SEC Disclosure by Registrants Engaged in Mining Operations

Extracted and Reformatted from: CFR Title 17 §§ 229.1300-1305 by Robert Cameron, Ph.D., Sept 2020

§ 229.1300 (Item 1300) Definitions.

As used in this subpart, these terms have the following meanings:

Adequate geological evidence, when used in the context of mineral resource determination, means evidence that is sufficient to establish geological and grade or quality continuity with reasonable certainty.

Conclusive geological evidence, when used in the context of mineral resource determination, means evidence that is sufficient to test and confirm geological and grade or quality continuity.

Cut-off grade is the grade (*i.e.*, the concentration of metal or mineral in rock) that determines the destination of the material during mining. For purposes of establishing "prospects of economic extraction," the cut-off grade is the grade that distinguishes material deemed to have no economic value (it will not be mined in underground mining or if mined in surface mining, its destination will be the waste dump) from material deemed to have economic value (its ultimate destination during mining will be a processing facility). Other terms used in similar fashion as cut-off grade include net smelter return, pay limit, and break-even stripping ratio.

Development stage issuer is an issuer that is engaged in the preparation of mineral reserves for extraction on at least one material property.

Development stage property is a property that has mineral reserves disclosed, pursuant to this subpart, but no material extraction.

Economically viable, when used in the context of mineral reserve determination, means that the qualified person has determined, using a discounted cash flow analysis, or has otherwise analytically determined, that extraction of the mineral reserve is economically viable under reasonable investment and market assumptions.

Exploration results are data and information generated by mineral exploration programs (*i.e.*, programs consisting of sampling, drilling, trenching, analytical testing, assaying, and other similar activities undertaken to locate, investigate, define or delineate a mineral prospect or mineral deposit) that are not part of a disclosure of mineral resources or reserves. A registrant must not use exploration results alone to derive estimates of tonnage, grade, and production rates, or in an assessment of economic viability.

Exploration stage issuer is an issuer that has no material property with mineral reserves disclosed.

Exploration stage property is a property that has no mineral reserves disclosed.

Exploration target is a statement or estimate of the exploration potential of a mineral deposit in a defined geological setting where the statement or estimate, quoted as a range of tonnage and a range of grade (or quality), relates to mineralization for which there has been insufficient exploration to estimate a mineral resource.

Feasibility study is a comprehensive technical and economic study of the selected development option for a mineral project, which includes detailed assessments of all applicable modifying factors, as defined by this section, together with any other relevant operational factors, and detailed financial analysis that are necessary to demonstrate, at the time of reporting, that extraction is economically

viable. The results of the study may serve as the basis for a final decision by a proponent or financial institution to proceed with, or finance, the development of the project.

(1) A feasibility study is more comprehensive, and with a higher degree of accuracy, than a pre-feasibility study. It must contain mining, infrastructure, and process designs completed with sufficient rigor to serve as the basis for an investment decision or to support project financing.

(2) The confidence level in the results of a feasibility study is higher than the confidence level in the results of a pre-feasibility study. Terms such as *full, final, comprehensive, bankable,* or *definitive* feasibility study are equivalent to a feasibility study.

Final market study is a comprehensive study to determine and support the existence of a readily accessible market for the mineral. It must, at a minimum, include product specifications based on final geologic and metallurgical testing, supply and demand forecasts, historical prices for the preceding five or more years, estimated long term prices, evaluation of competitors (including products and estimates of production volumes, sales, and prices), customer evaluation of product specifications, and market entry strategies or sales contracts. The study must provide justification for all assumptions, which must include assumptions concerning the material contracts required to develop and sell the mineral reserves.

Indicated mineral resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of adequate geological evidence and sampling. The level of geological certainty associated with an indicated mineral resource is sufficient to allow a qualified person to apply modifying factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Because an indicated mineral resource has a lower level of confidence than the level of confidence of a measured mineral resource, an indicated mineral resource may only be converted to a probable mineral reserve.

Inferred mineral resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. The level of geological uncertainty associated with an inferred mineral resource is too high to apply relevant technical and economic factors likely to influence the prospects of economic extraction in a manner useful for evaluation of economic viability. Because an inferred mineral resource has the lowest level of geological confidence of all mineral resources, which prevents the application of the modifying factors in a manner useful for evaluation of economic viability, an inferred mineral resource may not be considered when assessing the economic viability of a mining project, and may not be converted to a mineral resource.

Initial assessment is a preliminary technical and economic study of the economic potential of all or parts of mineralization to support the disclosure of mineral resources. The initial assessment must be prepared by a qualified person and must include appropriate assessments of reasonably assumed technical and economic factors, together with any other relevant operational factors, that are necessary to demonstrate at the time of reporting that there are reasonable prospects for economic extraction. An initial assessment is required for disclosure of mineral resources but cannot be used as the basis for disclosure of mineral reserves.

Investment and market assumptions, when used in the context of mineral reserve determination, includes all assumptions made about the prices, exchange rates, interest and discount rates, sales volumes, and costs that are necessary to determine the economic viability of the mineral reserves. The qualified person must use a price for each commodity that provides a reasonable basis for establishing that the project is economically viable.

Limited geological evidence, when used in the context of mineral resource determination, means evidence that is only sufficient to establish that geological and grade or quality continuity are more likely than not.

Material has the same meaning as under § 230.405 or § 240.12b-2 of this chapter.

Material of economic interest, when used in the context of mineral resource determination, includes mineralization, including dumps and tailings, mineral brines, and other resources extracted on or within the earth's crust. It does not include oil and gas resources resulting from oil and gas producing activities, as defined in § 210.4-10(a)(16)(i) of this chapter, gases (*e.g.,* helium and carbon dioxide), geothermal fields, and water.

Measured mineral resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of conclusive geological evidence and sampling. The level of geological certainty associated with a measured mineral resource is sufficient to allow a qualified person to apply modifying factors, as defined in this section, in sufficient detail to support detailed mine planning and final evaluation of the economic viability of the deposit. Because a measured mineral resource has a higher level of confidence than the level of confidence of either an indicated mineral resource or an inferred mineral resource, a measured mineral resource may be converted to a proven mineral reserve or to a probable mineral reserve.

Mineral reserve is an estimate of tonnage and grade or quality of indicated and measured mineral resources that, in the opinion of the qualified person, can be the basis of an economically viable project. More specifically, it is the economically mineable part of a measured or indicated mineral resource, which includes diluting materials and allowances for losses that may occur when the material is mined or extracted.

Mineral resource is a concentration or occurrence of material of economic interest in or on the Earth's crust in such form, grade or quality, and quantity that there are reasonable prospects for economic extraction. A mineral resource is a reasonable estimate of mineralization, taking into account relevant factors such as cut-off grade, likely mining dimensions, location or continuity, that, with the assumed and justifiable technical and economic conditions, is likely to, in whole or in part, become economically extractable. It is not merely an inventory of all mineralization drilled or sampled.

