

CSA Notice and Request for Comment
Proposed Amendments to
National Instrument 51-101 *Standards of Disclosure for Oil and Gas*
Activities
-and-
Proposed Changes to Companion Policy 51-101CP *Standards of*
Disclosure for Oil and Gas Activities

October 17, 2013

Introduction

The Canadian Securities Administrators (the CSA or we) are publishing for a 90 day comment period proposed amendments (the Proposed Amendments) to:

- National Instrument 51-101 *Standards of Disclosure for Oil and Gas Activities* (NI 51-101), and
- Companion Policy 51-101CP *Standards of Disclosure for Oil and Gas Activities* (51-101CP).

The text of the Proposed Amendments is contained in Annexes A and B of this notice and will also be available on websites of CSA jurisdictions, including:

www.lautorite.qc.ca
www.albertasecurities.com
www.bcsc.bc.ca
www.gov.ns.ca/nssc
www.fcnb.ca
www.osc.gov.on.ca
www.fcaa.gov.sk.ca
www.msc.gov.mb.ca

Substance and Purpose

The Proposed Amendments constitute an important evolutionary shift in NI 51-101 that will promote better disclosure of resources other than reserves and associated metrics while at the same time providing for increased flexibility for oil and gas reporting issuers that report in a variety of different locations worldwide, recover different oil and gas product types and operate under different regulatory regimes.

The Proposed Amendments are also intended to bring NI 51-101 into harmony with proposed changes to the Canadian Oil and Gas Evaluation Handbook (the COGE Handbook). In particular, the changes to subsection 5.9(2) of NI 51-101 are intended to track the additional guidance provided in the amendments to the COGE Handbook on the evaluation and

classification of resources other than reserves. To the extent that there are changes to the COGE Handbook prior to implementation of the Proposed Amendments that are not in keeping with the proposed subsection 5.9(2) of NI 51-101, the CSA's intent is to follow the evaluation and classification framework to be adopted in the COGE Handbook and changes will be made to NI 51-101 accordingly prior to implementation.

Background

NI 51-101 is a disclosure standard for reporting issuers engaged in oil and gas activities. Under NI 51-101 reporting issuers are required to provide annual disclosure, appoint an independent qualified reserves evaluator, facilitate communication between the board of directors and the independent qualified reserves evaluator and prepare all public disclosures of reserves and resources other than reserves in accordance with the requirements of Part 5, which include the requirement that the reserves and resources other than reserves be prepared in accordance with the COGE Handbook and be evaluated or audited by a qualified reserves evaluator. Since its implementation in 2003, NI 51-101 has been amended two times, in 2007 and 2010.

The CSA has, since 2010, been evaluating potential amendments to NI 51-101 in response to its ongoing engagement with oil and gas reporting issuers, independent qualified reserves evaluators and industry. The most recent publication related to NI 51-101 was an update to CSA Staff Notice 51-327 *Guidance on Oil and Gas Disclosure* (CSA Notice 51-327) on December 29, 2011. As is stated in CSA Notice 51-327, its purpose was to provide new guidance on:

- issuer and expert responsibilities;
- the disclosure of after-tax net present value of future net revenue;
- the use of BOEs;
- disclosure of well-flow test results; and

expanded guidance on the evaluation and classification of unconventional hydrocarbons and classification to most specific category of resource.

We are proposing the following important changes in response to our observations of reporting issuer disclosure and industry feedback, which are more fully described in the Summary of the Proposed Amendments section of this Notice:

- in certain circumstances and subject to disclosure requirements, permitting disclosure prepared under an alternative resources evaluation standard;
- inclusion and refinement of product type definitions in NI 51-101;
- additional requirements regarding the disclosure of contingent and prospective resources;

- introduction of a principle-based approach to the disclosure of oil and gas metrics;
- clarification of the point at which sales of oil and gas, and resources should be disclosed;
- definition of and requirements related to the disclosure of abandonment and reclamation costs;
- deletion of the requirement to match the presentation of reserves not directly held by the reporting issuer in the statement prepared in accordance with Form 51-101F1 to the presentation of the assets in the financial statements;
- removal of the requirement to obtain independent qualified reserves evaluator consent before disclosing results from the annual evaluation outside of the required annual filings;
- revision of the date at which the independent qualified reserves evaluator takes responsibility for information related to the reserves evaluation;
- clarification of required disclosure when an issuer has no reserves.

Summary of the Proposed Amendments

1. Alternative Resources Evaluation Standard

Numerous issuers reporting in Canada also access the U.S. capital markets and are subject to the SEC's reserves disclosure regime. For example, SEC issuers who prepare financial statements in accordance with U.S. GAAP, as defined in National Instrument 52-107 *Acceptable Accounting Principles and Auditing Standards*, have a requirement under Statement 19 of the Financial Standards Accounting Board to include reserves disclosure prepared in accordance with the U.S. regime within their financial statements. Certain issuers have sought and obtained a limited form of exemptive relief that allows them to disclose reserves prepared in accordance with U.S. requirements in addition to their reserves prepared under NI 51-101. The relief is required owing to an interpretation of sections 5.1, 5.2 and 5.3 of NI 51-101 that does not allow for any public disclosure of reserves other than estimates prepared in accordance with the COGE Handbook.

Proposed section 5.18 of NI 51-101 allows for disclosure from alternative regimes. The disclosure under the alternative regime must be accompanied by the disclosure required by NI 51-101, be made in respect of a regime which is comparable to the COGE Handbook, have a scientific basis and be based on reasonable assumptions. Those estimates must be prepared by a qualified reserves evaluator.

2. Product Types and Production Group

CSA staff has seen an increase of disclosure of reserves and resources other than reserves which have traditionally been called "unconventional" but with the passage of time and increased usage are not considered to be unconventional any more. Unconventional resources can have different costs associated with their recovery, despite technically being the same product. For example,

shale gas and natural gas from a conventional reservoir are both technically natural gas, however, each has different production profiles, risks and costs associated with recovery. In addition, shifting government policies and new recovery methods have given rise to uncertainty with the current definitions of product types, for instance the definition of heavy crude oil, and the lack of a definition for shale gas.

The Proposed Amendments import the product type definitions from the COGE Handbook and refine those definitions for securities disclosure purposes. The concept of production group is removed. The inclusion of the definitions and removal of the production group concept give greater emphasis to both the source and process for recovery of the oil and gas, and move away from grouping unconventional resources.

3. Contingent and Prospective Resources

Increasingly, companies are relying on disclosure of resources other than reserves to convey value and development potential to investors. There has been an increase of contingent and prospective resource disclosure generally and, in particular, within reporting issuers' annual statement of reserves data prepared in accordance with Form 51-101F1. There is currently no obligation to provide discounted future net revenue projections along with the estimates of volume or to have those estimates prepared and evaluated or audited by an independent qualified reserves evaluator when contingent resources or prospective resources are included in the statement prepared in accordance with Form 51-101F1.

The Proposed Amendments provide clearer boundaries for the disclosure of contingent and prospective resources in the annual filings, including requiring the disclosure of future net revenue projections comparable to those provided for reserves data and requiring that those resources other than reserves estimates be prepared by an independent qualified reserves evaluator.

4. Oil and Gas Metrics

CSA staff has observed the ongoing use of measures of volume, performance and equivalency that without further explanation or additional context have the potential to be misleading, and even with explanation, tend to give a false sense of comparability. The current requirements in NI 51-101 relating to specific metrics, such as finding and development costs, have not resulted in either comparability or clearer understanding of those metrics.

Proposed section 5.14 of NI 51-101 imposes principle-based requirements to describe the standard, methodology and meaning of a publicly disclosed oil and gas metric. If there is no standard, a reporting issuer must also describe the parameters used in calculating the oil and gas metric and provide a cautionary statement.

5. Marketability of Production and Reserves

Reporting issuers are obligated by NI 51-101 to disclose production and reserves based on the price that was or would be used at the point at which the product type could be sold. However, in

certain scenarios it may not be appropriate, or even possible, to allocate a price at a point of sale. In respect of resources or sales of oil, gas or associated byproducts, the volume may be measured at the point of sale to a third party (first point of sale), or of transfer to another division of the issuer (alternate reference point) for treatment prior to sale to a third party. For gas, this may occur either before or after the removal of natural gas liquids. For bitumen, this may be before the addition of diluent.

The Proposed Amendments clarify the concept of marketability in the reporting of oil and gas volumes. Proposed section 5.4 of NI 51-101 requires a reporting issuer to report volumes and values at the first point of sale of the particular product type, unless that point is not relevant, in which case, the reporting issuer can select a point of measurement prior to the first point of sale.

6. Abandonment and Reclamation Costs

CSA staff has observed, and has received commentary from industry about, the inconsistency in the determination of what constitutes an abandonment and reclamation cost for the purpose of the annual oil and gas disclosure.

The Proposed Amendments clarify what constitutes abandonment and reclamation costs and require the disclosure of both abandonment costs and reclamation costs in the future net revenue disclosure and in the significant factors and uncertainties disclosure in the statement prepared in accordance with Form 51-101F1.

7. Reserves Presentation

The introduction of IFRS 11 highlights the need for changes to the requirements in respect of the presentation of reserves data in the statement prepared in accordance with Form 51-101F1.

The Proposed Amendments point to the COGE Handbook for the purpose of determining ownership and allow for flexibility in the manner of presenting resources for which a reporting issuer does not have control.

8. Other Amendments

The Proposed Amendments also clarify areas that have given rise to confusion, such as

- the requirement to obtain consent of the independent qualified reserves evaluator as it relates to the report prepared in accordance with Item 2 of section 2.1,
- the date on which the independent qualified reserves evaluator is responsible for changes in the reporting issuer's reserves data, and
- the disclosure required when an issuer has no reserves.

Impact on Investors

We anticipate that the Proposed Amendments will encourage better disclosure of reserves and

resources other than reserves. In particular, investors should benefit from:

- the more complete disclosure of contingent and prospective resources, including future net revenue;
- the requirement to engage an independent qualified reserves evaluator when contingent or prospective resources are disclosed as a part of the annual statement of reserves data; and
- the disclosure obligations in proposed section 5.14 of NI 51-101 for oil and gas metrics.

We do not anticipate that allowing for the supplementary disclosure of reserves under an alternative disclosure regime will prejudice investors, as an estimate prepared in accordance with the COGE Handbook must be provided along with explanatory information.

The removal of the requirement to provide additional disclosure on abandonment and reclamation costs in the annual statement of reserves data is offset by the inclusion of a definition, a specific requirement to provide an estimate and a specific instruction to discuss the impact of both abandonment costs and reclamation costs.

Anticipated Costs and Benefits of the Proposed Amendments

The Proposed Amendments, including incorporation of the COGE Handbook definitions, will enhance the quality and consistency of reporting issuers' disclosure of oil and gas activities and will provide greater transparency of the methods used to value and measure oil and gas assets. As we discuss below, these changes could result in increased compliance costs.

The Proposed Amendments require an independent evaluation and additional disclosure when a reporting issuer discloses contingent or prospective resources in its annual oil and gas filings. Although this will impose additional expert costs on a reporting issuer choosing to make this disclosure, the independent evaluation and additional disclosure requirements will increase the reliability and completeness of the reporting issuer's disclosure.

The Proposed Amendments address issues with the comparability of oil and gas metrics. We have seen that methods used in measures such as finding and development costs, despite the requirements in NI 51-101, are subject to significant variability among oil and gas reporting issuers. This has led to incomparability. The additional obligations under the Proposed Amendments to disclose the standard, methodology, and meaning of a publicly disclosed oil and gas metric may result in additional disclosure preparation time and cost for reporting issuers but will benefit investors because the reporting issuer will disclose additional information related to the comparability of the oil and gas metric.

We anticipate that the proposed requirements related to the first and alternate point of sale will promote market efficiency by removing the uncertainty some reporting issuers experienced around the pricing of their resources. We do not anticipate that this will impose additional burden on reporting issuers.

The Proposed Amendments permit supplementary disclosure of reserves prepared in accordance with alternative reserves disclosure regimes. We anticipate that this will promote market efficiency by expressly permitting the disclosure of resources prepared under an alternative standard. We have minimized the impact of this change on Canadian investors by requiring that this disclosure may only be made supplementary to the publicly disclosed resources prepared in accordance with NI 51-101 and the COGE Handbook.

Request for Comments

We welcome your comments on proposed NI 51-101 and 51-101CP. In addition to any general comments you may have, we also invite comments on the following specific questions.

1. The Proposed Amendments would permit an issuer to disclose reserves prepared in accordance with, for example, the SEC regime supplementary to reserves disclosed under NI 51-101. Do you support the proposal to permit the supplementary disclosure of reserves prepared under a regime comparable to the COGE Handbook, as is set out in proposed section 5.18 of NI 51-101? Please explain your views.
2. The Proposed Amendments eliminate the requirement to disclose a reporting issuer's reserves data by production group. Do you support the removal of the requirement to disclose reserves data by production group? Please explain your views.
3. A reporting issuer that includes contingent resources and prospective resources is not currently required to have those estimates prepared by an independent qualified reserves evaluator. Do you support the requirement in proposed item 2 of section 2.1 of NI 51-101 for an independent qualified reserves evaluator to evaluate or audit any contingent resources or prospective resources included in the annual statement of reserves data? Please explain your views.
4. Do you support the requirement in proposed paragraph 4 of item item 2.1 of Form 51-101F1 to provide low, best and high estimates of volume and net present value of future net revenue in respect of any contingent resources or prospective resources included in the annual statement of reserves data? Please explain your views.
5. When a reporting issuer discloses an oil and gas metric, the Proposed Amendments would require the reporting issuer to disclose the standard, methodology and meaning of the disclosed metric, and if there was no identifiable standard, the parameters used in calculating the oil and gas metric and a cautionary statement. Do you support the proposed amendment to section 5.14 of NI 51-101 to impose the above described disclosure-based approach to oil and gas metrics such as BOEs, finding and development costs, netbacks, etc.? Please explain your views.

Please submit your comments in writing on or before January 17, 2014. If you are not sending your comments by email, please send a CD containing the submissions (in Microsoft Word format).

Address your submission to all of the CSA as follows:

British Columbia Securities Commission
 Alberta Securities Commission
 Financial and Consumer Affairs Authority of Saskatchewan
 Manitoba Securities Commission
 Ontario Securities Commission
 Autorité des marchés financiers
 Financial and Consumer Services Commission (New Brunswick)
 Superintendent of Securities, Department of Justice and Public Safety, Prince Edward Island
 Nova Scotia Securities Commission
 Securities Commission of Newfoundland and Labrador
 Superintendent of Securities, Northwest Territories
 Superintendent of Securities, Yukon
 Superintendent of Securities, Nunavut

Deliver your comments **only** to the addresses below. Your comments will be distributed to the other participating CSA.

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We cannot keep submissions confidential because securities legislation in certain provinces requires publication of a summary of the written comments received during the comment period.

