Note: [30 Sep 2003] – The following is NI 51-101 as it was initially implemented. This version of NI 51-101 is no longer current.

NATIONAL INSTRUMENT 51-101 STANDARDS OF DISCLOSURE FOR OIL AND GAS ACTIVITIES

TABLE OF CONTENTS

Part 1 APPLICATION AND TERMINOLOGY

- 1.1 Definitions
- 1.2 *COGE Handbook* Definitions
- 1.3 Applies to *Reporting Issuers* Only
- 1.4 Materiality Standard

Part 2 ANNUAL FILING REQUIREMENTS

- 2.1 Reserves Data and Other Oil and Gas Information
 - 1. Statement of *Reserves Data* and Other Information
 - 2. Report of Independent Qualified Reserves Evaluator or Auditor
 - 3. Report of Management and Directors
- 2.2 News Release to Announce Filing
- 2.3 Inclusion in Annual Information Form
- 2.4 Reservation in Report of Qualified Reserves Evaluator or Auditor

Part 3 RESPONSIBILITIES OF REPORTING ISSUERS AND DIRECTORS

- 3.1 Interpretation
- 3.2 Reporting Issuer to Appoint Independent Qualified Reserves Evaluator or Auditor
- 3.3 Reporting Issuer to Make Information Available to Qualified Reserves Evaluator or Auditor
- 3.4 Certain Responsibilities of Board of Directors
- 3.5 *Reserves* Committee
- 3.6 British Columbia

Part 4 MEASUREMENT

- 4.1 Accounting Methods
- 4.2 Requirements for Disclosed *Reserves Data*

Part 5 REQUIREMENTS APPLICABLE TO ALL DISCLOSURE

- 5.1 Application of Part 5
- 5.2 Consistency with *Reserves Data* and Other Information
- 5.3 Reserves and Resources Classification
- 5.4 *Oil* and *Gas Reserves* and Sales
- 5.5 Natural Gas By-Products
- 5.6 Future Net Revenue Not Fair Value

- 5.7 Consent of Qualified Reserves Evaluator or Auditor
- 5.8 Disclosure of Less Than All Reserves
- 5.9 Disclosure Concerning *Prospects*
- 5.10 Estimates of Fair Value of an *Unproved Property*, *Prospect* or *Resource*
- 5.11 Net Asset Value and Net Asset Value per Share
- 5.12 Reserve Replacement
- 5.13 Netbacks
- 5.14 *BOEs* and *McfGEs*
- 5.15 Finding and Development Costs

Part 6 MATERIAL CHANGE DISCLOSURE

6.1 Material Change from Information Filed under Part 2

Part 7 OTHER INFORMATION

7.1 Information to be Furnished on Request

Part 8 EXEMPTIONS

8.1 Authority to Grant Exemption

Part 9 INSTRUMENT IN FORCE

- 9.1 Coming Into Force
- 9.2 Transition

NATIONAL INSTRUMENT 51-101 STANDARDS OF DISCLOSURE FOR OIL AND GAS ACTIVITIES

PART 1 APPLICATION AND TERMINOLOGY¹

1.1 Definitions² - In this *Instrument*:

- (a) annual information form means:
 - (i) a "current AIF", as defined in NI 44-101;
 - (ii) in the case of a *reporting issuer* that is eligible to file, for the purpose of Part 3 of *NI 44-101*, a current annual report on Form 10-K or Form 20-F under the *1934 Act*, such a current annual report so filed; or
 - (iii) a document prepared in Form 44-101F1 AIF and filed with the securities regulatory authority in the jurisdiction in accordance with securities legislation of that jurisdiction other than NI 44-101;
- (b) "BOEs" means barrels of oil equivalent;
- (c) "CICA" means The Canadian Institute of Chartered Accountants;
- (d) "CICA Accounting Guideline 5" means Accounting Guideline AcG-5 "Full cost accounting in the oil and gas industry" included in the CICA Handbook, as amended from time to time;
- (e) "CICA Handbook" means the Handbook of the CICA, as amended from time to time;
- (f) "COGE Handbook" means the "Canadian Oil and Gas Evaluation Handbook" prepared jointly by The Society of Petroleum Evaluation Engineers (Calgary Chapter) and the Canadian Institute of Mining, Metallurgy & Petroleum (Petroleum Society), as amended from time to time;

For the convenience of readers, Appendix 1 to Companion Policy 51-101CP sets out the meanings of terms, including those defined in this Part, that are printed in italics in this *Instrument, Form 51-101F1*, *Form 51-101F2*, *Form 51-101F3* or the Companion Policy.