Modifying factors are the factors that a qualified person must apply to indicated and measured mineral resources and then evaluate in order to establish the economic viability of mineral reserves. A qualified person must apply and evaluate modifying factors to convert measured and indicated mineral resources to proven and probable mineral reserves. These factors include, but are not restricted to: Mining; processing; metallurgical; infrastructure; economic; marketing; legal; environmental compliance; plans, negotiations, or agreements with local individuals or groups; and governmental factors. The number, type and specific characteristics of the modifying factors applied will necessarily be a function of and depend upon the mineral, mine, property, or project.

Preliminary feasibility study (or pre-feasibility study) is a comprehensive study of a range of options for the technical and economic viability of a mineral project that has advanced to a stage where a qualified person has determined (in the case of underground mining) a preferred mining method, or (in the case of surface mining) a pit configuration, and in all cases has determined an effective method of mineral processing and an effective plan to sell the product.

(1) A pre-feasibility study includes a financial analysis based on reasonable assumptions, based on appropriate testing, about the modifying factors and the evaluation of any other relevant factors that are sufficient for a qualified person to determine if all or part of the indicated and measured mineral resources may be converted to mineral reserves at the time of reporting. The financial analysis must have the level of detail necessary to demonstrate, at the time of reporting, that extraction is economically viable.

(2) A pre-feasibility study is less comprehensive and results in a lower confidence level than a feasibility study. A pre-feasibility study is more comprehensive and results in a higher confidence level than an initial assessment.

Preliminary market study is a study that is sufficiently rigorous and comprehensive to determine and support the existence of a readily accessible market for the mineral. It must, at a minimum, include product specifications based on preliminary geologic and metallurgical testing, supply and demand forecasts, historical prices for the preceding five or more years, estimated long term prices, evaluation of competitors (including products and estimates of production volumes, sales, and prices), customer evaluation of product specifications, and market entry strategies. The study must provide justification for all assumptions. It can, however, be less rigorous and comprehensive than a final market study, which is required for a full feasibility study.

Probable mineral reserve is the economically mineable part of an indicated and, in some cases, a measured mineral resource.

Production stage issuer is an issuer that is engaged in material extraction of mineral reserves on at least one material property.

Production stage property is a property with material extraction of mineral reserves.

Proven mineral reserve is the economically mineable part of a measured mineral resource and can only result from conversion of a measured mineral resource.

Qualified person is an individual who is:

(1) A mineral industry professional with at least five years of relevant experience in the type of mineralization and type of deposit under consideration and in the specific type of activity that person is undertaking on behalf of the registrant; and

(2) An eligible member or licensee in good standing of a recognized professional organization at the time the technical report is prepared. For an organization to be a recognized professional organization, it must:

(i) Be either:

(A) An organization recognized within the mining industry as a reputable professional association; or

(B) A board authorized by U.S. federal, state or foreign statute to regulate professionals in the mining, geoscience or related field;

(ii) Admit eligible members primarily on the basis of their academic qualifications and experience;

(iii) Establish and require compliance with professional standards of competence and ethics;

(iv) Require or encourage continuing professional development;

(v) Have and apply disciplinary powers, including the power to suspend or expel a member regardless of where the member practices or resides; and

(vi) Provide a public list of members in good standing.

Relevant experience means, for purposes of determining whether a party is a qualified person, that the party has experience in the specific type of activity that the person is undertaking on behalf of the registrant. If the qualified person is preparing or supervising the preparation of a technical report concerning exploration results, the relevant experience must be in exploration. If the qualified person is estimating, or supervising the estimation of mineral resources, the relevant experience must be in the estimation, assessment and evaluation of mineral resources and associated technical and economic factors likely to influence the prospect of economic extraction. If the qualified person is estimating, or supervising the estimation of mineral reserves, the relevant experience must be in

engineering and other disciplines required for the estimation, assessment, evaluation and economic extraction of mineral reserves.

(1) Relevant experience also means, for purposes of determining whether a party is a qualified person, that the party has experience evaluating the specific type of mineral deposit under consideration (*e.g.*, coal, metal, base metal, industrial mineral, or mineral brine). The type of experience necessary to qualify as relevant is a facts and circumstances determination. For example, experience in a high-nugget, vein-type mineralization such as tin or tungsten would likely be relevant experience for estimating mineral resources for vein-gold mineralization, whereas experience in a low grade disseminated gold deposit likely would not be relevant.

Note 1 to paragraph (1) of the definition of relevant experience: It is not always necessary for a person to have five years' experience in each and every type of deposit in order to be an eligible qualified person if that person has relevant experience in similar deposit types. For example, a person with 20 years' experience in estimating mineral resources for a variety of metalliferous hard-rock deposit types may not require as much as five years of specific experience in porphyry-copper deposits to act as a qualified person. Relevant experience in the other deposit types could count towards the experience in relation to porphyry-copper deposits.

(2) For a qualified person providing a technical report for exploration results or mineral resource estimates, relevant experience also requires, in addition to experience in the type of mineralization, sufficient experience with the sampling and analytical techniques, as well as extraction and processing techniques, relevant to the mineral deposit under consideration. Sufficient experience means that level of experience necessary to be able to identify, with substantial confidence, problems that could affect the reliability of data and issues associated with processing.

(3) For a qualified person applying the modifying factors, as defined by this section, to convert mineral resources to mineral reserves, relevant experience also requires:

(i) Sufficient knowledge and experience in the application of these factors to the mineral deposit under consideration; and

(ii) Experience with the geology, geostatistics, mining, extraction and processing that is applicable to the type of mineral and mining under consideration.

§ 229.1301 (Item 1301) General instructions.

(a) As used in this section, the term *mining operations* includes operations on all mining properties that a registrant:

(1) Owns or in which it has, or it is probable that it will have, a direct or indirect economic interest;

(2) Operates, or it is probable that it will operate, under a lease or other legal agreement that grants the registrant ownership or similar rights that authorize it, as principal, to sell or otherwise dispose of the mineral; or

(3) Has, or it is probable that it will have, an associated royalty or similar right.

(b) A registrant must provide the disclosure specified in this subpart if its mining operations are material to its business or financial condition.

(c) When determining whether its mining operations are material, a registrant must:

(1) Consider both quantitative and qualitative factors, assessed in the context of the registrant's overall business and financial condition;

(2) Aggregate mining operations on all of its mining properties, regardless of the stage of the mining property, and size or type of commodity produced, including coal, metalliferous minerals, industrial materials, and mineral brines; and

(3) Include, for each property, as applicable, all related activities from exploration through extraction to the first point of material external sale, including processing, transportation, and warehousing.

(d) Upon a determination that its mining operations are material, a registrant must provide summary disclosure concerning all of its mining activities, as specified in § 229.1303, as well as individual property disclosure concerning each of its mining properties that is material to its business or financial condition, as specified in § 229.1304. When providing either summary or individual property disclosure, the registrant:

(1) Should provide an appropriate glossary if the disclosure requires the use of technical terms relating to geology, mining or related matters, which cannot readily be found in conventional dictionaries;

(2) Should not include detailed illustrations and technical reports, full feasibility studies or other highly technical data. The registrant shall, however, furnish such reports and other material supplementally to the staff upon request; and

(3) Should use plain English principles, to the extent practicable, such as those provided in §§ 230.421 and 240.13a-20 of this chapter, to enhance the readability of the disclosure for investors.

