

ALMADEN MINERALS LTD
Form 20-F
March 31, 2016

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 20-F

REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE
ACT OF 1934
OR

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15 (d) OF THE SECURITIES EXCHANGE ACT OF
1934 FOR THE FISCAL YEAR ENDED DECEMBER 31, 2015
OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF
1934
OR

SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE
ACT OF 1934
Date of event requiring this shell company report

For the transition period from _____ to _____

Commission file number 001-32702

ALMADEN MINERALS LTD.
(Exact name of Registrant as specified in its charter)

British Columbia, Canada
(Jurisdiction of incorporation or organization)

1385 West 8th Avenue, #310, Vancouver, British Columbia V6H 3V9
(Address of principal executive offices)

Korm Trieu, ktrieu@almadenminerals.com, 1385 West 8th Avenue, #310, Vancouver, BC V6H 3V9
(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)

Securities registered or to be registered pursuant to Section 12(b) of the Act.
Title of each class Name of each exchange on which registered

Common Stock without Par Value NYSE MKT: TSX

Securities registered or to be registered pursuant to Section 12(g) of the Act.

None

(Title of Class)

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act.

None

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report.

78,062,984

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.
() Yes (X) No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.

() Yes (X) No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

(X) Yes () No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the Registrant was required to submit and post such files).

() Yes () No

As a foreign private issuer that prepares its financial statements in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB"), the Registrant is required to submit to the SEC and post on its corporate website Interactive Data Files (as defined by Item 11 of Regulation S-T) pursuant to Rule 405 of Regulation S-T.

However, it is the view of the Securities and Exchange Commission's (the "Commission" or "SEC") Division of Corporation Finance and Office of the Chief Accountant that the Registrant is not required to submit to the SEC and post on its corporate website Interactive Data Files until the SEC specifies on its website an IFRS taxonomy for use by foreign private issuers in preparing their Interactive Data Files.

As of the submission date of this Annual Report on Form 20-F, the SEC has not specified an IFRS taxonomy for the Registrant to use in preparing its Interactive Data Files.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act.

Large accelerated filer () Accelerated filer () Non-accelerated filer (X)

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP () International Financial Reporting Standards as issued by the International Accounting Standards Board (X) Other ()

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow.

Item 17 Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes No

(APPLICABLE ONLY TO ISSUERS INVOLVED IN BANKRUPTCY PROCEEDS DURING THE PAST FIVE YEARS)

Indicate by check mark whether the registrant has filed all documents and reports required to be filed by Section 12, 13 or 15(d) of the Securities Exchange Act of 1934 subsequent to the distribution of securities under a plan confirmed by a court.

Yes No

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Glossary of Geologic and Mining Terms

Adularia: A colourless, moderate to low-temperature variety of orthoclase feldspar typically with a relatively high barium content. It is a prominent constituent of low sulphidation epithermal veins.

Alkalic Intrusive: An igneous rock emplaced below ground level in which the feldspar is dominantly sodic and or potassic.

Alkalinity: The chemical nature of solutions characterized by a high concentration of hydroxyl ions.

Alteration: Usually referring to chemical reactions in a rock mass resulting from the passage of hydrothermal fluids.

Andesite: A dark-coloured, fine-grained extrusive rock that, when porphyritic, contains phenocrysts composed primarily of zoned sodic plagioclase (esp. andesine) and one or more of the mafic minerals (eg. Biotite, horn-blende, pyroxene), with a ground-mass composed generally of the same minerals as the phenocrysts; the extrusive equivalent of diorite. Andesite grades into latite with increasing alkali feldspar content, and into dacite with more alkali feldspar and quartz. It was named by Buch in 1826 from the Andes Mountains, South America.

Anomalous: A geological feature, often subsurface, distinguished by geological, geochemical or geophysical means, which is detectably different than the general surroundings and is often of potential economic value.

Anomaly: Any concentration of metal noticeably above or below the average background concentration.

Argillic: A form of alteration characterized by the alteration of original minerals to clays.

Arsenopyrite: A sulphide of arsenic and iron with the chemical composition FeAsS.