A national definition instrument has been adopted as NI 14-101. It contains definitions of certain terms used in more than one national or multilateral instrument. NI 14-101 provides that a term used in a national or multilateral instrument and defined in the statute relating to securities of the applicable jurisdiction, the definition of which is not restricted to a specific portion of the statute, will have the meaning given to it in that statute unless the context otherwise requires. NI 14-101 also provides that a provision or a reference within a provision of a national or multilateral instrument that specifically refers by name to a jurisdiction other than the local jurisdiction shall not have any effect in the local jurisdiction, unless otherwise stated in that national or multilateral instrument.

- (g) "constant prices and costs" means the prices and costs used in an estimate that are:
 - (i) the *reporting issuer's* prices and costs as at the *effective date* of the estimation, held constant throughout the estimated lives of the *properties* to which the estimate applies;
 - (ii) if, and only to the extent that, there are fixed or presently determinable future prices or costs to which the *reporting issuer* is legally bound by a contractual or other obligation to supply a physical product, including those for an extension period of a contract that is likely to be extended, those prices or costs rather than the prices and costs referred to in subparagraph (i);
- (h) "effective date", in respect of information, means the date as at which, or for the period ended on which, the information is provided;
- (i) "FAS 19" means United States Financial Accounting Standards Board Statement of Financial Accounting Standards No. 19 "Financial Accounting and Reporting by Oil and Gas Producing Companies", as amended from time to time;
- (j) "forecast prices and costs" means future prices and costs that are:
 - (i) generally accepted as being a reasonable outlook of the future;
 - (ii) if, and only to the extent that, there are fixed or presently determinable future prices or costs to which the *reporting issuer* is legally bound by a contractual or other obligation to supply a physical product, including those for an extension period of a contract that is likely to be extended, those prices or costs rather than the prices and costs referred to in subparagraph (i);
- (k) "foreign geographic area" means a geographic area outside North America within one country or including all or portions of a number of countries;
- (l) "Form 51-101F1" means Form 51-101F1 Statement of Reserves Data and Other Oil and Gas Information;
- (m) "Form 51-101F2" means Form 51-101F2 Report on Reserves Data by Independent Qualified Reserves Evaluator or Auditor;
- (n) "Form 51-101F3" means Form 51-101F3 Report of Management and Directors on Oil and Gas Disclosure;
- (o) "independent", in respect of the relationship between a reporting issuer and a qualified reserves evaluator or auditor, has the meaning set out in the COGE Handbook:
- (p) "McfGEs" means thousand cubic feet of gas equivalent;

- (q) "NI 14-101" means National Instrument 14-101 Definitions;
- (r) "NI 44-101" means National Instrument 44-101 Short Form Prospectus Distributions;
- (s) "oil and gas activities"
 - (i) include:
 - (A) the search for *crude oil* or *natural gas* in their natural states and original locations;
 - (B) the acquisition of property rights or *properties* for the purpose of further exploring for or removing *oil* or *gas* from *reservoirs* on those *properties*;
 - (C) the construction, drilling and *production* activities necessary to retrieve *oil* and *gas* from their natural *reservoirs*, and the acquisition, construction, installation and maintenance of *field* gathering and storage systems including lifting the *oil* and *gas* to the surface and gathering, treating, *field* processing and *field* storage; and
 - (D) the extraction of hydrocarbons from oil sands, shale, coal or other non-conventional sources and activities similar to those referred to in clauses (A), (B) and (C) undertaken with a view to such extraction; but
 - (ii) do not include:
 - (A) transporting, refining or marketing oil or gas;
 - (B) activities relating to the extraction of natural resources other than *oil* and *gas* and their by-products; or
 - (C) the extraction of geothermal steam or of hydrocarbons as a byproduct of the extraction of geothermal steam or associated geothermal resources;
- (t) "preparation date", in respect of written disclosure, means the most recent date to which information relating to the period ending on the *effective date* was considered in the preparation of the disclosure;
- (u) "production group" means one of the following together, in each case, with associated by-products:
 - (i) light and medium *crude oil* (combined);
 - (ii) heavy oil;
 - (iii) associated gas and non-associated gas (combined); and