Contents of Annexes

Annex A sets out the proposed amendments to NI 51-101
 Annex B sets out the proposed changes to 51-101CP

Questions

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ANNEX A

**Proposed Amendments to
National Instrument 51-101 *Standards of Disclosure for Oil and Gas Activities***

1. *National Instrument 51-101 Standards of Disclosure for Oil and Gas Activities is amended by this Instrument.*
2. *Section 1.1 is amended by adding the following definitions:*
 - (a.01) "*abandonment costs*" means all costs associated with
 - (i) rendering all intervals of a well incapable of flow into the wellbore or between intervals;
 - (ii) removing all wellhead equipment; and
 - (iii) the physical removal of surface facilities, and the decommissioning of any facilities, in the vicinity of the well, required for the transport, treatment and metering of a *product type*;
 - (a.02) "*alternate reference point*" means a location at which quantities and values of a *product type* are measured before the *first point of sale*;
 - (a.3) "*bitumen*" means the naturally occurring viscous mixture, consisting mainly of pentanes and heavier *hydrocarbons*, with a viscosity greater than 10,000 mPa·s (cP) measured at the mixture's original temperature in the *reservoir* and at atmospheric pressure on a gas-free basis;
 - (b.1) "*byproduct*" means a *hydrocarbon* or non-*hydrocarbon* that is recovered as a consequence of producing a *product type*;
 - (e.1) "*coal bed methane*" means *natural gas*, primarily made up of methane, contained in coal deposits;
 - (f.1) "*contingent resources data*" means an estimate of *contingent resources* and related *future net revenue*, estimated using *forecast prices and costs*;
 - (f.2) "*conventional natural gas*" means *natural gas* contained in and produced from pore space in an *accumulation* for which the primary trapping mechanism is related to hydrodynamic forces and localized or depositional geological features;
 - (i.1) "*first point of sale*" means the first point after initial production at which there is a transfer of ownership of a *product type*;
 - (n.2) "*Form 51-101F5*" means Form 51-101F5 *Notice of Ceasing to Engage in Oil and Gas Activities*;

(n.3) “*future net revenue*” means a forecast of revenue, estimated using *forecast prices and costs* or *constant prices and costs*, arising from the anticipated development and production of *resources* net of the associated royalties, *operating costs*, *development costs*, *abandonment costs* and *reclamation costs*;

(n.4) “*gas hydrates*” means naturally occurring crystalline substances composed of water and gas, in an ice lattice structure;

(n.5) “*heavy crude oil*” means *crude oil* with a density greater than 10 degrees API gravity and less than or equal to 22.3 degrees API gravity;

(n.6) “*hydrocarbon*” means a compound consisting of hydrogen and carbon, which, when naturally occurring, may also contain other elements such as sulphur;

(o.1) “*light crude oil*” means *crude oil* with a density greater than 31.1 degrees API gravity;

(p.1) “*medium crude oil*” means *crude oil* with a density that is greater than 22.3 degrees API gravity and less than or equal to 31.1 degrees API gravity;

(q.1) “*natural gas*” means a naturally occurring mixture of *hydrocarbon* gases and *non-hydrocarbon* gases;

(q.2) “*natural gas liquids*” means those *hydrocarbon* components that can be recovered from *natural gas* as a liquid including, but not limited to, ethane, propane, butanes, pentanes plus, condensate and may contain *non-hydrocarbons*;

(s.1) “*oil and gas metric*” means a numerical measure of a *reporting issuer’s oil and gas activities*;

(w.1) “*prospective resources data*” means an estimate of *prospective resources* and related *future net revenue*, estimated using forecast prices and costs;

(z.01) “*reclamation costs*” means all costs, other than *abandonment costs*, associated with restoring land as close as possible to its original state or to a standard prescribed or imposed by a government or regulatory authority;

(aa.1) “*shale gas*” means *natural gas*

- (i) contained in dense organic-rich rocks, including inherently low permeability shales, siltstones and carbonates in which the *natural gas* is primarily adsorbed on the kerogen or clay minerals; and
- (ii) that requires the use of fracturing techniques to achieve economic production rates;

- (cc) "*synthetic gas*" means a gaseous fluid
 - (i) generated as a result of the application of an in situ transformation process to coal or other *hydrocarbon*-bearing rock types; and
 - (ii) comprised of not less than 10% by volume of methane; and
- (dd) "*synthetic crude oil*" means a mixture of liquid *hydrocarbons* derived by upgrading *bitumen*, kerogen from *oil* shales, coal or from *gas* to liquid conversion and may contain sulphur or other non-*hydrocarbon* compounds.

3. Section 1.1(s) is replaced with the following:

- (s) "oil and gas activities"
 - includes
 - (i) the search for *product types* in their natural locations;
 - (ii) the acquisition of *property* rights or *properties* for the purpose of exploring for or removing *product types* from their natural locations;
 - (iii) the activities necessary to remove *product types* from their natural locations, including construction, drilling, mining and *production*, and the acquisition, construction, installation and maintenance of *field* gathering and storage systems including treating, *field* processing and *field* storage; and
 - (iv) the production of *synthetic crude oil* or *synthetic gas*;
 - but does not include any of the following:
 - (v) activities that occur after the *first point of sale*;
 - (vi) activities relating to the extraction of natural *resources* other than *product types* and their *byproducts*;
 - (vii) the extraction of *hydrocarbons* as a *consequence of the* extraction of geothermal steam;

4. Section 1.1(u) is repealed.

5. Section 1.1(v) is replaced with the following:

"product type" means any of the following:

- (i) in respect of liquid *hydrocarbons*, any of the following:
 - (A) a combination of *light crude oil* and *medium crude oil*;
 - (B) *heavy crude oil*;
 - (C) *bitumen*;
 - (D) *natural gas liquids*;
 - (E) *synthetic crude oil*;
- (ii) in respect of gaseous *hydrocarbons*, any of the following:
 - (A) *conventional natural gas*;
 - (B) *coal bed methane*;
 - (C) *gas hydrates*;
 - (D) *shale gas*;
 - (E) *synthetic gas*;

6. Paragraph (b) of item 2 of section 2.1 is replaced with the following:

- (b) executed by one or more *qualified reserves evaluators* or *auditors* each of whom is *independent* of the *reporting issuer*, and who must have,
 - (i) in the aggregate,
 - (A) *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
 - (B) *reviewed* the balance of such *future net revenue*; and
 - (ii) *evaluated* or audited the *contingent resources data* or *prospective resources data* reported in the statement filed or to be filed under item 1.

7. Subsection 2.4(1) is amended by

- (a) *deleting “on reserves data”,*
- (b) *inserting “on reserves data, contingent resources data or prospective resources data” after “without reservation”,*
- (c) *inserting “, contingent resources data, or prospective resources data” after “on the reserves data”.*

8. Section 3.2 is replaced with the following:

3.2 Reporting Issuer to Appoint Independent Qualified Reserves Evaluator or Independent Qualified Reserves Auditor

- (1) A reporting issuer must appoint a *qualified reserves evaluator*, or *qualified reserves auditor*, that is *independent* of the *reporting issuer*, and must have the evaluator or auditor report to the board of directors of the *reporting issuer* on the *reserves data* disclosed in the statement prepared for the purpose of item 1 of section 2.1.
- (2) If a *reporting issuer* discloses *contingent resources data* or *prospective resources data* in a statement prepared for the purpose of item 1 of section 2.1, the *reporting issuer* must have the *qualified reserves evaluator* or *qualified reserves auditor* appointed under subsection (1) report to the board of directors of the *reporting issuer* on the *contingent resources data* or *prospective resources data* included in the statement.

9. Sections 3.4 and 4.2 are amended by adding “, contingent resources data or prospective resources data” after each instance of “reserves data”.

10. Section 5.2 is amended by renumbering it as subsection 5.2(1) and by adding the following subsection:

- (2) Disclosure referred to under subsection (1) must indicate whether the estimates of *reserves* or *future net revenue* were prepared by an *independent qualified reserves evaluator* or *qualified reserves auditor*.

11. Section 5.4 is replaced with the following:

5.4 Oil and Gas Resources and Sales

- (1) Disclosure of *resources* or of sales of *product types* or associated *byproducts* must be made with respect to the *first point of sale*.
- (2) Despite subsection (1), a *reporting issuer* may disclose *resources* or sales of *product types* or associated *byproducts* with respect to an *alternate*

reference point if, to a reasonable person, the *resources*, *product types* or associated *byproducts* would be marketable at the *alternate reference point*.

- (3) If a *reporting issuer* discloses *resources* or sales of *product types* or associated *byproducts* with respect to an *alternate reference point*, the *reporting issuer* must
 - (a) state that the disclosure is made with respect to an *alternate reference point*,
 - (b) disclose the location of the *alternate reference point*, and
 - (c) explain why disclosure is not being made with respect to the *first point of sale*.

12. Sections 5.5 and 5.7 are repealed.

13. Section 5.9 is amended by

(a) inserting the following subparagraph in paragraph (2)(d):

- (iii.1) a description of the project including
 - (A) each significant event in the project and the specific time period in which each event is expected to occur;
 - (B) the recovery technology; and
 - (C) whether the project is a conceptual or pre-development study; **and**

(b) replacing “(2)(c)(iii)” with “(2)(d)(iii), (iii.1)” in subsection (3),

(c) inserting the following subsection:

- (4) Any disclosure made under subsection (1) or (2) must indicate whether the *anticipated results* from *resources* which are not currently classified as *reserves* or the estimate of a quantity of *resources* other than *reserves* were prepared by an independent *qualified reserves evaluator or auditor*.

14. Sections 5.11, 5.12 and 5.13 are repealed.

15. Section 5.14 is replaced with the following:

5.14 Disclosure Using *Oil and Gas Metrics*

- (1) If a *reporting issuer* discloses an *oil and gas metric*, other than an estimate of volume or value of *resources* prepared in accordance with section 5.2, 5.9 or 5.18 or a comparative or equivalency measure under Part 2, 3, 4, 5 or 6 of *Form 51-101F1*, the *reporting issuer* must include disclosure that
 - (a) identifies the standard and source of the *oil and gas metric*;
 - (b) provides a brief description of the method used to determine the *oil and gas metric*;
 - (c) provides an explanation of the meaning of the *oil and gas metric*; and
 - (d) cautions readers as to the reliability of the *oil and gas metric*.
- (2) If there is no identifiable standard for an *oil and gas metric*, the *reporting issuer* must also include disclosure that
 - (a) provides a brief description of the parameters used in the calculation of the *oil and gas metric*, and
 - (b) states that the *oil and gas metric* does not have any standardized meaning and should not be used to make comparisons.

16. Section 5.15 is repealed.

17. Paragraph 5.16(3)(b) is amended by replacing “5.9(2)(c)(v)(A)” with “5.9(2)(d)(v)(A)” and by replacing “5.9(2)(c)(v)(B)” with “5.9(2)(d)(v)(B)”.

18. Part 5 is amended by inserting the following section:

5.18 Supplementary Disclosure of *Resources* Using Evaluation Standards other than the *COGE Handbook*

- (1) A *reporting issuer* may supplement disclosure provided in accordance with section 5.2, 5.3 or 5.9 with an estimate of the volume or the value of *resources* prepared in accordance with an alternative *resources* evaluation standard that
 - (a) has a comprehensive framework for the evaluation of *resources*;
 - (b) defines *resources* using terminology and categories in a manner that is consistent with the terminology and categories of the *COGE Handbook*;

- (c) has a scientific basis; and
 - (d) requires that estimates of volume and value of *resources* be based on reasonable assumptions.
- (2) If disclosure is made under subsection (1) and that disclosure is required under the laws of or by a *foreign jurisdiction*, the *reporting issuer* must, proximate to the disclosure,
 - (a) disclose the effective date of the estimate;
 - (b) describe any significant differences, and the reasons those differences exist, between the estimate prepared in accordance with the alternative *resources* evaluation standard and the estimate prepared in accordance with the *COGE Handbook*; and
 - (c) include a reference to the location on the SEDAR website of the estimate prepared
 - (i) in accordance with section 5.2, 5.3 or 5.9, as applicable; and
 - (ii) at the same effective date as the alternative disclosure.
- (3) If disclosure is made under subsection (1) and the disclosure is not required by a *foreign jurisdiction*, the *reporting issuer* must, proximate to the disclosure,
 - (a) disclose the effective date of the estimate;
 - (b) provide a description of the alternative *resources* evaluation standard;
 - (c) describe any significant differences, and the reasons those differences exist, between the estimate prepared in accordance with the alternative *resources* evaluation standard and the estimate prepared in accordance with the *COGE Handbook*; and
 - (d) disclose the estimate prepared
 - (i) in accordance with section 5.2, 5.3 or 5.9, as applicable; and
 - (ii) at the same effective date as the disclosure provided under subsection (1).

- (4) An estimate under subsection (1) must have been prepared or audited by a *qualified reserves evaluator or auditor*.

19. Part 6 is amended by

- (a) *adding “AND CEASING TO ENGAGE IN OIL AND GAS ACTIVITIES” after “MATERIAL CHANGE DISCLOSURE” in the heading,*
- (b) *replacing “Part” with “section” in section 6.1, and*
- (c) *inserting the following section:*

6.2 Ceasing to Engage in Oil and Gas Activities - A reporting issuer must file with the *securities regulatory authority* a notice prepared in accordance with *Form 51-101F5* not later than 10 days after ceasing to be engaged, directly or indirectly, in *oil and gas activities*.

20. General Instruction (2) of Form 51-101F1 is amended by replacing “its financial year then ended” with “the financial year then ended”.

21. Instruction (4) of Item 1.1 of Form 51-101F1 is amended by inserting “statement” after “should ensure its financial”.

22. Subparagraph 3(b)(v) of Item 2.1 of Form 51-101F1 is amended by inserting “costs” after “abandonment”.

23. Subsection 3(c) of Item 2.1 of Form 51-101F1 is replaced with the following:

- (c) Disclose, by *product type*, in each case with associated *byproducts*, and on a unit value basis for each *product type*, in each case with associated *byproducts* (e.g., \$/Mcf or \$/bbl using *net reserves*), the net present value of *future net revenue* (before deducting *future income tax expenses*) estimated using *forecast prices and costs* and calculated using a discount rate of 10 percent.

24. Item 2.1 of Form 51-101F1 is amended by inserting the following:

4. *Contingent Resources or Prospective Resources* – If the reporting issuer discloses *contingent resources* or *prospective resources* in the statement filed or to be filed under item 1 of section 2.1 of NI 51-101, disclose, separately from the disclosure required by items 1, 2 and 3 of section 2.1 of this Form,
- (a) the *contingent resources* or *prospective resources*, as applicable, *gross* and *net*, estimated using *forecast prices and costs*, for each *product type*, in each of the following categories:

- (i) *contingent resources* (1C);
- (ii) *contingent resources* (2C);
- (iii) *contingent resources* (3C);
- (iv) *prospective resources* (low estimate);
- (v) *prospective resources* (best estimate);
- (vi) *prospective resources* (high estimate), and
- (b) the net present value of *future net revenue* attributable to each category of *resources* referred to in paragraph (a) of this Item, estimated using *forecast prices and costs*, before deducting *future income tax expenses*, calculated using discount rates of 0 percent, 5 percent, 10 percent, 15 percent and 20 percent.

