

**SME STANDARDS AND GUIDELINES FOR
VALUATION OF MINERAL PROPERTIES
(INCLUDING PETROLEUM)**

(“SME Valuation Standards”)

**PREPARED BY:
VALUATION STANDARDS COMMITTEE
OF THE
SOCIETY FOR MINING, METALLURGY, AND EXPLORATION, INC.
smenet.org**

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CONTENTS

Contents

VALUATION STANDARDS COMMITTEE	1
OF THE.....	1
CONTENTS.....	1
FORWARD.....	1
1. BACKGROUND	2
1.1 History.....	2
1.2 IMVAL Committee.....	3
1.3 IMVAL Template Purpose.....	3
1.4 SME Standards Preparation and Updating.....	4
1.5 Terminology	4
1.6 Disclaimer	4
2. STANDARDS.....	5
2.1 Principles.....	5
2.1.1 Competence.....	5
2.1.2 Materiality	5
2.1.3 Transparency.....	5
2.1.4 Objectivity.....	5
2.1.5 Independence.....	5
2.1.6 Reasonableness.....	6
2.2 Identification of the Property and Interest Being Valued.....	6
2.3 Scope of Work	6
2.4 Intended Use and Intended Users.....	6
2.5 Resources and Reserves of Minerals, Including Petroleum	6

2.6	Basis of Value	7
2.7	Highest and Best Use	7
2.8	Valuation Approaches and Methods	7
2.9	Responsibilities of Valuer	7
2.10	Valuation Report	7
3.	GUIDELINES	9
3.1	Competence	9
3.2	Materiality	9
3.3	Transparency	9
3.4	Objectivity	10
3.5	Independence	10
3.6	Reasonableness	10
3.7	Identification of the Property and Interest Being Valued	10
3.8	Levels of Valuation Research and Valuation Reporting	11
3.9	Valuation Process	11
4.	DEFINITIONS	13
4.1	Appraisal / Appraiser	13
4.2	Bases of Value	13
4.3	Commissioning Entity	13
4.4	Competence or Competent	13
4.5	Cost Approach	13
4.6	Effective Date	13
4.7	Evaluation	13
4.8	Expert	13
4.9	Fair Market Value	14
4.10	Fair Value	14
4.11	Income Approach	14

4.12	Independence or Independent.....	14
4.13	Inputs.....	14
4.14	Investment Value	14
4.15	Market Approach (or Sales Comparison Approach).....	14
4.16	Market Value.....	14
4.17	Materiality or Material	15
4.18	Mineral Property	15
4.19	Mineral Resources and Mineral Reserves	15
4.20	Minerals Industry	15
4.21	Objectivity.....	15
4.22	Petroleum Resources and Petroleum Reserves.....	15
4.23	Professional Organization	15
4.24	Public Report.....	16
4.25	Real Estate.....	16
4.26	Real Property and Real Property Interest.....	16
4.27	Reasonableness	16
4.28	Report Date	16
4.29	Special Assumption.....	16
4.30	Special Purchaser	16
4.31	Special Value	16
4.32	Synergistic Value	16
4.33	Transparency.....	16
4.34	Valuation.....	17
4.35	Valuation Approach	17
4.36	Valuation Date	17
4.37	Valuation Method	17
4.38	Valuation Report.....	17

4.39	Value.....	17
4.40	Valuer.....	17

FORWARD

In December 2015, the Society for Mining, Metallurgy, and Exploration, Inc. (SME) adopted the first edition of the *SME Standards and Guidelines for Valuation of Mineral Properties* (“*SME Valuation Standards*” or “*Standards*”), which were published as the 2016 Edition. The Second Edition of the SME Valuation Standards was issued in 2017 providing updated instructions for mineral property valuation. The updates maintain alignment with the *International Mineral Property Valuation Standards Template (IMVAL Template)*, the *International Valuation Standards (IVS)*, and the *ME Guide for Reporting Exploration Results and Mineral Reserves* (“*SME Guide*” or “*The Guide*”) which additionally facilitates alignment with the *Committee for Mineral Reserves International Reporting Standards* (“*CRIRSCO*”). This Third Edition updates references to those documents to bring current the SME Standards, effective November 1, 2025.

The SME Valuation Standards are recommended as a minimum set of standards and guidelines for reporting Valuations of Mineral Properties (including Petroleum Properties) for public and private uses. The legal and regulatory requirements of the relevant jurisdiction take precedence over this document. The user of the Standards must become familiar and comply with the relevant jurisdictional requirements.

Within the USA, State or Federal regulations, or valuation user expectations, may require that a Mineral Property Valuation comply with the Appraisal Foundation’s *Uniform Standards of Professional Appraisal Practice (USPAP)*, within which the Real Property Appraisal Standards closely align with the SME Valuation Standards. In such situations, the SME Standards will provide mineral property valuation instruction supplemental to USPAP. Federal regulations generally require that such a Valuation Report, for use by a Federally regulated financial institution (such as a Federally regulated bank), have a real estate appraiser, licensed as a Certified General Appraiser by the appropriate State, sign as being responsible for the report. Similar requirements apply to some other Federal and State uses of Valuation Reports.