§ 229.1302 (Item 1302) Qualified person, technical report summary, and technical studies.

(a)

(1) A registrant's disclosure of exploration results, mineral resources, or mineral reserves, as required by § 229.1303 and 229.1304, must be based on and accurately reflect information and supporting documentation prepared by a qualified person, as defined in § 229.1300. As used in this section, the term *information* includes the findings and conclusions of a qualified person relating to exploration results or estimates of mineral resources or mineral reserves.

(2) The registrant is responsible for determining that the person meets the qualifications specified under the definition of qualified person in § 229.1300, and that the disclosure in the registrant's filing accurately reflects the information provided by the qualified person.

(3) If a registrant has relied on more than one qualified person to prepare the information and documentation supporting its disclosure of exploration results, mineral resources, or mineral reserves, the registrant's responsibilities as specified in this paragraph (a) pertain to each qualified person.

(b)

(1) The registrant must obtain a dated and signed technical report summary from the qualified person that, pursuant to §229.601(b)(96), identifies and summarizes the information

reviewed and conclusions reached by the qualified person about the registrant's mineral resources or mineral reserves determined to be on each material property. At its election, the registrant may also obtain a dated and signed technical report summary from the qualified person that, pursuant to §229.601(b)(96), identifies and summarizes the information reviewed and conclusions reached by the qualified person about the registrant's exploration results.

(i) Except as provided in paragraph (b)(1)(ii) of this section, if more than one qualified person has prepared the technical report summary, each qualified person must date and sign the technical report summary. The qualified person's signature must comply with §230.402(e) or §240.12b-11(d) of this chapter. The technical report summary must also clearly delineate the section or sections of the summary prepared by each qualified person.

(ii) A third-party firm comprising mining experts, such as professional geologists or mining engineers, may date and sign the technical report summary instead of, and without naming, its employee, member or other affiliated person who prepared the technical report summary.

(2)

(i) The registrant must file the technical report summary as an exhibit to the relevant registration statement or other Commission filing when disclosing for the first time mineral reserves or mineral resources or when there is a material change in the mineral reserves or mineral resources from the last technical report summary filed for the property.

(ii) If a registrant files a technical report summary to support the disclosure of exploration results, it must also file a technical report summary when there is a material change in the exploration results from the last technical report summary filed for the property. In each instance, the registrant must file the technical report summary as an exhibit to the relevant Commission filing.

(3)

(i) A registrant that has a royalty, streaming, or other similar right is not required to submit a separate technical report summary for a property that is covered by a current technical report summary filed by the producing mining registrant. In that situation, the registrant holding the royalty, streaming, or other similar right should refer to the producing registrant's previously filed technical report summary in its filing with the Commission. Such a reference will not be deemed to incorporate by reference, pursuant to §230.411 or §240.12b-23 of this chapter, the previously filed technical report summary into the royalty company's or other similar company's filing absent an express statement to so incorporate by reference the previously filed technical report summary.

(ii) A registrant that has a royalty, streaming, or other similar right is not required to file a technical report summary for an underlying property if the registrant lacks access to the technical report summary because:

(A) Obtaining the information would result in an unreasonable burden or expense; or

(B) It requested the technical report summary from the owner, operator, or other person possessing the technical report summary, who is not affiliated with the registrant, and who denied the request.

(i) The registrant must obtain the written consent of the qualified person to the use of the qualified person's name, or any quotation from, or summarization of, the technical report summary in the relevant registration statement or report, and to the filing of the technical report summary as an exhibit to the registration statement or report.

(ii) Except as provided in paragraph (b)(4)(iii) of this section, if more than one qualified person has prepared the technical report summary, the registrant must obtain the written consent required by this section from each qualified person pertaining to the particular section or sections of the technical report summary prepared by each qualified person.

(iii) If, pursuant to paragraph (b)(1)(ii) of this section, a third-party firm has signed the technical report summary, the third-party firm must provide the written consent. If a qualified person is an employee or person affiliated with the registrant, the qualified person must provide the written consent on an individual basis.

(iv) For Securities Act filings, the registrant must file the written consent as an exhibit to the registration statement pursuant to §§230.436 and 230.601(b)(23) of this chapter. For Exchange Act reports, the registrant is not required to file the written consent obtained from the qualified person, but should retain the written consent for as long as it is relying on the qualified person's information and supporting documentation for its current estimates regarding mineral resources, mineral reserves, or exploration results.

(5) The registrant must state in the filed registration statement or report whether each qualified person who prepared the technical report summary is an employee of the registrant. If the qualified person is not an employee of the registrant, the registrant must name the qualified person's employer, disclose whether the qualified person or the qualified person's employer is affiliated with the registrant or another entity that has an ownership, royalty, or other interest in the property that is the subject of the technical report summary, and if affiliated, describe the nature of the affiliation. As used in this section, *affiliate* or *affiliated* has the same meaning as in §230.405 or §240.12b-2 of this chapter.

(6)

(i) A qualified person may include in the technical report summary information and documentation provided by a third-party specialist who is not a qualified person, as defined in §229.1300, such as an attorney, appraiser, and economic or environmental consultant, upon which the qualified person has relied in preparing the technical report summary.

(ii) The qualified person may not disclaim responsibility for any information or documentation prepared by a third-party specialist upon which the qualified person has relied, or any part of the technical report summary based upon or related to that information and documentation.

(4)

(iii) A registrant is not required to file a written consent of any third-party specialist upon which a qualified person has relied pursuant to paragraph (b)(6)(i) of this section.

(c)

(1) A registrant may disclose an exploration target, as defined in §229.1300, for one or more of its properties that is based upon and accurately reflects information and supporting documentation of a qualified person. The qualified person may include a discussion of an exploration target in a technical report summary.

(2) Any disclosure of an exploration target must appear in a separate section of the Commission filing or technical report summary that is clearly captioned as a discussion of an exploration target. That section must include a clear and prominent statement that:

(i) The ranges of potential tonnage and grade (or quality) of the exploration target are conceptual in nature;

(ii) There has been insufficient exploration of the relevant property or properties to estimate a mineral resource;

(iii) It is uncertain if further exploration will result in the estimation of a mineral resource; and

(iv) The exploration target therefore does not represent, and should not be construed to be, an estimate of a mineral resource or mineral reserve.

(3) Any disclosure of an exploration target must also include:

(i) A detailed explanation of the basis for the exploration target, such as the conceptual geological model used to develop the target;

(ii) An explanation of the process used to determine the ranges of tonnage and grade, which must be expressed as approximations;

(iii) A statement clarifying whether the exploration target is based on actual exploration results or on one or more proposed exploration programs, which should include a description of the level of exploration activity already completed, the proposed exploration activities designed to test the validity of the exploration target, and the time frame in which those activities are expected to be completed; and

(iv) A statement that the ranges of tonnage and grade (or quality) of the exploration target could change as the proposed exploration activities are completed.

(d)

(1) A registrant's disclosure of mineral resources under this subpart must be based upon a qualified person's initial assessment, as defined in §229.1300, which includes and supports the qualified person's determination of mineral resources.

