1.0 Introduction

1.1 The purpose of this Guidance Note (GN) is to provide clarification and guidance on the valuation of assets or property interests (rights) held by entities involved in the Extractive Industries. It distinguishes among the various property interests that must be recognized, and discusses concepts that should be understood by financial reporting and regulatory authorities, courts, financiers, investors, participants in natural resource transactions, and other users of valuation services for property involved in the Extractive Industries.

1.2 Reliable valuations of Extractive Industries assets, including interests (rights) in natural resource properties, are essential to ensure the availability of capital necessary to support the continuity of the Extractive Industries component of the world's economic base, to promote the productive use of Mineral and Petroleum natural resources, and to maintain the confidence of capital markets.

1.3 Extractive Industries comprise the Minerals Industry and the Petroleum Industry, but do not include activities focused on the extraction of water from the earth.

1.4 The Minerals and Petroleum Industries are characterised by the extraction from the earth of natural resources, which may pass through a series of ownership, processing and measurement stages. It is important to Valuers and the users of valuation services that distinctions are made among real property, personal property, and business interests involved in these stages. Financial reporting requires the recognition of various asset classifications into which these interests may fall. Additionally, clear and precise understanding of these distinctions is necessary for valuations to be performed and used in the public interest, regardless of the application.

1.5 Valuations in the Extractive Industries often must rely heavily on information provided by (a) Technical Expert(s) or other accredited specialist(s) specific to the industry.

1.6 A typical characteristic of the Extractive Industries that sets them apart from other industries or economic sectors is the depletion or wasting of natural resources, that can be replaced in their original state by natural actions following extraction only in special cases. Special cases of natural replacement may occur for water transported minerals and geothermal fluid. The means of production is extraction from the earth of natural resources that form part of the Real Estate.

1.6.1 The ultimate quantity and quality of material of economic interest that might be extracted from an Extractive Industry natural resource property is often not known at the Effective Date of Valuation.

1.7 Examples of depleting or wasting natural resources include, but are not limited to:

1.7.1 metallic Mineral deposits containing metals such as copper, aluminium, gold, iron, manganese, nickel, cobalt, zinc, lead, silver, tin, tungsten, uranium, and platinum group metals;

1.7.2 non-metallic Mineral deposits such as coal, potash, phosphates, sulphur, magnesium, limestone, salt, mineral sands, diamonds and other gemstones;

1.7.3 construction materials such as sand, gravel, crushed stone, and dimension stone;

1.7.4 Petroleum deposits including oil, natural gas, natural gas liquids, other gases, heavy oil, and oil sands.

1.8 There are contrasts between the production and transportation phases of the Minerals and Petroleum Industries that must be understood:

1.8.1 Items 1.7.1, 1.7.2 and 1.7.3 above include products of the Minerals Industry, which extracts valuable mineralization, generally by mining in a surface mine (open pit, open-cast, open-cut, or strip mine; a quarry used to produce construction material is also considered a surface mine), or an underground mine. Some extraction is undertaken through wells, for example, sulphur extraction, and in situ leaching (solution mining) of various salts and uranium minerals. Some extraction is also done by dredging the floors of bodies of water, such as for gravel, mineral sands, diamonds, and alluvial gold. Extraction of mineral products...
from water, such as halite (common salt) and magnesium, is also part of the Minerals Industry.

1.8.2 The Minerals Industry generally has a planned extraction phase, though this phase is often extended through Mineral Reserve additions. Once extraction is completed, no more known economically recoverable asset remains in place at that time.

1.8.3 The raw materials cited in para. 1.7.4 above are produced by the Petroleum Industry, which extracts valuable product generally through wells drilled into the earth's crust. Some extraction is also undertaken using mining methods, for example, open pit mining of oil sand and oil shale. The extraction of a solid asset is more labour intensive than the extraction of a fluid asset. A single person may operate oil and gas extraction by pumps or valves, with the occasional need for well maintenance or well work-over crews.

1.8.4 The Petroleum Industry frequently has more than one economical extraction phase for crude oil. At the conclusion of the initial (primary) extraction phase, much of the initial Petroleum Reserve of crude oil may remain. Secondary and/or enhanced recovery methods are often applied to recover more oil and natural gas. Generally, a large percent of the initial oil in place remains in place at the conclusion of production operations.