SME strongly recommends that SME members apply and abide by these Standards. Due to the intended international use of the Standards, the international terms Valuation and Valuer are used throughout this document in place of the terms Appraisal and Appraiser, which have equivalent meanings within the USA and Canada. Also, Valuation, as dealt with in these Standards, is distinct from Evaluation. The distinction inherent in these defined terms is that Valuation addresses the estimation of the value (typically Market Value) of a Mineral Property, whereas Evaluation addresses the broader assessment of a Mineral Property for an investment decision.

It is recognized that review of the SME Valuation Standards will be required from time to time. Constructive suggestions are solicited from all users of these Standards. Comments should be sent to:

Zack Smith
Chair, SME Valuation Standards Committee
Society for Mining, Metallurgy and Exploration, Inc.
12999 East Adams Aircraft Circle
Englewood, CO 80112
E: zsmith@withum.com
www.smenet.org
SME: +1 303 948 4200

1. BACKGROUND

1.1 History

Prior to the publication of the 2016 Edition of the SME Valuation Standards, SME had no standards for the development or reporting of Mineral Property Valuation. Development of that edition was based upon the “Final Exposure Draft” of the *IMVAL Template* released by the International Mineral Valuation Committee (IMVAL) in May 2015.

Three other national codes or standards, *CIMVal Standards and Guidelines* (Canada), *SAMVAL Code* (South Africa), and *VALMIN Code* (Australasia) existed at that time and were considered in development of these Standards. Although these hold many similarities, they contain a number of differences in structure, definitions, scope, and jurisdictional requirements.

Importantly, minerals while in the ground, are defined as a part of the Real Estate interest in the *International Valuation Standards (IVSs)*, which is consistent with standards and practices under the USA’s *Uniform Standards of Professional Appraisal Practice (USPAP)*. The IVSs and USPAP contain Valuation standards of general application non-specific to Mineral Property Valuation.

This 2025 Edition of the SME Standards is updated to closely mirror the text of the IMVAL Template Fourth Edition (August 2021) and to reference IVS (2025).

The following is a brief chronology of the evolution of mineral property valuation standards:

1. The Australasian VALMIN Code, currently titled *Australasian Code for Public Reporting of Technical Assessments and Valuations of Mineral Assets*, was first adopted by The Australasian Institute of Mining and Metallurgy (AusIMM) in February 1995, providing valuation standards together with technical assessment reporting requirements. The current revision is the 2015 Edition.
2. The International Valuation Standards Council (IVSC) convened an Extractive Industries Task Force of international mining and petroleum industry valuation experts in early 2001.
3. The Canadian Institute of Mining, Metallurgy and Petroleum (CIM) adopted the *CIMVal Standards and Guidelines for Valuation of Mineral Properties* in March 2003.
4. The IVSC’s Guidance Note 14 (GN 14), *Valuation of Properties in the Extractive Industries*, was first published in January 2005, in the IVSs Seventh Edition. It was republished in 2007 in the Eighth Edition.
5. The South African SAMVAL Code, titled *The South African Code for the Reporting of Mineral Asset Valuation*, was first published in April 2008. It was developed through a working group led by the Southern African Institute of Mining and Metallurgy (SAIMM). The latest revision, the 2016 Edition “as amended 20 December 2016,” is substantially aligned with the IMVAL Template.
6. The IVSC Standards Board withdrew GN 14 in February 2010 for a short period while its contents were reviewed as part of its Extractive Industries Project. This review project has since terminated with no further adjustments or guidance issued. GN 14 remains the IVSC guidance document relevant to extractive industries.

7. The SME Valuation Standards Committee was formed in early 2012 to participate in a proposed initiative to harmonize national and international mineral Valuation standards, and to possibly develop an SME Valuation standard harmonized with the outcome of this initiative and based on the IVSs.
8. Discussions were held in Brisbane in April 2012 to establish a harmonization project for mineral valuation codes, these being VALMIN, SAMVAL, and CIMVal, and when and where appropriate, USPAP, the IVSs, and the *International Financial Reporting Standards (IFRSs)*.
9. The International Mineral Valuation Committee (IMVAL) was formed in July 2012, with the goal of developing a mineral asset valuation template along the lines of the *International Reporting Template* of the Committee for Mineral Reserves International Reporting Standards (CRIRSCO).
10. SME published its first edition of the *SME Valuation Standards* in January 2016. The USA-based International Institute of Minerals Appraisers (IIMA) also approved the adoption of a set of valuation standards based on the Template.
11. In July 2016, the *IMVAL Template* was first published. Due to a minor amendment, the Second edition was also published in July 2016. The Third Edition was published in 2018, and the 2021 Fourth Edition of the IMVAL Template is the most current.

The *International Mineral Property Valuation Standards Template, Fourth Edition*, released by IMVAL in April 2021, is the harmonization outcome of this chronology of standards development events for mineral property valuation. The 2025 Edition of the SME Valuation Standards is updated to closely mirror the text of this edition of the IMVAL Template, while referencing IVS (2025).

