September 13, 2022

To the attention of:
British Columbia Securities Commission
Alberta Securities Commission
Financial and Consumer Affairs Authority of Saskatchewan
Manitoba Securities Commission
Ontario Securities Commission
Autorité des marchés financiers
Financial and Consumer Services Commission, New Brunswick
Superintendent of Securities, Department of Justice and Public Safety, Prince Edward Island
Nova Scotia Securities Commission
Office of the Superintendent of Securities, Service NL
Northwest Territories Office of the Superintendent of Securities
Office of the Yukon Superintendent of Securities
Nunavut Securities Office

Care of:

Chris Collins
Chief Mining Advisor, Corporate Finance
British Columbia Securities Commission
P.O. Box 10142, Pacific Centre
701 West Georgia Street
Vancouver, British Columbia V7Y 1L2
Fax: 604-899-6616
ccollins@bcsc.bc.ca

Me Philippe Lebel
Corporate Secretary and Executive Director, Legal Affairs
Autorité des marchés financiers
Place de la Cité, tour Cominar
2460, boulevard Laurier, bureau 400
Québec (Québec) G1V 5C1
Fax: 514-864-8381
consultation-en-cours@lautorite.qc.ca

The Secretary
Ontario Securities Commission
20 Queen Street West, 22nd Floor
Toronto, Ontario M5H 3S8
Fax: 416-593-2318
comments@osc.gov.on.ca

RE: WSP GOLDER RESPONSES TO CSA CONSULTATION PAPER 43-401 CONSULTATION ON NATIONAL INSTRUMENT 43-101 STANDARDS OF DISCLOSURE FOR MINERAL PROJECTS

Dear Canadian Securities Administrators members:

Enclosed you will find our consultation responses regarding the Canadian Securities Administrators (CSA) Consultation Paper 43-401 Consultation on National Instrument (NI) 43-101 Standards of Disclosure for Mineral Projects, issued by the CSA on April 14, 2022 (the Consultation Paper).

WSP Golder (hereinafter “WSP”) appreciates this opportunity to provide comment regarding the efficacy of several key provisions of NI 43-101, priority areas for revision, and whether regulatory changes would address concerns expressed by certain stakeholders as requested by the CSA in the Consultation Paper. We are happy to use our experience in preparing NI 43-101 technical reports and other mining related technical disclosure to provide insights in response to your consultation questions.

Please do not hesitate to contact us if you have any further questions related to our response.

Yours sincerely,

“Signed by”	“Signed by”
Kevin Beauchamp Global Director Mining	Matthew Boland Mining General Counsel

KB/MB/jdw/so/cg/ic

CC: Andre-Martin Bouchard, Global Director, Earth and Environment
Philippe Fortier, Chief Legal Officer and Corporate Secretary

The questions and format have been reproduced verbatim from the Consultation Paper and are presented in black in the following sections, with WSP responses to each question presented in red.

Consultation Questions

A. Improvement and Modernization of NI 43-101

The disclosure items in the Form have generally remained unchanged since NI 43-101 was adopted in 2001, with some reorganization for advanced stage properties in 2011.

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.

   Response: Yes, in general the disclosure requirements in Form F1 (the Form) for a pre-mineral resource stage project provide the information and context necessary to protect investors and fully inform investment decisions via the various items of the technical report that do not meet the criteria for an advanced stage project. We do feel that a shortened version of the Form specific to pre-mineral resource stage projects could simplify reporting so that they don't simply become a "book report" padded with all available legacy/historical information, regardless of relevance or ability to be verified by the Qualified Person (QP).

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?

   Response: The Form is the appropriate venue for presenting this information to investors; however, we feel there is the possibility of combing some of the related items in the Form to shorten the technical report, reduce potential repetition, and provide a more succinct summary for investors. For example, separate items on geology and deposit type, as well as separate items for exploration, drilling and sampling could be combined into a Geology item and an Exploration item respectively. This would eliminate some repetition in the reporting and shorten the overall table of contents.