1.8.5 Another significant difference between the Minerals and Petroleum Industries relates to land surface requirements for processing plant and infrastructure. Relatively little surface area is required for oil or gas well operations. A mining operation often requires a larger land area for stockpiles and disposal of waste material, as well as an open pit if applicable.

1.8.6 Crude oil, natural gas, and refined Petroleum products are more often than not transported to market or port by pipeline. In contrast, a mined product is generally transported to market or port by rail or truck, resulting in differing start-up costs and environmental impacts.

1.9 The Minerals and Petroleum Industries are both major industries throughout the world. Their products are essential in all modern economies by provision of raw and refined materials for other downstream industries, such as energy generation, construction, manufacturing, transport and communications.

1.10 Exploration of Minerals and Petroleum properties is a high-risk activity. Considerable work and study must be undertaken to determine the technical and economic viability of production. The large majority of Mineral and Petroleum properties do not reach the production stage.

1.11 The projected net earnings derived or potentially derived from an Extractive Industry natural resource property is its main source of value. The net earnings may vary from year to year, depending on the type of natural resource commodity, the cyclical nature of the commodity markets and prices, and variations in production rate and costs.

1.12 Mineral and Petroleum natural resource properties are valued primarily based on the presence of Mineral or Petroleum Reserves, and Mineral or Petroleum Resources, or the potential for discovery of Resources. The quantity and quality of such Reserves/Resources may vary over time due to changing economic and technical advances, as well as exploration success. Nevertheless, they are ultimately finite and will deplete over time.

1.13 The fixed assets and specialised plant and equipment (see Glossary for definitions) used in the extraction and processing of raw products of the Extractive Industries, may retain relatively little or no value when separated from production at the site.

1.14 Exploration Properties have asset value derived from their potential for the existence and discovery of economically viable Mineral or Petroleum deposits contained within. Exploration Property interests are bought and sold in the market. Many of these transactions involve partial interest arrangements, such as farm-in, option or joint venture arrangements.

1.14.1 The value of an Exploration Property is largely dependent upon surface and subsurface geological and related information, and its interpretation. Little may be known about the characteristics of a deposit that may be contained within the property until the deposit is discovered and explored.

1.14.2 Extractive Industries deposits are often located in remote areas and are generally substantially or completely buried below the land surface, and sometimes below the floor of bodies of water or under the sea.

1.15 The residual value of the real property interest, plant and equipment as well as environmental reclamation requirements (as liabilities and property improvements), are pertinent factors in the valuation process for Extractive Industries properties.
2.0 Scope

2.1 This Guidance Note provides specific guidance for valuation of assets and interests of the Extractive Industries. It provides supplemental guidance for application of the International Valuation Standards (IVSs 1, 2, and 3), International Valuation Applications (IVAs 1, 2, and 3) and Guidance Notes (GNs). In doing so, it specifically supplements the following GNs for their application to the Extractive Industries;

GN1 Real Property Valuation;
GN2 Valuation of Lease Interests;
GN3 Valuation of Plant and Equipment;
GN4 Valuation of Intangible Assets;
GN6 Business Valuation;
GN8 The Cost Approach for Financial Reporting- (DRC); and
GN9 Discounted Cash Flow Analysis for Market Valuations and Investment Analyses.

2.2 The ownership of, or rights to, an industrial water supply and water storage system, can form an important component in the valuation of Properties in the Extractive Industries. Water rights may attach to land or may be obtained elsewhere. Adequate rights and facilities for transportation and storage of off-site water may be required for a reliable water supply. Valuation of the contribution of such rights poses special problems that must be addressed by the Valuer. However, this GN does not provide specific guidance for valuation of water ownership, rights, transportation and storage.

2.3 Where mark-to-market financial reporting procedures apply or are contemplated, Valuers should observe the provisions of IVA 1, Valuation for Financial Reporting, in conjunction with this GN. In some States, securities exchanges and administrations may have specific reporting requirements for the Minerals and Petroleum Industries that override IVSs provisions.