INSTRUCTIONS

- (1) *Disclose all of the **reserves** over which the **reporting issuer** has a direct or indirect ownership, working or royalty interest. These concepts are explained in sections 5.5.4(a) “Ownership Considerations” and 7.5 “Interests” of Volume 1 of the **COGE Handbook**, section 5.2 “Ownership Considerations” of Volume 2 of the **COGE Handbook** and, with respect to an entitlement to share production under a production sharing agreement, section 4.0 “Fiscal Regimes” of the chapter entitled “Reserves Recognition For International Properties” of Volume 3 of the **COGE Handbook**.*
- (2) *Do not include, in the **reserves data**, **contingent resources data** or **prospective resources data**, a **product type** that is subject to purchase under a long-term supply, purchase or similar agreement. However, if the **reporting issuer** is a party to such an agreement with a government or governmental authority, and participates in the operation of the **properties** in which the **product type** is situated or otherwise serves as producer of the **resources** (in contrast to being an independent purchaser, broker, dealer or importer), disclose separately the **reporting issuer's** interest in the **resources** that are subject to such agreements at the **effective date** and the **net** quantity of the **product type** received by the **reporting issuer** under the agreement during the year ended on the **effective date**.*
- (3) ***Future net revenue** includes the portion attributable to the **reporting issuer's** interest under an agreement referred to in Instruction (2).*
- (4) *A **reporting issuer** may disclose **resources** separately from the disclosure required under item 2.1 of this Form. The separate disclosure must*

*include an explanation of the purpose for the separation and of whether the separately disclosed **resources** were also included in the disclosure required under item 2.1 of this Form.*

- (5) *If the **reporting issuer's** disclosure of **resources** would, to a reasonable person, be misleading, if stated without an explanation of the **reporting issuer's** ownership of or control over those **resources**, explain the nature of the **reporting issuer's** ownership of or control over **resources** disclosed in the statement filed or to be filed under item 1 of section 2.1 of **NI 51-101**.*
- (6) *If a **reporting issuer** voluntarily discloses **contingent resources** or **prospective resources** and the 1C or low estimate, as applicable, has a negative net present value at any of the discount rates referred to in paragraph (4)(b), the **reporting issuer** must disclose the negative net present value.*

GUIDANCE

*A **reporting issuer** is subject to section 5.9 of **NI 51-101** when providing disclosure of **contingent resources** or **prospective resources** in this Form.*

25. Items 2.3 and 2.4 of Form 51-101F1 are repealed.

26. Item 3.2 of Form 51-101F1 is amended by

- (a) *adding “, contingent resources data or prospective resources data” after each instance of “reserves data”, and*
- (b) *repealing Instruction (3).*

27. Subsections 2(b) and (c) of Item 4.1 of Form 51-101F1 are replaced with the following:

- (b) for each of the following:
 - (i) a combination of *light crude oil* and *medium crude oil*;
 - (ii) *heavy crude oil*;
 - (iii) *bitumen*;
 - (iv) *natural gas liquids*;
 - (v) *synthetic crude oil*;

- (vi) *conventional natural gas*;
- (vii) *coal bed methane*;
- (viii) *gas hydrates*;
- (ix) *shale gas*;
- (x) *synthetic gas*;
- (c) separately identifying and explaining each of the following:
 - (i) extensions and improved recovery;
 - (ii) technical revisions;
 - (iii) discoveries;
 - (iv) acquisitions;
 - (v) dispositions;
 - (vi) economic factors;
 - (vii) *production*.

28. Instruction (2) of Part 4 of Form 51-101F1 is amended by replacing “by-products” with “byproducts”.

29. Item 5.1 of Form 51-101F1 is amended by

- (a) deleting each instance of “and, in the aggregate, before that time”;**
- (b) replacing each instance of “not planning to develop” with “deferring the development of”, and**
- (c) inserting the following instructions:**

INSTRUCTIONS

- (1) The phrase “first attributed” refers to the initial allocation of an undeveloped volume of oil or gas reserves by a reporting issuer. Only previously unassigned undeveloped volumes of oil or gas may be included in the first attributed volumes for the applicable financial year. For example, if in 2011 a reporting issuer allocated by way of acquisition, discovery, extension and improved recovery 300 Mcf of proved**

undeveloped conventional natural gas reserves, that would be the first attributed volume for 2011.

- (2) *The discussion of a **reporting issuer's** plans for developing **undeveloped reserves**, or the **reporting issuer's** reasons for deferring the development of **undeveloped reserves**, must enable a reasonable investor to assess the efforts made by the **reporting issuer** to convert **undeveloped reserves** to **developed reserves**.*

30. Item 5.2 of Form 51-101F1 is replaced with the following:

Item 5.2 Significant Factors or Uncertainties Affecting Reserves Data

Identify and discuss significant economic factors or significant uncertainties that affect particular components of the *reserves data*.

INSTRUCTIONS

- (1) *A reporting issuer must, under this Item, include a discussion of any significant **abandonment costs** and **reclamation costs**, unusually high expected **development costs** or **operating costs**, or contractual obligations to **produce** and sell a significant portion of **production** at prices substantially below those which could be realized but for those contractual obligations.*
- (2) *If the information required by this Item is presented in the **reporting issuer's** financial statements and notes thereto for the most recent financial year ended, the **reporting issuer** satisfies this Item by directing the reader to that presentation.*

31. Item 6.2.1 of Form 51-101F1 is replaced with the following:

Item 6.2.1 Significant Factors or Uncertainties Relevant to Properties with No Attributed Reserves

Identify and discuss significant economic factors or significant uncertainties that affect the anticipated development or production activities on *properties* with no attributed *reserves*.

INSTRUCTIONS

- (1) *A reporting issuer must, under this Item, include a discussion of any significant **abandonment costs** and **reclamation costs**, unusually high expected **development costs** or **operating costs**, or contractual obligations to **produce** and sell a significant portion of **production** at prices substantially below those which could be realized but for those contractual obligations.*

- (2) *If the information required by this Item is presented in the **reporting issuer's** financial statements and notes thereto for the most recent financial year ended, the **reporting issuer** satisfies this Item by directing the reader to that presentation.*

32. Item 6.4 of Form 51-101F1 is repealed.

33. Item 6.6 of Form 51-101F1 is replaced with the following:

Item 6.6 Costs Incurred

Disclose by country for the most recent financial year each of the following:

- (a) *property acquisition costs, separately for proved properties and unproved properties;*
- (b) *exploration costs;*
- (c) *development costs.*

INSTRUCTION

*If the costs specified in paragraphs (a), (b) and (c) are presented in the **reporting issuer's** financial statements and the notes to those statements for the most recent financial year ended, the **reporting issuer** satisfies this Item by directing the reader to that presentation.*

34. Item 6.9 of Form 51-101F1 is amended by replacing “To the extent not previously disclosed in financial statements by the reporting issuer, disclose” with “Disclose,”.

35. Form 51-101F2 is replaced with the following:

FORM 51-101F2
REPORT ON [RESERVES DATA][,][CONTINGENT RESOURCES DATA][AND]
[PROSPECTIVE RESOURCES DATA]
BY
INDEPENDENT QUALIFIED RESERVES
EVALUATOR OR AUDITOR

This is the form referred to in item 2 of section 2.1 of National Instrument 51-101 Standards of Disclosure for Oil and Gas Activities ("NI 51-101").

1. Terms to which a meaning is ascribed in NI 51-101 have the same meaning in this form.

2. The report on reserves data, contingent resources data or prospective resources data, if applicable, referred to in item 2 of section 2.1 of NI 51-101, to be executed by one or more qualified reserves evaluators or auditors independent of the reporting issuer, must in all material respects be in the following form:

Report on Reserves Data

To the board of directors of [name of reporting issuer] (the "Company"):

1. We have [audited] [evaluated] [and reviewed] the Company's [reserves data][,][contingent resources data][and][prospective resources data] as at [last day of the reporting issuer's most recently completed financial year]. **[If the Company has reserves, include the following sentence]** The reserves data are estimates of proved reserves and probable reserves and related *future net revenue* as at [last day of the reporting issuer's most recently completed financial year], estimated using forecast prices and costs. **[If the Company has disclosed contingent resources data or prospective resources data, include the following sentence]** The [contingent resources data] [and] [prospective resources data] are estimates of [contingent resources][and][prospective resources] and related *future net revenue* as at [last day of the reporting issuer's most recently completed financial year], estimated using forecast prices and costs.
2. The [reserves data][,][contingent resources data][and][prospective resources data] are the responsibility of the Company's management. Our responsibility is to express an opinion on the [reserves data][,][contingent resources data][and][prospective resources data] based on our [audit] [evaluation] [and review].

We carried out our [audit] [evaluation] [and review] in accordance with standards set out in the Canadian Oil and Gas Evaluation Handbook (the "COGE Handbook") prepared jointly by the Society of Petroleum Evaluation Engineers (Calgary Chapter) and the Canadian Institute of Mining, Metallurgy & Petroleum (Petroleum Society).

3. Those standards require that we plan and perform an [audit] [evaluation] [and review] to obtain reasonable assurance as to whether the [reserves data][,][contingent resources data][and][prospective resources data] are free of material misstatement. An [audit] [evaluation] [and review] also includes assessing whether the [reserves data] [,][contingent resources data][and][prospective resources data] are in accordance with principles and definitions presented in the COGE Handbook.
4. **[If the Company has reserves, include this paragraph]** The following table shows the estimated *future net revenue* (before deduction of income taxes) attributed to proved plus probable reserves, estimated using forecast prices

and costs and calculated using a discount rate of 10 percent, included in the reserves data of the Company [audited] [evaluated] [and reviewed] for the year ended [last day of the reporting issuer's most recently completed financial year], and identifies the respective portions thereof that we have [audited] [evaluated] [and reviewed] and reported on to the Company's [management/board of directors]:

Independent Qualified Reserves Evaluator or Auditor	Effective Date of [Audit/ Evaluation/ Review] Report	Location of Reserves (Country or Foreign Geographic Area)	Net Present Value of <i>Future Net Revenue</i> (before income taxes, 10% discount rate)			
			Audited	Evaluated	Reviewed	Total
Evaluator A	xxx xx, 20xx	Xxxx	\$xxx	\$xxx	\$xxx	\$xxx
Evaluator B	xxx xx, 20xx	Xxxx	xxx	xxx	xxx	xxx
Totals			\$xxx	\$xxx	\$xxx	\$xxx ¹

¹ This amount must be the amount disclosed by the reporting issuer in its statement of reserves data filed under item 1 of section 2.1 of NI 51-101, as its future net revenue (before deducting future income tax expenses) attributed to proved plus probable reserves, estimated using forecast prices and costs and calculated using a discount rate of 10 percent (required by section 2 of Item 2.1 of Form 51-101F1).

- 4.1 **[If the Company has disclosed contingent resources data or prospective resources data, include this paragraph]** The following table sets forth the estimated *future net revenue* (before deduction of income taxes) attributed to [contingent resources][and][prospective resources], estimated using forecast prices and costs and calculated using a discount rate of 10%, included in the Company's statement prepared in accordance with Form 51-101F1 and identifies the respective portions of the [contingent resources data][and][prospective resources data] that we have [audited][evaluated] and reported on to the Company's [management/board of directors]:

Classification	Independent Qualified Reserves Evaluator or Auditor	Effective Date of [Audit/ Evaluation] Report	Location of Resources Other than Reserves (Country or Foreign Geographic Area	Estimated volume of Contingent/ Prospective Resources	Net Present Value of <i>Future Net Revenue</i> (before income taxes, 10% discount rate)		
					Audited	Evaluated	Total
Contingent Resources (2C)	Evaluator	xxx xx, 20xx	xxxx	xxx	\$xxx	\$xxx	\$xxx
Prospective Resources (Best Estimate)	Evaluator	xxx xx, 20xx	xxxx	xxx	\$xxx	\$xxx	\$xxx

5. In our opinion, the [reserves data][,][contingent resources data][and][prospective resources data] respectively [audited] [evaluated] by us have, in all material respects, been determined and are in accordance with the COGE Handbook, consistently applied. We express no opinion on the [reserves data][,][contingent resources data][and] [prospective resources data] that we reviewed but did not audit or evaluate.
6. We have no responsibility to update our reports referred to in paragraph[s] [4][and][4.1] for events and circumstances occurring after the effective date of our reports.
7. Because the [reserves data][,][contingent resources data][and][prospective resources data] are based on judgements regarding future events, actual results will vary and the variations may be material.

Executed as to our report referred to above:

Evaluator A, City, Province or State / Country, Execution Date _____
[signed]

Evaluator B, City, Province or State / Country, Execution Date _____
[signed]

36. *Form 51-101F3 is replaced with the following:*

**FORM 51-101F3
REPORT OF
MANAGEMENT AND DIRECTORS
ON OIL AND GAS DISCLOSURE**

This is the form referred to in item 3 of section 2.1 of National Instrument 51-101 *Standards of Disclosure for Oil and Gas Activities* ("NI 51-101").

1. Terms to which a meaning is ascribed in NI 51-101 have the same meaning in this form.
2. The report referred to in item 3 of section 2.1 of NI 51-101 must in all material respects be in the following form:

**Report of Management and Directors
on Reserves Data and Other Information**

Management of [name of reporting issuer] (the "Company") are responsible for the preparation and disclosure of information with respect to the Company's oil and gas activities in accordance with securities regulatory requirements. This information includes reserves data and may include, if disclosed in the statement required by item 1 of section 2.1 of *NI 51-101*, contingent resources data or prospective resources data.

[Alternative A: Reserves Data to Report or Contingent Resources Data or Prospective Resources Data Reported]

[An] independent [qualified reserves evaluator[s] or qualified reserves auditor[s]] [has / have] [audited] [evaluated] [and reviewed] the Company's [reserves data][,][contingent resources data][and][prospective resources data]. The report of the independent [qualified reserves evaluator[s] or qualified reserves auditor[s]] [is presented below / will be filed with securities regulatory authorities concurrently with this report].

The [Reserves Committee of the] board of directors of the Company has

- (a) reviewed the Company's procedures for providing information to the independent [qualified reserves evaluator[s] or qualified reserves auditor[s]];
- (b) met with the independent [qualified reserves evaluator[s] or qualified reserves auditor[s]] to determine whether any restrictions affected the ability of the independent [qualified reserves evaluator[s] or qualified

reserves auditor[s]] to report without reservation [and, in the event of a proposal to change the independent [qualified reserves evaluator[s] or qualified reserves auditor[s]], to inquire whether there had been disputes between the previous independent [qualified reserves evaluator[s] or qualified reserves auditor[s] and management]; and

- (c) reviewed the [reserves data][,][contingent resources data][and][prospective resources data] with management and the independent [qualified reserves evaluator[s] or qualified reserves auditor[s]].

The [Reserves Committee of the] board of directors has reviewed the Company's procedures for assembling and reporting other information associated with oil and gas activities and has reviewed that information with management. The board of directors has [, on the recommendation of the Reserves Committee,] approved

- (a) the content and filing with securities regulatory authorities of Form 51-101F1 containing [reserves data][,][contingent resources data][and][prospective resources data] and other oil and gas information;
- (b) the filing of Form 51-101F2 which is the report of the independent [qualified reserves evaluator[s] or qualified reserves auditor[s]] on the reserves data; and
- (c) the content and filing of this report.

Because the [reserves data][,][contingent resources data][and][prospective resources data] are based on judgements regarding future events, actual results will vary and the variations may be material.

[Alternative B: No Reserves to Report and No Resources Other than Reserves Reported]

The [Reserves Committee of the] board of directors of the Company has reviewed the oil and gas activities of the Company and has determined that the Company had no reserves as of [last day of the reporting issuer's most recently completed financial year].