   Additionally, more formal guidelines could be introduced to ensure that the technical report presents a relevant summary of the underlying technical work rather than being the voluminous underlying study report itself as is sometimes the case (i.e., filing of the PEA/PFS/FS report in technical report format).

   It is out view that the AIF and MD&A are not appropriate alternative venues for the information since those documents are always incorporated into a prospectus while not all technical report information is currently required to be included in a prospectus.

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

   Response: Any adjustments to the Form should apply across all stages of mineral projects.

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

   Response: So long as coordination with Committee for Mineral Reserves International Reporting Standards (CRIRSCO) is maintained, no significant or obvious realignment with disclosure standards from other mining jurisdictions is required.

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

Response: Not applicable per the response to question 3 a) above.

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.

Response: We consider the 45-day period to be appropriate. In the absence of the 45-day period, or if there is a shorter period, issuers who inadvertently triggered a technical report might not have time to react.

In recent years, CSA staff have observed mining issuers making use of new technologies to conduct exploration on their properties, including the use of drones. During the COVID-19 pandemic, we received inquiries from qualified persons about the possible use of remote technologies to conduct the current personal inspection.

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?

Response: We feel that the application of innovative technologies is appropriate for use as part of the current personal inspection in a limited supporting capacity but can not replace a physical visit to the project property entirely. Potential applications could include the use of new technologies by additional QPs where a minimum of one other QP has performed a physical site visit. We feel there needs to be specific guidance around standards for application of new technology; however, we feel these would be better addressed elsewhere as addressed in our response to question 5 b) below.

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?

Response: Given the rapidly evolving nature of “innovative technologies”, we feel parameters and guidelines relating to the acceptable application in support of the current personal inspection requirement would be better addressed via industry standard best practice guidelines such as those prepared and maintained by the CIM, rather than in the Instrument itself.

B. Data Verification Disclosure Requirements

Mineral projects commonly pass through the hands of several property holders, each generating exploration and drilling data. Using data collected from former operators prior to the current issuer’s involvement in the project (**legacy data**) may be legitimate, but this data needs to be carefully verified, and transparently documented in technical reports. CSA staff see inadequate data verification disclosure at every project stage, from early stage exploration properties to feasibility studies.

Describing sample preparation, security, analytical procedures, and quality assurance/quality control (**QA/QC**) measures is critical to an understandable mineral resource estimate. Qualified persons must state their professional opinion on those processes, explain the steps they took to verify the integrity of the data, and state their professional opinion whether the data suits the purpose of the technical report. CSA staff emphasized these requirements in both CSA Staff Notice 43-309 *Review of Website Investor Presentations by Mining Issuers* and CSA Staff Notice 43-311 *Review of Mineral Resource Estimates in Technical Reports* (**CSA Staff Notice 43-311**).

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?

   Response: Yes, the current definition of data verification is adequate, and the disclosure requirements in section 3.2 of NI 43-101 are sufficiently clear. There is concern over the Instrument becoming too prescriptive regarding data verification requirements and approaches as the QP should be allowed the necessary flexibility and judgement to determine the appropriate approach for the given deposit type, style of mineralization, source data available and so forth.

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?

   Response: We agree that the disclosure of data verification is commonly focused solely on the data verification relating to geology and mineral resources. The definition for the requirement to complete data verification should be modified to clearly reflect that it applies to all technical disciplines that have used data to develop their models, designs and so forth. The CSA should avoid becoming too specific on data verification details and leave that to the guidance provided in industry standards such as the CIM best practices guidelines.

   An alternative approach to the current structuring of the Instrument, would be to require a QP data verification section in each relevant item of the technical report where data are likely to be used and discussed by a QP (i.e., Item 13 through Item 22), rather than occurring in Item 12. The current placement, immediately following the discussion of the various forms of exploration, drilling and

sample data, may inadvertently result in the verification discussion in Item 12 focusing on the exploration and other forms of geological data at the expense of discussing data that are used by QPs in later items of the technical report.