2.4 While providing supplemental guidance for the conduct and reporting of valuations of Extractive Industries property and interests in accordance with para. 2.1 above, the provisions of this GN do not replace provisions elsewhere in the current edition of the International Valuation Standards.

3.0 Definitions

3.1 Extractive Industries. Those industries involved in the finding, extracting and associated processing of natural resources located on, in or near the earth’s crust. They are composed of the Minerals Industry and the Petroleum Industry. They do not include the industry sector focused on extraction of water from the earth, but they do include extraction of geothermal fluid for its energy content.

3.2 Exploration Property or Area. A Mineral or Petroleum real property interest that is being actively explored for Mineral deposits or Petroleum accumulations, but for which economic viability has not been demonstrated.

3.3 Feasibility Study in the Extractive Industries. A comprehensive study of a Mineral deposit or Petroleum accumulation, in which all geological, engineering, operating, economic, marketing, environmental, regulatory and other relevant factors are considered in sufficient detail. The study could reasonably serve as the basis for a final decision by a proponent or financial institution to proceed with, or finance, the development of the prospective property for Mineral or Petroleum production. See also Prefeasibility Study.

3.4 Mineral. Any naturally occurring material useful to, and/or having a value placed on it by humankind, and found in or on the earth’s crust. For the purposes of this GN, Minerals include metallic minerals, industrial minerals, aggregates, precious stones and fuel minerals; but Minerals do not include Petroleum, which is defined separately.

3.5 Mineral Reserve. As defined by the Combined [Mineral] Reserves International Reporting Standard Committee (CRIRSCO): “the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined. Appropriate assessments that may include Feasibility Studies, have been carried out, and include consideration of, and modification by, realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction is justified. Mineral Reserves are subdivided in order of increasing confidence into Probable Mineral Reserves and Proved Mineral Reserves.”

The United Nations Framework Classification (UNFC) similarly defines a Mineral Reserve and its...
subdivisions, applying the UNFC coding system. Entities electing to adopt the UNFC or other definitions of Mineral Reserve for public financial reporting purposes must reconcile the Mineral Reserves to the CRIRSCO Proved and Probable Mineral Reserve categories for valuation purposes.

3.6 Mineral Resource. As defined by CRIRSCO: “a concentration or occurrence of material of intrinsic economic interest in or on the earth's crust (a deposit) in such form and quantity that there are reasonable prospects for eventual 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. Mineral Resources are subdivided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories. Portions of a deposit that do not have reasonable prospects for eventual economic extraction must not be included in a Mineral Resource.”

The United Nations Framework Classification (UNFC) similarly defines a Mineral Resource and its subdivisions, applying the UNFC coding system. For the purposes of this GN, mineralisation classified into the UNFC's G4 (“Reconnaissance Study”) category, is excluded from a Mineral Resource. Entities electing to adopt the UNFC or other definitions of Mineral Resources for public financial reporting purposes must reconcile the Mineral Resources to the CRIRSCO Inferred, Indicated and Measured Mineral Resource categories for valuation purposes.

3.7 Minerals Industry. Entities involved in exploration for Minerals, and the mining, processing and marketing of Minerals. This GN is not designed to cover assets downstream from the metals refineries or minerals processing plants, such as assets involved in the distribution of refined metals to metals fabricators, or mineral products to retailers or the final market.

3.8 Petroleum. Any naturally occurring hydrocarbon, whether in a gaseous, liquid or solid state. Raw Petroleum products are primarily crude oil and natural gas.

3.9 Petroleum Industry. Entities involved in exploration for Petroleum, and the extraction, processing, refining and marketing of crude Petroleum and associated gases. This GN is not designed to cover assets downstream from the petroleum refineries and natural gas processing plants, such as assets involved in the distribution of refined petroleum products to retailers.

