Should we preclude the disclosure of preliminary economic assessments on a mineral project if current mineral reserves have been established?

Yes. Mineral reserves by definition have a substantial level of economic support/justification. Consequently, reporting should fall under a pre-feasibility study at least.

15. Should NI 43-101 prohibit including by-products in cash flow models used for the economic analysis component of a preliminary economic assessment that have not been categorized as measured, indicated, or inferred mineral resources? Please explain.

By-product needs to be defined and distinguished from co-products. While there may be potential to add value to a project with the recovery of by-products, the problem occurs when the economics of a project appear to hinge on the recovery and sale of by-products for which the market is very small or for which transportation costs would be too high to justify recovery and marketing of by-products. Unless the qualified person has data to support the recovery and sale of by-products from a particular project, then by-products should not be included in cash flow models.

E. Qualified Person Definition

16. Is there anything missing or unclear in the current qualified person definition? If so, please explain what changes could be made to enhance the definition.

No.

17. Should paragraph (a) of the qualified person definition be broadened beyond engineers and geoscientists to include other professional disciplines? If so, what disciplines should be included and why?

No. Not at this time.

18. Should the test for independence in section 1.5 of NI 43-101 be clarified? If so, what clarification would be helpful?

Change 1.5 to add the underlined phrase below:

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

19. Should directors and officers be disqualified from authoring any technical reports, even in circumstances where independence is not required?

Yes. While allowing this may be a cost saving measure for junior companies. The risk of having personal biases creep into a report are too great. The credibility, and therefore value, of a report is increased by having an independent qualified person(s) author a technical report.

F. Current Personal Inspections

20. Should we consider adopting a definition for a “current personal inspection”? If so, what elements are necessary or important to incorporate?

- *Define current: within the last 6 month or two years or older/other? During a period after the most recent exploration work was conducted on the property by the issuer or*

others; the reason being that the QP will be responsible for reporting on that work, so as a consequence the QP should validate it with an on-site inspection.

- *Duration of visit,*
- *Area covered (with GPS technology the track of a qualified person's visit can be easily documented),*
- *What elements of the visit supported the validation of information on the project (eg. road access and condition of roads; drill hole locations; drill core if on site; claim posts, if not staked online; suitable sites for mine infrastructure).*

21. Should the qualified person accepting responsibility for the mineral resource estimate in a technical report be required to conduct a current personal inspection, regardless of whether another report author conducts a personal inspection? Why or why not?

No. The data required to perform a mineral resource estimate does not require a person to physically go to the property. However, the resource estimator would need confirmation of geology from a qualified person who has made a site visit, has viewed drill core/cuttings that form a partial basis for the resource estimate, and is the responsible author for Items in the report concerning geology and mineralization.

22. In a technical report for an advanced property, should each qualified person accepting responsibility for Items 15-18 (inclusive) of the Form be required to conduct a current personal inspection? Why or why not?

Clearly, the more eyes on a site visit, the greater opportunity for the qualified persons involved to understand and disclose the risks involved in a project, as well as, possible ways to mitigate those risks. The qualified person responsible for Item 15 for reasons discussed above (#22) may not need to conduct a personal inspection. The qualified person responsible for Item 16 should conduct a personal inspection and also should be able to accept responsibility for Item 18. There is probably not a need for the qualified person responsible for Item 17 to go to site since much of his/her work will be based on laboratory results.

23. Do you have any concerns if we remove subsection 6.2(2) of NI 43-101? If so, please explain.

Yes, keep it in. Apart from the Form, 6.2(2) of the Instrument provides issuers with requirements for content of news releases and other disclosure of exploration information.

G. Exploration Information

24. Are the current requirements in section 3.3 of NI 43-101 sufficiently clear? If not, how could we improve them?

Yes, sufficiently clear.

H. Mineral Resource / Mineral Reserve Estimation

25. Should Item 14: Mineral Resource Estimates of the Form require specific disclosure of reasonable prospects for eventual economic extraction? Why or why not? If so, please explain the critical elements that are necessary to be disclosed.

No. Items 16 to 22 require specific disclosure of factors that, in part, through either Preliminary Economic Assessments, or Pre-feasibility Studies and Feasibility Studies would enable disclosure of reasonable prospects for eventual economic extraction.

Data verification

26. a) Should the qualified person responsible for the mineral resource estimate be required to conduct data verification and accept responsibility for the information used to support the mineral resource estimate? Why or why not?