1.2 IMVAL Committee

IMVAL, which developed the IMVAL Template, is an international committee comprised of representatives of The South African Code for the Reporting of Mineral Asset Valuation Committee (SAMVAL), The Special Committee on Valuation of Mineral Properties of the Canadian Institute of Mining, Metallurgy and Petroleum (CIMVAL), The VALMIN Committee (VALMIN), a joint committee of the Australasian Institute of Mining and Metallurgy (AusIMM) and the Australian Institute of Geoscientists (AIG), The Society for Mining, Metallurgy and Exploration (SME) Valuation Standards Committee, the International Institute of Minerals Appraisers (IIMA), and The Mining & Metallurgical Society of America (MMSA). Representatives of the Royal Institute of Chartered Surveyors (RICS, UK), were also involved in the early deliberations. Observer status was granted to other organizations located in the United States, China, United Kingdom, South Africa, and Turkey.

1.3 IMVAL Template Purpose

The IMVAL Template is intended as a principles-based template that will be recognized as a common set of minimum requirements for national codes or standards concerning the valuation of Real Property mineral assets (Mineral Property). The Template represents a consensus of current good practices and is expected to be updated from time to time. The Template is not intended to be a stand-alone reporting code. It does not supersede existing national reporting standards.

The Template outlines principles, requirements, guidelines, and definitions broadly consistent with those adopted in the regulatory jurisdictions represented by IMVAL members. The SME Standards provide some supplemental information and instruction modifications related to usage within the USA.

The Template defines Mineral Property to include petroleum property, while stating that individual countries have the option to specify in their respective national codes or standards that petroleum property is excluded. The SME Standards retain petroleum property in the definition of Mineral Property.

The IMVAL Template Fourth Edition aligns with the generally accepted valuation concepts, principles, and definitions set forth in the IVSs 2017 Edition.

1.4 SME Standards Preparation and Updating

The SME Valuation Standards 2025 Edition has been updated to align with the generally accepted valuation concepts, principles, and definitions as set forth in IVS (2025). References to sections within the IVSs have the prefix “IVS” and are numbered as per the 2025 Edition. Those sections are from within the IVS Framework, Scope of Work, Investigations and Compliance, Reporting, Bases of Value, and Valuation Approaches and Methods. Some definitions unavailable in the IVSs 2025 Edition, are quoted from the IVSC’s valuation glossary, in the “standards” section of ivsc.org.

In preparing the SME Standards from the IMVAL Template content, the SME Valuation Standards Committee has made modifications that it found necessary or appropriate for SME Member use. Updating of the SME Standards will be considered whenever the Template is updated, or earlier if a reason indicates that updating may be appropriate, including to provide additional instructions.

1.5 Terminology

The following terminology conventions are used throughout Sections 1 to 4:

- The word ‘must’ denotes a requirement that is mandatory for the Valuation Report and the contained opinion of value to be compliant with the SME Valuation Standards, unless a statement of jurisdictional exception is included in the Report, explaining that compliance could result in a breach of law or the requirements of a relevant stock exchange or other regulatory body.
- The use of the word ‘should’ or ‘may’ indicates that some discretion may be employed. This discretion depends on the particular circumstances, provided that the fundamental principles are not transgressed.
- A word having a capital first letter generally indicates that it is a term defined within Section 4.
- The singular includes the plural and vice versa.
- A reference to another standards document does not mean that the preceding text is directly quoted from that standard unless the text is formatted as a quotation. A quotation labeled as IVS is from the IVS 2025 Edition.

1.6 Disclaimer

The legal and regulatory requirements of the relevant jurisdiction take precedence over this document. The Valuer must become familiar with and comply with the relevant jurisdiction’s requirements.

2. STANDARDS

In 2.1, fundamental principles that must be applied to all Mineral Valuations conducted under the SME Valuation Standards are explained. These are followed by additional standards requirements. Some requirements specific to defined terms are included within the definitions of Section 4.

2.1 Principles

The four fundamental principles that must be followed in Valuations and Valuation Reports are Competence, Materiality, Objectivity, and Transparency. In addition to these fundamental principles, the principles of Independence and Reasonableness may apply to Valuation of Mineral Properties under national codes or standards.

2.1.1 Competence

A Valuer must be able to demonstrate to the Commissioning Entity and those entitled to rely on a Valuation Report that the Valuer is sufficiently Competent to prepare or contribute to the Valuation Report. A Valuer must be clearly satisfied that they are able to face their professional peers and demonstrate Competence in the Valuation undertaken. Among other things, Valuers should assess their competence regarding the subject Mineral Property, the market in which the property would trade, and the purpose of the Valuation.

A Valuer who is not personally Competent to undertake an aspect of a Valuation assignment must seek assistance from an Expert who is Competent in the applicable field or discipline necessary to address that aspect. Material assistance from Experts must be disclosed in the Valuation Report.

2.1.2 Materiality

A Valuation must address all Material information. All Material information must be included or adequately referenced in the Valuation Report. Materiality is the principle that determines whether certain information is relevant to the Valuation. Materiality applies to the nature of the items assessed and their influence on the quantum of a Valuation.

The Valuer must clearly set out all Material assumptions regarding the input parameters, risks, limitations, and the associated effects in the Valuation Report.

2.1.3 Transparency

The Valuation process and Valuation Report must be Transparent, such that it must be clear and unambiguous and therefore understandable.

2.1.4 Objectivity

The Valuer should approach a Valuation with Objectivity. This is promoted by an environment that is supported by data and minimizes the influence of subjective factors, such as the Valuer's personal bias, on the Valuation process.