3.10 Petroleum Reserves. As defined by the Society of Petroleum Engineers (SPE) and the World Petroleum Congress (WPC): “those quantities of Petroleum, which are anticipated to be commercially recovered from known accumulations from a given date forward. All (Petroleum) Reserve estimates involve some degree of uncertainty. The uncertainty depends chiefly on the amount of reliable geologic and engineering data available at the time of the estimate and the interpretation of these data. The relative degree of uncertainty may be conveyed by placing reserves into one of two principal classifications, either Proved or Unproved. Unproved Reserves are less certain to be recovered than Proved Reserves and may be further subclassified as Probable and Possible Reserves to denote progressively increasing uncertainty in their recoverability.” Proved Reserves can be categorised as Developed or Undeveloped.

The United Nations Framework Classification (UNFC) similarly defines Petroleum Reserves and their subdivisions, applying the UNFC coding system.

3.11 Petroleum Resources. For the purpose of this GN, petroleum resources comprise only Petroleum Reserves and Contingent Resources. Contingent Resources as defined by the Society of Petroleum Engineers (SPE)/World Petroleum Congress (WPC), in conjunction with the American Association of Petroleum Geologists (AAPG), are “those quantities of petroleum, which are estimated, on a given date, to be potentially recoverable from known accumulations, but which are not currently considered to be commercially recoverable.”

The United Nations Framework Classification (UNFC) similarly defines Petroleum Resources and subdivisions, applying the UNFC coding system. For the purpose of this GN, petroleum accumulations classified into the UNFC's G4 (“Potential Geological Conditions”) category are excluded from Petroleum Resources.

3.12 Prefeasibility Study in the Extractive Industries. A study of a Mineral or Petroleum deposit, in which all geological, engineering, operating, economic, environmental and other relevant factors, are considered in sufficient detail to serve as the reasonable basis for a decision to proceed to a Feasibility Study.

3.13 Royalty or “Royalty Interest” in the Extractive Industries. The landowner’s or lessor’s share of production, in money or product, free of charge for expenses of production. An “Overriding
Royalty” is a share of mineral or petroleum produced, free of the expense of production, paid to someone other than the lessor, over and above any lessor’s Royalty.

3.14 Technical Expert in the Extractive Industries (called Technical Expert elsewhere in this GN). A person, who is responsible for all or part of the Technical Assessment that supports an Extractive Industry Valuation. A Technical Expert must have appropriate experience relevant to the subject matter, and in States where required by statute or regulation, must be a member or license-holder in good standing of a professional organisation that has the authority to sanction members or licensees. An accredited specialist may not take responsibility for all or part of a Technical Assessment without also being a Technical Expert.

3.15 Technical Assessment in the Extractive Industries. A technical document, prepared by (a) Technical Expert(s) that supports the Extractive Industry Valuation and is appended to, or forms part of, a Valuation Report.

4.0 Relationship to Accounting Standards

4.1 Amongst national GAAPs there are currently several approaches to the measurement of “Upstream Activities” that include exploration for, discovery of, and acquisition or development of, Mineral or Petroleum Resources up to when the Reserves are first capable of being sold or used. The extreme high-risk element in expenditure on these activities has led to two main approaches to Historical Cost accounting for the Extractive Industries, those being:

(a) all “exploration and evaluation costs” to be written off unless such costs are expected to be recouped, or the activities have not yet established whether the costs are economically recoverable (i.e., adaptations of a “successful efforts” approach). In applications of this approach, there are variations as to which costs are permitted to be capitalised and the treatment of costs prior to the determination of “success”, or otherwise, of the exploration and evaluation activities; and

(b) all expenditures incurred in finding and developing Mineral and Petroleum Reserves to be capitalised and treated as a part of the cost of whatever Reserves may have been found (i.e., a “full cost” approach).

4.2 In December 2004, the International Accounting Standards Board (IASB) released IFRS 6 Exploration for and Evaluation of Mineral Resources. Under the provisions of the Standard, entities are permitted to recognise their exploration and evaluation expenditures as “exploration and evaluation assets”. The Standard requires such assets to be measured at cost at initial recognition. After initial recognition, an entity may choose to apply a cost or revaluation model (as outlined in either IAS 16 Property, Plant and Equipment, or IAS 38 Intangible Assets) to measure their exploration and evaluation assets.

4.2.1 The concept of exploration and evaluation assets, and the costs that make up those assets, apply equally to the cost and revaluation models described above.