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?

   Response: Yes, we agree that given the integral role the current personal inspection plays in the data verification process, disclosure relating to the current personal inspection is better addressed in Item 12 of the Form rather than in Item 2(d) of the Form as is the current situation. This adjustment would simplify and remove repetition from the technical report.

C. Historical Estimate Disclosure Requirements

In spite of extensive guidance in the Companion Policy, CSA staff see significant non-compliant disclosure of historical estimates. We remind issuers that non-compliance with section 2.4 of NI 43-101 can trigger the requirement to file a technical report under subsection 4.2(2) of NI 43-101. Examples of non-compliance include:

- failure to review and refer to the original source of the historical estimate,
- failure to include the cautionary statements required by paragraph 2.4(g) of NI 43-101, or inappropriate modification of such statements,
- failure to include required disclosure of key assumptions, parameters and methods used to prepare the historical estimate, and
- inappropriate disclosure by an issuer of a previous estimate.

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

   Response: Yes, the current definition of an historical estimate is sufficiently clear, and no modifications are required to the definition, or the required cautionary statements as identified in paragraph 2.4(g) of the Instrument.

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

    Response: Yes, the disclosure requirements in section 2.4 of the Instrument sufficiently protect investors from misrepresentation of historical estimates and no modifications are required.

D. Preliminary Economic Assessments

The disclosure requirements for preliminary economic assessments were substantially modified in 2011, resulting in unintended consequences requiring additional guidance published in CSA Staff Notice 43-307 *Mining Technical Reports – Preliminary Economic Assessments* in August 2012.

Mining Reviews continue to show that preliminary economic assessment disclosure remains problematic for issuer compliance and, more importantly, is potentially harmful to investors. While the inclusion of inferred mineral resources is a recognized risk to the realization of the preliminary economic assessment, CSA staff's view is that the broad, undefined range of precision of a preliminary economic assessment also contributes to that risk. This range of precision is incongruent with one of the core principles of NI 43-101, which is that investors should be able to confidently compare the disclosure between different projects by the same or different issuers. In addition, CSA staff see evidence of modifications to cautionary language required by subsection 2.3(3) of NI 43-101 that render

this provision less effective.

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?

    Response: No, introducing requirements related to costs and/or other areas whereby limited information may be available for a PEA could lead to misguiding investors. For instance, PEA's tend to use benchmarking data from other studies or operations; however, during the PEA stage many of the underlying assumptions such as the mining method, equipment selection, processing rate, may still be uncertain.

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?

    Response: Yes, the current cautionary statement disclosure required by subsection 2.3(3) of NI 43-101 adequately informs investors of the full extent of the risks associated with the disclosure of a preliminary economic assessment.

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?

    Response: Yes, a material change should trigger an independence requirement.

In 2011, we broadened the definition of preliminary economic assessment in NI 43-101 in response to industry concerns that issuers needed to be able to take a step back and re-scope advanced properties based on new information or alternative production scenarios. In this context, the revised definition was based on the premise that the issuer is contemplating a significant change in the existing or proposed operation that is materially different from the previous mining study.

CSA staff continue to see considerable evidence of preliminary economic assessment disclosure, subsequent to the disclosure of mineral reserves, which is potentially misleading and harmful to investors. In many cases, issuers continue to disclose an economic and technically viable mineral reserve case, while at the same time disclosing a conceptual alternative preliminary economic assessment with more optimistic assumptions and parameters. In many cases, the two are mutually exclusive options.

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

    Response: No, a statement of current mineral reserves should not preclude the disclosure of a PEA on a mineral project as this would limit the ability for the issuer to disclose alternative options that are being considered for the project. The Instrument and Companion Policy currently provide appropriate guidance on the impacts and interaction of a PEA for a project where mineral reserves are currently stated.