2.1.5 Independence

For certain Valuations, Independence may be required by law, a national code or standards, or by the circumstances of the Valuation. In these cases, Independence means that the Valuer must have

no pecuniary or beneficial interest in the Commissioning Entity, the Mineral Property being valued, other parties involved in a transaction on the Mineral Property, or the outcome of the Valuation, other than professional fees and disbursements related to the Valuation assignment that are not contingent on the opinion in the Valuation.

2.1.6 Reasonableness

The Valuer must ensure the Reasonableness of the Valuation. Any Valuation, assumptions applied and any method relied upon, should be reasonable within the context of the purpose of the Valuation and the Basis of Value. A method applied to the subject Mineral Property should be within the expected capability and consideration of the appropriate party or parties as defined in the Basis of Value.

See IVS 102 Bases of Value, Sections 50 and 60 Assumptions and Special Assumptions.

2.2 Identification of the Property and Interest Being Valued

The Mineral Property, including the interest or right that is the subject of the Valuation, must be described in adequate detail to identify the property, and the physical, legal, and economic characteristics relevant to the Valuation. This description is required in particular when the subject of the Valuation is economically interdependent with other properties, in which case the assumption for the Valuation of whether those other properties will or will not remain available must be stated.

Mineral Properties may contain a combination of real property, tangible assets, and intangible assets. Thus, the valuation may be of real property, a going concern, or an entity, business, or enterprise. Thus, it is important to adequately describe which components are considered in the analysis. The Valuer must describe the rights, interests, and assets valued in sufficient detail to allow the intended users to apply the results to their intended use.

2.3 Scope of Work

The Scope of Work to be performed in developing the Valuation should be determined between the Valuer and the Commissioning Entity, which the Commissioning Entity must be identified unless confidential. The Scope of Work necessary to develop a credible Valuation can vary considerably depending on the subject Mineral Property, the purpose of the Valuation, the Basis of Value, the Valuation Date, and the intended use of the Valuation. Modification to the Scope of Work may be found necessary during the Valuation process. A Scope of Work section must be included in the Valuation Report, describing the extent of investigations conducted and stating any limitations on those investigations.

2.4 Intended Use and Intended Users

The intended use and intended users of the Valuation Report must be clearly disclosed unless confidential.

2.5 Resources and Reserves of Minerals, Including Petroleum

When resources or reserves of the subject Mineral Property are used or referred to in a Valuation or Valuation Report, they should comply with either the definitions of *The SME Guide for Reporting Exploration Results, Mineral Resources, and Mineral Reserves (The SME Guide)*, the definitions of another institute associated with CRIRSCO, the definitions in the *CRIRSCO International Reporting Template*, or, in the case of Petroleum, those of the *Petroleum Resources Management System (PRMS)*. If the CRIRSCO or PRMS systems are not used, the Valuation Report must explain why not and should provide, to the extent possible, a reconciliation of the resources and reserves with a set of CRIRSCO or PRMS definitions.

2.6 Basis of Value

The Valuation Report must clearly state the Basis of Value, its definition, and the source of the definition.

2.7 Highest and Best Use

When the Basis of Value for Valuation of the subject Mineral Property is Market Value, this must be estimated with consideration of the subject property's highest and best use (generally its stage of development) on the Valuation Date. The highest and best use of a property, determined sequentially, is that stage of use which is (1) legally permissible, (2) physically possible, (3) financially feasible on the Valuation Date, and which (4) maximizes the potential of the property. The highest and best use for a Mineral Property, being the use that a market participant would have in mind for the property when formulating the maximum price it would be willing to offer, may be the same as its current use, a modification of that use, or a different use. The highest and best use of a property may change if the property is valued in isolation instead of as a contributing part of an economically interdependent group of properties.

2.8 Valuation Approaches and Methods

More than one Valuation Approach must be applied in the Valuation of the subject Mineral Property, if it is reasonably possible and appropriate to apply them, unless constrained by the Scope of Work agreed to with the Commissioning Entity. The resulting Value estimates should be reconciled. If only one Approach is used, the Valuation Report must provide an explanation for why more than one is not used.

2.9 Responsibilities of Valuer

The Valuer is responsible for the Valuation and the overall Valuation Report, including the following:

- (a) Selecting Valuation Approaches and Methods.
- (b) Ensuring that any Expert(s) assisting with review of information and the Valuation are appropriately qualified and experienced, that their assistance is disclosed in the Valuation Report, and that their consents are obtained for any description of their assistance in the form and context in which it appears in the report.
- (c) Adhering to the requirements of these standards, and to other principles as applicable.
- (d) Assessing the reasonableness of the relevant information, interpretations, discussions and conclusions, forecasts, and parameters used in the Valuation.
- (e) Adhering to the legal and regulatory requirements applicable to Valuations and Valuation Reports in the relevant jurisdictions.
- (f) A statement that the named Valuer is responsible for the Valuation and the Valuation Report.

2.10 Valuation Report

The Valuation Report must contain, at a minimum, the following information:

- (a) Mineral Property identification.
- (b) Intended use and intended users of the Valuation, and any restrictions on the use or distribution of the Valuation.
- (c) Purpose of the Valuation.
- (d) Basis of Value.
- (e) Report Date and Valuation Date (also called Effective Date), preferably stated together to mitigate confusion.
- (f) Determination of the highest and best use as of the Valuation Date, where applicable.