- (iv) bitumen, synthetic oil or other products from non-conventional oil and gas activities.
- (v) "product type" means one of the following:
 - (i) in respect of conventional *oil and gas activities*:
 - (A) light and medium *crude oil* (combined);
 - (B) *heavy oil*;
 - (C) natural gas excluding natural gas liquids; or
 - (D) natural gas liquids; and
 - (ii) in respect of non-conventional oil and gas activities:
 - (A) synthetic oil;
 - (B) *bitumen*;
 - (C) coal bed methane; or
 - (D) hydrates.
- (w) "professional organization" means a self-regulatory organization of engineers, geologists, other geoscientists or other professionals whose professional practice includes reserves evaluations or reserves audits, that:
 - (i) admits members primarily on the basis of their educational qualifications;
 - (ii) requires its members to comply with the professional standards of competence and ethics prescribed by the organization that are relevant to the estimation, *evaluation*, *review* or *audit* of *reserves data*;
 - (iii) has disciplinary powers, including the power to suspend or expel a member; and
 - (iv) is either:
 - (A) given authority or recognition by statute in a Canadian jurisdiction; or
 - (B) accepted for this purpose by the *securities regulatory authority* or the *regulator*;
- (x) "qualified reserves auditor" means an individual who:
 - (i) in respect of particular *reserves data* or related information, possesses professional qualifications and experience appropriate for the estimation,

evaluation, review and audit of the reserves data and related information; and

- (ii) is a member in good standing of a *professional organization*;
- (y) "qualified reserves evaluator" means an individual who:
 - (i) in respect of particular *reserves data* or related information, possesses professional qualifications and experience appropriate for the estimation, *evaluation* and *review* of the *reserves data* and related information; and
 - (ii) is a member in good standing of a *professional organization*;
- (z) "qualified reserves evaluator or auditor" means a qualified reserves auditor or a qualified reserves evaluator;
- (aa) "reserves data" means the following estimates, as at the last day of the reporting issuer's most recent financial year:
 - (i) proved reserves and related future net revenue estimated:
 - (A) using *constant prices and costs* as at the last day of that financial year; and
 - (B) using forecast prices and costs; and
 - (ii) probable reserves and related future net revenue estimated using forecast prices and costs; and
- (bb) "supporting filing" means a document filed by a reporting issuer with a securities regulatory authority.

1.2 COGE Handbook Definitions

- (1) Terms used in this *Instrument* but not defined in this *Instrument*, *NI 14-101* or the securities statute in the *jurisdiction*, and defined or interpreted in the *COGE Handbook*, have the meaning or interpretation ascribed to those terms in the *COGE Handbook*.
- (2) In the event of a conflict or inconsistency between the definition of a term in this *Instrument*, *NI 14-101* or the securities statute in the *jurisdiction* and the meaning ascribed to the term in the *COGE Handbook*, the definition in this *Instrument*, *NI 14-101* or the securities statute in the *jurisdiction*, as the case may be, shall apply.
- **1.3 Applies to** *Reporting Issuers* **Only** This *Instrument* applies only to *reporting issuers* engaged, directly or indirectly, in *oil and gas activities*.

1.4 Materiality Standard

(1) This *Instrument* applies only in respect of information that is *material* in respect of a *reporting issuer*.