An independent qualified reserves evaluator or qualified reserves auditor has not been retained to evaluate the Company's reserves data. No report of an independent qualified reserves evaluator or qualified reserves auditor will be filed with securities regulatory authorities with respect to the financial year ended on [last day of the reporting issuer's most recently completed financial year].

The [Reserves Committee of the] board of directors has reviewed the Company's procedures for assembling and reporting other information associated with oil and

gas activities and has reviewed that information with management. The board of directors has [on the recommendation of the Reserves Committee,] approved

- (a) the content and filing with securities regulatory authorities of Form 51-101F1 containing information detailing the Company's oil and gas activities; and
- (b) the content and filing of this report.

[signature, name and title of chief executive officer]

[signature, name and title of an officer other than the chief executive officer]

[signature, name of a director]

[signature, name of a director]

[Date]

37. The Instrument is amended by adding the following form after Form 51-101F4:

FORM 51-101F5
NOTICE OF
CEASING TO ENGAGE IN OIL AND GAS ACTIVITIES

This is the form referred to in section 6.2 of National Instrument 51-101 *Standards of Disclosure for Oil and Gas Activities* ("NI 51-101").

1. Terms to which a meaning is ascribed in NI 51-101 have the same meaning in this form.
2. The notice referred to in section 6.2 of NI 51-101 must in all material respects be in the following form:

**Notice of
Ceasing to Engage in Oil and Gas Activities**

Management and the board of directors of [name of reporting issuer] (the "Company") have determined that as of [date] the Company is no longer engaged, directly or indirectly, in oil and gas activities.

[signature, name and title of chief executive officer]

[signature, name and title of an officer other than the chief executive officer]

[signature, name of a director]

[signature, name of a director]

[Date]

38. All footnotes and references to footnotes are repealed.

39. This Instrument comes into force on ●.

ANNEX B

This Annex shows, by way of blackline, changes to Companion Policy 51-101CP To National Instrument 51-101 *Standards of Disclosure for Oil and Gas Activities* that are being published for comment. It is proposed that the changes become effective to coincide with the implementation of the amended and restated National Instrument 51-101 *Standards of Disclosure for Oil and Gas Activities*.

**COMPANION POLICY 51-101CP
STANDARDS OF DISCLOSURE
FOR OIL AND GAS ACTIVITIES**

TABLE OF CONTENTS

PART 1	APPLICATION AND TERMINOLOGY
1.1	Definitions
1.2	<i>COGE Handbook</i>
1.3	Applies to <i>Reporting Issuers</i> Only
1.4	<i>Materiality</i> Standard
PART 2	ANNUAL FILING REQUIREMENTS
2.1	Annual Filings on <i>SEDAR</i>
2.2	Inapplicable or Immaterial Information
2.3	Use of Forms
2.4	<i>Annual Information Form</i>
2.5	<i>Reporting Issuer With No Reserves</i> <u>and Ceasing to Engage in Oil and Gas Activities</u>
2.6	<i>Reservation</i> in Report of <i>Independent Qualified Reserves Evaluator</i> or Auditor
2.7	Disclosure in <i>Form 51-101F1</i>
2.8	<i>Form 51-101F2</i>
2.9	Chief Executive Officer
2.10	<i>Reporting Issuer</i> Not a Corporation
PART 3	RESPONSIBILITIES OF <i>REPORTING ISSUERS</i> AND DIRECTORS
3.1	<i>Reserves</i> Committee
3.2	Responsibility for Disclosure
PART 4	MEASUREMENT
4.1	Consistency in Dates
PART 5	REQUIREMENTS APPLICABLE TO ALL DISCLOSURE
5.1	Application of Part 5
5.2	Disclosure of <i>Reserves</i> and Other Information
5.3	Classification of <i>Reserves</i> and of <i>Resources</i> Other than <i>Reserves</i>
5.4	Written Consents

5.5	Disclosure of <i>Resources</i> Other than <i>Reserves</i>
5.6	<i>Analogous Information</i>
5.7	Consistent Use of Units of Measurement
5.8	<i>BOEs and McfGEs</i>
5.9	Finding and <i>Development costs</i>
5.9.1	Summation of <i>Resource</i> Categories
5.10	Prospectus Disclosure
PART 6	MATERIAL CHANGE DISCLOSURE
6.1	Changes from Filed Information
APPENDIX 1 – SAMPLE <i>RESERVES DATA</i> DISCLOSURE	

**COMPANION POLICY 51-101CP
STANDARDS OF DISCLOSURE
FOR OIL AND GAS ACTIVITIES**

This Companion Policy sets out the views of the Canadian Securities Administrators (CSA) as to the interpretation and application of National Instrument 51-101 *Standards of Disclosure for Oil and Gas Activities* (NI 51-101) and related forms.

NI 51-101⁺ supplements other continuous disclosure requirements of *securities legislation* that apply to *reporting issuers* in all business sectors.

The requirements under NI 51-101 for the filing with *securities regulatory authorities* of information relating to *oil and gas activities* are designed in part to assist the public and analysts in making investment decisions and recommendations.

The CSA encourage registrants² and other persons and companies that wish to make use of information concerning *oil and gas activities* of a *reporting issuer*, including *reserves data*, to review the information filed on SEDAR under NI 51-101 by the *reporting issuer* and, if they are summarizing or referring to this information, to use the applicable terminology consistent with NI 51-101 and the *COGE Handbook*.

PART 1 APPLICATION AND TERMINOLOGY

1.1 Definitions

- (1) **General** - Several terms relating to *oil and gas activities* are defined in section 1.1 of NI 51-101. If a term is not defined in NI 51-101, NI 14-101 or the securities statute in the *jurisdiction*, it will have the meaning or interpretation given to it in the *COGE Handbook* if it is defined or interpreted there, pursuant to section 1.2 of NI 51-101.

For the convenience of readers, CSA Staff Notice 51-324 *Glossary to NI 51-101 Standards of Disclosure for Oil and Gas Activities* (the NI 51-101 Glossary) sets out the meaning of terms, including those defined in NI 51-101 and several terms which are derived from the *COGE Handbook*.

The terms set out in the NI 51-101 Glossary are printed in italics in NI 51-101, Form 51-101F1, Form 51-101F2, Form 51-101F3, Form 51-101F4, Form 51-101F5 or in this Companion Policy for the convenience of readers.

⁺ For the convenience of readers, CSA Staff Notice 51-324 *Glossary to NI 51-101 Standards of Disclosure for Oil and Gas Activities* sets out the meanings of terms that are printed in italics in NI 51-101, Form 51-101F1, Form 51-101F2 or Form 51-101F3, or in this Companion Policy (other than terms italicized in titles of documents that are printed entirely in italics).

² "Registrant" has the meaning ascribed to the term under *securities legislation* in the *jurisdiction*.

- (2) **Forecast Prices and Costs** - The term *forecast prices and costs* is defined in ~~paragraph~~section 1.1(~~+~~) of NI 51-101 and discussed in the *COGE Handbook*. Except to the extent that the *reporting issuer* is legally bound by fixed or presently determinable future prices or costs³, *forecast prices and costs* are future prices and costs "generally accepted as being a reasonable outlook of the future".

The CSA do not consider that future prices or costs would satisfy this requirement if they fall outside the range of forecasts of comparable prices or costs used, as at the same date, for the same future period, by major *independent qualified reserves evaluators or auditors* or by other reputable sources appropriate to the evaluation.

- (3) **Independent** - The term *independent* is defined in ~~paragraph~~section 1.1(~~+~~) of NI 51-101. Applying this definition, the following are examples of circumstances in which the CSA would consider that a *qualified reserves evaluator or auditor* (or other expert) is not *independent*. We consider a *qualified reserves evaluator or auditor* is not *independent* when the *qualified reserves evaluator or auditor*:
- (a) is an employee, insider, or director of the *reporting issuer*;
 - (b) is an employee, insider, or director of a related party of the *reporting issuer*;
 - (c) is a partner of any person or company in paragraph (a) or (b);
 - (d) holds or expects to hold securities, either directly or indirectly, of the *reporting issuer* or a related party of the *reporting issuer*;
 - (e) holds or expects to hold securities, either directly or indirectly, in another *reporting issuer* that has a direct or indirect interest in the property that is the subject of the technical report or an adjacent property;
 - (f) has or expects to have, directly or indirectly, an ownership, royalty, or other interest in the property that is the subject of the technical report or an adjacent property; or
 - (g) has received the majority of their income, either directly or indirectly, in the three years preceding the date of the technical report from the *reporting issuer* or a related party of the *reporting issuer*.

For the purpose of paragraph (d) above, "related party of the *reporting issuer*" means an affiliate, associate, subsidiary, or control person of the *reporting issuer* as those terms are defined under *securities legislation*.

There may be instances in which it would be reasonable to consider that the independence of a *qualified reserves evaluator or auditor* would not be

³ ~~Refer to the discussion of financial instruments in subsection 2.7(5) below.~~

compromised even though the *qualified reserves evaluator or auditor* holds an interest in the *reporting issuer's* securities. The *reporting issuer* needs to determine whether a reasonable person would consider that such interest would interfere with the *qualified reserves evaluator's or auditor's* judgement regarding the preparation of the technical report.

There may be circumstances in which the *securities regulatory authorities* question the objectivity of the *qualified reserves evaluator or auditor*. In order to ensure the requirement for independence of the *qualified reserves evaluator or auditor* has been preserved, the *reporting issuer* may be asked to provide further information, additional disclosure or the opinion of another *qualified reserves evaluator or auditor* to address concerns about possible bias or partiality on the part of the *qualified reserves evaluator or auditor*.

- (4) ***Product Types Arising From Oil Sands and Other Non-Conventional Activities***—The definition of *product type* in paragraph 1.1(v) includes products arising from ~~non-conventional oil and gas activities~~. ~~NI 51-101~~ therefore applies not only to ~~conventional oil and gas activities~~, but also to non-conventional activities such as the extraction of *bitumen* from *oil sands* with a view to the *production of synthetic oil*, the *in situ production of bitumen*, the extraction of methane from coal beds and the extraction of shale gas, shale oil and hydrates. Although ~~NI 51-101~~ and ~~Form 51-101F1~~ make few specific references to ~~non-conventional oil and gas activities~~, the requirements of ~~NI 51-101~~ for the preparation and disclosure of *reserves data* and for the disclosure of *resources* other than *reserves* apply to *oil and gas reserves* and *resources* other than *reserves* relating to *oil sands*, shale, coal or other non-conventional sources of hydrocarbons. **Additional Disclosure** – The CSA encourage *reporting issuers* that are engaged in ~~non-conventional oil and gas activities~~ **that may require additional explanation** to supplement the disclosure prescribed in ~~NI 51-101~~ and ~~Form 51-101F1~~ with information specific to those activities that can assist investors and others in understanding the business and results of the *reporting issuer*.

For example, shale gas projects and plays may not strictly adhere to the formal lithological-based definition of “shale”. The produced gas can come from intervals that contain clay, carbonates, siltstone and minor amounts of very fine grained sandstone laminations. Despite coming from intervals that may not meet the technical definition of “shale”, gas to which fracturing techniques have been applied when intermingled with gas that comes from “shale” may be reported as being shale gas. In this scenario, a reporting issuer must ensure that its disclosure is not misleading and will have to consider whether additional explanation is required to provide the necessary context.

(5) ***Professional Organization***(a) ***Recognized Professional Organizations***

For the purposes of the *Instrument*, a *qualified reserves evaluator or auditor* must also be a member in good standing with a self-regulatory *professional organization* of engineers, geologists, geoscientists or other professionals.

The definition of "*professional organization*" (in ~~paragraph~~section 1.1(w) of *NI 51-101* and in the *NI 51-101 Glossary*) has four elements, three of which deal with the basis on which the organization accepts members and its powers and requirements for continuing membership. The fourth element requires either authority or recognition given to the organization by a statute in Canada, or acceptance of the organization by the *securities regulatory authority or regulator*.

(a.1) Canadian Professional Organizations

As at October 12, ~~2010~~2011, each of the following organizations in Canada is a *professional organization*:

- Association of Professional Engineers, ~~Geologists and Geophysicists~~Geoscientists of Alberta (~~APEGGA~~APEGA)
- Association of Professional Engineers and Geoscientists of the Province of British Columbia (APEGBC)
- Association of Professional Engineers and Geoscientists of Saskatchewan (APEGS)
- Association of Professional Engineers and Geoscientists of Manitoba (APEGM)
- Association of Professional Geoscientists of Ontario (APGO)
- Professional Engineers of Ontario (PEO)
- Ordre des ingénieurs du Québec (OIQ)
- Ordre des Géologues du Québec (OGQ)
- Association of Professional Engineers of Prince Edward Island (APEPEI)
- Association of Professional Engineers and Geoscientists of New Brunswick (APEGNB)
- Association of Professional Engineers of Nova Scotia (APENS)
- Association of Professional Engineers and Geoscientists of Newfoundland (APEGN)
- Association of Professional Engineers of Yukon (APEY)
- Association of Professional Engineers, Geologists & Geophysicists of the Northwest Territories (NAPEGG) (representing the Northwest Territories and Nunavut Territory)

(b) **Other Professional Organizations**

The CSA are willing to consider whether particular foreign professional bodies should be accepted as "*professional organizations*" for the purposes of NI 51-101. A *reporting issuer*, foreign professional body or other interested person can apply to have a self-regulatory organization that satisfies the first three elements of the definition of "*professional organization*" accepted for the purposes of NI 51-101.

In considering any such application for acceptance, the *securities regulatory authority* or *regulator* is likely to take into account the degree to which a foreign professional body's authority or recognition, admission criteria, standards and disciplinary powers and practices are similar to, or differ from, those of organizations listed above.

The list of foreign *professional organizations* is updated periodically in CSA Staff Notice 51-309 *Acceptance of Certain Foreign Professional Boards as a "Professional Organization"*. As at October 12, ~~2010~~, 2011, each of the following foreign organizations has been recognized as a *professional organization* for the purposes of NI 51-101:

- California Board for Professional Engineers and Land Surveyors,
- State of Colorado Board of Registration for Professional Engineers and Professional Land Surveyors
- Louisiana State Board of Registration for Professional Engineers and Land Surveyors,
- Oklahoma State Board of Registration for Professional Engineers and Land Surveyors
- Texas Board of Professional Engineers
- American Association of Petroleum Geologists (AAPG) but only in respect of Certified Petroleum Geologists who are members of the AAPG's Division of Professional Affairs
- American Institute of Professional Geologists (AIPG), in respect of the AIPG's Certified Professional Geologists
- Energy Institute but only for those members of the Energy Institute who are Members and Fellows
- **Society of Petroleum Evaluation Engineers (SPEE), but only in respect of Members, Honorary Life Members and Life Members**

(c) **No Professional Organization**

A *reporting issuer* or other person may apply for an exemption under Part 8 of NI 51-101 to enable a *reporting issuer* to appoint, in satisfaction of its obligation under section 3.2 of NI 51-101, an individual who is not a member of a *professional organization*, but who has other satisfactory qualifications and experience. Such an application might refer to a particular individual or generally

to members and employees of a particular foreign *reserves evaluation* firm. In considering any such application, the *securities regulatory authority* or *regulator* is likely to take into account the individual's professional education and experience or, in the case of an application relating to a firm, to the education and experience of the firm's members and employees, evidence concerning the opinion of a *qualified reserves evaluator or auditor* as to the quality of past work of the individual or firm, and any prior relief granted or denied in respect of the same individual or firm.