Assay: An analysis to determine the presence, absence or quantity of one or more components.

Axis: An imaginary hinge line about which the fold limbs are bent. The axis of a fold can be at the top or bottom of the fold, can be tilted or horizontal.

Batholith: An intrusion, usually granitic, which has a large exposed surface area and no observable bottom. Usually associated with orogenic belts.

Breccia: Rock consisting of more or less angular fragments in a matrix of finer-grained material or cementing material.

Brecciated: Rock broken up by geological forces.

Bulk sample: A very large sample, the kind of sample to take from broken rock or of gravels and sands when testing placer deposits.

Calc-silicate: Calcium-bearing silicate minerals. These minerals are commonly formed as a result of the interaction of molten rock and its derived, hot hydrothermal fluids with very chemically reactive calcium carbonate (limestone). Calc-silicate minerals include garnet, pyroxene, amphibole and epidote. These minerals are commonly described as skarn and are genetically and spatially associated with a wide range of metals

Chert: A very fine grained siliceous rock. Many limestones contain nodules and thin lenses of chert.

Chip sample: A sample composed of discontinuous chips taken along a surface across a given line.

Claim: That portion of public mineral lands, which a party has staked or marked out in accordance with provincial or state mining laws, to acquire the right to explore for the minerals under the surface.

Clastic: Consisting of rock material that has been mechanically derived, transported, and deposited. Such material is also called detrital.

Cleavage: The tendency of a crystal to split, or break, along planes of structural weakness.

Concordant Bodies: Intrusive igneous bodies whose contacts are parallel to the bedding of the intruded rock.

Conglomerate: Rock composed of mostly rounded fragments which are of gravel size or larger in a finer grained matrix.

Craton: A central stable region common to nearly all continents and composed chiefly of highly metamorphosed Precambrian rocks.

Cretaceous: Geological time period between 136 and 64 million years ago.

Crystalline: Means the specimen is made up of one or more groups of crystals.

Cut-off grade: The minimum grade of mineralization used to establish quantitative and qualitative estimates of total mineralization.

Dacite: A fine grained acid volcanic rock, similar to rhyolite in which the feldspar is predominantly plagioclase.

Degradation: The ongoing process of erosion in a stream.

Diagenesis: The changes that occur in a sediment during and after lithification. These changes include compaction, cementation, replacement, and recrystallization.

Diamond drill: A type of rotary drill in which the cutting is done by abrasion using diamonds embedded in a matrix rather than by percussion. The drill cuts a core of rock which is recovered in long cylindrical sections.

Dilution: Results from the mixing in of unwanted gangue or waste rock with the ore during mining.

Dip: Geological measurement of the angle of maximum slope of planar elements in rocks. Can be applied to beddings, jointing, fault planes, etc.

Discordant Bodies: Intrusive igneous bodies whose contacts cut across the bedding, or other pre-existing structures, to the intruded rock.

Disseminated deposit: Deposit in which the mineralization is scattered through a large volume of host rock, sometimes as separate mineral grains, or sometimes along joint or fault surfaces.

Dyke: A tabular, discordant, intrusive igneous body.

Earn in: The right to acquire an interest in a property pursuant to an Option Agreement.

Ejecta: Pyroclastic material thrown out or ejected by a volcano. It includes ash, volcanic bombs, and lapilli.

Epithermal: Epithermal deposits are a class of ore deposits that form generally less than 1 km from surface. These deposits, which can host economic quantities of gold, silver, copper, lead and zinc are formed as a result of the precipitation of ore minerals from up-welling hydrothermal fluids. There are several classes of epithermal deposits that are defined on the basis of fluid chemistry and resulting alteration and ore mineralogy. Fluid chemistry is largely controlled by the proximity to igneous intrusive rocks and as a result igneous fluid content.

Extrusive Rock: Igneous rock that has solidified on the earth's surface from volcanic action.

Fault: A fracture in a rock where there had been displacement of the two sides.

Faults: Breaks in rocks with noticeable movement or displacement of the rocks on either side of the break.