(i) When determining the existence of a mineral resource, a qualified person must:

(A) Be able to estimate or interpret the location, quantity, grade or quality continuity, and other geological characteristics of the mineral resource from specific geological evidence and knowledge, including sampling; and

(B) Conclude that there are reasonable prospects for economic extraction of the mineral resource based on his or her initial assessment. At a minimum, the initial assessment must include the qualified person's qualitative evaluation of relevant technical and economic factors likely to influence the prospect of economic extraction to establish the economic potential of the mining property or project.

(ii) For a material property, the technical report summary submitted by the qualified person to support a determination of mineral resources must describe the procedures, findings and conclusions reached for the initial assessment, as required by §229.601(b)(96).

(iii)

(A) When determining mineral resources, a qualified person must subdivide mineral resources, in order of increasing geological confidence, into inferred, indicated, and measured mineral resources.

(B) For inferred mineral resources, a qualified person:

(1) Must have a reasonable expectation that the majority of inferred mineral resources could be upgraded to indicated or measured mineral resources with continued exploration; and

(2) Should be able to defend the basis of this expectation before his or her peers.

(iv) The qualified person should refer to Table 1 to paragraph (d) of this section for the assumptions permitted to be made when preparing the initial assessment.

(2) A qualified person must include cut-off grade estimation, based on assumed unit costs for surface or underground operations and estimated mineral prices, in the initial assessment. To estimate mineral prices, the qualified person must use a price for each commodity that provides a reasonable basis for establishing the prospects of economic extraction for mineral resources. The qualified person must disclose the price used and explain, with particularity, his or her reasons for using the selected price, including the material assumptions underlying the selection. This explanation must include disclosure of the time frame used to estimate the commodity price and unit costs for cut-off grade estimation and the reasons justifying the selection of that time frame. The qualified person may use a price set by contractual arrangement, provided that such price is reasonable, and the qualified person discloses that he or she is using a contractual price when disclosing the price used. The selected price required by this section and all material assumptions underlying it must be current as of the end of the registrant's most recently completed fiscal year.

(3) The qualified person must provide a qualitative assessment of all relevant technical and economic factors likely to influence the prospect of economic extraction to establish economic potential and justify why he or she believes that all issues can be resolved with

further exploration and analysis. As provided by Table 1 to paragraph (d) of this section, those factors include, but are not limited to, to the extent material:

(i) Site infrastructure (e.g., whether access to power and site is possible);

(ii) Mine design and planning (e.g., what is the broadly defined mining method);

(iii) Processing plant (*e.g.*, whether all products used in assessing prospects of economic extraction can be processed with methods consistent with each other);

(iv) Environmental compliance and permitting (*e.g.*, what are the required permits and corresponding agencies and whether significant obstacles exist to obtaining those permits); and

(v) Any other reasonably assumed technical and economic factors, including plans, negotiations, or agreements with local individuals or groups, which are necessary to demonstrate reasonable prospects for economic extraction.

(4)

(i) A qualified person may include cash flow analysis in an initial assessment to demonstrate economic potential. If the qualified person includes cash flow analysis in the initial assessment, then operating and capital cost estimates must have an accuracy level of at least approximately $\pm 50\%$ and a contingency level of no greater than 25%, as provided by Table 1 to paragraph (d) of this section. The qualified person must state the accuracy and contingency levels in the initial assessment.

(ii) If providing an economic analysis in the initial assessment, a qualified person may include inferred mineral resources in the economic analysis, provided that the qualified person:

(A) States with equal prominence to the disclosure of mineral resource estimates that the assessment is preliminary in nature, it includes inferred mineral resources that are considered too speculative geologically to have modifying factors applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that this economic assessment will be realized;

(B) Discloses the percentage of the mineral resources used in the cash flow analysis that was classified as inferred mineral resources; and

(C) Discloses, with equal prominence, the results of the economic analysis excluding inferred mineral resources in addition to the results that include inferred mineral resources.

TABLE 1 TO PARAGRAPH (d)—SUMMARY DESCRIPTION OF RELEVANT FACTORS EVALUATED IN TECHNICAL STUDIES

Factors ¹	Initial assessment	Preliminary feasibility study	Feasibility study		
Site infrastructure	Establish whether or not access to power and site is possible. Assume infrastructure location, plant area required, type of power supply, site access roads, and camp/town site, if required	Required access roads, infrastructure location and plant area defined. Source of all utilities (power, water, etc.) required for development and production defined with initial designs suitable for cost estimates. Camp/Town site finalized	Required access roads, infrastructure location and plant area finalized. Source of all required utilities (power, water, etc.) for development and production finalized. Camp/Town site finalized.		
Mine design & planning	Mining method defined broadly as surface or underground. Production rates assumed	Preferred underground mining method or the pit configuration for surface mine defined. Detailed mine layouts drawn for each alternative. Development and production plan defined for each alternative with required equipment fleet specified	Mining method finalized. Detailed mine layouts finalized for preferred alternative. Development and production plan finalized for preferred alternative with required equipment fleet specified.		
Processing plant	Establish that all products used in assessing prospects of economic extraction can be processed with methods consistent with each other. Processing method and plant throughput assumed	Detailed bench lab tests conducted. Detailed process flow sheet, equipment sizes, and general arrangement completed. Detailed plant throughput specified	Detailed bench lab tests conducted. Pilot plant test completed, if required, based on risk. Process flow sheet, equipment sizes, and general arrangement finalized. Final plant throughput specified.		
Environmental compliance & permitting	List of required permits & agencies drawn. Determine if significant obstacles exist to obtaining permits. Identify pre-mining land uses. Assess requirements for baseline studies. Assume post-mining land uses. Assume tailings disposal, reclamation, and mitigation plans	Identification and detailed analysis of environmental compliance and permitting requirements. Detailed baseline studies with preliminary impact assessment (internal). Detailed tailings disposal, reclamation, and mitigation plans	Identification and detailed analysis of environmental compliance and permitting requirements finalized. Completed baseline studies with final impact assessment (internal). Tailings disposal, reclamation, and mitigation plans finalized.		
Other relevant factors ²	Appropriate assessments of other reasonably assumed technical and economic factors necessary to demonstrate reasonable prospects for economic extraction	Reasonable assumptions, based on appropriate testing, on the modifying factors sufficient to demonstrate that extraction is economically viable	Detailed assessments of modifying factors necessary to demonstrate that extraction is economically viable.		
Capital costs	Optional. ³ If included: Accuracy: ±50%. Contingency: ≤25%.	Accuracy: ±25% Contingency: ≤15%.	Accuracy: ±15%. Contingency: ≤10%.		
Operating costs	Optional. ³ If included: Accuracy: ±50%. Contingency: ≤25%.	Accuracy: ±25% Contingency: ≤15%.	Accuracy: ±15%. Contingency: ≤10%.		

Economic analysis ⁴ Optional. If included: Taxes and revenues are assumed. Discounted cash flow analysis based on assumed production rates and revenues from available measured and indicated mineral resources	at least a preliminary market study; economic viability assessed by detailed discounted cash flow	Taxes described in detail; revenues are estimated based on at least a final market study or possible letters of intent to purchase; economic viability assessed by detailed discounted cash flow analysis.
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¹When applied in an initial assessment, these factors pertain to the relevant technical and economic factors likely to influence the prospect of economic extraction. When applied in a preliminary or final feasibility study, these factors pertain to the modifying factors, as defined in this subpart.