In some cases, issuers are disclosing the results of a preliminary economic assessment that includes projected cash flows for by- product commodities that are not included in the mineral resource estimate. This situation can arise where there is insufficient data for the grades of the by-products to be reasonably estimated or estimated to

the level of confidence of the mineral resource. We consider the inclusion of such by-product commodities in the preliminary economic assessment to be misleading.

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.

    Response: Yes, if the by-products have not been advanced to a stage where a QP is able to categorize them as either measured, indicated, or inferred mineral resources then they should be precluded from inclusion in cash flow models used for the economic analysis component of a PEA.

E. Qualified Person Definition

CSA staff have substantial evidence that the current qualified person definition is not well understood, and have seen an increase in practitioners with less than 5 years of experience as professional engineers or geoscientists acting as qualified persons in technical reporting. CSA staff have directed many comments to issuers informing them that the qualified person does not meet the requirements of NI 43-101 in the circumstance under review.

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.

    Response: No, the current definition of a QP is clear and free of any relevant omissions at this time; however, it may need to be revisited considering any amendments made relating to the potential broadening of the definition as addressed in Question 17 below.

Currently, the qualified person definition requires the individual to be an engineer or geoscientist with a university degree in an area of geoscience or engineering related to mineral exploration or mining.

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?

    Response: Yes, considering the expectation that disclosure requirements will increase for areas such as environmental-social-governance (ESG) and the rights of indigenous peoples, we feel the QP definition should be broadened beyond engineers and geoscientists to include other professional disciplines to include the relevant experts in these fields. We feel that criteria should be established to allow ESG experts to be qualified as QPs. This would allow for disclosure to come directly from the relevant experts, rather than having to be relied upon and disclosed by another QP that is not an expert in these critical areas of practice.

    We understand this will take some effort to establish criteria for qualifying these other experts as QPs; however, efforts to define ESG QPs are already underway by other organizations, and we feel an appropriate standard could be established by the CSA in consultation with industry.

Qualified person independence

The gatekeeping role of the qualified person is essential for the protection of the investing public. CSA staff see evidence of issuers and qualified persons failing to properly apply the objective test of independence set out in section 1.5 of NI 43-101. The Companion Policy provides certain examples of specific financial metrics to consider. This list is not exhaustive. There are multiple factors, beyond financial considerations, that must also be considered in determining objectivity, including the relationship of the qualified person to the issuer, the property vendor, and the mineral project itself.

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

be helpful?

Response: We feel the test for independence in section 1.5 of the Instrument is appropriately clear.

Named executive officers as qualified persons

CSA staff are concerned that the gatekeeping role of the qualified person conflicts with the fiduciary duties of directors and officers. We have seen situations where the self-interest of such individuals in promoting an attractive outcome for the mineral project overrides their professional public interest obligation as a gatekeeper.

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

    Response: No, directors and officers should not be disqualified from authoring (serving as QPs) technical reports in circumstances where independence is not required, provided they meet the definition of a QP as presented in the Instrument.

F. Current Personal Inspections

The current personal inspection requirement in section 6.2 of NI 43-101 is a foundational element of the qualified person's role as a gatekeeper for the investing public. It enables the qualified person to become familiar with conditions on the property, to observe the property geology and mineralization, and to verify the work done on the property. Additionally, it provides the only opportunity to assess less tangible elements of the property, such as artisanal mining or access issues, and to consider social licence and environmental concerns. The current personal inspection is distinctly different from conducting exploration work on the property; it is a critical contributor to the design or review, and recommendation to the issuer, of an appropriate exploration or development program for the property.

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

    Response: A high level definition or clearer guidance linking the current personal inspection directly to the data verification process would be beneficial. An attempt to be more prescriptive on what constitutes a current personal inspection would likely be problematic given the variety of deposit types, project development stages, QP disciplines and so forth that may be required to conduct such visits.