Feldspar: A group of aluminum silicate minerals closely related in chemical composition and physical properties. There are two major chemical varieties of feldspar: the potassium aluminum, or potash, feldspars and the sodium-calcium-aluminum, or plagioclase, feldspars. The feldspars possess a tetrahedral framework of silicon and oxygen, with the partial substitution of aluminum for the silicon. They make up about 60 percent of the earth's crust.

Felsic: Light colored silicate minerals, mainly quartz and feldspar, or an igneous rock comprised largely of felsic minerals (granite, rhyolite).

Fluid inclusion: A cavity, with or without negative crystal faces, containing one or two fluid phases, and possibly one or more minute crystals, in a host crystal. If two fluid phases are present, the vapor phase (bubble) may show Brownian motion.

Folds: Are flexures in bedded or layered rocks. They are formed when forces are applied gradually to rocks over a long period of time.

Fracture: Breaks in a rock, usually due to intensive folding or faulting.

Gangue: Term used to describe worthless minerals or rock waste mixed in with the valuable minerals.

Geochemical Anomaly: An area of elevated values of a particular element in soil or rock samples collected during the preliminary reconnaissance search for locating favourable metal concentrations that could indicate the presence of surface or drill targets.

Geochemistry: The study of the chemistry of rocks, minerals, and mineral deposits.

Geophysics: The study of the physical properties of rocks, minerals, and mineral deposits.

Gouge: The finely ground rock that results from the abrasion along a fault surface.

Grade: The concentration of each ore metal in a rock sample, usually given as weight percent. Where extremely low concentrations are involved, the concentration may be given in grams per tonne (g/t) or ounces per tonne (oz/t). The grade of an ore deposit is calculated, often using sophisticated statistical procedures, as an average of the grades of a very large number of samples collected from throughout the deposit.

Granite: A coarse grained, plutonic igneous rock that is normally pale pink, pale pink-brown, or pale grey, and composed of quartz, alkali feldspar, micas and accessory minerals.

Granodiorite: A coarse grained, plutonic igneous rock that is normally pale grey, and composed of quartz, calc-alkali feldspar, micas and accessory minerals.

Grid: A network composed of two sets of uniformly spaced parallel lines, usually intersecting at right angles and forming squares, superimposed on a map, chart, or aerial photograph, to permit identification of ground locations by means of a system or coordinates and to facilitate computation of direction and distance and size of geologic, geochemical or geophysical features.

Hectare: A square of 100 meters on each side.

Host rock: The rock within which the ore deposit occurs.

Hydrothermal: Of or pertaining to hot water, to the action of hot water, or to the products of this action, such as a mineral deposit precipitated from a hot aqueous solution; also, said of the solution itself. "Hydrothermal" is generally used for any hot water, but has been restricted by some to water of magmatic origin.

Igneous: Means a rock formed by the cooling of molten silicate material.

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Induced polarization (I.P.) method: The method used to measure various electrical responses to the passage of alternating currents of different frequencies through near-surface rocks or to the passage of pulses of electricity.

Intermediate: An igneous rock made up of both felsic and mafic minerals (diorite).

Intrusion: General term for a body of igneous rock formed below the surface.

Intrusive Rock: Any igneous rock solidified from magma beneath the earth's surface.

Joint venture agreement: An agreement where the parties agree to the terms on which a property will be jointly explored, developed, and mined. (See also "Option agreement" and "Earn in").

Jurassic: Geological time period between 195 and 136 million years ago.

Kriging: (a) A statistical technique employed in calculating grade and tonnage of ore reserves from sampling data. The data are handled by computer. (b) A technique for interpolating which honors data points exactly. An output point is calculated as a linear combination of known data points. Kriging attempts to produce the best linear unbiased estimate. Used to interpolate between drill holes.

K-silicate: Potassium-bearing silicates. Potassium silicates are very common rock-forming minerals, however they are also formed by the interaction of hydrothermal fluids derived from the cooling intrusive rocks that are genetically and spatially associated with porphyry and epithermal deposits. Potassium feldspar (orthoclase) and potassium mica (biotite) are both commonly closely associated with copper-molybdenum ore in porphyry copper deposits.