- (g) Scope of Work.
- (h) Geological Description of the Mineral Property being valued, and details of the status of its exploration, development, or production at the Valuation Date.
- (i) Disclosure and analysis of previous sales, listings, contracts, and transactions within a reasonable timeframe of the effective date.
 - Note: A reasonable timeframe may be dictated by the regulations governing the geography and/or intended use.
- (j) Assumptions, risks, and limitations.
- (k) Valuation Approaches and Methods used and the Value estimates derived from each.
- (l) Reconciliation of the Value estimates derived.
- (m) Value opinion.
- (n) Sources of information, including of data, must be disclosed. The valuer must disclose third-party report reliance and how the Valuer became confident in the credibility of the sources.
- (a) Statement of whether or not a site visit to the Mineral Property has been undertaken.
- (b) Statement that the Valuation complies with the SME Mineral Valuation Standards, or if applicable, specification of the instructions from which it deviates.
- (c) Identity, qualifications, and experience of Valuer and any Experts, and the areas of the Valuation Report for which each is responsible.
- (d) Statement of Independence or non-Independence of the Valuer and any Experts.
- (e) Certification of Valuer's Competence, including disclosure of any personal interest or potential interest in the subject Mineral Property, and the on-site inspection date, with Signature.¹

¹ In some jurisdictions, this certification statement may be termed a declaration.

3. GUIDELINES

This Section provides supplemental guidance to aid with the application of the Section 2 Standards.

3.1 Competence

The Valuation of Mineral Properties may require Competence in a wide range of disciplines. Depending on the nature of the Mineral Property to be valued, the Basis of Value to be applied, and the availability of currently relevant technical reports for the subject Mineral Property and transacted properties to be analyzed, an in-depth understanding may be needed in such specialized areas as geoscience; mining or petroleum engineering; metallurgy; water rights; environmental assessment; social aspects; regional geopolitics; micro and macro mineral economics; finance; taxation and government levies; property, mineral, and other applicable law; bulk transportation; and marketing.

Inherent to the concept of competence as it relates to an assignment is that the valuer must be aware of and comply with all relevant jurisdictional overlays applicable to their geography, asset class and intended use. This may include supplemental standards on development, reporting, and/or experience requirements. E.g. the U.S. Internal Revenue Service has supplemental valuation standards defining a “Qualified Appraiser” and “Qualified Appraisal”.

Valuers should retain or collaborate with Experts who are Competent in the vetting and development of certain technical information, development of Inputs used in the Mineral Property Valuation, and the preparation of a Valuation Report where the valuer lacks competence. In the event that third-party consultants, reports or material information is used, the valuer must have reason to believe that the information is accurate to a reasonable degree of professional certainty for the intended use. See also IVS Framework, §50.

3.2 Materiality

The determination of what is Material or relevant to the Valuation depends on both qualitative and quantitative factors. A parameter may be Material in the qualitative sense because of its very nature, such as country risk. Valuers should determine that all Material information is considered.

A general rule in determining if information is Material is consideration of whether its omission or misstatement could influence the decisions of the intended users of the Valuation Report. Professional judgment is required to determine what information is material. Two tests may be used in determining whether an item is Material – a qualitative test (that is, the nature of the item and whether knowledge of it would influence the decisions of users) and a quantitative test expressed as a percentage.

If the Valuer finds it is impossible or impractical to obtain sufficiently accurate or reliable data, this must be stated in the Valuation Report. Depending on the amount and quality of available data, the Valuer may not be in a position to express an opinion of Value. Alternatively, the Valuer may make one or more assumptions or Special Assumptions, which must be disclosed prominently.

3.3 Transparency

The Principle of Transparency requires that information should not be presented in a minimal or unclear form, from which the intended user accepting this information at face value could draw incorrect

implications or conclusions. Any implications that would be revealed by a more thorough or deeper evaluation or explanation of the Material issues should be disclosed.

Transparency during development and reporting of Valuations aids in promoting Objectivity, while minimizing subjectivity. A Transparent Valuation Report is generally one that is presented with clear and concise writing, supplemented by helpful and legible tables, graphs, maps, and photographs. Where it is not possible to be concise, the information should be presented in such a manner that Material information is clearly prominent.

The Valuation conclusion will depend on the interaction of a number of key assumptions that the Valuer should disclose. These qualities should apply to the data and information, and the analysis and presentation thereof, used as the basis of a Valuation Report. Factors to which these qualities should apply when present include the assessment of Mineral (including Petroleum) Resources and Reserves, issues pertaining to extraction, mining, processing, and marketing, the Valuation Approaches and Methods adopted and their application, all of which should be clearly set out in the Valuation Report.

3.4 Objectivity

The Valuer should approach the Valuation with Objectivity, meaning impartially and without personal bias. While it is necessary to apply the Valuer's professional judgement, the Valuer should be alert to their own bias and mitigate the effect of such bias in preparing a Valuation. The Valuer should ensure the reliability of the information and assumptions, and that appropriate controls and procedures are in place to ensure the necessary degree of Objectivity.

“The process of valuation requires the valuer to make impartial judgements as to the reliability of inputs and assumptions. For a valuation to be credible, it is important that those judgements are made in a way that promotes transparency and minimises the influence of any subjective factors on the process. Judgement used in a valuation must be applied objectively to avoid biased analyses, opinions and conclusions.” (IVS Framework, §40.1).