(2) For the purpose of subsection (1), information is *material* in respect of a *reporting issuer* if it would be likely to influence a decision by a reasonable investor to buy, hold or sell a security of the *reporting issuer*.

PART 2 ANNUAL FILING REQUIREMENTS

- **2.1** Reserves Data and Other Oil and Gas Information A reporting issuer shall, not later than the date on which it is required by securities legislation to file audited financial statements for its most recent financial year, file with the securities regulatory authority the following:
 - 1. **Statement of** *Reserves Data* **and Other Information** a statement of the *reserves data* and other information specified in *Form 51-101F1*, as at the last day of the *reporting issuer's* most recent financial year and for the financial year then ended;
 - 2. **Report of** *Independent Qualified Reserves Evaluator or Auditor* a report in accordance with *Form 51-101F2* that is:
 - (a) included in, or filed concurrently with, the document filed under item 1; and
 - (b) executed by one or more *qualified reserves evaluators or auditors* each of whom is *independent* of the *reporting issuer*, who shall in the aggregate have:
 - (i) evaluated or audited at least 75 percent of the future net revenue (calculated using a discount rate of 10 percent) attributable to proved plus probable reserves, as reported in the statement filed or to be filed under item 1; and
 - (ii) reviewed the balance of such future net revenue; and
 - 3. **Report of Management and Directors** except in British Columbia, a report in accordance with *Form 51-101F3* that
 - (a) refers to the information filed or to be filed under items 1 and 2;
 - (b) confirms the responsibility of management of the *reporting issuer* for the content and filing of the statement referred to in item 1 and for the filing of the report referred to in item 2;
 - (c) confirms the role of the board of directors in connection with the information referred to in paragraph (b);
 - (d) is contained in, or filed concurrently with, the statement filed under item 1; and
 - (e) is executed by two senior officers and two directors of the *reporting issuer*.

- **2.2 News Release to Announce Filing** A *reporting issuer* shall, concurrently with filing a statement and reports under section 2.1, disseminate a news release announcing that filing and indicating where a copy of the filed information can be found for viewing by electronic means.
- **2.3 Inclusion in** *Annual Information Form* The requirements of section 2.1 may be satisfied by including the information specified in section 2.1 in an *annual information form* filed within the time specified in section 2.1.

2.4 Reservation in Report of Qualified Reserves Evaluator or Auditor

- (1) If a *qualified reserves evaluator or auditor* cannot report on *reserves data* without *reservation*, the *reporting issuer* shall ensure that the report of the *qualified reserves evaluator or auditor* prepared for the purpose of item 2 of section 2.1 sets out the cause of the *reservation* and the effect, if known to the *qualified reserves evaluator or auditor*, on the *reserves data*.
- (2) A report containing a *reservation*, the cause of which can be removed by the *reporting issuer*, does not satisfy the requirements of item 2 of section 2.1.

PART 3 RESPONSIBILITIES OF REPORTING ISSUERS AND DIRECTORS

- **3.1 Interpretation** A reference to a board of directors in this Part means, for a *reporting issuer* that does not have a board of directors, those individuals whose authority and duties in respect of that *reporting issuer* are similar to those of a board of directors.
- **3.2** Reporting Issuer to Appoint Independent Qualified Reserves Evaluator or Auditor A reporting issuer shall appoint one or more qualified reserves evaluators or auditors, each of whom is independent of the reporting issuer, to report to the board of directors of the reporting issuer on its reserves data.
- 3.3 Reporting Issuer to Make Information Available to Qualified Reserves Evaluator or Auditor A reporting issuer shall make available to the qualified reserves evaluators or auditors that it appoints under section 3.2 all information reasonably necessary to enable the qualified reserves evaluators or auditors to provide a report that will satisfy the applicable requirements of this Instrument.
- **3.4 Certain Responsibilities of Board of Directors** The board of directors of a *reporting issuer* shall
 - (a) review, with reasonable frequency, the *reporting issuer's* procedures relating to the disclosure of information with respect to *oil and gas activities*, including its procedures for complying with the disclosure requirements and restrictions of this *Instrument*;
 - (b) review each appointment under section 3.2 and, in the case of any proposed change in such appointment, determine the reasons for the proposal and whether there have been disputes between the appointed *qualified reserves evaluator or auditor* and management of the *reporting issuer*;