K-spar: Potassium feldspar.

Lava: Means an igneous rock formed by the cooling of molten silicate material which escapes to the earth's surface or pours out onto the sea floor.

Limestone: Sedimentary rock that is composed mostly of carbonates, the two most common of which are calcium and magnesium carbonates.

Lithosphere: The crust and upper mantle, located above the asthenosphere and composing the rigid plates.

Mafic: A general term used to describe ferromagnesian minerals. Rocks composed mainly of ferromagnesian minerals are correctly termed melanocratic.

Magma: Naturally occurring molten rock material, generated within the earth and capable of intrusion and extrusion, from which igneous rocks have been derived through solidification and related processes. It may or may not contain suspended solids (such as crystals and rock fragments) and/or gas phases.

Massive: Implies large mass. Applied in the context of hand specimens of, for example, sulphide ores, it usually means the specimen is composed essentially of sulphides with few, if any, other constituents.

Metamorphic: Means any rock which is altered within the earth's crust by the effects of heat and/or pressure and/or chemical reactions. Pertains to the process of metamorphism or to its results.

Metasediment: A sediment or sedimentary rock that shows evidence of having been subjected to metamorphism.

Metavolcanic: An informal term for volcanic rocks that show evidence of having been subject to metamorphism.

Mineral claim: A legal entitlement to minerals in a certain defined area of ground.

Mineral Deposit or Mineralized Material: A mineralized underground body which has been intersected by sufficient closely spaced drill holes and/or underground sampling to support sufficient tonnage and average grade of metal(s) to warrant further exploration-development work. This deposit does not qualify as a commercially mineable ore body (Reserves), as prescribed under Commission standards, until a final and comprehensive economic, technical, and legal feasibility study based upon the test results is concluded.

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Mineral: A naturally occurring, inorganic, solid element or compound that possesses an orderly internal arrangement of atoms and a unique set of physical and chemical properties.

Mineralization: Usually implies minerals of value occurring in rocks.

National Instrument 43-101 or NI 43-101: A rule developed by the Canadian Securities Administrators and administered by the provincial securities commissions that govern how issuers disclose scientific and technical information about their mineral projects to the public. It covers oral statements as well as written documents and websites. It requires that all disclosure be based on advice by a "qualified person" and in some circumstances that the person be independent of the issuer and the property.

Net profits interest: A contractual granted right to some portion of the profits after deduction of expenses sometimes expressed as a form of royalty.

Net smelter returns: Means the amount actually paid to the mine or mill owner from the sale of ore, minerals and other materials or concentrates mined and removed from mineral properties. A royalty based on net smelter returns usually provides cash flow that is free of any operating or capital costs and environmental liabilities.

Option agreement: An agreement where the optionee can exercise certain options to acquire or increase an interest in a property by making periodic payments or share issuances or both to the optionor or by exploring, developing or producing from the optionor's property or both. Usually upon the acquisition of such interest, unless it is a 100% interest, all operations thereafter are on a joint venture basis.

Ordinary kriging: The basic technique of kriging and uses a weighted average of neighboring samples to estimate the 'unknown' value at a given location. Weights are optimized using the semi-variogram model, the location of the samples and all the relevant inter-relationships between known and unknown values. The technique also provides a "standard error" which may be used to quantify confidence levels.

Ore: A natural aggregate of one or more minerals which may be mined and sold at a profit, or from which some part may be profitably separated.

Ore reserve: The measured quantity and grade of all or part of a mineralized body in a mine or undeveloped mineral deposit for which the mineralization is sufficiently defined and measured on three sides to form the basis of at least a preliminary mine production plan for economically viable mining.

Orogeny: The process of forming mountains by folding and thrusting.

Outcrop: An in situ exposure of bedrock.

Overburden: A general term for any material covering or obscuring rocks from view.

oz/t or opt: Ounces per ton.

Paleozoic: An era of geologic time, from the end of the Precambrian to the beginning of the Mesozoic, or from about 570 to about 225 million years ago.