4.3. IFRS 6 states at paragraph 9 that: “An entity shall determine a policy for which expenditures are recognised as exploration and evaluation assets and apply the policy consistently. In making this determination, an entity considers the degree to which the expenditure can be associated with finding specific mineral resources. The following are examples of expenditures that might be included in the initial measurement of exploration and evaluation assets (the list is not exhaustive):

- acquisition of rights to explore;
- topographical, geological, geochemical and geophysical studies;
- exploratory drilling;
- trenching;
- sampling; and
- activities in relation to evaluating technical feasibility and commercial viability of extracting a mineral resource.”

4.3.1 IFRS 6, paragraph 5(a), excludes “activities that precede the exploration for and evaluation of mineral resources” from the scope of the Standard.

4.3.2 IFRS 6, paragraph 10, additionally states that: “Once the technical feasibility and commercial viability of extracting a mineral resource are demonstrable, expenditures related to the development of that mineral resource shall not be recognised as exploration and evaluation assets. The Framework and IAS 38 Intangible Assets provide guidance on the recognition of assets arising from development (or the development phase of an internal project).”

4.3.3 When facts and circumstances stated in paragraph 20 of the Standard suggest that the carrying
amount of exploration and evaluation assets may exceed their recoverable amount, entities are required to measure and disclose any resulting impairment loss. The level at which such assets are assessed for impairment may comprise one or more cash-generating units, which is a higher level of aggregation than that otherwise allowed under IAS 36.

4.3.4 In the context of the IFRS 6, a minerals resource includes minerals, oil, natural gas and similar non-regenerative resources (see the Defined Terms in Appendix A to IFRS 6) and also in paragraphs 3.6 and 3.11 above.

4.4 IASB Standards that require value determinations to be provided under the provisions of this GN include:

- IAS 36 Impairment of Assets – for determining the recoverable amount of an asset (including assets that incorporate reserves and resources) in order to ascertain whether the asset is impaired. This process requires determination of “fair value less costs to sell” and/or “value in use” as defined in the Standard.
- IFRS 3 Business Combinations – for determining the carrying amount of assets that were acquired in the acquisition of a business (including assets that incorporate reserves and resources); and
- IAS 16 Property, Plant and Equipment – for the revaluation (if chosen) of property, plant and equipment that relates to extractive operations.

4.5 This Guidance Note recognises that the Historical Cost of finding and developing Mineral and Petroleum Reserves is usually not indicative of the realisable value of such Reserves once they have become established.

5.0 Guidance

5.1 Valuation Concepts

5.1.1 The provisions of this GN are designed to assure application of Generally Accepted Valuation Principles (GAVP) to Extractive Industries Valuations, in accordance with the valuation fundamentals expressed in the IVSs Concepts Fundamental to Generally Accepted Valuation Principles.

5.1.2 The standard of value is Market Value defined in IVS 1, Market Value Basis of Valuation. If some other type of value is to be determined in accordance with IVS 2, Bases Other Than Market Value, a clear definition of that value should be provided by the Valuer and highlighted in the Valuation Report as prescribed in IVS 3, and a clear and conspicuous explanation provided.

5.1.3 The property type(s) involved in valuation of Minerals and Petroleum Industry property must be correctly identified in order to correctly select the applicable IVSC Standards and GNs. Naturally occurring in situ Minerals and Petroleum are a part of physical land and Real Estate. The ownership of such in situ Minerals and Petroleum, an interest in such natural resources, and the right to explore and extract such natural resources, are Real Property, except where otherwise defined by statute. Minerals and Petroleum are Personal Property during transportation and processing. The operation of a mine, quarry or petroleum well is a business activity, as is the transportation and processing of Minerals and Petroleum. Such business activity is generally conducted by an Extractive Industries business enterprise that owns real property and personal property assets, and the activity contributes to the Going Concern Value of the enterprise.

5.1.4 A key aspect of the valuation of an Extractive Industry natural resource property is that the property interests and related rights being valued must be properly identified.