(d) **Renewal Applications Unnecessary**

A successful applicant would likely have to make an application contemplated in this subsection 1.1(5) only once, and not renew it annually.

- (6) ***Qualified Reserves Evaluator or Auditor*** - The definitions of *qualified reserves evaluator* and *qualified reserves auditor* are set out in ~~paragraphs~~section 1.1(y) and 1.1(x) of ~~NI 51-101, respectively,~~101 and again in the NI 51-101 Glossary.

The defined terms "*qualified reserves evaluator*" and "*qualified reserves auditor*" have a number of elements. A *qualified reserves evaluator* or *qualified reserves auditor* must

- possess professional qualifications and experience appropriate for the tasks contemplated in the *Instrument*, and
- be a member in good standing of a *professional organization*.

Reporting issuers should satisfy themselves that any person they appoint to perform the tasks of a *qualified reserves evaluator or auditor* for the purpose of the *Instrument* satisfies each of the elements of the appropriate definition.

In addition to having the relevant professional qualifications, a *qualified reserves evaluator or auditor* must also have sufficient practical experience relevant to the *reserves data* to be reported on. In assessing the adequacy of practical experience, reference should be made to section 3 of volume 1 of the *COGE Handbook* - "Qualifications of Evaluators and Auditors, Enforcement and Discipline".

1.2 ***COGE Handbook***

Pursuant to section 1.2 of *NI 51-101*, definitions and interpretations in the *COGE Handbook* apply for the purposes of *NI 51-101* if they are not defined in *NI 51-101*, *NI 14-101* or the securities statute in the *jurisdiction* (except to the extent of any conflict or inconsistency with *NI 51-101*, *NI 14-101* or the securities statute).

Section 1.1 of *NI 51-101* and the NI 51-101 Glossary set out definitions and interpretations, many of which are derived from the *COGE Handbook*. *Reserves* and *resources* definitions and categories are incorporated in the *COGE Handbook* and are also set out, in part, in the NI 51-101 Glossary.

Subparagraph 5.2(1)(a)(iii) of *NI 51-101* requires that all estimates of *reserves* or *future net revenue* have been prepared or audited in accordance with the *COGE Handbook*. Under sections 5.2, 5.3 and 5.9 of *NI 51-101*, all types of public *oil* and *gas* disclosure, including disclosure of *reserves* and of *resources* other than *reserves* must be prepared in accordance with the *COGE Handbook*.

1.3 **Applies to Reporting Issuers Only**

NI 51-101 applies to *reporting issuers* engaged in *oil and gas activities*. The definition of *oil and gas activities* is broad. For example, a *reporting issuer* with no *reserves*, but a few *prospects*, *unproved properties* or *resources*, could still be engaged in *oil and gas activities* because such activities include exploration and development of *unproved properties*.

NI 51-101 will also apply to an issuer that is not yet a *reporting issuer* if it files a prospectus or other disclosure document that incorporates prospectus requirements. Pursuant to the long-form prospectus requirements, the issuer must disclose the information contained in *Form 51-101F1*, as well as the reports set out in *Form 51-101F2* and *Form 51-101F3*.

1.4 **Materiality Standard**

Section 1.4 of *NI 51-101* states that *NI 51-101* applies only in respect of information that is material. *NI 51-101* does not require disclosure or filing of information that is not material. If information is not required to be disclosed because it is not material, it is unnecessary to disclose that fact.

Materiality for the purposes of *NI 51-101* is a matter of judgement to be made in light of the circumstances, taking into account both qualitative and quantitative factors, assessed in respect of the *reporting issuer* as a whole.

The reference in subsection 1.4(2) of *NI 51-101* to a "reasonable investor" denotes an objective test: would a notional investor, broadly representative of investors generally and guided by reason, be likely to be influenced, in making an investment decision to buy, sell or hold a security of a *reporting issuer*, by an item of information or an aggregate of items of information? If so, then that item of information, or aggregate of items, is "material" in respect of that *reporting issuer*. An item that is immaterial alone may be material in the context of other information, or may be necessary to give context to other information. For example, a large number of small interests in *oil* and *gas properties* may be material in aggregate to a *reporting issuer*. Alternatively, a small interest in an *oil* and *gas property* may be material to a *reporting issuer*, depending on the size of the *reporting issuer* and its particular circumstances.

PART 2 ANNUAL FILING REQUIREMENTS

2.1 Annual Filings on SEDAR

The information required under section 2.1 of *NI 51-101* must be filed electronically on *SEDAR*. Consult National Instrument 13-101 *System for Electronic Document Analysis and Retrieval (SEDAR)* and the current *CSA "SEDAR Filer Manual"* for information about filing documents electronically. The information required to be filed under item 1 of section 2.1 of *NI 51-101* is usually derived from a much longer and more detailed *oil* and *gas* report prepared by a *qualified reserves evaluator*. These long and detailed reports cannot be filed electronically on *SEDAR*. The filing of an *oil* and *gas* report, or a summary of an *oil* and *gas* report, does not satisfy the requirements of the annual filing under *NI 51-101*.

2.2 Inapplicable or Immaterial Information

Section 2.1 of *NI 51-101* does not require the filing of any information, even if specified in *NI 51-101* or in a form referred to in *NI 51-101*, if that information is inapplicable or not material in respect of the *reporting issuer*. See section 1.4 of this Companion Policy for a discussion of *materiality*.

If an item of prescribed information is not disclosed because it is inapplicable or immaterial, it is unnecessary to state that fact or to make reference to the disclosure requirement.

2.3 Use of Forms

Section 2.1 of *NI 51-101* requires the annual filing of information set out in *Form 51-101F1* and reports in accordance with *Form 51-101F2* and *Form 51-101F3*. Appendix 1 to this Companion Policy provides an example of how certain of the *reserves data* might be presented. While the format presented in Appendix 1 in respect of *reserves data* is not mandatory, we encourage issuers to use this format.

The information specified in all three forms, or any two of the forms, can be combined in a single document. A *reporting issuer* may wish to include statements indicating the relationship between documents or parts of one document. For example, the *reporting issuer* may wish to accompany the report of the *independent qualified reserves evaluator or auditor (Form 51-101F2)* with a reference to the *reporting issuer's* disclosure of the *reserves data (Form 51-101F1)*, and vice versa.

A *reporting issuer* may supplement the annual disclosure required under *NI 51-101* with additional information corresponding to that prescribed in *Form 51-101F1*, *Form 51-101F2* and *Form 51-101F3*, but as at dates, or for periods, subsequent to those for which annual disclosure is required. However, to avoid confusion, such supplementary disclosure should be clearly identified as being interim disclosure and distinguished from the annual disclosure (for example, if appropriate, by reference to a particular interim

period). Supplementary interim disclosure does not satisfy the annual disclosure requirements of section 2.1 of *NI 51-101*.

2.4 ***Annual Information Form***

Section 2.3 of *NI 51-101* permits *reporting issuers* to satisfy the requirements of section 2.1 of *NI 51-101* by presenting the information required under section 2.1 in an *annual information form*.

- (1) **Meaning of "Annual Information Form"** - *Annual information form* has the same meaning as "AIF" in National Instrument 51-102 *Continuous Disclosure Obligations*. Therefore, as set out in that definition, an *annual information form* can be a completed Form 51-102F2 *Annual Information Form* or, in the case of an *SEC* issuer (as defined in *NI 51-102*), a completed Form 51-102F2 or an annual report or transition report under the *1934 Act* on Form 10-K, Form 10-KSB or Form 20-F.
- (2) **Option to Set Out Information in Annual Information Form** - Form 51-102F2 *Annual Information Form* requires the information required by section 2.1 of *NI 51-101* to be included in the *annual information form*. That information may be included either by setting out the text of the information in the *annual information form* or by incorporating it, by reference from separately filed documents. The option offered by section 2.3 of *NI 51-101* enables a *reporting issuer* to satisfy its obligations under section 2.1 of *NI 51-101*, as well as its obligations in respect of *annual information form* disclosure, by setting out the information required under section 2.1 only once, in the *annual information form*. If the *annual information form* is on Form 10-K, this can be accomplished by including the information in a supplement (often referred to as a "wrapper") to the Form 10-K.

A *reporting issuer* that elects to set out in full in its *annual information form* the information required by section 2.1 of *NI 51-101* need not also file that information again for the purpose of section 2.1 in one or more separate documents. However, a *reporting issuer* that elects to follow this approach must file, at the same time and on *SEDAR*, in the appropriate *SEDAR* category, a notice in accordance with *Form 51-101F4* (see subsection 2.3(2) of *NI 51-101*). This notification will assist other *SEDAR* users in finding that information. It is not necessary to make a duplicate filing of the *annual information form* itself under the *SEDAR NI 51-101 oil and gas* disclosure category.

2.5 ***Reporting Issuer With No Reserves and Ceasing to Engage in Oil and Gas Activities***

The requirement to make annual *NI 51-101* filings is not limited to only those issuers that have *reserves* and related *future net revenue*. A *reporting issuer* with no *reserves* but with *prospects*, unproved *properties* or *resources* may be engaged in *oil and gas activities* (see section 1.3 above) and therefore subject to *NI 51-101*. That means the issuer must still make annual *NI 51-101* filings and ensure that it complies with other *NI 51-101* requirements. The following is guidance on the preparation of *Form 51-101F1*, *Form*

51-101F2, Form 51-101F3 and other oil and gas disclosure if the reporting issuer has no reserves.

- (1) **Form 51-101F1** - Section 1.4 of NI 51-101 states that the *Instrument* applies only in respect of information that is material in respect of a *reporting issuer*. If indeed the *reporting issuer* has no *reserves*, we would consider that fact alone material. The *reporting issuer's* disclosure, under Part 2 of *Form 51-101F1*, should make clear that it has no *reserves* and hence ~~no~~ **is not reporting** related *future net revenue*.

Supporting information regarding *reserves data* required under Part 2 (e.g., price estimates) that are not material to the issuer may be omitted. However, if the issuer had disclosed *reserves* and related *future net revenue* in the previous year, and has no *reserves* as at the end of its current financial year, the *reporting issuer* is still required to present a reconciliation to the prior-year's estimates of *reserves*, as required by Part 4 of *Form 51-101F1*.

The *reporting issuer* is also required to disclose information required under Part 6 of *Form 51-101F1*. Those requirements apply irrespective of the quantum of *reserves*, if any. This would include information about *properties* (items 6.1 and 6.2), costs (item 6.6), and exploration and development activities (item 6.7). The disclosure should make clear that the issuer had no *production*, as that fact would be material.

- (2) **Form 51-101F2** - NI 51-101 requires *reporting issuers* to retain an *independent qualified reserves evaluator or auditor* to evaluate or audit the company's *reserves data*, **contingent resources data or prospective resources data, if included in the statement required under item 1 of section 2.1 of NI 51-101,** and report to the board of directors. If the *reporting issuer* had no *reserves* during the year and hence did not **disclose resources other than reserves in the statement required under item 1 of section 2.1 of NI 51-101, it would not need to** retain an evaluator or auditor, ~~then it would not need to retain one~~ just to file a (nil) report of the *independent evaluators* on the *reserves data* in the form of *Form 51-101F2* and the *reporting issuer* would therefore not be required to file a *Form 51-101F2*. If, however, the issuer did retain an evaluator or auditor to evaluate *reserves*, and the evaluator or auditor concluded that they could not be so categorized, or reclassified those *reserves* to *resources*, the issuer would have to file a report of the *qualified reserves evaluator* because the evaluator has, in fact, evaluated the *reserves* and expressed an opinion.
- (3) **Form 51-101F3** - Irrespective of whether the *reporting issuer* has *reserves* **to report**, the requirement to file a report of management and directors in the form of *Form 51-101F3* applies.
- (4) **Form 51-101F5** - Section 6.2 of NI 51-101 requires *reporting issuers* that **cease to be engaged in oil and gas activities to file a notice in the form of Form 51-101F5.**

(5) Other NI 51-101 Requirements - *NI 51-101* does not require *reporting issuers* to disclose *anticipated results* from ~~their~~, **or estimates of a quantity or an estimated value attributable to an estimated quantity of, their contingent resources or prospective resources.** However, if a *reporting issuer* chooses to disclose that type of information, sections ~~5.9 of NI 51-101~~ **5.9, 5.16 and 5.17 of NI 51-101 apply to that disclosure. If disclosed in the statement required under item 1 of section 2.1 of NI 51-101, item 2.1.4 of Form 51-101F1 also** applies to that disclosure.

2.6 ***Reservation in Report of Independent Qualified Reserves Evaluator or Auditor***

A report of an *independent qualified reserves evaluator or auditor* on *reserves data* will not satisfy the requirements of item 2 of section 2.1 of *NI 51-101* if the report contains a *reservation*, the cause of which can be removed by the *reporting issuer* (subsection 2.4(2) of *NI 51-101*).

The CSA do not generally consider time and cost considerations to be causes of a *reservation* that cannot be removed by the *reporting issuer*.

A report containing a *reservation* may be acceptable if the *reservation* is caused by a limitation in the scope of the *evaluation* or *audit* resulting from an event that clearly limits the availability of necessary records and which is beyond the control of the *reporting issuer*. This could be the case if, for example, necessary records have been inadvertently destroyed and cannot be recreated or if necessary records are in a country at war and access is not practicable.

One potential source of *reservations*, which the CSA consider can and should be addressed in a different way, could be reliance by a *qualified reserves evaluator or auditor* on information derived or obtained from a *reporting issuer's independent financial auditors* or reflecting their report. The CSA recommend that *qualified reserves evaluators or auditors* follow the procedures and guidance set out in both sections 4 and 12 of volume 1 of the *COGE Handbook* in respect of dealings with *independent financial auditors*. In so doing, the CSA expect that the quality of *reserves data* can be enhanced and a potential source of *reservations* can be eliminated.

2.7 Disclosure in *Form 51-101F1*

- (1) **Royalty Interest in Reserves** - *Net reserves* (or "company net reserves") of a *reporting issuer* include its royalty interest in *reserves*.

If a *reporting issuer* cannot obtain the information it requires to enable it to include a royalty interest in *reserves* in its disclosure of *net reserves*, it should, proximate to its disclosure of *net reserves*, disclose that fact and its corresponding royalty interest share of *oil* and *gas production* for the year ended on the *effective date*.

~~*Form 51-101F1* requires that certain *reserves data* be provided on both a "gross" and "net" basis, the latter being adjusted for both royalty entitlements and royalty obligations. However, if a royalty is granted by a trust's subsidiary to the trust, this would not affect the computation of "*net reserves*". The typical *oil* and *gas* income trust structure involves the grant of a royalty by an operating subsidiary of the trust to the trust itself, the royalty being the source of the distributions to trust investors. In this case, the royalty is wholly within the combined or consolidated trust entity (the trust and its operating subsidiary). This is not the type of external entitlement or obligation for which adjustment is made in determining, for example, "*net reserves*". Viewing the trust and its consolidated entities together, the relevant *reserves* and other *oil* and *gas* information is that of the operating subsidiary without deduction of the internal royalty to the trust.~~

- (2) **Government Restriction on Disclosure** - If, because of a restriction imposed by a government or governmental authority having jurisdiction over a *property*, a *reporting issuer* excludes *reserves* information from its *reserves data* disclosed under *NI 51-101*, the disclosure should include a statement that identifies the *property* or country for which the information is excluded and explains the exclusion.