Phenocrysts: An unusually large crystal in a relatively finer grained matrix.

Pluton: Term for an igneous intrusion, usually formed from magma.

Porphyry: An igneous rock composed of larger crystals set within a finer ground mass.

Pyroclastic rock: A rock of volcanic origin consisting of highly variable mixture of rock fragments, cinders and ashes and bits of crystals and glass.

Quartz monzonite: A coarse grained, plutonic igneous rock that is normally pale pink, and composed of quartz, alkali feldspar, micas and accessory minerals.

Rare Earth: A group of rare metallic chemical elements with consecutive atomic numbers of 57 to 71.

Reclamation bond: A bond usually required by governmental mining regulations when mechanized work on a property is contemplated. Proceeds of the bond are used to reclaim any workings or put right any damage if reclamation undertaken does not satisfy the requirements of the regulations.

Reserve: That part of a mineral deposit which could be economically extracted or produced at the time of the reserve determination.

Reserves: A natural aggregate of one or more minerals which, at a specified time and place, may be mined and sold at a profit, or from which some part may be profitably separated.

Reverse circulation drill: A rotary percussion drill in which the drilling mud and cuttings return to the surface through the drill pipe.

Rhyolite: The fine grained equivalent of granite.

Royalty interest: A royalty, the calculation and payment of which is tied to some production unit such as ton of concentrate or ounce of gold or silver produced. A common form of royalty interest is based on the net smelter return.

Sample: Small amount of material that is supposed to be absolutely typical or representative of the object being sampled.

Sandstone: Composed of sand-sized fragments cemented together. As a rule the fragments contain a high percentage of quartz.

Sedimentary: A rock formed from cemented or compacted sediments.

Sediments: Are composed of the debris resulting from the weathering and breakup of other rocks that have been deposited by or carried to the oceans by rivers, or left over from glacial erosion or sometimes from wind action.

Selvage: A marginal zone, as in a dyke or vein, having some distinctive feature of fabric or composition.

Sericite: A fine-grained variety of mica occurring in small scales, especially in schists.

Shale: An argillaceous rock consisting of silt or clay-sized particles cemented together. Most shales are quite soft, because they contain large amounts of clay minerals.

Silicate: Most rocks are made up of a small number of silicate minerals ranging from quartz (SiO_2) to more complex minerals such as orthoclase feldspar (KAlSi_3O_8) or hornblende ($\text{Ca}_2\text{Na}(\text{Mg,Fe})_4(\text{Al,Fe,Ti})\text{Si}_8\text{O}_{22}(\text{OH})_2$).

Sill: Tabular intrusion which is sandwiched between layers in the host rock.

Skarn: A thermally altered impure limestone in which material has been added to the original rock. Skarns are generally characterized by the presence of calcium and silica rich minerals. Many skarns contain sulphide minerals which in some cases can be of economic value.

Stock: An igneous intrusive body of unknown depth with a surface exposure of less than 104 square kilometres. The sides, or contacts, of a stock, like those of a batholith, are usually steep and broaden with depth.

Stockwork: A mineral deposit consisting of a three-dimensional network of closely spaced planar or irregular veinlets.

Strike: The bearing, or magnetic compass direction, of an imaginary line formed by the intersection of a horizontal plane with any planar surface, most commonly with bedding planes or foliation planes in rocks.

Sulphide minerals: A mineral compound characterized by the linkage of sulfur with a metal or semimetal; e.g., galena.

Syncline: A fold in which the bed has been forced down in the middle or up on the sides to form a trough.

Tailings: Material rejected from a mill after recoverable valuable minerals have been extracted.

Tailings pond: A pond where tailings are disposed of.

Tonne: Metric ton – 1,000 kilograms – equivalent to 1.1023 tons.

Triassic: Geological time period between 225 and 195 million years ago.

Tuff: A finer grained pyroclastic rock made up mostly of ash and other fine grained volcanic material.

Veins: The mineral deposits that are found filling openings in rocks created by faults or replacing rocks on either side of faults.