CSA staff's view is that qualified persons must consider their expertise and relevant experience in determining whether they are suitable to conduct the current personal inspection. For example, geoscientists are generally not qualified to conduct elements of the current personal inspection related to potential mining methods or mineral processing. Similarly, engineers may not be qualified with respect to elements of the geoscience. In such cases, more than one qualified person may be required to conduct a current personal inspection, particularly for an advanced property.

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?

    Response: No, it is our view that the requirements should remain flexible to allow for the QPs to use their professional judgement on a case-by-case basis as to which QP(s) should perform a current personal inspection.

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?

Response: No, it is our view that the requirements should remain flexible to allow for the QPs to use their professional judgement on a case-by-case basis as to which QP(s) should perform a current personal inspection.

We do feel that the Instrument should provide improved guidance on whether the QP that performs the site visit must also assume QP responsibilities for other items in the technical report. In theory, there could be an issuer QP signing off on only Item 6 (History) of the technical report that completed the site visit on behalf of all other QPs. This would not serve the purpose that the QP site visit is intended for.

We expect issuers to consider the current personal inspection requirement in developing the timing and structure of their transactions and capital raising. Subsection 6.2(2) of NI 43-101 does allow an issuer to defer a current personal inspection in limited circumstances related to seasonal weather, provided that the issuer refiles a new technical report once the current personal inspection has been completed. However, this provision has been used infrequently since it was adopted in 2005. In rare circumstances where issuers do rely on this provision, CSA staff see significant non-compliance with the refiling requirement.

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

Response: Yes, removing this subsection would be problematic. As stated by the CSA, it is rarely used, but there are real instances where HSSE, travel or other mitigating factors simply do not allow for a visit to be performed within the timeframe of preparing the disclosure. This subsection should possibly be expanded to allow a site visit to be deferred to other factors - for example the challenges presented due to the Covid pandemic. A set of limited circumstances for deferring a site visit should still be maintained, but the deferral of the site visit should be clearly addressed in the discussion of data verification and project risk.

G. Exploration Information

CSA staff continue to see significant non-compliant disclosure of exploration information, including inadequate disclosure of:

- the QA/QC measures applied during the execution of the work being reported on in the technical report,
- the summary description of the type of analytical or testing procedures utilized, and
- the relevant analytical values, widths and true widths of the mineralized zone.

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

Response: The current requirements are generally clear; however, additional clarification should be provided as to if both exploration work conducted by/on behalf of the issuer and historical exploration work performed by/on behalf of others should be reported in this Item or if the historical work should be reported on in Item 6 (History). Additional guidance should also reflect the need to discuss the exploration work in the context of the CIM Mineral Exploration Best Practice Guidelines.

H. Mineral Resource / Mineral Reserve Estimation

In CSA Staff Notice 43-311 published in June 2020, a comprehensive review of disclosure in technical reports identified several areas of inadequate disclosure of mineral resource estimates.

Reasonable prospects for eventual economic extraction

CIM Definition Standards guidance states that a qualified person should clearly state the basis for determining the mineral resource estimate and that assumptions should include metallurgical recovery, smelter payments, commodity price or product value, mining and processing method, and mining, processing and general and administrative costs. Revisions to the CIM Definition Standards in 2014 and CIM Best Practices Guidelines in 2019 emphasized the requirement for the practitioner to clearly articulate these assumptions and how the estimate was developed.

Mining Reviews provide evidence of technical reports that lack adequate disclosure on metal recoveries, assumed mining and processing methods and costs, and constraints applied to prepare the mineral resource estimate to demonstrate that the mineralized material has reasonable prospects for eventual economic extraction.

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.

    Response: Yes, reasonable prospects for eventual economic extraction should be disclosed in Item 14, in proximity to the Mineral Resource statement itself, rather than in the latter items of the technical report. The CIM Estimation of Mineral Resources & Mineral Reserves Best Practice Guidelines document provides clear and appropriate guidance for establishing reasonable prospects and should be specifically referenced as guidance for preparing the disclosure under Item 14.