- (c) review, with reasonable frequency, the *reporting issuer's* procedures for providing information to the *qualified reserves evaluators or auditors* who report on *reserves data* for the purposes of this *Instrument*;
- (d) before approving the filing of *reserves data* and the report of the *qualified* reserves evaluators or auditors thereon referred to in section 2.1, meet with management and each *qualified reserves evaluator or auditor* appointed under section 3.2, to
 - (i) determine whether any restrictions affect the ability of the *qualified* reserves evaluator or auditor to report on reserves data without reservation; and
 - (ii) review the *reserves data* and the report of the *qualified reserves evaluator* or auditor thereon; and
- (e) review and approve
 - (i) the content and filing, under section 2.1, of the statement referred to in item 1 of section 2.1;
 - (ii) the filing, under section 2.1, of the report referred to in item 2 of section 2.1; and
 - (iii) the content and filing, under section 2.1, of the report referred to in item 3 of section 2.1.

3.5 Reserves Committee

- (1) The board of directors of a *reporting issuer* may, subject to subsection (2), delegate the responsibilities set out in section 3.4 to a committee of the board of directors, provided that a majority of the members of the committee
 - (a) are individuals who are not and have not been, during the preceding 12 months:
 - (i) an officer or employee of the *reporting issuer* or of an affiliate of the *reporting issuer*;
 - (ii) a person who beneficially owns 10 percent or more of the outstanding voting securities of the *reporting issuer*; or
 - (iii) a relative of a person referred to in subparagraph (a)(i) or (ii), residing in the same home as that person; and
 - (b) are free from any business or other relationship which could reasonably be seen to interfere with the exercise of their independent judgement.
- (2) Despite subsection (1), a board of directors of a *reporting issuer* shall not delegate its responsibility under paragraph 3.4(e) to approve the content or the filing of information.

- (3) A board of directors that has delegated responsibility to a committee pursuant to subsection (1) shall solicit the recommendation of that committee as to whether to approve the content and filing of information for the purpose of paragraph 3.4(e).
- **3.6 British Columbia -** Section 3.4 and section 3.5 do not apply in British Columbia.

PART 4 MEASUREMENT

- **4.1 Accounting Methods** A *reporting issuer* engaged in *oil and gas activities* that discloses financial statements prepared in accordance with *Canadian GAAP* shall use
 - (a) the full cost method of accounting, applying CICA Accounting Guideline 5; or
 - (b) the successful efforts method of accounting, applying FAS 19.

4.2 Requirements for Disclosed Reserves Data

- (1) A reporting issuer shall ensure that estimates of reserves or future net revenue contained in a document filed with the securities regulatory authority under this *Instrument* satisfy the following requirements:
 - (a) the estimates shall be
 - (i) prepared or audited by a *qualified reserves evaluator or auditor*;
 - (ii) prepared or *audited* in accordance with the *COGE Handbook*; and
 - (iii) estimated assuming that development of each *property* in respect of which the estimate is made will occur, without regard to the likely availability to the *reporting issuer* of funding required for that development;
 - (b) for the purpose of determining whether *reserves* should be attributed to a particular undrilled *property*, reasonably estimated future abandonment and reclamation costs related to the *property* shall be taken into account; and
 - (c) aggregate future net revenue shall be estimated deducting
 - (i) reasonably estimated future well abandonment costs; and
 - (ii) *future income tax expenses* (unless otherwise specified in this *Instrument, Form 51-101F1* or *Form 51-101F2*).
- (2) The date or period with respect to which the effects of an event or transaction are recorded in a *reporting issuer's* annual financial statements shall be the same as the date or period with respect to which they are first reflected in the *reporting issuer's* annual *reserves data* disclosure under Part 2.