5.1.5 A Market Valuation of an Extractive Industry property as Real Property must be based on the Highest and Best Use (HABU) of the property. This requires consideration of non-Minerals or non-Petroleum uses for the property, if such uses are possible. Consideration must also be given to a change in exploration, development or operating strategy, or potential for leasing the property, in order to maximise its economic benefit.

5.1.6 In determining the HABU, the Valuer should determine the most probable use that is physically possible, appropriately justified, legally permissible, financially feasible, and which results in the highest value of the property being valued.

5.1.7 In conducting a Market Valuation, the three Valuation Approaches are generally available for consideration:
(a) Sales Comparison Approach (termed Market Approach for Business Valuations),
generally by indirect means (see para. 5.3.1 below);
(b) Income (Capitalisation) Approach,
including market-related discounted cash flow;
(c) Cost Approach (termed Asset-Based Approach for Business Valuations),
including depreciated replacement cost and equivalent cost analysis.

5.1.8 Where one or more of the above Valuation Approaches has been applied in preference to
others, the reason must be stated.

5.1.9 As applied to Mineral and Petroleum natural resource property interests, the appropriate
Valuation Methods employed depend upon the stage of exploration or development of
the property. For convenience, such Mineral and Petroleum properties can be categorised as
four main types, though the categorisation is sometimes the subject of the opinion of a Valuer
or Technical Expert.
• Exploration properties;
• Resource properties;
• Development properties;
• Production properties.

5.1.10 Exploration Properties are defined at para. 3.2.

5.1.11 Resource properties contain a Mineral Resource or Petroleum Resource but have not been
demonstrated by a Prefeasibility Study or a Feasibility Study to be economically viable.

5.1.12 Development properties, in general, have been demonstrated by a Feasibility Study to be
economically viable but are not yet in production.

5.1.13 Production properties contain a Mineral or Petroleum producing operation active at the time
of Valuation.

5.1.14 The different stages of exploration and development carry different levels of risk. The
risk pertains to the likelihood of eventual or continued Mineral or Petroleum production. As
an Exploration Property is advanced to a Resource property, to a Development property, and to a
Production property, more technical information is collected, enabling technical analysis, including
Prefeasibility and Feasibility Studies, to be carried out, and thereby reducing the risk factor, as
the amount of capital investment at risk rapidly increases.

5.1.15 The results from the Valuation Approaches and Methods employed must be weighed and
reconciled into a concluding opinion of value. The reasons for giving a higher weighting to
one Approach or Method over another must be stated.

5.2 Competence and Impartiality

5.2.1 Valuations prepared under this Guidance Note shall comply with all provisions of the IVSC Code
of Conduct.

5.2.2 To develop a Valuation of an Extractive Industry asset or interest, the Valuer must have competence
relevant to the subject asset or interest, or retain the services of (an) appropriately skilled Technical
Expert(s).

5.2.3 Providing a reliable and accurate valuation typically requires the Valuer to have specialised training,
or assistance from (a) Technical Expert(s) or other accredited specialist(s), in geology, Resource and
Reserve estimation, engineering, and economic and environmental aspects relevant to the subject
natural resource type and geographic setting. The defined term Technical Expert includes
“Competent Person”, “Independent Valuer”, and similar requirements that may apply in some
States, if the intended use of the Valuation Report is related to public financial reporting or other
regulatory purpose.

5.2.4 The Valuer is responsible for the decision to rely on a Technical Assessment, data,
or opinion provided by other experts or specialists. This includes responsibility for
conducting reasonable verification that those persons are appropriately qualified and
competent and that their work is credible.

5.3 Special Considerations of Extractive Industries Valuations

5.3.1 Each Mineral deposit, Petroleum accumulation and Exploration Property is unique. Therefore,
direct comparison of Mineral or Petroleum natural resource property transactions is often difficult
or inappropriate. However, sales analysis is an important valuation tool. Sales adjustments or ratio
analysis can frequently be applied for indirect sales comparison purposes. Sales analysis and other
market analysis can often yield market factors such as a market discount rate, a risk factor or
uncertainty factor that may be used in the Income Approach.
5.3.2 For a Valuation Report to provide an estimate of Market Value, the valuation analysis must be based on market evidence and current expectations and perceptions of market participants for the property valued, and such market evidence must be consistently applied in the Valuer’s analysis.