Data verification

Disclosure of a mineral resource estimate is a significant milestone for an issuer. CSA Staff Notice 43-311 noted that disclosure of data verification procedures and results was one of the weakest areas in the mineral resource estimate review, stating that in technical reports reviewed by CSA staff, more than 20% had incomplete disclosure concerning the qualified person's data verification procedures and results.

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?

    Response: Yes, the QP responsible for the mineral resource estimate should be required to conduct data verification. The focus of the verification process is for the QP to provide their opinion on whether the data appears to have been generated with proper procedures, has been accurately transcribed from the original source and can be considered by the QP as adequate for the intended purpose (i.e., geological modelling and estimation of mineral resources).

    This verification must be performed and appropriately documented in Item 12 by each QP. The documentation by each QP should clearly identify the process for data verification and validation, identify any limitations on the verification work, and discuss how the data were used because of the data verification process. This discussion should include impacts on geological confidence, other data confidence and project risk.

    However, the QP should not be required to accept responsibility for the original source data itself.

Responsibility for the original source data should remain with the issuer that has provided the data for the QP to rely upon.

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?

Response: Yes, like the response to question 26 b) above, the QP responsible for the Mineral Resource estimate should be required to conduct data verification for legacy data used to support the mineral resource estimate. The same purpose and documentation requirements apply to legacy data as to recent/current data.

In situations where incomplete legacy/historical records exist, the QP must describe what impact this has had on the verification process and their resultant use of the data. This discussion should include any limitations or exclusion of data, impacts on confidence and project risk.

However, the QP should not be required to accept responsibility for the original source legacy/historical data. Responsibility for the original source legacy/historical data should remain with the issuer that has provided the data for the QP to rely upon.

Risk factors with mineral resources and mineral reserves

Paragraph 3.4(d) of NI 43-101 requires issuers to identify any known legal, political, environmental and other risks that could materially affect the potential development of the mineral resources or mineral reserves. In addition, Items 14(d) and 15(d) of the Form require the qualified person to provide a general discussion on the extent to which the mineral resource or mineral reserve estimate could be materially affected by any known environmental, permitting, legal, title, taxation, socio-economic, marketing, political or other relevant factors.

Many technical reports only provided boilerplate disclosure about potential risks and uncertainties that are general to the mining industry. Failure to set out meaningful known risks specific to the mineral project make mineral resource and mineral reserve disclosure potentially misleading.

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

Response: There is value in disclosing risks in proximity to both the mineral resource and mineral reserve statements in Item 14 and Item 15 respectively; however, we feel more specific guidance concerning the discussion of project risks and opportunities should be presented in Item 25 with a specific reference in proximity to the mineral resource and mineral reserve statements directing the investor to Item 25 for a comprehensive discussion of project risks and opportunities.

The discussion of risks and opportunities in Item 25 is a more appropriate location for compiling project risks and opportunities across all aspects and disciplines of the project. Detailed discussion of some of the risks and opportunities in Item 14 or Item 15 would cause them to be presented and discussed before they are disclosed in later items of the technical report (i.e., ESG risks and opportunities) which can lead to either confusion or repetition. Guidance should also consider reference by the QP(s) to the risk factors that are presented in the issuer's other forms of disclosure (i.e., AIF, MD&A).

I. Environmental and Social Disclosure

In recent years, CSA staff have seen an increase in public and investor awareness of environmental and social issues impacting mineral projects. Item 4: Property Description and Location and Item 20: Environmental Studies, Permitting and Social or Community Impact of the Form allow for disclosure of relevant environmental and social risk factors for the mineral project.

However, these disclosure requirements related to environmental and social issues have remained largely unchanged since NI 43-101 was adopted in 2001.

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?