²The relevant technical and economic factors to be applied in an initial assessment, and the modifying factors to be applied in a prefeasibility or final feasibility study, include, but are not limited to, the factors listed in this table. The number, type, and specific characteristics of the applicable factors will be a function of and depend upon the particular mineral, mine, property, or project. ³Initial assessment, as defined in this subpart, does not require a cash flow analysis or operating and capital cost estimates. The qualified person may include a cash flow analysis at his or her discretion.

⁴An initial assessment does not require capital and operating cost estimates or economic analysis, although it requires unit cost assumptions based on an assumption that the resource will be exploited with surface or underground mining methods. An economic analysis, if included, may be based only on measured and indicated mineral resources, or also may include inferred resources if additional conditions are met.

(e)

(1) A registrant's disclosure of mineral reserves under this subpart must be based upon a qualified person's preliminary feasibility (pre-feasibility) study or feasibility study, each as defined in §229.1300, which includes and supports the qualified person's determination of mineral reserves. The pre-feasibility or feasibility study must include the qualified person's detailed evaluation of all applicable modifying factors to demonstrate the economic viability of the mining property or project. For a material property, the technical report summary submitted by the qualified person to support a determination of mineral reserves must describe the procedures, findings and conclusions reached for the pre-feasibility or feasibility study, as required by §229.601(b)(96).

(2) When determining mineral reserves, a qualified person must subdivide mineral reserves, in order of increasing confidence, into probable mineral reserves and proven mineral reserves, as defined in §229.1300. The determination of probable or proven mineral reserves must be based on a qualified person's application of the modifying factors to indicated or measured mineral resources, which results in the qualified person's determination that part of the indicated or measured mineral resource is economically mineable.

(i) For a probable mineral reserve, the qualified person's confidence in the results obtained from the application of the modifying factors and in the estimates of tonnage and grade or quality is lower than what is sufficient for a classification as a proven mineral reserve, but is still sufficient to demonstrate that, at the time of reporting, extraction of the mineral reserve is economically viable under reasonable investment and market assumptions. The lower level of confidence is due to higher geologic uncertainty when the qualified person converts an indicated mineral resource to a probable reserve or higher risk in the results of the application of modifying factors at the time when the qualified person converts a measured mineral resource to a probable mineral reserve. A qualified person must classify a measured mineral resource as a probable mineral reserve when his or her confidence in the results obtained from the application of the modifying factors to the measured mineral resource is lower than what is sufficient for a proven mineral reserve.

(ii) For a proven mineral reserve, the qualified person must have a high degree of confidence in the results obtained from the application of the modifying factors and in the estimates of tonnage and grade or quality.

(3) The pre-feasibility study or feasibility study, which supports the qualified person's determination of mineral reserves, must demonstrate that, at the time of reporting, extraction of the mineral reserve is economically viable under reasonable investment and market assumptions. The study must establish a life of mine plan that is technically achievable and economically viable, which will be the basis of determining the mineral reserve.

(i) The term *mineral reserves* does not necessarily require that extraction facilities are in place or operational, that the company has obtained all necessary permits or that the company has entered into sales contracts for the sale of mined products. It does require, however, that the qualified person has, after reasonable investigation, not identified any obstacles to obtaining permits and entering into the necessary sales contracts, and reasonably believes that the chances of obtaining such approvals and contracts in a timely manner are highly likely.

(ii) In certain circumstances, the determination of mineral reserves may require the completion of at least a preliminary market study, as defined in §229.1300, in the context of a pre-feasibility study, or a final market study, as defined in §229.1300, in the context of a feasibility study, to support the qualified person's conclusions about the chances of obtaining revenues from sales. For example, a preliminary or final market study would be required where the mine's product cannot be traded on an exchange, there is no other established market for the product, and no sales contract exists. When assessing mineral reserves, the qualified person must take into account the potential adverse impacts, if any, from any unresolved material matter on which extraction is contingent and which is dependent on a third party.

(4) For both a pre-feasibility and feasibility study, a qualified person must use a price for each commodity that provides a reasonable basis for establishing that the project is economically viable. The qualified person must disclose the price used and explain, with particularity, his or her reasons for using the selected price, including the material assumptions underlying the selection. This explanation must include disclosure of the time frame used to estimate the price and costs and the reasons justifying the selection of that time frame. The qualified person may use a price set by contractual arrangement, provided that such price is reasonable, and the qualified person discloses that he or she is using a contractual price when disclosing the price used. The selected price required by this section and all material assumptions underlying it must be current as of the end of the registrant's most recently completed fiscal year.

(5) A pre-feasibility study must include an economic analysis that supports the property's economic viability as assessed by a detailed discounted cash flow analysis or other similar financial analysis. The economic analysis must describe in detail applicable taxes and provide an estimate of revenues. The qualified person must use a price for each commodity in the economic analysis that meets the requirements of paragraph (e)(4) of this section. As discussed in paragraph (e)(3) of this section, in certain situations, estimates of revenues must be based on at least a preliminary market study.

(6) The qualified person must exclude inferred mineral resources from the pre-feasibility study's demonstration of economic viability in support of a disclosure of a mineral reserve.

(7) Factors to be considered in a pre-feasibility study are typically the same as those required for a final feasibility study, but considered at a lower level of detail or at an earlier stage of development. The list of factors is not exclusive. For example, as provided in Table 1 to paragraph (d) of this section, a pre-feasibility study must define, analyze or otherwise address in detail, to the extent material:

(i) The required access roads, infrastructure location and plant area, and the source of all utilities (*e.g.*, power and water) required for development and production;

(ii) The preferred underground mining method or surface mine pit configuration, with detailed mine layouts drawn for each alternative;

(iii) The bench lab tests that have been conducted, the process flow sheet, equipment sizes, and general arrangement that have been completed, and the plant throughput;

(iv) The environmental compliance and permitting requirements, the baseline studies, and the plans for tailings disposal, reclamation, and mitigation, together with an analysis establishing that permitting is possible; and

(v) Any other reasonable assumptions, based on appropriate testing, on the modifying factors sufficient to demonstrate that extraction is economically viable.

(8) A pre-feasibility study must also identify sources of uncertainty that require further refinement in a final feasibility study.

(9) Operating and capital cost estimates in a pre-feasibility study must, at a minimum, have an accuracy level of approximately ±25% and a contingency range not exceeding 15%, as provided in Table 1 of this section. The qualified person must state the accuracy level and contingency range in the pre-feasibility study.