The IVSC *Code of Ethical Principles for Professional Valuers* provides a framework for professional Valuer conduct.

3.5 Independence

While the SME Valuation Standards and the IVSs do not specify Independence of the Valuer, Independence may be specified by national legal or regulatory requirements in various jurisdictions, or by Commissioning Entities or intended users of Valuations. For the Valuer to be able to develop a Valuation that users can confidently accept as free from bias, the Valuer must be Independent of the outcome of the Valuation, and thus able to Objectively exercise their judgement.

3.6 Reasonableness

Means that other qualified and experienced Valuers with access to the same information for the Interest Being Valued, Valuation Date, and Basis of Value would consider the Valuer's Scope of Work to be reasonable.

3.7 Identification of the Property and Interest Being Valued

One or more maps, photographs, or diagrams can aid the description of the subject Mineral Property. Documentation of title or rights, and encumbrances, should be included in the Valuation Report as needed

for substantiation. In the case of a fractional interest, physical segment, or partial holding, descriptions of the holding and control limits, and of properties or rights excluded from the Valuation, are required for clarity. As an example, a mill dedicated to a remote mineral deposit may be inside the control limit, while a toll mill in a mining camp would be outside.

3.8 Levels of Valuation Research and Valuation Reporting

Various levels of Valuation research and Valuation Reports may be contemplated or specified in a national code or standards. The level of Valuation research depends on the extent of work conducted in accordance with the Scope of Work. The level of Valuation reporting depends on the thoroughness of documentation.

The levels of Valuation research and reporting undertaken should be stated in the report in association with the Scope of Work.

IVS 103 Reporting, at §20.1 states: *“The purpose of the valuation, the complexity of the asset being valued and the users’ requirements will determine the level of detail appropriate to the valuation report. The format of the report should be agreed with all parties as part of establishing a scope of work.”*

3.9 Valuation Process

The three generally accepted Valuation Approaches are:

- Market Approach (or Sales Comparison Approach) and other Market Based Methods (See IVS 105 Valuation Approaches and Methods, §20)
- Income Approach (See IVS 105 Valuation Approaches and Methods, §40)
- Cost Approach (See IVS 105 Valuation Approaches and Methods, §60)

Guidance for generally accepted Valuation Methods within each of the three Approaches is provided in IVS 105 at §30, §50, and §70 respectively. Technical papers addressing the application of Valuation Methods to Mineral Properties are available on onemine.org.

As applied to Mineral Properties, the Valuation approach depends on the stage of exploration or development of the Mineral Property. Mineral Properties can be categorized for convenience into four types; however, it should be noted that there are no clear-cut boundaries between these types, that the Mineral Property category may change over time, and that it may be difficult to classify some Mineral Properties so they fit in only one specific category. These categories are:

- Exploration Properties
- Mineral Resource Properties
- Development Properties
- Production Properties

Table 1 shows the Valuation approaches that are generally considered appropriate to apply in valuing each type of Mineral Property (*after CIMVAL 2019*).

Table 1 Valuation Approaches for Different Types of Mineral Properties

Valuation Approach	Exploration Properties	Mineral Resource Properties	Development Properties	Production Properties
Income	No	In some cases	Yes	Yes
Market	Yes	Yes	Yes	Yes
Cost	Yes	In some cases	No	No

Each Valuation is time and circumstance specific. The most appropriate Valuation Approach or Method will depend on several factors, including the stage of development, the highest and best use, the Basis of Value, the availability of Valuation Inputs and data, and on the Value estimation techniques used by participants within the relevant market for the Mineral Property. For a particular Mineral Property, Valuation Methods from at least two of the three Valuation Approaches should be used. There are a variety of Valuation Methods within the Valuation Approaches, each with varying suitability to the Valuation assignment at hand.

The results from the Valuation Approaches and Methods employed should be analyzed and reconciled into a concluding opinion of Value. The reasons for giving a higher weighting to one Valuation Approach or Method over another, including any elimination of an outlier, should be stated. The opinion of Value can be stated as a range of Values and/or as a single Value.

When the Basis of Value to be estimated is Market Value, the Valuer should attempt to ensure that Inputs to all Valuation Methods applied are derived from the relevant market place, including the expectations and perceptions of the applicable participants.

In this case, in relation to the willing buyer and willing seller aspect required for a market transaction, the IVSs specify the willing buyer as, “... *one who is motivated, but not compelled to buy. This buyer is neither over eager nor determined to buy at any price. This buyer is also one who purchases in accordance with the realities of the current market and with current market expectations, rather than in relation to an imaginary or hypothetical market that cannot be demonstrated or anticipated to exist. The assumed buyer would not pay a higher price than the market requires.*”

In the same context, the IVSs specify the willing seller as, “... *neither an over eager nor a forced seller prepared to sell at any price, nor one prepared to hold out for a price not considered reasonable in the current market. The willing seller is motivated to sell the asset at market terms for the best price attainable in the open market after proper marketing, whatever that price may be. The factual circumstances of the actual owner are not a part of this consideration because the willing seller is a hypothetical owner.*” (IVS 104 Bases of Value, §30.2(d) and (e)).