Response: No, we do not feel that the current environmental disclosure requirements under Items 4 and 20 of the Form are adequate to allow investors to make informed investment decisions. We acknowledge that there are intangibles related to social disclosure and governmental approvals, and that it is not desirable to make Item 20 prescriptive; however, there are environmental items that should be covered at a minimum: 1) Descriptions of the physical and environmental setting [geomorphology, climate, fauna, flora, current land usage, cultural resources, surface hydrology (occurrence and water quality), hydrogeologic setting and groundwater quality, soil, air quality]. 2) Status of environmental permitting. 3) Identification and characterization of mining wastes, waste management. 4) Monitoring plans and systems for the environment and operational water management. 5) Closure plan and closure costs, with opinion on whether they are detailed appropriately to the project level. 6) Opinion about the quality of the data, plans and systems.

The QP needs to make an opinion about whether the monitoring plans and data collection methods are sufficient to support the conclusions regarding the environmental and social settings, impacts, mitigation measures and mitigation costs. The intended disclosure framework(s) that the company plans to follow should be stated (for example, compliance with the host country regulations plus voluntary standards).

The Item 20 should also specify that a description of the environmental and social governance is required, including climate-related and sustainability planning and disclosure. Each topic within Item 20 should be a separate subsection (for example, environmental setting should be a separate subsection). There should be more clarity about the disclosure of environmental and social aspects that could impact the social license and the permitting success.

Regarding the current requirement of discussion of mine closure requirements and costs, it does not specify a requirement to describe the closure scenario (that is, if there are no closure requirements in a jurisdiction, then there is no requirement to have a closure plan), nor is post-closure mentioned in the current requirement.

CSA should include guidance about whether the QP needs to assess the environmental disclosure based solely upon the host country requirements, or whether to discuss the company's commitment to compliance with voluntary standards, or other country's standards. An investor may assume that a company listed in Canada needs to adhere to Canadian standards if they are more stringent than the host country's regulatory requirements (such as numeric standards).

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?

Response: No, we do not feel that the current social disclosure requirements under Items 4 and 20 of the Form are adequate to allow investors to make informed investment decisions. The current regulation requires only discussion of requirements and plans, but there is no requirement to discuss the social-

economic setting and whether the setting was adequately defined (methodology and interpretation), nor is there a requirement to specifically identify stakeholders and identify social risks.

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

Response: Yes, the disclosure of community consultations should be required in all stages of technical reports, including reports for early-stage exploration properties. The Government of Canada has a Duty to Consult with Indigenous People and parts of the Duty to Consult can be passed to exploration, development, and mining companies. These companies may already be engaging with Indigenous peoples per UN DRiP/ FPIC.

It should be stated that companies need to at a minimum apply the host country's requirements as well as state whether the company is or is not also applying any other standards or voluntary guidance. It is important to state this because an investor may assume that a Canadian listed company is complying with the standards imposed under Canadian law. There is no requirement to apply Government of Canada Duty to Consult requirements in other countries.

The disclosure should also include where the issuer is in the consultation process and any related permit application process, what stages have been completed and what parts of the processes are currently pending.

J. Rights of Indigenous Peoples

We recognize Indigenous Peoples to include First Nations, Inuit and Métis Peoples in Canada. We also recognize that issuers have projects in jurisdictions outside of Canada, and those jurisdictions will have Indigenous Peoples.

The unique legal status of Indigenous Peoples has received national and international recognition. For many projects, the rights of Indigenous Peoples overlap with legal tenure, property rights and governance issues. We believe that disclosure of these rights, and the Indigenous Peoples that hold them, forms an essential part of an issuer's continuous disclosure obligations.

Item 4 of the Form requires disclosure of the nature and extent of surface rights, legal access, the obligations that must be met to retain the property, and a discussion of any other significant factors and risks that may affect access, title, or the right or ability to perform work on the property. We are interested in hearing whether other disclosures should be included in the Form, or the issuer's other continuous disclosure documents, that relate to the relationship of the issuer with Indigenous Peoples whose traditional territories underlie the property.

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?