- (3) **Computation of *Future Net Revenue***

- (a) **Tax**

Reporting issuers are required to disclose estimates of after-tax net present value of proved and probable reserves in the statement prepared in accordance with Form 51-101F1. Reporting issuers may, but are not required to, disclose volumes and estimates of after-tax net present value of other resources in the statement prepared in accordance with Form 51-101F1. In a separate disclosure document, a reporting issuer may also disclose its reserves or other information of a type that is specified in the Form 51-101F1 in the aggregate or for a portion of its activities subject to the requirements of subparagraph 5.2(a)(iii) and paragraph 5.2(c) of NI 51-101.

Estimates of after-tax net present value are dependant on a number of factors including, but not limited to, one or more of the following:

- forecast future capital expenditure required to achieve forecast production;
- interaction with, or deductibility of, government royalties or other proportionate sharing rights;

Form 51-101F1 requires *future net revenue* to be estimated and disclosed both before and after deduction of income taxes. However, a *reporting issuer* may not be subject to income taxes because of its royalty or income trust structure. In this instance, the issuer should use the tax rate that most appropriately reflects the income tax it reasonably expects to pay on the *future net revenue*. If the issuer is not subject to income tax because of its royalty trust structure, then the most appropriate income tax rate would be zero. In this case, the issuer could present the estimates of *future net revenue* in only one column and explain, in a note to the table, why the estimates of before tax and after tax *future net revenue* are the same. inclusion of existing tax pool balances of the reporting issuer (inclusion is prescribed for reporting issuer-aggregate estimates according to section 7 Volume 1 of COGE Handbook);

- tax pool write-off rates;
- sequence in which tax pools are utilized;
- applicability of special tax incentives; and
- forecast production revenue and expenses.

Each of these can have a significant impact on the outcome, which could mislead investors if not considered in the evaluation or if the reporting issuer's disclosure does not provide sufficient accompanying information to enable a reader to make an informed decision.

If a reporting issuer discloses after-tax net present value, it should generally include, as appropriate, one or more of the following:

- a general explanation of the method and assumptions used in the reporting issuer's calculation, worded to reflect its specific circumstance and the approach taken. This need not be detailed, but major aspects should be addressed, such as whether tax pools have been included in the evaluation;
- an explanatory statement to the following effect:

The after-tax net present value of [the business entity]'s oil and gas properties here reflects the tax burden on the properties on a stand-alone basis. It does not consider the business-entity-level tax situation, or tax

planning. It does not provide an estimate of the value at the business entity, which may be significantly different. The financial statements and the management's discussion & analysis (MD&A) of the [business entity] should be consulted for information at the level of the business entity.

Also, ~~tax~~**Tax** pools should be taken into account when computing *future net revenue* after income taxes. The definition of "future income tax expense" is set out in the NI 51-101 Glossary. Essentially, *future income tax expenses* represent estimated cash income taxes payable on the *reporting issuer's* future pre-tax cash flows. These cash income taxes payable should be computed by applying the appropriate year-end statutory tax rates, taking into account future tax rates already legislated, to future pre-tax *net* cash flows reduced by appropriate deductions of estimated unclaimed costs and losses carried forward for tax purposes and relating to *oil and gas activities* (i.e., tax pools). Such tax pools may include Canadian *oil and gas property* expense (COGPE), Canadian development expense (CDE), Canadian exploration expense (CEE), undepreciated capital cost (UCC) and unused prior year's tax losses. (Issuers should be aware of limitations on the use of certain tax pools resulting from acquisitions of *properties* in situations where provisions of the Income Tax Act concerning successor corporations apply.)

(b) Other Fiscal Regimes

Other fiscal regimes, such as those involving *production* sharing contracts, should be adequately explained with appropriate allocations made to various classes of proved *reserves* and to *probable reserves*.

- (4) **Supplementary Disclosure of Future Net Revenue Using Constant Prices and Costs** – *Form 51-101F1* gives *reporting issuers* the option of disclosing *future net revenue*, together with associated estimates of *reserves* or *resources* other than *reserves*, determined using constant prices and costs. Constant prices and costs are assumed not to change throughout the life of a *property*, except to the extent of certain 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).
- (5) **repealed.**
- (6) **Reserves Reconciliation**
 - (a) If the *reporting issuer* reports *reserves*, but had no *reserves* **to report** at the start of the reconciliation period, a reconciliation of *reserves* must be carried out if any *reserves* added during the previous year are material. Such a reconciliation will have an opening balance of zero.

- (b) The reserves reconciliation is prepared on a *gross reserves*, not *net reserves*, basis. For some *reporting issuers* with significant royalty interests, such as royalty trusts, the *net reserves* may exceed the *gross reserves*. In order to provide adequate disclosure given the distinctive nature of its business, the *reporting issuer* may also disclose its *reserves* reconciliation on a *net reserves* basis. The issuer is not precluded from providing this additional information with its disclosure prescribed in *Form 51-101F1* provided that the *net reserves* basis for the reconciliation is clearly identified in the additional disclosure to avoid confusion.
- (c) Clause 2(c)(ii) of item 4.1 of *Form 51-101F1* requires reconciliations of *reserves* to separately identify and explain technical revisions. Technical revisions show changes in existing *reserves* estimates, in respect of carried-forward *properties*, over the period of the reconciliation (i.e., between estimates as at the *effective date* and the prior year's estimate) and are the result of new technical information, not the result of capital expenditure. With respect to making technical revisions, the following should be noted:
- ☐ Infill Drilling: It would not be acceptable to include infill drilling results as a technical revision. *Reserves* additions derived from infill drilling during the year are not attributable to revisions to the previous year's *reserves* estimates. Infill drilling *reserves* must either be included in the "extensions and improved recovery" category or in an additional stand-alone category in the reserves reconciliation ~~labelled~~ labelled "infill drilling".
 - ☐ Acquisitions: If an acquisition is made during the year, (i.e., in the period between the *effective date* and the prior year's estimate), the *reserves* estimate to be used in the reconciliation is the estimate of *reserves* at the *effective date*, not at the acquisition date, plus any *production* since the acquisition date. This *production* must be included as *production* in the reconciliation. If there has been a change in the *reserves* estimate between the acquisition date and the *effective date* other than that due to *production*, the issuer may wish to explain this as part of the reconciliation in a footnote to the reconciliation table.
- (7) **Significant Factors or Uncertainties** - Item 5.2 of *Form 51-101F1* requires an issuer to identify and discuss important economic factors or significant uncertainties that affect particular components of the *reserves data*.

Important economic factors or significant uncertainties may include abandonment costs and reclamation costs, unusually high expected development costs or operating costs, or contractual obligations to produce and sell a significant portion of production at prices substantially below those which could be realized but for those contractual obligations.

For example, if events subsequent to the *effective date* have resulted in significant changes in expected future prices, such that the forecast prices reflected in the *reserves data* differ materially from those that would be considered to be a reasonable outlook on the future around the date of the company's "statement of *reserves data* and other information", then the issuer's statement might include, pursuant to item 5.2, a discussion of that change and its effect on the disclosed *future net revenue* estimates. It may be misleading to omit this information.

- (8) **Additional Information** - As discussed in section 2.3 above and in the instructions to *Form 51-101F1*, *NI 51-101* offers flexibility in the use of the prescribed forms and the presentation of required information.

The disclosure prescribed in *Form 51-101F1* is the minimum disclosure required, subject to the *materiality* standard. *Reporting issuers* may provide additional disclosure that is not inconsistent with *NI 51-101* and not misleading.

To the extent that additional, or more detailed, disclosure can be expected to assist readers in understanding and assessing the mandatory disclosure, it is encouraged. Indeed, to the extent that additional disclosure of *material* facts is necessary in order to make mandated disclosure not misleading, a failure to provide that additional disclosure would amount to a misrepresentation.

- (9) **Sample Reserves Data Disclosure** - Appendix 1 to this Companion Policy sets out an example of how certain of the *reserves data*, *contingent resources data* *and prospective resources data* might be presented in a manner which the CSA consider to be consistent with *NI 51-101* and *Form 51-101F1*. The CSA encourages *reporting issuers* to use the format presented in Appendix 1.

The sample presentation in Appendix 1 also illustrates how certain additional information not mandated under *Form 51-101F1* might be incorporated in an annual filing.

2.8 *Form 51-101F2*

- (1) **Negative Assurance by Qualified Reserves Evaluator or Auditor** - A *qualified reserves evaluator or auditor* conducting a review may wish to express only negative assurance -- for example, in a statement such as "Nothing has come to my attention which would indicate that the *reserves data* have not been prepared in accordance with principles and definitions presented in the Canadian Oil and Gas Evaluation Handbook". This can be contrasted with a positive statement such as an opinion that "The *reserves data* have, in all material respects, been determined and presented in accordance with the Canadian Oil and Gas *Evaluation Handbook* and are, therefore, free of material misstatement".

The CSA are of the view that statements of negative assurance can be misinterpreted as providing a higher degree of assurance than is intended or warranted.

The CSA believe that a statement of negative assurance would constitute so *material* a departure from the report prescribed in *Form 51-101F2* as to fail to satisfy the requirements of item 2 of section 2.1 of *NI 51-101*.

In the rare case, if any, in which there are compelling reasons for making such disclosure (e.g., a prohibition on disclosure to external parties), the CSA believe that, to avoid providing information that could be misleading, the *reporting issuer* should include in such disclosure useful explanatory and cautionary statements. Such statements should explain the limited nature of the work undertaken by the *qualified reserves evaluator or auditor* and the limited scope of the assurance expressed, noting that it does not amount to a positive opinion.

- (2) **Variations in Estimates** – The report prescribed by *Form 51-101F2* contains statements to the effect that variations between *reserves data* and actual results may be material but *reserves* have been determined in accordance with the *COGE Handbook*, consistently applied.

Reserves estimates are made at a point in time, being the *effective date*. A reconciliation of a *reserves* estimate to actual results is likely to show variations and the variations may be material. This variation may arise from factors such as exploration discoveries, acquisitions, divestments and economic factors that were not considered in the initial *reserves* estimate. Variations that occur with respect to *properties* that were included in both the *reserves* estimate and the actual results may be due to technical or economic factors. Any variations arising due to technical factors must be consistent with the fact that *reserves* are categorized according to the probability of their recovery. For example, the requirement that reported *proved reserves* “must have at least a 90 percent probability that the quantities actually recovered will equal or exceed the estimated *proved reserves*” (section 5 of volume 1 of the *COGE Handbook*) implies that as more technical data becomes available, a positive, or upward, revision is significantly more likely than a negative, or downward, revision. Similarly, it should be equally likely that revisions to an estimate of *proved plus probable reserves* will be positive or negative.

Reporting issuers must assess the magnitude of such variation according to their own circumstances. A *reporting issuer* with a limited number of *properties* is more likely to be affected by a change in one of these *properties* than a *reporting issuer* with a greater number of *properties*. Consequently, *reporting issuers* with few *properties* are more likely to show larger variations, both positive and negative, than those with many *properties*.

Variations may result from factors that cannot be reasonably anticipated, such as the fall in the price of *bitumen* at the end of 2004 that resulted in significant negative revisions in *proved reserves*, or the unanticipated activities of a foreign government. If such variations occur, the reasons will usually be obvious. However, the assignment of a *proved reserve*, for instance, should reflect a degree of confidence in all of the relevant factors, at the *effective date*, such that the likelihood of a negative revision is low, especially for a *reporting issuer* with

many properties. Examples of some of the factors that could have been reasonably anticipated, that have led to negative revisions of *proved* or of *proved* plus *probable reserves* are:

- Over-optimistic activity plans, for instance, booking reserves for *proved* or *probable undeveloped reserves* that have no reasonable likelihood of being drilled.
 - *Reserves* estimates that are based on a forecast of *production* that is inconsistent with historic performance, without solid technical justification.
 - Assignment of drainage areas that are larger than can be reasonably expected.
 - The use of inappropriate analogs.
- (3) ***Effective date of Evaluation*** - A qualified reserves evaluator or auditor cannot prepare an *evaluation* using information that relates to events that occurred after the *effective date*, being the financial year-end. Information that relates to events that occurred after the year-end should not be incorporated into the forecasts. For example, information about drilling results from wells drilled in January or February, or changes in *production* that occurred after year-end date of December 31, should not be used. Even though this more recent information is available, the evaluator or auditor should not go back and change the forecast information. The forecast is to be based on the evaluator's or auditor's perception of the future as of December 31, the *effective date* of the report.

Similarly, the evaluator or auditor should not use price forecasts for a date subsequent to the year-end date of, in this example, December 31. The evaluator or auditor should use the prices that he or she forecasted on or around December 31. The evaluator or auditor should also use the December forecasts for exchange rates and inflation. Revisions to price, exchange rate or inflation rate forecasts after December 31 would have resulted from events that occurred after December 31.

2.9 Chief Executive Officer

Paragraph 2.1(3)(e) of *NI 51-101* requires a *reporting issuer* to file a report in accordance with *Form 51-101F3* that is executed by the chief executive officer. The term "chief executive officer" should be read to include the individual who has the responsibilities normally associated with this position or the person who acts in a similar capacity. This determination should be made irrespective of an individual's corporate title and whether that individual is employed directly or acts pursuant to an agreement or understanding.

2.10 Reporting Issuer Not a Corporation

If a *reporting issuer* is not a corporation, a report in accordance with *Form 51-101F3* would be executed by the persons who, in relation to the *reporting issuer*, are in a similar

position or perform similar functions to the persons required to execute under paragraph 2.1(3)(e) of *NI 51-101*.

PART 3 RESPONSIBILITIES OF REPORTING ISSUERS AND DIRECTORS

3.1 Reserves Committee

Section 3.4 of *NI 51-101* enumerates certain responsibilities of the board of directors of a *reporting issuer* in connection with the preparation of *oil* and *gas* disclosure.

The CSA believe that certain of these responsibilities can in many cases more appropriately be fulfilled by a smaller group of directors who bring particular experience or abilities and an *independent* perspective to the task.

Subsection 3.5(1) of *NI 51-101* permits a board of directors to delegate responsibilities (other than the responsibility to approve the content or filing of certain documents) to a committee of directors, a majority of whose members are *independent* of management. Although subsection 3.5(1) is not mandatory, the CSA encourage *reporting issuers* and their directors to adopt this approach.

3.2 Responsibility for Disclosure

NI 51-101 requires the involvement of an *independent qualified reserves evaluator or auditor* in preparing or reporting on certain *oil* and *gas* information disclosed by a *reporting issuer*, and in section 3.2 mandates the appointment of an *independent qualified reserves evaluator or auditor* to report on *reserves data*.

The CSA do not intend or believe that the involvement of an *independent qualified reserves evaluator or auditor* relieves the *reporting issuer* of responsibility for information disclosed by it for the purposes of *NI 51-101*.

PART 4 MEASUREMENT

4.1 Consistency in Dates

Section 4.2 of *NI 51-101* requires consistency in the timing of recording the effects of events or transactions for the purposes of both annual financial statements and annual *reserves data* disclosure.