4. DEFINITIONS

4.1 Appraisal / Appraiser

See Valuation / Valuer

4.2 Bases of Value

“Bases of Value (sometimes called standards of value) describe the fundamental premises or requirements on which the reported values will be based.” (IVS 102 Bases of Value, §10.01). Basis of Value commonly refers to Market Value but can also refer to other Bases of Value such as Fair Value, Fair Market Value, Investment Value, Special Value, or Synergistic Value. The Basis or Bases of Value must be reported in a valuation.

4.3 Commissioning Entity

The organization, company, or person that commissions a Valuation and Valuation Report.

4.4 Competence or Competent

Applies to a suitably qualified and experienced person who is a member of a Professional Organization with an enforceable code of ethics and rules of conduct that includes the ability to discipline and expel a member.² In the context of Mineral Property Valuation, Competence for a Valuer also requires *“appropriate technical skills, experience and knowledge of the subject of the valuation, the market(s) in which [the Mineral Property] trades and the purpose of the valuation.”* (IVS Framework, §50.1).

4.5 Cost Approach

“The cost approach provides an indication of value using the economic principle that a buyer will pay no more for an asset than the cost to obtain an asset of equal utility, whether by purchase or by construction,” and includes methods based on expenditures. (IVS 105 Valuation Approaches and Methods, §60.1)

4.6 Effective Date

See Valuation Date.

4.7 Evaluation

A broad physical, technical, legal, economic, and/or other assessment of a Mineral Property that is generally sought for an investment decision. Evaluations include feasibility studies, prefeasibility studies, preliminary economic assessments, technical assessments, and scoping studies. For clarity, Evaluation is distinct from Valuation.

4.8 Expert

A person who may be retained by the Valuer to review technical information, prepare sections of Valuation Reports, or provide Inputs concerning specialized matters about which the Valuer is not personally Competent. The Expert must have sufficient training and experience relevant to the subject matter for which he or she is being retained to review or provide Inputs.

² Registered Members of SME are required by SME to comply with the Code of Ethics of SME Registered Members.

4.9 Fair Market Value

Meanings differ dependent on jurisdiction and the term may not be used in some. Definitions usually lack some of the required transaction characteristics specified in the definition of Market Value below. See also IVS 104 Bases of Value, §110-120.

4.10 Fair Value

For the purpose of financial reporting, Fair Value is defined within the IFRSs in IFRS 13 as, *“the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.”* (IVS 104 Bases of Value, §90.1).

For a Basis of Value in a legal context, Fair Value is used by many national, state and local agencies. Definitions can vary significantly due to legislative action or by being established by courts in prior cases. (IVS 104 Bases of Value, §120.1).

4.11 Income Approach

“The income approach provides an indication of value by converting future cash flows to a single current capital value.” (IVS 105 Valuation Approaches and Methods, § 40.1). For estimation of the Market Value of a Mineral Property, capitalization or discounting techniques are commonly used with capitalization rates or discount rates derived from market conditions.

4.12 Independence or Independent

When required, the Valuer or Expert(s) must have no pecuniary or beneficial interest, either present or contingent, in the Commissioning Entity, the Mineral Property being valued, other parties involved in a transaction of the Mineral Property, or the outcome of the Valuation, other than professional fees and disbursements related to the Valuation assignment.

4.13 Inputs

All information used in the Valuation.

4.14 Investment Value

“The value of an asset to a particular owner or a prospective owner for individual investment or operational objectives.” (IVS 104 Bases of Value, §60.1).

4.15 Market Approach (or Sales Comparison Approach)

“A Valuation Approach which provides an indication of value by comparing the subject asset with identical or similar assets for which price information is available.” (ivsc.org/standards/glossary). The terms Market Approach and Sales Comparison Approach are frequently used interchangeably in valuation.

4.16 Market Value

“Market Value is the estimated amount for which an asset or liability should exchange on the valuation date between a willing buyer and a willing seller in an arm’s-length transaction after proper marketing and where the parties had each acted knowledgeably, prudently and without compulsion.” (IVS 104 Bases of Value, §30.1).

4.17 Materiality or Material

All relevant information that investors and their professional advisers would reasonably require, and reasonably expect to find in a Valuation Report for the purpose of making a reasoned and balanced judgement regarding the Valuation.

4.18 Mineral Property

Any contractual or permanent right to explore for, or mine or otherwise extract minerals (including petroleum) from the earth, and any interest in such a right, and any land ownership that includes or inherently provides that right. For the SME Valuation Standards, Mineral Properties generally mean Real Property interests, including rights to explore for and extract Mineral and Petroleum Resources and Reserves, mining claims and other forms of mineral tenements, mineral rights, petroleum rights, royalty interests, and intellectual property such as geological data forming part of or accompanying the rights and interests referred to above.

4.19 Mineral Resources and Mineral Reserves

Terminology for reporting of exploration results, Mineral Resources, and Mineral Reserves is published in *The 2014 SME Guide* and CRIRSCO's *International Reporting Template*, November 2013 edition, as amended from time to time. Terminology may be subject to rules and guidance contained in national reporting codes, standards, and regulations.

4.20 Minerals Industry

Entities and individuals involved in exploration for minerals, and the extraction, processing, and marketing of minerals (including petroleum). This term applies to the point of first possible sale of any particular commodity and excludes properties and activities that are downstream from a smelter, refinery or processing plant.