5.3.3 The method most commonly used by businesses for investment decision-making within the Extractive Industries is net present value analysis/discounted cash flow analysis (NPV analysis/DCF analysis). The Valuer is cautioned that this and other methods, such as those based on option theory, will yield other than Market Value estimates of Investment Value or Value in Use, unless great care is taken to assure that a Market Value estimate is obtained. For the Valuer to report a Market Value estimate resulting from such an analysis, all inputs and assumptions must reflect available market-based evidence and current expectations and perceptions of market participants, in accordance with GN 9. Any departure from the requirements and analysis protocol of GN 9 must be specified.

5.3.4 The Market Value of Extractive Industries’ natural resource properties and businesses are usually more or less than the value of the sum of their parts or component values. For example, the Market Value of a real estate tract owned in fee simple, that contains a Mineral deposit, is rarely the sum of the independent values of the Minerals, land surface, and plant and equipment. Similar situations may often occur in the Petroleum Industry.

5.3.5 For a producing Mineral or Petroleum Industry natural resource property, there may be separate ownership rights over component parts utilized by the enterprise, such as the Reserve, Royalties, and plant and equipment. It is important for a Valuer of the enterprise to correctly recognise these. There may also be a requirement to provide valuations of the separate ownership interests.

5.3.6 Material data relied on in developing the value estimate should be verified for accuracy whenever reasonable to do so. This may include selective review of drill hole information and samples and related analytical data for a subject natural resource property, and confirmation of published information pertaining to transactions of similar properties.

5.3.7 If there is more than one estimate of the quantity and quality of Resources and Reserves for a subject natural resource property, the Valuer shall decide which estimates it is appropriate to disclose and discuss, and which estimate to use as the basis in the Valuation process, and shall state the reasons. A critique of alternative estimates may be submitted with the Valuation Report.

5.3.8 The Valuer shall take account of, and make reference to other matters that have a material impact on the Valuation. Dependent on the property type and rights being valued, these may include:

- the status of tenements, rights and other interests;
- all Mineral or Petroleum deposits within the boundaries of the tenements or rights;
- access to markets and the quality and quantity of product that can be sold;
- services and infrastructure, and any toll arrangements, fees or liabilities related thereto;
- environmental assessments and rehabilitation liabilities;
- any Native Title aspects;
- capital and operating costs;
- timing and completion of capital projects;
- residual value estimates;
- material agreements and statutory/legal requirements;
- taxation and Royalties;
- liabilities and financial exposures;
- site rehabilitation, reclamation and closure costs;
- any other aspect that has a material bearing on the Valuation.

5.4 Disclosure in Extractive Industries Valuation Reports

5.4.1 The Valuation Report shall properly identify the property type(s), specific property interest(s) and related rights being valued as specified in IVS 3.

5.4.2 The Valuation Report shall disclose the name, professional qualifications and relevant industry experience of the Valuer, and other Technical Expert(s) whose Technical Assessment has been relied upon to support the Valuation.

5.4.3 The Valuation Report should be supported by disclosure of relevant Extractive Industries
Codes, Standards or Rules of Practice applicable to the Valuation and supporting Technical Assessment. All estimates of a Mineral or Petroleum Resource or Reserve disclosed in the valuation report or supporting Technical Assessment shall abide by the definitions provided in Section 3 above, and the classification systems referenced in those definitions, unless jurisdictional or other reasonable cause is disclosed.

5.4.4 Maps, geological sections, diagrams and photographs shall be included in the Valuation Report, if appropriate and possible, to aid the communication of information. Relevant technical information supporting the Valuation of a subject natural resource property(ies), including estimates of Resources and Reserves being valued, shall be disclosed and discussed in a Technical Assessment.

5.4.5 The Valuation Report shall disclose whether or not the entity employing/retaining the Valuer, or the owner of the subject asset or its operating management, has provided the Valuer with a statement that all available data and information requested by the Valuer or otherwise relevant to the Valuation have been supplied to the Valuer.

6.0 Effective Date

6.1 This International Valuation Guidance Note became effective on 31 July 2007.