PART 5 REQUIREMENTS APPLICABLE TO ALL DISCLOSURE

- **5.1 Application of Part 5** This Part applies to disclosure made by or on behalf of a *reporting issuer*
 - (a) to the public;
 - (b) in any document filed with a securities regulatory authority; or
 - (c) in other circumstances in which, at the time of making the disclosure, the *reporting issuer* knows, or ought reasonably to know, that the disclosure is or will become available to the public.
- **5.2** Consistency with *Reserves Data* and Other Information If a *reporting issuer* makes disclosure of information of a type that is required to be included in a statement filed with a *securities regulatory authority* under item 1 of section 2.1, the information shall be
 - (a) prepared in accordance with Part 4; and
 - (b) consistent with the corresponding information, if any, contained in the statement most recently filed by the *reporting issuer* with the *securities regulatory authority* under item 1 of section 2.1, except to the extent that such statement has been supplemented or superseded by a report of a material change³ filed by the *reporting issuer* with the *securities regulatory authority*.
- **5.3 Reserves and Resources Classification** Disclosure of *reserves* or *resources* shall be consistent with the *reserves* and *resources* terminology and categories set out in the *COGE Handbook*.
- **5.4** *Oil* and *Gas Reserves* and Sales Disclosure of *reserves* or of sales of *oil*, *gas* or associated by-products shall be made only in respect of *marketable* quantities, reflecting prices for the product in the condition (upgraded or not upgraded, processed or unprocessed) in which it is to be, or was, sold.
- **5.5 Natural Gas By-Products** Disclosure concerning natural gas by-products (including *natural gas liquids* and sulphur) shall be made in respect only of volumes that have been or are to be recovered prior to the point at which *marketable gas* is measured.
- **5.6** Future Net Revenue Not Fair Value Disclosure of an estimate of future net revenue, whether calculated without discount or using a discount rate, shall include a statement to the effect that the estimated values disclosed do not represent fair market value.

³ "Material change" has the meaning ascribed to the term under *securities legislation* of the applicable *jurisdiction*.

5.7 Consent of Qualified Reserves Evaluator or Auditor

- (1) A reporting issuer shall not disclose a report referred to in item 2 of section 2.1 that has been delivered to the board of directors of the reporting issuer by a qualified reserves evaluator or auditor pursuant to an appointment under section 3.2, or disclose information derived from the report or the identity of the qualified reserves evaluator or auditor, without the written consent of that qualified reserves evaluator or auditor.
- (2) Subsection (1) does not apply to
 - (a) the filing of that report by a *reporting issuer* under section 2.1;
 - (b) the use of or reference to that report in another document filed by the *reporting issuer* under section 2.1; or
 - (c) the identification of the report or of the *qualified reserves evaluator or* auditor in a news release referred to in section 2.2.
- **5.8 Disclosure of Less Than All** *Reserves* If a *reporting issuer* that has more than one *property* makes written disclosure of any *reserves* attributable to a particular *property*
 - (a) the disclosure shall include a cautionary statement to the effect that
 - "The estimates of reserves and future net revenue for individual properties may not reflect the same confidence level as estimates of reserves and future net revenue for all properties, due to the effects of aggregation"; and
 - (b) the document containing the disclosure of any *reserves* attributable to one *property* shall also disclose total *reserves* of the same classification for all *properties* of the *reporting issuer* in the same country (or, if appropriate and not misleading, in the same *foreign geographic area*).
- **5.9 Disclosure Concerning** *Prospects* If a *reporting issuer* discloses anticipated results from a *prospect*, the *reporting issuer* shall also disclose in writing, in the same document or in a *supporting filing*, in respect of the *prospect*
 - (a) the location and basin name;
 - (b) the *reporting issuer's gross* and *net* interest in the *property*, expressed in units of area (acres or hectares);
 - (c) in the case of undeveloped *property* in which the *reporting issuer* holds a leasehold interest, the expiry date of that interest;
 - (d) the name, geologic age and lithology of the target zone;
 - (e) the distance to the nearest analogous commercial production;
 - (f) the *product types* reasonably expected;

- (g) the range of pool or *field* sizes;
- (h) the depth of the target zone;
- (i) the estimated cost to drill and test a well to the target depth;
- (j) reasonably expected drilling commencement and completion dates;
- (k) the anticipated prices to be received for each *product type* reasonably expected;
- (l) reasonably expected marketing and transportation arrangements;
- (m) the identity and relevant experience of the operator;
- (n) risks and the probability of success; and
- (o) the applicable information specified in section 5.10.