4.21 Objectivity

Acting impartially and without bias in conducting a Valuation and preparing a Valuation Report.

4.22 Petroleum Resources and Petroleum Reserves

While petroleum is broadly included with minerals, definitions and classification of Petroleum Resources and Petroleum Reserves are published in the *Petroleum Resources Management System (PRMS)*, 2007 edition, as amended from time to time, and with *Guidelines for Application* published in 2011.

4.23 Professional Organization

A self-regulating organization, such as one of engineers, geoscientists, or minerals Valuers, that: (a) is accepted and recognized as reputable by the professional community, or has been given authority or recognition by statute; (b) admits members on the basis of their academic qualifications and professional experience; (c) requires compliance with professional standards of expertise and behavior according to a code of ethics established by the organization; (d) requires compliance with specified continuing education requirements; and (e) has enforceable disciplinary powers, including that of suspension or expulsion of a member.³

³ The SME Registered Member class of SME membership is a self-regulating Professional Organization.

4.24 Public Report

Any report prepared for the purpose of informing investors or potential investors and their advisers, or to satisfy regulatory requirements. Public Reports include, but are not limited to, annual and quarterly company reports, press releases, information memoranda, technical papers, website postings, and public presentations.

4.25 Real Estate

“Land and all things that are a natural part of the land, e.g. trees, and minerals and things that have been attached to the land, e.g. buildings and site improvements and all permanent building attachments, e.g. mechanical and electrical plant providing services to a building, that are both below and above the ground.” (ivsc.org/standards/glossary).

4.26 Real Property and Real Property Interest

Real Property constitutes, *“all rights, interests and benefits related to the ownership of Real Estate.”* (ivsc.org/standards/glossary).

A Real Property Interest is, *“a right of ownership, control, use or occupation of land and buildings.”* (IVS 400 Real Property Interests, §20.2).

4.27 Reasonableness

Means that other qualified and experienced Valuers with access to the same information for the Interest Being Valued, Valuation Date, and Basis of Value would consider the Valuer's Scope of Work to be reasonable.

4.28 Report Date

Report Date is the date upon which the Valuation Report is signed and dated and may not be the same as the Valuation Date.

4.29 Special Assumption

“An assumption that either assumes facts that differ from the actual facts existing at the Valuation Date or that would not be made by a typical market participant in a transaction on the Valuation Date.” (ivsc.org/standards/glossary). The term “hypothetical condition” is used in some jurisdictions, including within the USA.

4.30 Special Purchaser

“A particular buyer for whom a particular asset has Special Value because of advantages arising from its ownership that would not be available to other buyers in the market.” (ivsc.org/standards/glossary).

4.31 Special Value

“An amount that reflects particular attributes of an asset that are only of value to a Special Purchaser.” (ivsc.org/standards/glossary).

4.32 Synergistic Value

“The result of a combination of two or more assets or interests where the combined value is more than the sum of the separate values.” (IVS 104 Bases of Value, §70.1).

4.33 Transparency

A clear and unambiguous presentation of the Valuation in the Valuation Report, which includes all

Material information on which the Valuation is based, such that the reader can understand the Valuation Report and not be misled.

4.34 Valuation

Valuation is the estimation of the Value of a Mineral Property in money or monetary equivalent. The word ‘valuation’ can be used for any development and reporting of a conclusion of value. The valuer **MUST** cite the definition of value being used (market value, fair value, fair market value, investment value, value in use, etc.) and the effective date for which the opinion is valid when preparing and reporting conclusions of value.

The word ‘valuation’ is synonymous with the word ‘appraisal’ as used in certain jurisdictions, including within the USA and Canada, though an ‘appraisal’ typically conforms to an accepted set of criteria and guidelines (USPAP), and is prepared and reported in a standardized format with several basic criteria included, such as identification of the subject, ownership history, and support for the assumptions underlying the value conclusion. In contrast, the word ‘appraisal’ is used in Australia for the broader activity of Evaluation, including the preparation of Resource and Reserve estimates.

4.35 Valuation Approach

“One of three principal ways of estimating value. Each valuation approach includes different methods that may be used to apply the principles of the approach to specific asset types or situations.” (ivsc.org/standards/glossary).

4.36 Valuation Date

“The date on which the opinion of value (or Valuation) applies.” (ivsc.org/standards/glossary). The term ‘Valuation Date’ the synonymous with the term ‘Effective Date’ as used in certain jurisdictions, including within the USA and Canada.

4.37 Valuation Method

“A specific technique or model used to estimate value. All Valuation Methods fall within a Valuation Approach.” (ivsc.org/standards/glossary).

4.38 Valuation Report

A document that reports the results of the Valuation of a Mineral Property or Properties that adheres to the SME Valuation Standards, or other relevant national code, or standards and relevant legal and regulatory requirements.

4.39 Value

A generic term that may refer to Market Value, Investment Value, or another ‘value’ definition, including those specified in national codes.

4.40 Valuer

A Valuer is a person who (a) is a professional with demonstrated experience and Competence in the Valuation of Mineral Properties, (b) has experience relevant to the subject Mineral Property or has relied on an Expert with experience relevant to the subject Mineral Property, and (c) is regulated by or is a member in good standing of a Professional Organization. A Valuer is also known as a Valuator or an Appraiser in some jurisdictions.