Vuggy silica: In a high sulphidation epithermal environment, the highly acidic waters have dissolved everything but silica resulting in a highly porous and porous rock which is a good host for gold deposition. It is an indicator mineralization typical of epithermal rocks.

Waste: Rock which is not ore. Usually referred to that rock which has to be removed during the normal course of mining in order to get at the ore.

Glossary of Abbreviations

Ag: Silver

Ag g/t: Silver grade measured in grams per metric ton
Converts to ounces per ton by dividing by 34.286

Au: Gold

Au g/t: Gold grade measured in grams per metric ton
Converts to ounces per ton by dividing by 34.286

Cu: Copper

g/t: grams per tonne

IP: Induced Polarization geophysical survey

masl: meters above sea level

NSR: net smelter returns royalty

Oz: Troy ounce

QA/QC: Quality Assurance/Quality Control

tpd: Tonnes per day

ton: Short ton (2,000 pounds)

tonne: Metric ton (1000 kilograms - 2204.62 pounds)

NOTES CONCERNING TERMINOLOGY RELATED TO RESOURCES AND RESERVES

Please see "CAUTIONARY NOTE TO U.S. INVESTORS REGARDING MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES," below.

The terms "mineral resource", "measured mineral resource", "indicated mineral resource", "inferred mineral resource", "mineral reserve", "probable mineral reserve" and "proven mineral reserve" used in this Annual Report are Canadian mining terms as defined in accordance with National Instrument 43-101, Standards of Disclosure for Mineral Projects under the guidelines set out in the Canadian Institute of Mining, Metallurgy and Petroleum (the "CIM") Standards on Mineral Resources and Mineral Reserves, adopted by the CIM Council. On November 14, 2004 and November 27, 2010, CIM Council adopted an update to the CIM Definition Standards to reflect the more detailed guidance available and effect certain editorial changes required to maintain consistency with current regulations. This version of the CIM Definition Standards includes further editorial changes required to maintain compatibility with the new version of National Instrument 43-101 which became Canadian law in 2011. The CIM Definition Standards can be viewed on the CIM website at www.cim.org. In accordance with Industry Guide 7, Description of Property by Issuers Engaged or to be Engaged in Significant Mining Operations, issued by the U. S. Securities and Exchange Commission, a reserve is termed a "mineral deposit".

Definitions

Qualified Person

Mineral Resource and Mineral Reserve estimates and resulting technical reports under NI 43-101 must be prepared by or under the direction of, and dated and signed by, a Qualified Person. A "Qualified Person" means an individual who is an engineer or geoscientist with a university degree, or equivalent accreditation, with at least five years of experience in mineral exploration, mine development or operation or mineral project assessment, or any combination of these; has experience relevant to the subject matter of the mineral project and the technical report; and is a member or licensee in good standing of a professional association. The Qualified Person(s) should be clearly satisfied that they could face their peers and demonstrate competence and relevant experience in the commodity, type of deposit and situation under consideration. If doubt exists, the person must either seek or obtain opinions from other colleagues or demonstrate that he or she has obtained assistance from experts in areas where he or she lacked the necessary expertise. Determination of what constitutes relevant experience can be a difficult area and common sense has to be exercised. For example, in estimating Mineral Resources for vein gold mineralization, experience in a high-nugget, vein-type mineralization such as tin, uranium etc. should be relevant whereas experience in massive base metal deposits may not be. As a second example, for a person to qualify as a Qualified Person in the estimation of Mineral Reserves for alluvial gold deposits, he or she would need to have relevant experience in the evaluation and extraction of such deposits. Experience with placer deposits containing minerals other than gold, may not necessarily provide appropriate relevant experience for gold. In addition to experience in the style of mineralization, a Qualified Person preparing or taking responsibility for Mineral Resource estimates must have sufficient experience in the sampling, assaying, or other property testing techniques that are relevant to the deposit under consideration in order to be aware of problems that could affect the reliability of the data. Some appreciation of extraction and processing techniques applicable to that deposit type might also be important.