(10) A feasibility study must contain the application and description of all relevant modifying factors in a more detailed form and with more certainty than a pre-feasibility study. The list of factors is not exclusive. For example, as provided in Table 1 to paragraph (d) of this section, a feasibility study must define, analyze, or otherwise address in detail, to the extent material:

(i) Final requirements for site infrastructure, including well-defined access roads, finalized plans for infrastructure location, plant area, and camp or town site, and the established source of all required utilities (*e.g.*, power and water) for development and production;

(ii) Finalized mining method, including detailed mine layouts and final development and production plan for the preferred alternative with the required equipment fleet specified. The feasibility study must address detailed mining schedules, construction and production ramp up, and project execution plans;

(iii) Completed detailed bench lab tests and a pilot plant test, if required, based on risk. The feasibility study must further address final requirements for process flow sheet, equipment sizes, and general arrangement and specify the final plant throughput;

(iv) The final identification and detailed analysis of environmental compliance and permitting requirements, and the completion of baseline studies and finalized plans for tailings disposal, reclamation, and mitigation; and

(v) The final assessments of other modifying factors necessary to demonstrate that extraction is economically viable.

(11) A feasibility study must also include an economic analysis that describes taxes in detail, estimates revenues, and assesses economic viability by a detailed discounted cash flow analysis. The qualified person must use a price for each commodity in the economic analysis that meets the requirements of paragraph (e)(4) of this section. As discussed in paragraph (e)(3) of this section, in certain situations, estimates of revenues must be based on a final market study or letters of intent to purchase.

(12) Operating and capital cost estimates in a feasibility study must, at a minimum, have an accuracy level of approximately $\pm 15\%$ and a contingency range not exceeding 10%, as provided by Table 1 of this section. The qualified person must state the accuracy level and contingency range in the feasibility study.

(13) If the uncertainties in the results obtained from the application of the modifying factors that prevented a measured mineral resource from being converted to a proven mineral reserve no longer exist, then the qualified person may convert the measured mineral resource to a proven mineral reserve.

(14) The qualified person cannot convert an indicated mineral resource to a proven mineral reserve unless new evidence first justifies conversion to a measured mineral resource.

(15) The qualified person cannot convert an inferred mineral resource to a mineral reserve without first obtaining new evidence that justifies converting it to an indicated or measured mineral resource.

(f)

(1) The qualified person may indicate in the technical report summary that the qualified person has relied on information provided by the registrant in preparing its findings and conclusions regarding the following aspects of modifying factors:

(i) Macroeconomic trends, data, and assumptions, and interest rates;

(ii) Marketing information and plans within the control of the registrant;

(iii) Legal matters outside the expertise of the qualified person, such as statutory and regulatory interpretations affecting the mine plan;

(iv) Environmental matters outside the expertise of the qualified person;

(v) Accommodations the registrant commits or plans to provide to local individuals or groups in connection with its mine plans; and

(vi) Governmental factors outside the expertise of the qualified person.

(2) In a separately captioned section of the technical report summary entitled "Reliance on Information Provided by the Registrant," the qualified person must:

(i) Identify the categories of information provided by the registrant;

(ii) Identify the particular portions of the technical report summary that were prepared in reliance on information provided by the registrant pursuant to paragraph (f)(1) of this section, and the extent of that reliance; and

(iii) Disclose why the qualified person considers it reasonable to rely upon the registrant for any of the information specified in paragraph (f)(1) of this section.

(3) Notwithstanding the provisions of §230.436(a) and (b) of this chapter, any description in the technical report summary or other part of the registration statement of the procedures, findings, and conclusions reached about matters identified by the qualified person as having been based on information provided by the registrant pursuant to this section shall not be considered a part of the registration statement prepared or certified by the qualified person within the meaning of Sections 7 and 11 of the Securities Act.

§ 229.1303 (Item 1303) Summary disclosure.

(a)

(1) A registrant that has material mining operations, as determined pursuant to §229.1301, and two or more mining properties, must provide the information specified in paragraph (b) of this section for all properties that the registrant:

(i) Owns or in which it has, or it is probable that it will have, a direct or indirect economic interest;

(ii) Operates, or it is probable that it will operate, under a lease or other legal agreement that grants the registrant ownership or similar rights that authorize it, as principal, to sell or otherwise dispose of the mineral; or

(iii) Has, or it is probable that it will have, an associated royalty or similar right.

(2) A registrant that has material mining operations but only one mining property is not required to provide the information specified in paragraph (b) of this section. That registrant need only provide the disclosure required by §229.1304 for the mining property that is material to its business.

(3) A registrant that has a royalty, streaming or other similar right, but which lacks access to any of the information specified in paragraph (b) of this section about the underlying properties, may omit such information, provided that the registrant:

(i) Specifies the information to which it lacks access;

(ii) Explains that it does not have access to the required information because:

(A) Obtaining the information would result in an unreasonable burden or expense; or

(B) It requested the information from a person possessing knowledge of the information, who is not affiliated with the royalty company or similar registrant, and who denied the request; and

(iii) Provides all required information that it does possess or which it can acquire without incurring an unreasonable burden or expense.

(b) Disclose the following information for all properties specified in paragraph (a) of this section:

(1) A map or maps, of appropriate scale, showing the locations of all properties. Such maps should be legible on the page when printed.

(2) An overview of the registrant's mining properties and operations. This overview may be presented in narrative or tabular format.

(i) The overview must include aggregate annual production for the properties during each of the three most recently completed fiscal years preceding the filing.

(ii) The overview should include, as relevant, the following items of information for the mining properties considered in the aggregate:

- (A) The location of the properties;
- (B) The type and amount of ownership interests;
- (C) The identity of the operator or operators;
- (D) Titles, mineral rights, leases or options and acreage involved;
- (E) The stages of the properties (exploration, development or production);
- (F) Key permit conditions;
- (G) Mine types and mineralization styles; and
- (H) Processing plants and other available facilities.

(iii) When presenting the overview, the registrant should include the amount and type of disclosure concerning its mining properties that is material to an investor's understanding of the registrant's properties and mining operations in the aggregate. This disclosure will depend upon a registrant's specific facts and circumstances and may vary from registrant to registrant. A registrant should refer to, rather than duplicate, any disclosure concerning individually material properties provided in response to §229.1304.

(iv) A registrant with only a royalty or similar economic interest should provide only the portion of the production that led to royalty or other incomes for each of the three most recently completed fiscal years.

(3) A summary of all mineral resources and mineral reserves, as determined by the qualified person, at the end of the most recently completed fiscal year by commodity and geographic area and for each property containing 10% or more of the registrant's combined measured and indicated mineral resources or containing 10% or more of the registrant's mineral reserves. This summary must be provided for each class of mineral resources (inferred, indicated, and measured), together with total measured and indicated mineral reserves, and each class of mineral reserves (probable and proven), together with total mineral reserves, using the format in Table 1 to paragraph (b) of this section for mineral reserves.

(i) The term *by geographic area* means by individual country, regions of a country, state, groups of states, mining district, or other political units, to the extent material to and necessary for an investor's understanding of a registrant's mining operations.

(ii) All disclosure of mineral resources by the registrant must be exclusive of mineral reserves.

(iii) All disclosure of mineral resources and reserves must be only for the portion of the resources or reserves attributable to the registrant's interest in the property.

(iv) Each mineral resource and reserve estimate must be based on a reasonable and justifiable price selected by a qualified person pursuant to §229.1302(d) or (e), which provides a reasonable basis for establishing the prospects of economic extraction for mineral resources, and is the expected price for mineral reserves.