Yes. It is critical that the resource estimator conduct verification of the data used in his/her estimate in order to provide investors with a reasonable degree of confidence in the estimate.

b) Should the qualified person responsible for the mineral resource estimate be required to conduct data verification and accept responsibility for legacy data used to support the mineral resource estimate? Specifically, should this be required if the sampling, analytical, and QA/QC information is no longer available to the current operator. Why or why not?

In this situation the qualified person may only be able to estimate inferred resources based in legacy data. If that is the case then, yes, as much data verification as possible should be undertaken and disclosed, through site visits to verify drill hole locations, examination of drill logs, and drill core, etc., again, if available.

Risk factors with mineral resources and mineral reserves

27. How can we enhance project specific risk disclosure for mining projects and estimation of mineral resources and mineral reserves?

Difficult. As each project will have its own unique risks. QPs must clearly disclose assumptions they have made for mining projects and in resource estimation and discuss potential impacts of these assumptions.

I. Environmental and Social Disclosure

28. Do you think the current environmental disclosure requirements under Items 4 and 20 of the Form are adequate to allow investors to make informed investment decisions? Why or why not?

Yes, assuming that the qualified person(s) appropriately addresses the issues raised, particularly for advanced projects, as under Item 20.

29. Do you think the current social disclosure requirements under Items 4 and 20 of the Form are adequate to allow investors to make informed investment decisions? Why or why not?

Yes, but with developing ESG standards this may likely require more disclosure in the future.

30. Should disclosure of community consultations be required in all stages of technical reports, including reports for early stage exploration properties?

No. Not for early stage exploration projects

J. Rights of Indigenous Peoples

31. What specific disclosures should be mandatory in a technical report in order for investors to fully understand and appreciate the risks and uncertainties that arise as a result of the rights of Indigenous Peoples with respect to a mineral project?

- *Indigenous Peoples may object to exploration and development on an issuer's property(s) delaying the timelines to execute project work, making financing difficult or impossible to arrange.*

32. What specific disclosures should be mandatory in a technical report in order for investors to fully understand and appreciate all significant risks and uncertainties related to the relationship of the issuer with any Indigenous Peoples on whose traditional territory the mineral project lies?

- *Whether or not the Issuer has a formal, documented plan to engage with affected First Nations whose land claims or Treaty Rights cover the area of the issuer's property(s);*
- *the extent to which that plan has been initiated, as evidenced by emails and/or other documents;*
- *documented support for or opposition to the issuers proposed exploration and development plans.*

33. Should we require the qualified person or other expert to validate the issuer's disclosure of significant risks and uncertainties related to its existing relationship with Indigenous Peoples with respect to a project? If so, how can a qualified person or other expert independently verify this information? Please explain.

No, not a long as the issuer can provide documentary evidence supporting his claims for engagement with affected Indigenous Peoples.

K. Capital and Operating Costs, Economic Analysis

Capital and operating costs

34. Are the current disclosure requirements for capital and operating costs estimates in Item 21 of the Form adequate? Why or why not?

For Item 21, include the underlined language, below:

Capital and Operating Costs – Provide a summary of capital and operating cost estimates, with the major components set out in tabular form. Explain and justify the basis for the cost estimates, including the underlying assumptions.

35. Should the Form be more prescriptive with respect to the disclosure of the cost estimates, for example to require disclosure of the cost estimate classification system used, such as the classification system of the Association for the Advancement of Cost Engineering (AACE International)? Why or why not?

No comment.

36. Is the disclosure requirement for risks specific to the capital and operating cost assumptions adequate? If not, how could it be improved?

Require the qualified person(s) to add cautionary language, such as: capital and operating costs are based on estimates that can change over time. Particularly, when the time between the estimates and the project execution is several years or more. Changes in the estimates can be the result of changes in inflation rates impacting commodity prices and other costs, supply chain issues, operating jurisdiction, and unforeseen factors. Consequently, risks associated with these estimates can be difficult to assess with precision.

Economic analysis

37. Are there better ways for Item 22 of the Form to require presentation of an economic analysis to facilitate this key requirement for the investing public? For example, should the Form require the disclosure of a range of standardized discount rates?

Under 22(e), discount rates could be added to the sensitivity analysis requirement. A range of discounts reflecting country risk (low, moderate, and high) would be appropriate.

L. Other

38. Are there other disclosure requirements in NI 43-101 or the Form that we should consider removing or modifying because they do not assist investors in making decisions or serve to protect the integrity of the mining capital markets in Canada?

Not that I can think of at this time.