Estimation of Mineral Resources is often a team effort, for example, involving one person or team collecting the data and another person or team preparing the Mineral Resource estimate. Within this team, geologists usually occupy the pivotal role. Estimation of Mineral Reserves is almost always a team effort involving a number of technical disciplines, and within this team mining engineers have an important role. Documentation for a Mineral Resource and Mineral Reserve estimate must be compiled by, or under the supervision of, a Qualified Person(s), whether a geologist, mining engineer or member of another discipline. It is recommended that, where there is a clear division of responsibilities within a team, each Qualified Person should accept responsibility for his or her particular contribution. For example, one Qualified Person could accept responsibility for the collection of Mineral Resource data, another for

the Mineral Reserve estimation process, another for the mining study, and the project leader could accept responsibility for the overall document. It is important that the Qualified Person accepting overall responsibility for a Mineral Resource and/or Mineral Reserve estimate and supporting documentation, which has been prepared in whole or in part by others, is satisfied that the other contributors are Qualified Persons with respect to the work for which they are taking responsibility and that such persons are provided adequate documentation.

Preliminary Economic Assessment (PEA)

A study, other than a Pre-Feasibility or Feasibility Study, that includes an economic analysis of the potential viability of mineral resources.

Preliminary Feasibility Study (Pre-Feasibility Study)

The CIM Definition Standards requires the completion of a Preliminary Feasibility Study as the minimum prerequisite for the conversion of Mineral Resources to Mineral Reserves.

A Preliminary 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 preferred mining method, in the case of underground mining, or the pit configuration, in the case of an open pit, is established and an effective method of mineral processing is determined. It includes a financial analysis based on reasonable assumptions on mining, processing, metallurgical, economic, marketing, legal, environmental, social and governmental considerations and the evaluation of any other relevant factors which are sufficient for a Qualified Person, acting reasonably, to determine if all or part of the Mineral Resource may be classified as a Mineral Reserve.

Feasibility Study

A Feasibility Study is a comprehensive technical and economic study of the selected development option for a mineral project that includes appropriately detailed assessments of realistically assumed mining, processing, metallurgical, economic, marketing, legal, environmental, social and governmental considerations together with any other relevant operational factors and detailed financial analysis, that are necessary to demonstrate at the time of reporting that extraction is reasonably justified (economically mineable). The results of the study may reasonably serve as the basis for a final decision by a proponent or financial institution to proceed with, or finance, the development of the project. The confidence level of the study will be higher than that of a Pre-Feasibility Study.

Exploration Information

Exploration information means geological, geophysical, geochemical, sampling, drilling, trenching, analytical testing, assaying, mineralogical, metallurgical and other similar information concerning a particular property that is derived from activities undertaken to locate, investigate, define or delineate a mineral prospect or mineral deposit. It is recognized that in the review and compilation of data on a project or property, previous or historical estimates of tonnage and grade, not meeting the minimum requirement for classification as Mineral Resource, may be encountered. If a Qualified Person reports Exploration Information in the form of tonnage and grade, it must be clearly stated that these estimates are conceptual or order of magnitude and that they do not meet the criteria of a Mineral Resource.

Mineral Resource

Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories. An Inferred Mineral Resource has a lower level of confidence than that applied to an Indicated Mineral Resource. An Indicated Mineral Resource has a higher level of confidence than an Inferred Mineral Resource but has a lower level of confidence than a Measured Mineral Resource. A Mineral Resource is a concentration or occurrence of diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal, and industrial minerals in or on the Earth's crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge. The term Mineral Resource covers mineralization and natural material of intrinsic economic interest which has been identified and estimated through exploration and sampling and within which Mineral Reserves may subsequently be defined by the consideration and application of technical, economic, legal, environmental, socio-economic and governmental factors. The phrase "reasonable prospects for economic extraction" implies a judgment by the Qualified Person in respect of the technical and economic factors likely to influence the prospect of economic extraction. A Mineral Resource is an inventory of mineralization that under realistically assumed and justifiable technical and economic conditions might become economically extractable. These assumptions must be

presented explicitly in both public and t