(v) Each mineral resource and reserve estimate called for in Tables 1 and 2 to paragraph (b) of this section must be based on a specific point of reference selected by a qualified person. The registrant must disclose the selected point of reference for each of Tables 1 and 2 to paragraph (b) of this section.

(vi) The registrant may modify the tabular formats in Tables 1 and 2 to paragraph (b) of this section for ease of presentation or to add information.

(vii) All material assumptions and information pertaining to the summary disclosure of a registrant's mineral resources and mineral reserves required by this section, including material assumptions related to price estimates, must be current as of the end of the registrant's most recently completed fiscal year.

TABLE 1 TO PARAGRAPH (b)—SUMMARY MINERAL RESOURCES AT END OF THE FISCAL YEAR ENDED [DATE] BASED ON [PRICE]¹

	Measured mineral resources		Indicated mineral resources		Measured + indicated mineral resources		Inferred mineral resources	
	Amount	Grades / qualities	Amount	Grades / qualities	Amount	Grades / qualities	Amount	Grades / qualities
Commodity A:								
Geographic area A								
Geographic area B								
Mine/Property A								
Mine/Property B								
Other mines/properties								
Other geographic areas								
Total								
Commodity B:								
Geographic area A								
Geographic area B								
Mine/Property A								
Mine/Property B								
Other mines/properties								
Other geographic areas								
Total								

¹The registrant must use a reasonable and justifiable price for each commodity, which it must disclose, together with the time frame and point of reference used, when estimating mineral resources for this Table 1.

TABLE 2 TO PARAGRAPH (b)—SUMMARY MINERAL RESERVES AT END OF THE FISCAL YEAR ENDED [DATE] BASED ON [PRICE]¹

	Proven mineral reserves		Probable mineral reserves		Total mineral reserves	
	Amount	Grades / qualities	Amount	Grades / qualities	Amount	Grades / qualities
Commodity A:						
Geographic area A						
Geographic area B						
Mine/Property A						
Mine/Property B						
Other mines/properties						
Other geographic areas						
Total						
Commodity B:						
Geographic area A						
Geographic area B						
Mine/Property A						
Mine/Property B						
Other mines/properties						
Other geographic areas						
Total				t Barlana ta		

¹The registrant must use a reasonable and justifiable price for each commodity, which it must disclose, together with the time frame and point of reference used, when estimating mineral reserves for this Table 2.

§229.1304 (Item 1304) Individual property disclosure.

(a)

(1) A registrant must disclose the information specified in this section for each property that is material to its business or financial condition. When determining the materiality of a property relative to its business or financial condition, a registrant must apply the standards and other considerations specified in §229.1301(c) to each individual property that it:

(i) Owns or in which it has, or it is probable that it will have, a direct or indirect economic interest;

(ii) Operates, or it is probable that it will operate, under a lease or other legal agreement that grants the registrant ownership or similar rights that authorize it, as principal, to sell or otherwise dispose of the mineral; or

(iii) Has, or it is probable that it will have, an associated royalty or similar right.

(2) A registrant that has a royalty, streaming or other similar right, but which lacks access to any of the information specified in this section about the underlying property or properties, may omit such information, provided that the registrant:

(i) Specifies the information to which it lacks access;

(ii) Explains that it does not have access to the required information because:

(A) Obtaining the information would result in an unreasonable burden or expense; or

(B) It requested the information from a person possessing knowledge of the information, who is not affiliated with the with the royalty company or similar registrant, and who denied the request; and

(iii) Provides all required information that it does possess or which it can acquire without incurring an unreasonable burden or expense.

(b) Disclose the following information for each material property specified in paragraph (a) of this section:

(1) A brief description of the property including:

(i) The location, accurate to within one mile, using an easily recognizable coordinate system. The registrant must provide appropriate maps, with proper engineering detail (such as scale, orientation, and titles). Such maps must be legible on the page when printed;

(ii) Existing infrastructure including roads, railroads, airports, towns, ports, sources of water, electricity, and personnel; and

(iii) A brief description, including the name or number and size (acreage), of the titles, claims, concessions, mineral rights, leases or options under which the registrant and its subsidiaries have or will have the right to hold or operate the property, and how such rights are obtained at this location, indicating any conditions that the registrant must meet in order to obtain or retain the property. If held by leases or options or if the mineral rights otherwise have termination provisions, the registrant must provide the expiration dates of such leases, options or mineral rights and associated payments.

(iv) Except as provided in paragraph (a)(2) of this section, if the registrant holds a royalty or similar interest or will have an associated royalty or similar right, the disclosure must describe all of the information in paragraph (b)(1) of this section, including, for example, the documents under which the owner or operator holds or operates the property, the mineral rights held by the owner or operator, conditions

required to be met by the owner or operator, and the expiration dates of leases, options and mineral rights. The registrant must also briefly describe the agreement under which the registrant and its subsidiaries have or will have the right to a royalty or similar interest in the property, indicating any conditions that the registrant must meet in order to obtain or retain the royalty or similar interest, and indicating the expiration date.

(2) The following information, as relevant to the particular property:

(i) A brief description of the present condition of the property, the work completed by the registrant on the property, the registrant's proposed program of exploration or development, the current stage of the property as exploration, development or production, the current state of exploration or development of the property, and the current production activities. Mines should be identified as either surface or underground, with a brief description of the mining method and processing operations. If the property is without known reserves and the proposed program is exploratory in nature or the registrant has started extraction without determining mineral reserves, the registrant must provide a statement to that effect;

(ii) The age, details as to modernization and physical condition of the equipment, facilities, infrastructure, and underground development;

(iii) The total cost for or book value of the property and its associated plant and equipment;

(iv) A brief history of previous operations, including the names of previous operators, insofar as known; and

(v) A brief description of any significant encumbrances to the property, including current and future permitting requirements and associated timelines, permit conditions, and violations and fines.

(c) When providing the disclosure required by paragraph (b) of this section:

(1) A registrant must identify an individual property with no mineral reserves as an exploration stage property, even if it has other properties in development or production. Similarly, a registrant that does not have reserves on any of its properties cannot characterize itself as a development or production stage company, even if it has mineral resources or exploration results, or even if it is engaged in extraction without first disclosing mineral reserves.

(2) A registrant should not include extensive description of regional geology. Rather, it should include geological information that is brief and relevant to property disclosure.

(d)

(1) If mineral resources or reserves have been determined, the registrant must provide a summary of all mineral resources or reserves as of the end of the most recently completed fiscal year, which, for each property, discloses in tabular form, as provided in Table 1 to paragraph (d)(1) of this section for each class of mineral resources (measured, indicated, and inferred), together with total measured and indicated mineral resources, the estimated

tonnages and grades (or quality, where appropriate), and as provided in Table 2 to paragraph (d)(1) of this section for each class of mineral reserves (proven and probable), together with total mineral reserves, the estimated tonnages, grades (or quality, where appropriate), cut-off grades, and metallurgical recovery, based on a specific point of reference selected by a qualified person pursuant to §229.601(b)(96). The registrant must disclose the selected point of reference for each of Tables 1 and 2 to paragraph (d)(1) of this section.