Response: The specific mandatory disclosures in a technical report should include a listing of all Indigenous Peoples within the area of influence or potentially impacted by (reserve lands, traditional lands, watershed, etc.) the proposed undertaking. This would be important in understanding the cultural environment associated with the undertaking. The disclosure also needs to identify how those Indigenous Peoples have been identified. The disclosure should also include discussion on outreach or engagement to date with Indigenous communities, relative to the undertaking.

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?

Response: Where there is a legal Duty to Consult, the technical report should indicate that there is a requirement (to the best of their knowledge).

The specific mandatory disclosures in a technical report should include discussion on outreach or engagement to date with Indigenous communities, relative to the undertaking. Respectful of any confidential information shared by Indigenous community members, full details might be contained in filed "Supplementary Documentation", but an overview should appear in technical reports showcasing the nature of discussions. There should also be a table outlining significant risks and uncertainties. It is recognized that the risks and uncertainties will be qualitative (not quantitative) or go/no go in nature.

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.

Response: No, the QP or other expert should not be required to validate the issuer's disclosure of significant risks and uncertainties related to its existing relationship with Indigenous Peoples with respect to a project. A Declaration by the issuer of the veracity of the statements should be made, placing legal obligation on the issuer for truthful disclosure. An additional step can be taken by the issuer to hire a 3rd party Verifier - a qualified individual or firm - to engage with the Indigenous communities as part of issuer communications to provide independent validation, but that should not be a requirement.

K. Capital and Operating Costs, Economic Analysis

Capital and operating costs assumptions are integral to the financial and economic analysis of mineral projects. We see longstanding evidence, including industry-based case studies, of significant variance between disclosed cost estimates in technical reports and actual costs as projects are developed. This variance can have negative impacts on investors who rely on financial disclosure in technical reports.

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?

Response: No, the Form should contain more explicit instructions to the QP regarding the estimation methodology with the expected accuracy and contingency. There should be a disclosure requirement relating to the discussion of potential delays in developing the project and the risks these potential delays may have on the project economics. Inflation, market fluctuations, and so forth tend to be overlooked due to the QP relying on the 'Effective Date' of the report and assuming the investors read the forward-looking statements.

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?

Response: Yes, the Form should be more prescriptive and require an industry standard cost disclosure. It should include specific reference to AACE 47R-11 (as a well accepted, global, industry guideline), the definitions of the expected "Class" of study and how it ties to a PEA, PFS or FS (including the expected levels of accuracy and contingency for each). The Form should also reference the input checklist and maturity matrix included in AACE 47R-11 as well as the need for Basis of Estimate Documentation to support the costs estimates. This should be the minimum standard to be met.

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

Response: No, the disclosure requirements and instructions are not clear on specifics related to capital and operating cost risk assumptions. Instructions should be provided for QPs to clearly identify risks to the estimation methods applied which relates to AACE 47R-11 guidelines as well as S-K 1300 instructions for TRS Item 18 and Item 229.1302 and Table 1 (TABLE 1 To Paragraph (D)—Summary Description of Relevant Factors Evaluated in Technical Studies). Requirements for sensitivity analysis should be prescribed and be standard and should consider/recommend more advanced approaches for risk analyses, such as probabilistic analysis, to provide investors with a better estimate of the range of risks involved.

Economic analysis

As stated above, a core principle of NI 43-101 is to require disclosure that will allow investors to be able to confidently compare the disclosure between different projects by the same or different issuers. Standardized disclosure is fundamental to this principle.

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?

Response: Yes, there should be a standard table developed to indicate what each project at a minimum should report. Net present values at various discount rates for instance should be standardized for various commodities. Specific instructions on the discount factors used in economic analyses should be provided. The DF used should relate to costs of capital and risks related to country risk, supply chain risks and other risks specific to the project. Uncertainty in estimates (capital, operating, DF) should be addressed with Monte Carlo simulations. If transfer pricing is used, as in the case of vertically integrated companies with specialty products (e.g., fertilizers), instructions should be provided for the use of transfer prices in economic analysis provided such pricing is justified and tied to Item 19 (Market Studies and Contracts).

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?

Response: No comment.