To ensure that the effects of events or transactions are recorded, disclosed or otherwise reflected consistently (in respect of timing) in all public disclosure, a *reporting issuer* will wish to ensure that both its financial auditors and its *qualified reserves evaluators or auditors*, as well as its directors, are kept apprised of relevant events and transactions, and to facilitate communication between its financial auditors and its *qualified reserves evaluators or auditors*.

Sections 4 and 12 of volume 1 of the *COGE Handbook* set out procedures and guidance for the conduct of *reserves evaluations* and *reserves audits*, respectively. Section 12 deals with the relationship between a *reserves auditor* and the client's financial auditor. Section 4, in connection with *reserves evaluations*, deals somewhat differently with the relationship between the *qualified reserves evaluator or auditor* and the client's financial auditor. The CSA recommend that *qualified reserves evaluators or auditors* carry out the procedures discussed in both sections 4 and 12 of volume 1 of the *COGE Handbook*, whether conducting a *reserves evaluation* or a *reserves audit*.

PART 5 REQUIREMENTS APPLICABLE TO ALL DISCLOSURE

5.1 Application of Part 5

(1) General - Part 5 of *NI 51-101* imposes requirements and restrictions that apply to all "disclosure" (or, in some cases, all written disclosure) of a type described in section 5.1 of *NI 51-101*. Section 5.1 refers to disclosure that is either

- filed by a *reporting issuer* with the *securities regulatory authority*, or
- if not filed, otherwise made to the public or made in circumstances in which, at the time of making the disclosure, the *reporting issuer* expects, or ought reasonably to expect, the disclosure to become available to the public.

As such, Part 5 applies to a broad range of disclosure including

- the annual filings required under Part 2 of *NI 51-101*,
- other continuous disclosure filings, including material change reports (which themselves may also be subject to Part 6 of *NI 51-101*),
- public disclosure documents, whether or not filed, including news releases,
- public disclosure made in connection with a distribution of securities, including a prospectus, and
- except in respect of provisions of Part 5 that apply only to written disclosure, public speeches and presentations made by representatives of the *reporting issuer* on behalf of the *reporting issuer*.

For these purposes, the CSA consider written disclosure to include any writing, map, plot or other printed representation whether produced, stored or disseminated on paper or electronically. For example, if material distributed at a company presentation refers to *BOEs*, the material should include, near the

reference to *BOEs*, the cautionary statement required by paragraph 5.14(d) be prepared in accordance with section 5.14 of *NI 51-101*.

To ensure compliance with the requirements of Part 5, the CSA encourage *reporting issuers* to involve a *qualified reserves evaluator or auditor*, or other person who is familiar with *NI 51-101* and the *COGE Handbook*, in the preparation, review or approval of all such *oil* and *gas* disclosure.

- (2) **Supplementary Resources Disclosure – All public disclosure of *reserves* or *resources* other than *reserves* made by a *reporting issuer* must be made in accordance with Part 5 of *NI 51-101*. This means that *reserves* and *resources* other than *reserves* disclosed publicly by a *reporting issuer* must be evaluated in accordance with the *COGE Handbook*. However, supplementary to this disclosure, a *reporting issuer* may provide disclosure of *reserves* or *resources* other than *reserves* in accordance with an alternative *resources* evaluation standard under section 5.18 of *NI 51-101*. Alternative resource evaluation standards that the CSA considers acceptable include the SEC’s oil and gas disclosure framework and the Petroleum Resource Management System prepared by the Society of Petroleum Engineers.**

The CSA believes that a *qualified reserves evaluator* preparing an estimate under an alternative *resources* evaluation standard and the *COGE Handbook* should be experienced in the evaluation practices of both evaluation standards. A *qualified reserves evaluator* should be aware that when an estimate is prepared using an alternative *resources* evaluation standard, the *qualified reserves evaluator* is taking on a professional responsibility that reflects on their individual professionalism and the integrity of their profession.

5.2 Disclosure of *Reserves* and Other Information

- (1) **General** - A *reporting issuer* must comply with the requirements of section 5.2 in its disclosure, to the public, of *reserves* estimates and other information of a type specified in *Form 51-101F1*. This would include, for example, disclosure of such information in a news release.
- (2) **Reserves** - *NI 51-101* does not prescribe any particular methods of estimation but it does require that a *reserve* estimate be prepared in accordance with the *COGE Handbook*. For example, section 5 of volume 1 of the *COGE Handbook* specifies that, in respect of an issuer’s reported proved *reserves*, there is to be at least a 90 percent probability that the total remaining quantities of *oil* and *gas* to be recovered will equal or exceed the estimated total *proved reserves*.

Additional guidance on particular topics is provided below.

- (3) **Possible Reserves** - A *possible reserves* estimate - either alone or as part of a sum - is often a relatively large number that, by definition, has a low probability of

actually being produced. For this reason, the cautionary language prescribed in subparagraph 5.2(1)(a)(v) of *NI 51-101* must accompany the written disclosure of a *possible reserves* estimate.

- (4) **Probabilistic and Deterministic *Evaluation Methods*** - Section 5 of volume 1 of the *COGE Handbook* states that "In principle, there should be no difference between estimates prepared using probabilistic or deterministic methods".

When deterministic methods are used, in the absence of a "mathematically derived quantitative measure of probability", the classification of *reserves* is based on professional judgment as to the quantitative measure of certainty attained.

When probabilistic methods are used in conjunction with good engineering and geological practice, they will provide more statistical information than the conventional deterministic method. The following are a few critical criteria that an evaluator must satisfy when applying probabilistic methods:

- The evaluator must still estimate the *reserves* applying the definitions and using the guidelines set out in the *COGE Handbook*.
- Entity level probabilistic *reserves* estimates should be aggregated arithmetically to provide reported level *reserves*.
- If the evaluator also prepares aggregate *reserves* estimates using probabilistic methods, the evaluator should explain in the *evaluation* report the method used. In particular, the evaluator should specify what confidence levels were used at the entity, *property*, and reported (i.e., total) levels for each of *proved*, *proved + probable* and *proved + probable + possible* (if reported) *reserves*.
- If the *reporting issuer* discloses the aggregate *reserves* that the evaluator prepared using probabilistic methods, the issuer should provide a brief explanation, near its disclosure, about the *reserves* definitions used for estimating the *reserves*, about the method that the evaluator used, and the underlying confidence levels that the evaluator applied.

- (5) **Availability of Funding** - In assigning *reserves* to an undeveloped *property*, the *reporting issuer* is not required to have the funding available to develop the *reserves*, since they may be developed by means other than the expenditure of the *reporting issuer's* funds (for example by a farm-out or sale). *Reserves* must be estimated assuming that development of the *properties* will occur without regard to the likely availability of funding required for that *property*. The *reporting issuer's* evaluator is not required to consider whether the *reporting issuer* will have the capital necessary to develop the *reserves*. (See section 7 of *COGE Handbook* and subparagraph 5.2(1)(a)(iv) of *NI 51-101*.)

However, item 5.3 of *Form 51-101F1* requires a *reporting issuer* to discuss its expectations as to the sources and costs of funding for estimated future *development costs*. If the issuer expects that the costs of funding would make development of a *property* unlikely, then even if *reserves* were assigned, it must also discuss that expectation and its plans for the *property*.

Disclosure of an estimate of *reserves*, *contingent resources* or *prospective resources* in respect of which timely availability of funding for development is not assured may be misleading if that disclosure is not accompanied, proximate to it, by a discussion (or a cross-reference to such a discussion in other disclosure filed by the *reporting issuer* on *SEDAR*) of funding uncertainties and their anticipated effect on the timing or completion of such development (or on any particular stage of multi-stage development such as often observed in oilsands developments).

- (6) ***Proved or Probable Undeveloped Reserves*** - *Proved or probable undeveloped reserves* must be reported in the year in which they are recognized. If the *reporting issuer* does not disclose the *proved or probable undeveloped reserves* just because it has not yet spent the capital to develop these *reserves*, it may be omitting *material* information, thereby causing the *reserves* disclosure to be misleading. If the *proved or probable undeveloped reserves* are not disclosed to the public, then those who have a special relationship with the issuer and know about the existence of these *reserves* would not be permitted to purchase or sell the securities of the issuer until that information has been disclosed. If the issuer has a prospectus, the prospectus might not contain full, true and plain disclosure of all *material* facts if it does not contain information about these *proved or probable undeveloped reserves*.
- (7) ***Mechanical Updates*** - So-called “mechanical updates” of *reserves* reports are sometimes created, often by rerunning previous *evaluations* with a new price deck. This is problematic since there may have been material changes other than price that may lead to the report being misleading. If a *reporting issuer* discloses the results of the mechanical update it should ensure that all relevant material changes are also disclosed to ensure that the information is not misleading.

5.3 Classification of *Reserves* and of *Resources* Other than *Reserves*

Section 5.3 of *NI 51-101* requires that any disclosure of *reserves* or of *resources* other than *reserves* must apply the applicable categories and terminology set out in the *COGE Handbook*. The definitions of various *resource* categories, derived from the *COGE Handbook*, are provided in the *NI 51-101 Glossary*. In addition, section 5.3 of *NI 51-101* requires that disclosure of *reserves* or of *resources* other than *reserves* must relate to the most specific category of *reserves* or of *resources* other than *reserves* in which the *reserves* or *resources* other than *reserves* can be classified. For instance, there are several subcategories of *discovered resources* including *reserves*, *contingent resources* and *discovered unrecoverable resources*.

Reserves can be characterized as *proved*, *probable* or *possible reserves*, according to the probability that such quantities will actually be produced. As described in the *COGE Handbook*, *proved*, *probable* and *possible reserves* represent conservative, realistic and optimistic estimates of *reserves*, respectively. Therefore, any disclosure of *reserves* must indicate whether they are *proved*, *probable* or *possible reserves*.

Reporting issuers that disclose *resources* other than *reserves* must identify those *resources* as *discovered* or *undiscovered resources* except in exceptional circumstances where the most specific category is *total petroleum initially-in-place, discovered petroleum initially-in-place* or *undiscovered petroleum initially-in-place*, in which case the reporting issuer must comply with subsection 5.16(3) of *NI 51-101*.

For further guidance on disclosure of *reserves* and of *resources* other than *reserves*, see sections 5.2 and 5.5 of this Companion Policy.

5.4 Written Consents Consent

Section 4.4 of Volume 1 of the *COGE Handbook* recommends the preparation of an engagement letter that specifies a “project description confirming the scope and objective of the [evaluation] project”. An evaluation report is typically prepared for a particular purpose. CSA staff recommend that *reporting issuers* seek the consent of the evaluator prior to disclosing information from a report for a purpose other than which the report was prepared, or for selective disclosure from any report. A requirement for the evaluator’s consent to disclose part or all of an evaluation is often part of this engagement letter.

Section 5.7 of *NI 51-101* restricts a *reporting issuer’s* use of a report of a *qualified reserves evaluator or auditor* without written consent. The consent requirement does not apply to the direct use of the report for the purposes of *NI 51-101* (filing *Form 51-101F1*, or making direct or indirect reference to the conclusions of that report in the filed *Form 51-101F1* and *Form 51-101F3*). The *qualified reserves evaluator or auditor* retained to report to a *reporting issuer* for the purposes of *NI 51-101* is expected to anticipate these uses of the report. However, further use of the report (for example, in a securities offering document or in other news releases) would require written consent.

An evaluator who consents to disclosure of information from a report should be aware of the potential for civil liability and should be aware of the purpose for which the report will be used.

5.5 Disclosure of Resources Other than Reserves

- (1) **Disclosure of Resources Generally** - The disclosure of *resources*, excluding *proved* and *probable reserves*, is not mandatory under *NI 51-101*, except that a *reporting issuer* must make disclosure concerning its unproved *properties* and *resource* activities in its annual filings as described in Part 6 of *Form 51-101F1*. Additional disclosure beyond this is voluntary and must comply with section 5.9 of *NI 51-101* if *anticipated results* from the *resources* other than *reserves* are voluntarily disclosed.

For prospectuses, the general securities disclosure obligation of “full, true and plain” disclosure of all *material* facts would require the disclosure of *reserves* or of *resources* other than *reserves* that are *material* to the issuer, even if the disclosure is not mandated by *NI 51-101*. Any such disclosure should be based on supportable analysis.

Disclosure of *resources* other than *reserves* may involve the use of statistical measures that may be unfamiliar to a user. It is the responsibility of the evaluator and the *reporting issuer* to be familiar with these measures and for the *reporting issuer* to be able to explain them to investors. Information on statistical measures may be found in the *COGE Handbook* (section 9 of volume 1 and section 4 of volume 2) and in the extensive technical literature⁴¹ on the subject.

- (2) **Disclosure of *Anticipated Results* under Subsection 5.9(1) of *NI 51-101*** - If a *reporting issuer* voluntarily discloses *anticipated results* from *resources* that are not classified as *reserves*, it must disclose certain basic information concerning the *resources*, which is set out in subsection 5.9(1) of *NI 51-101*. Additional disclosure requirements arise if the *anticipated results* disclosed by the issuer include an estimate of a *resource* quantity or associated value, as set out below in subsection 5.5(3).

If a *reporting issuer* discloses *anticipated results* relating to numerous aggregated *properties*, *prospects* or *resources*, the issuer may, depending on the circumstances, satisfy the requirements of subsection 5.9(1) by providing summarized information in respect of each prescribed requirement. The *reporting issuer* must ensure that its disclosure is reasonable, meaningful and at a level appropriate to its size. For a *reporting issuer* with only few *properties*, it may be appropriate to make the disclosure for each *property*. Such disclosure may be unreasonably onerous for a *reporting issuer* with many *properties*, and it may be more appropriate to summarize the information by major areas or for major projects. However, the convenience of aggregating *properties* will not justify disclosure of *resources* in a category or subcategory less specific than would otherwise be possible, and required to be disclosed by subsection 5.3(1) of *NI 51-101*.

In respect of the requirement to disclose the risk and level of uncertainty associated with the *anticipated result* under paragraph 5.9(1)(d) of *NI 51-101*, risk and uncertainty are related concepts. Section 9 of volume 1 of the *COGE Handbook* provides the following definition of risk:

⁴¹

For example, Determination of Oil and Gas Reserves, Monograph No. 1, Chapter 22, Petroleum Society of CIM, Second Edition 2004. (ISBN 0-9697990-2-0)) Newendorp, P., & Schuyler, J., 2000, Decision Analysis for Petroleum Exploration, Planning Press, Aurora, Colorado (ISBN 0-9664401-1-0). Rose, P. R., Risk Analysis and Management of Petroleum Exploration Ventures, AAPG Methods in Exploration Series No. 12, AAPG (ISBN 0-89181-062-1)

“Risk refers to a likelihood of loss and ... It is less appropriate to *reserves* evaluation because economic viability is a prerequisite for defining *reserves*.”

The concept of risk may have some limited relevance in disclosure related to *reserves*, for instance, for incremental *reserves* that depend on the installation of a compressor, the likelihood that the compressor will be installed. Risk is often relevant to the disclosure of *resource* categories other than *reserves*, in particular the likelihood that an exploration well will, or will not, be successful.

Section 9 of volume 1 of the *COGE Handbook* provides the following definition of uncertainty:

“Uncertainty is used to describe the range of possible outcomes of a *reserves* estimate.”