TABLE 1 TO PARAGRAPH (D)(1)—[INDIVIDUAL PROPERTY NAME]—SUMMARY OF [COMMODITY/COMMODITIES] MINERAL RESOURCES AT THE END OF THE FISCAL YEAR ENDED [DATE] BASED ON [PRICE]¹

	Resources			
	Amount	Grades / qualities	Cut-off grades	Metallurgical recovery
Measured mineral resources				
Indicated mineral resources				
Measured + Indicated mineral resources				
Inferred mineral resources				

¹The registrant must use a reasonable and justifiable price, which it must disclose, together with the time frame and point of reference used, when estimating mineral resources for this Table 1.

TABLE 2 TO PARAGRAPH (D)(1)—[INDIVIDUAL PROPERTY NAME]—SUMMARY OF [COMMODITY/COMMODITIES] MINERAL RESERVES AT THE END OF THE FISCAL YEAR ENDED [DATE] BASED ON [PRICE]¹

	Amount	Grades / qualities	Cut-off grades	Metallurgical recovery
Proven mineral reserves				
Probable mineral reserves				
Total mineral reserves				

¹The registrant must use a reasonable and justifiable price for each commodity, which it must disclose, together with the time frame and point of reference used, when estimating mineral reserves for this Table 2.

Instruction 1 to paragraph (d)(1): The registrant may modify the tabular formats in Tables 1 and 2 to paragraph (d)(1) of this section for ease of presentation, to add information, or to combine two or more required tables. When combining tables, the registrant should not report mineral resources and reserves in the same table.

(2) All disclosure of mineral resources by the registrant must be exclusive of mineral reserves.

(3) A registrant with only a royalty or similar interest should provide only the portion of the resources or reserves that are subject to the royalty or similar agreement.

(e) Compare the property's mineral resources and reserves as of the end of the last fiscal year with the mineral resources and reserves as of the end of the preceding fiscal year, and explain any material change between the two. The comparison, which may be in either narrative or tabular format, must disclose information concerning:

(1) The mineral resources or reserves at the end of the last two fiscal years;

(2) The net difference between the mineral resources or reserves at the end of the last completed fiscal year and the preceding fiscal year, as a percentage of the resources or reserves at the end of the fiscal year preceding the last completed one;

(3) An explanation of the causes of any discrepancy in mineral resources including depletion or production, changes in commodity prices, additional resources discovered through exploration, and changes due to the methods employed; and

(4) An explanation of the causes of any discrepancy in mineral reserves including depletion or production, changes in the resource model, changes in commodity prices and operating costs, changes due to the methods employed, and changes due to acquisition or disposal of properties.

(f)

(1) If the registrant has not previously disclosed mineral reserve or resource estimates in a filing with the Commission or is disclosing material changes to its previously disclosed mineral reserve or resource estimates, provide a brief discussion of the material assumptions and criteria in the disclosure and cite corresponding sections of the technical report summary, which must be filed as an exhibit pursuant to §229.1302(b).

(2) All material assumptions and information pertaining to the disclosure of a registrant's mineral resources and mineral reserves required by paragraphs (d), (e), and (f) of this section, including material assumptions relating to all modifying factors, price estimates, and scientific and technical information (*e.g.*, sampling data, estimation assumptions and methods), must be current as of the end of the registrant's most recently completed fiscal year. To the extent that the registrant is not filing a technical report summary but instead is basing the required disclosure upon a previously filed report, that report must also be current in these material respects. If the previously filed report is not current in these material respects, the registrant must file a revised or new technical report summary from a qualified person, in compliance with §229.601(b)(96) (Item 601(b)(96) of Regulation S-K), that supports the registrant's mining property disclosures.

(3) Regarding the disclosure required by paragraphs (e) and (f) of this section, whether a change in mineral resources or mineral reserves is material is based on all facts and circumstances, both quantitative and qualitative.

(g)

(1) If disclosing exploration activity for any material property specified in paragraph (a) of this section for the most recently completed fiscal year, provide a summary that describes the sampling methods used, and, for each sampling method used, disclose the number of samples, the total size or length of the samples, and the total number of assays.

(2) If disclosing exploration results for any material property specified in paragraph (a) of this section for the most recently completed fiscal year, provide a summary that, for each property, identifies the hole, trench or other sample that generated the exploration results, describes the length, lithology, and key geologic properties of the exploration results, and includes a brief discussion of the exploration results' context and relevance. If the summary only includes results from selected samples and intersections, it should be accompanied with a discussion of the context and justification for excluding other results.

(3) The information disclosed under this paragraph (g) may be presented in either narrative or tabular format.

(4) A registrant must disclose exploration results and related exploration activity for a material property under this section if they are material to investors. When determining whether exploration results and related exploration activity are material, the registrant should consider all relevant facts and circumstances, such as the importance of the exploration results in assessing the value of a material property or in deciding whether to develop the property, and the particular stage of the property.

(5) A registrant may disclose an exploration target when discussing exploration results or exploration activity related to a material property as long as the disclosure is in compliance with the requirements of §229.1302(c).

(6)

(i) If the registrant is disclosing exploration results, but has not previously disclosed such results in a filing with the Commission, or is disclosing material changes to its previously disclosed exploration results, it must provide sufficient information to allow for an accurate understanding of the significance of the exploration results. The registrant must include information such as exploration context, type and method of sampling, sampling intervals and methods, relevant sample locations, distribution, dimensions, and relative location of all relevant assay and physical data, data aggregation methods, land tenure status, and any additional material information that may be necessary to make the required disclosure concerning the registrant's exploration results not misleading. If electing to file a technical report summary, the registrant must cite corresponding sections of the technical report summary, which must be filed as an exhibit pursuant to §229.1302(b).

(ii) Whether a change in exploration results is material is based on all facts and circumstances, both quantitative and qualitative.

(iii) A change in exploration results that significantly alters the potential of the subject deposit is considered material.

(h) A report containing one or more estimates of the quantity, grade, or metal or mineral content of a deposit or exploration results that a registrant has not verified as a current estimate of mineral resources, mineral reserves, or exploration results, and which was prepared before the registrant acquired, or entered into an agreement to acquire, an interest in the property that contains the deposit, is not considered current and cannot be filed in support of disclosure. Notwithstanding this prohibition, a registrant may include such an estimate in a Commission filing that pertains to a merger, acquisition, or business combination if the registrant is unable to update the estimate prior to the completion of the relevant transaction. In that event, when referring to the estimate, the registrant must disclose the source and date of the estimate, and state that a qualified person has not done

sufficient work to classify the estimate as a current estimate of mineral resources, mineral reserves, or exploration results and that the registrant is not treating the estimate as a current estimate of mineral resources, mineral reserves, or exploration results.

§ 229.1305 (Item 1305) Internal controls disclosure.

(a) Describe the internal controls that the registrant uses in its exploration and mineral resource and reserve estimation efforts. This disclosure should include quality control and quality assurance (QC/QA) programs, verification of analytical procedures, and a discussion of comprehensive risk inherent in the estimation.

(b) A registrant must provide the internal controls disclosure required by this section whether it is providing the disclosure under §229.1303, §229.1304, or under both sections.