5.10 Estimates of Fair Value of an *Unproved Property*, *Prospect* or *Resource*

- (1) If a *reporting issuer* discloses in writing an estimate of the fair value of an *unproved property, prospect* or *resource*, or discloses expected results from a *prospect*, the disclosure shall include all positive and negative factors relevant to the estimate or expectation.
- (2) If a *reporting issuer* discloses in writing an estimate of the fair value of an *unproved property, prospect* or *resource*
 - (a) in the case of an estimate of the fair value of an *unproved property*, except as provided in paragraph (b), the estimate shall be based on the first applicable item listed below, and that item shall be described as the basis of the estimate in the document containing the disclosure or in a *supporting filing*:
 - 1. the acquisition cost to the *reporting issuer*, provided that there have been no material changes in the *unproved property*, the surrounding *properties*, or the general *oil* and *gas* economic climate since acquisition;
 - 2. recent sales by others of interests in the same *unproved property*;
 - 3. terms and conditions, expressed in monetary terms, of recent farmin agreements related to the *unproved property*;
 - 4. terms and conditions, expressed in monetary terms, of recent work commitments related to the *unproved property*;
 - 5. recent sales of similar *properties* in the same general area;

- (b) in the case of an estimate of fair value to which none of the items listed in paragraph (a) applies
 - (i) the estimate shall be prepared or accepted by a professional valuator (who is not a "related party" of the *reporting issuer* within the meaning of the term as used in the *CICA Handbook*) applying valuation standards established by the professional body of which the valuator is a member and from which the valuator derives professional standing;
 - (ii) the estimate shall consist of at least three values that reflect a range of reasonable likelihoods (the low value being conservative, the middle value being the median and the high value being optimistic) reflecting courses of action expected to be followed by the *reporting issuer*;
 - (iii) the estimate, and the identities of the professional valuator and of the professional body referred to in subparagraph (i), shall be set out in the document containing the disclosure or in a *supporting filing*; and
 - (iv) the *reporting issuer* shall obtain from the professional valuator referred to in subparagraph (i)
 - (A) a report on the estimate that does not contain
 - (I) a disclaimer that materially detracts from the usefulness of the estimate; or
 - (II) a statement that the report may not be relied on; and
 - (B) the professional valuator's written consent to the disclosure of the report by the *reporting issuer* to the public.
- **5.11 Net Asset Value and Net Asset Value per Share** Written disclosure of net asset value or net asset value per share shall include a description of the methods used to value assets and liabilities and the number of shares used in the calculation.
- **5.12 Reserve Replacement** Written disclosure concerning *reserve* replacement shall include an explanation of the method of calculation applied.
- **5.13 Netbacks** Written disclosure of a netback
 - (a) shall include separate netbacks for each *product type* by country (or, if appropriate and not misleading, by *foreign geographic area*);
 - (b) shall reflect netbacks calculated by subtracting royalties and *operating* costs from revenues; and
 - (c) shall state the method of calculation.

- 5.14 **BOEs** and **McfGEs** - If written disclosure includes information expressed in **BOEs**, McfGEs or other units of equivalency between oil and gas
 - (a) the information shall be presented
 - (i) in the case of *BOEs*, using *BOEs* derived by converting gas to oil in the ratio of six thousand cubic feet of gas to one barrel of oil (6 *Mcf*:1 *bbl*);
 - (ii) in the case of McfGEs, using McfGEs derived by converting oil to gas in the ratio of one barrel of oil to six thousand cubic feet of gas (1 *bbl*:6 *Mcf*); and
 - (iii) with the conversion ratio stated;
 - (b) if the information is also presented using BOEs or McfGEs derived using a conversion ratio other than a ratio specified in paragraph (a), the disclosure shall state that other conversion ratio and explain why it has been chosen:
 - (c) if the information is presented using a unit of equivalency other than BOEs or McfGEs, the disclosure shall identify the unit, state the conversion ratio used and explain why it has been chosen; and
 - (d) the disclosure shall include a cautionary statement to the effect that:

"BOEs [or 'McfGEs' or other applicable units of equivalency] may be misleading, particularly if used in isolation. A BOE conversion ratio of 6 Mcf: 1 bbl [or 'An McfGE conversion ratio of 1 bbl: 6 Mcf'] is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead".

- 5.15 **Finding and Development Costs** - If written disclosure is made of finding and development costs
 - (a) those costs shall be calculated using the following two methods, in each case after eliminating the effects of acquisitions and dispositions:

Method 1: a+b+c X

Method 2: <u>a+b+d</u> y

a = exploration costs incurred in the most recent financial year where

b = development costs incurred in the most recent financial year

c = the change during the most recent financial year in estimated future development costs relating to proved reserves

- d = the change during the most recent financial year in estimated future *development costs* relating to *proved reserves* and *probable reserves*
- x = additions to *proved reserves* during the most recent financial year, expressed in *BOEs* or other unit of equivalency
- y = additions to *proved reserves* and *probable reserves* during the most recent financial year, expressed in *BOEs* or other unit of equivalency

(b) the disclosure shall include

- (i) the results of both methods of calculation under paragraph (a) and a description of those methods;
- (ii) if the disclosure also includes a result derived using any other method of calculation, a description of that method and the reason for its use;
- (iii) for each result, comparative information for the most recent financial year, the second most recent financial year and the averages for the three most recent financial years;
- (iv) a cautionary statement to the effect that:

"The aggregate of the exploration and development costs incurred in the most recent financial year and the change during that year in estimated future development costs generally will not reflect total finding and development costs related to reserves additions for that year"; and

(v) the cautionary statement required under paragraph 5.14(d).

PART 6 MATERIAL CHANGE DISCLOSURE

6.1 Material Change⁴ from Information Filed under Part 2

- (1) This Part applies in respect of a material change that, had it occurred on or before the *effective date* of information included in the statement most recently filed by a *reporting issuer* under item 1 of section 2.1, would have resulted in a significant change in the information contained in the statement.
- (2) In addition to any other requirement of *securities legislation* governing disclosure of a material change, disclosure of a material change referred to in subsection (1) shall
 - (a) identify the statement filed under Part 2 that contains the original information referred to in subsection (1); and

In this Part, "material change" has the meaning ascribed to the term under *securities legislation* of the applicable *jurisdiction*.

(b) discuss the *reporting issuer's* reasonable expectation of how the material change, had it occurred on or before the *effective date* referred to in subsection (1), would have affected the *reserves data* or other information contained in the document identified under paragraph (a).

PART 7 OTHER INFORMATION

7.1 Information to be Furnished on Request - A *reporting issuer* shall, on the request of the *regulator*, deliver additional information with respect to the content of a document filed under this *Instrument*.

PART 8 EXEMPTIONS

8.1 Authority to Grant Exemption

- (1) The *regulator* or the *securities regulatory authority* may grant an exemption from this *Instrument*, in whole or in part, subject to such conditions or restrictions as may be imposed in the exemption.
- (2) Despite subsection (1), in Ontario only the *regulator* may grant an exemption.

PART 9 INSTRUMENT IN FORCE

- **9.1 Coming Into Force** This *Instrument* comes into force on September 30, 2003.
- **9.2 Transition** Despite section 9.1, this *Instrument* does not apply to a *reporting issuer* until the earlier of:
 - (a) the date by which the *reporting issuer* is required under *securities legislation* to file audited annual financial statements for its financial year that includes or ends on December 31, 2003; and
 - (b) the first date on which the *reporting issuer* files with the *securities* regulatory authority the statement referred to in item 1 of section 2.1.

#1211625 v8