However, the concept of uncertainty is generally applicable to any estimate, including not only *reserves*, but also to all other categories of *resource*.

In satisfying the requirement of paragraph 5.9(1)(d) of *NI 51-101*, a *reporting issuer* should ensure that their disclosure includes the risks and uncertainties that are appropriate and meaningful for their activities. This may be expressed quantitatively as probabilities or qualitatively by appropriate description. If the *reporting issuer* chooses to express the risks and level of uncertainty qualitatively, the disclosure must be meaningful and not in the nature of a general disclaimer.

If the *reporting issuer* discloses the estimated value of an *unproved property* other than a value attributable to an estimated *resource* quantity, then the issuer must disclose the basis of the calculation of the value, in accordance with paragraph 5.9(1)(e) of NI 51-101. This type of value is typically based on petroleum land management practices that consider activities and land prices in nearby areas. If done *independently*, it would be done by a valuator with petroleum land management expertise who would generally be a member of a *professional organization* such as the Canadian Association of Petroleum Landmen. This is distinguishable from the determination of a value attributable to an estimated *resource* quantity, as contemplated in subsection 5.9(2) of NI 51-101. This latter type of value estimate must be prepared by a *qualified reserves evaluator or auditor*.

The calculation of an estimated value described in paragraph 5.9(1)(e) of NI 51-101 may be based on one or more of the following factors:

- the acquisition cost of the *unproved property* to the *reporting issuer*, provided there have been no material changes in the *unproved property*, the surrounding *properties*, or the general *oil* and *gas* economic climate since acquisition;

- recent sales by others of interests in the same *unproved property*;
- terms and conditions, expressed in monetary terms, of recent farm-in agreements related to the *unproved property*;
- terms and conditions, expressed in monetary terms, of recent work commitments related to the *unproved property*;
- recent sales of similar *properties* in the same general area;
- recent exploration and discovery activity in the general area;
- the remaining term of the *unproved property*; or
- burdens (such as overriding royalties) that impact on the value of the *property*.

The *reporting issuer* must disclose the basis of the calculation of the value of the *unproved property*, which may include one or more of the above-noted factors. The *reporting issuer* must also disclose whether the value was prepared by an *independent* party. In circumstances in which paragraph 5.9(1)(e) of NI 51-101 applies and where the value is prepared by an *independent* party, in order to ensure that the *reporting issuer* is not making public disclosure of misleading information, the CSA expect the *reporting issuer* to provide all relevant information to the valuator to enable the valuator to prepare the estimate.

(3) **Disclosure of an Estimate of Quantity or Associated Value of a *Resource* under Subsection 5.9(2) of NI 51-101**

(a) **Overview of Subsection 5.9(2) of NI 51-101**

Pursuant to subsection 5.9(2) of NI 51-101, if a *reporting issuer* discloses an estimate of a *resource* quantity or an associated value, the estimate must have been prepared by a *qualified reserves evaluator or auditor*. **Contingent resources data and prospective resources data disclosed within the statement required under item 1 of section 2.1 of NI 51-101 must have been prepared by an independent qualified reserves evaluator or auditor.**

If a *reporting issuer* obtains or carries out an evaluation of *resources* **provides disclosure of contingent resources data or prospective resources data outside of its annual required filings under section 2.1 of NI 51-101** and wishes to file or disseminate a report in a format comparable to that prescribed in *Form 51-101F2*, it may do so. However, the title of such a form ~~must~~ **should** not contain the term “*Form 51-101 F2*” as this form is specific to the ~~evaluation of reserves data~~. ~~*Reporting issuers* must modify the report on *resources* to reflect that *reserves data* is not being reported.~~ **report required by item 2 of section 2.1 of NI 51-101.** A heading such as “Report on *Resource* Estimate by *Independent Qualified*

Reserves Evaluator or Auditor” may be appropriate. ~~Although such an evaluation is required to be carried out by a qualified reserves evaluator or auditor, there is no requirement that it be independent.~~ If an *independent* party does not prepare the report, *reporting issuers* should consider amending the title or content of the report to make it clear that the report has not been prepared by an *independent* party and the *resource* estimate is not an independent *resource* estimate.

~~The COGE Handbook recommends the use of probabilistic evaluation methods for making resource estimates, and although it does not provide detailed guidance there is a considerable amount of technical literature on the subject.~~

Pursuant to section 5.3 of *NI 51-101*, the *reporting issuer* must ensure that the estimated *resource* relates to the most specific category of *resources* in which the *resource* can be classified. As discussed above in subsection 5.5(2) of this Companion Policy, if a *reporting issuer* wishes to disclose an aggregate *resource* estimate which involves the aggregation of numerous *properties*, *prospects* or *resources*, it must ensure that the disclosure does not result in a contravention of the requirement in subsection 5.3(1) of *NI 51-101*.

Subsection 5.9(2) of *NI 51-101* requires the *reporting issuer* to disclose certain information in addition to that prescribed in subsection 5.9(1) of *NI 51-101* to assist recipients of the disclosure in understanding the nature of risks associated with the estimate. This information includes a definition of the *resource* category used for the estimate, disclosure of factors relevant to the estimate and cautionary language.

(b) Definitions of Resource Categories

For the purpose of complying with the requirement of defining the *resource* category, the *reporting issuer* must ensure that disclosure of the definition is consistent with the *resource* categories and terminology set out in the *COGE Handbook*, pursuant to section 5.3 of *NI 51-101*. Section 5 of volume 1 and section 2 of volume 2 of the *COGE Handbook* and the *NI 51-101* Glossary identify and define the various *resource* categories.

~~A reporting issuer may wish to report reserves or resources other than reserves as “in-place volumes”. By definition, reserves of any type, contingent resources and prospective resources are estimates of volumes that are recoverable or potentially recoverable and, as such, cannot be described as being “in-place”. Terms such as “potential reserves”, “undiscovered reserves”, “reserves in place”, “in-place reserves” or similar terms must not be used because they are incorrect and misleading. The disclosure of reserves or of resources other than reserves must be consistent with the terminology and categories set out in the COGE Handbook, pursuant to section 5.3 of NI 51-101.~~

In addition to disclosing the most specific category of *resource*, the *reporting issuer* may disclose *total petroleum initially-in-place*, *discovered petroleum*

initially-in-place or *undiscovered petroleum initially-in-place* estimates provided that the additional disclosure required by subsection 5.16(3) of *NI 51-101* is included.

(c) **Application of Subsection 5.9(2) of *NI 51-101***

~~If the reporting issuer discloses an estimate of a resource quantity or associated value, the reporting issuer must additionally disclose the following:~~

- ~~(i) a definition of the resource category used for the estimate;~~
- ~~(ii) the effective date of the estimate;~~
- ~~(iii) significant positive and negative factors relevant to the estimate;~~
- ~~(iv) the contingencies which prevent the classification of a contingent resource as a reserve; and~~
- ~~(v) cautionary language as prescribed by subparagraph 5.9(2)(d)(v) of *NI 51-101*.~~

~~The resource estimate may be disclosed as a single quantity such as a median or mean, representing the best estimate. Frequently, however, the estimate consists of three values that reflect a range of reasonable likelihoods (the low value reflecting a conservative estimate, the middle value being the best estimate, and the high value being an optimistic estimate).~~

~~Guidance concerning defining the resource category is provided above in section 5.3 and paragraph 5.5(3)(b) of this Companion Policy.~~

Reporting issuers are required to disclose significant positive and negative factors relevant to the estimate pursuant to subparagraph 5.9(2)(d)(iii) of *NI 51-101*. For example, if there is no infrastructure in the region to transport the resource, this may constitute a significant negative factor relevant to the estimate. Other examples would include *abandonment costs, reclamation costs*, a significant lease expiry or any legal, capital, political, technological, business or other factor that is highly relevant to the estimate. To the extent that the *reporting issuer* discloses an estimate for numerous properties that are aggregated, it may disclose significant positive and negative factors relevant to the aggregate estimate, unless discussion of a particular material *resource* or *property* is warranted in order to provide adequate disclosure to investors.

The cautionary language in subparagraph 5.9(2)(d)(v) of *NI 51-101* includes a prescribed disclosure that there is no certainty that it will be commercially viable to produce any portion of the resources. The concept of commercial viability would incorporate the meaning of the word “commercial” provided in the *NI 51-*

101 Glossary **criteria for determining commerciality provided in section 5.3 of volume 1 of the COGE Handbook.**

The general disclosure requirements of paragraph 5.9(2)(d) of *NI 51-101* may be illustrated by an example. If a *reporting issuer* discloses, for example, an estimate of a volume of its *bitumen* which is a *contingent resource* to the issuer, the disclosure would include information of the following nature:

The *reporting issuer* holds a [●] interest in [provide description and location of interest]. As of [●] date, it estimates that, in respect of this interest, it has [●] bbls of *bitumen*, which would be classified as a *contingent resource*. A *contingent resource* is defined as [cite current definition in the *COGE Handbook*]. There is no certainty that it will be commercially viable to produce any portion of the *resource*. The contingencies which currently prevent the classification of the *resource* as a *reserve* are [state specific capital costs required to render *production* economic, applicable regulatory considerations, pricing, specific supply costs, technological considerations, and/or other relevant factors]. A significant factor relevant to the estimate is [e.g.] an existing legal dispute concerning title to the interest.

To the extent that this information is provided in a previously filed document, and it relates to the same interest in *resources*, the issuer can omit disclosure of significant positive and negative factors relevant to the estimate and the contingencies which prevent the classification of the *resource* as a *reserve*. However, the issuer must make reference in the current disclosure to the title and date of the previously filed document.

5.6 Analogous Information

A *reporting issuer* may wish to base an estimate on, or include comparative *analogous information* for their area of interest, such as *reserves*, *resources*, and *production*, from *fields* or wells, in nearby or geologically similar areas. Particular care must be taken in using and presenting this type of information. Using only the best wells or *fields* in an area, or ignoring dry holes, for instance, may be particularly misleading. It is important to present a factual and balanced view of the information being provided.

The *reporting issuer* must comply with the disclosure requirements of section 5.10 of *NI 51-101*, when it discloses *analogous information*, as that term is broadly defined in *NI 51-101*, for an area which includes an area of the *reporting issuer's* area of interest. Pursuant to subsection 5.10(2) of *NI 51-101*, if the issuer discloses an estimate of its own *reserves* or *resources* based on an extrapolation from the *analogous information*, or if the *analogous information* itself is an estimate of its own *reserves* or *resources*, the issuer must ensure the estimate is prepared in accordance with the *COGE Handbook* and disclosed in accordance with *NI 51-101* generally. For example, in respect of a *reserves* estimate, the estimate must be classified and prepared in accordance with the *COGE*

Handbook by a *qualified reserves evaluator or auditor* and must otherwise comply with the requirements of section 5.2 of *NI 51-101*.

5.7 Consistent Use of Units of Measurement

Reporting issuers should be consistent in their use of units of measurement within and between disclosure documents, to facilitate understanding and comparison of the disclosure. For example, *reporting issuers* should not, without compelling reason, switch between imperial units of measure (such as barrels) and *Système International (SI)* units of measurement (such as tonnes) within or between disclosure documents. Issuers should refer to Appendices B and C of volume 1 of the *COGE Handbook* for the proper reporting of units of measurement.

In all cases, in accordance with subparagraph 5.2(1)(a)(iii) and section 5.3 of *NI 51-101*, *reporting issuers* should apply the relevant terminology and unit prefixes set out in the *COGE Handbook*.

5.8 *BOEs* and *McfGEs*

Section 5.14 of *NI 51-101* sets out requirements that apply if a *reporting issuer* chooses to make disclosure discloses using units of equivalency such as *BOEs* or *McfGEs*. The requirements include prescribed methods of calculation and cautionary disclosure as to the possible limitations of those calculations. Section 13 Industry practice is to use a conversion ratio of 6 Mcf of gas to 1 Bbl of oil. If an issuer uses a 6 Mcf to 1 Bbl ratio, in order to satisfy paragraph 5.14(1)(d) of NI 51-101, the reporting issuer could provide a cautionary statement to the following effect:

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 wellhead.

When the value ratio is significantly different from the energy equivalency of 6:1; the disclosure may be misleading without additional information. For example, an actual value ratio of 20:1 at the time the disclosure is made may require a statement to the effect that a conversion using a 6:1 ratio would be misleading as an indication of value.

Results using conversion ratios other than 6:1 may be disclosed, provided an explanation is given. Section 13 of volume 1 of the COGE Handbook, under the heading “Barrels of Oil Equivalent”, provides additional guidance.

5.8.1 Net Asset Value, Reserve Replacement and Netbacks

Section 5.14 of NI 51-101 is a set of principle-based requirements for the disclosure of oil and gas metrics, which replaces the rule-based disclosure requirements for net asset value, reserves replacements and netbacks. If a reporting issuer discloses net asset value, reserves replacement or netbacks, additional disclosure will be required by paragraphs 5.14(1)(b) and 5.14(2)(a) of NI 51-101. For example, if a reporting issuer discloses

- (a) net asset value or net asset value per share, it would be required to include a description of the methods used to value assets and liabilities and the number of shares used in the calculation,
- (b) reserves replacement, it would be required to include an explanation of the method of calculation applied, or
- (c) a netback, it would be required to reflect netbacks calculated by subtracting royalties and operating costs from revenues and state the method of calculation.

5.9 Finding and Development costs

Section 5.15 of NI 51-101 sets out requirements that would apply if a reporting issuer chooses to make disclosure of discloses finding and development costs.

Because the prescribed methods of calculation under section 5.15 involve the use of BOEs, section 5.14 of NI 51-101 necessarily applies to disclosure of finding and development costs under section 5.15. As such, the finding and development cost calculations must apply a conversion ratio as specified in section 5.14 and the cautionary disclosure prescribed in section 5.14 will also be required.

BOEs are based on imperial units of measurement. If the reporting issuer uses other units of measurements (such as SI or "metric" measures), any corresponding departure from the requirements of section 5.15 should reflect the use of units other than BOEs. If a reporting issuer discloses finding and development costs, it must, pursuant to paragraphs 5.14(1)(b) and 5.14(2)(a) of NI 51-101 include the method of calculation, the results of the calculation and 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.

5.9.1 Summation of Resource Categories

An estimate of quantity or an estimate of value constitutes a summation, disclosure of which is prohibited by subsection 5.16(1) of NI 51-101, if that estimate reflects a combination of estimates, known or available to the reporting issuer, for two or more of the subcategories enumerated in that provision. There may be circumstances in which a disclosed estimate was arrived at in accordance with the COGE Handbook without

combining, and without the *reporting issuer* knowing or having access to, estimates in two or more of those enumerated categories. Disclosure of such an estimate would not generally be considered to constitute a summation for purposes of that provision.

5.10 Prospectus Disclosure

In addition to the general disclosure requirements in *NI 51-101* which apply to prospectuses, the following commentary provides additional guidance on topics of frequent enquiry.

- (1) **Significant Acquisitions** - To the extent that an issuer engaged in *oil and gas activities* discloses a significant acquisition in its prospectus, it must disclose sufficient information for a reader to determine how the acquisition affected the *reserves data* and other information previously disclosed in the issuer's *Form 51-101F1*. This requirement stems from Part 6 of *NI 51-101* with respect to material changes. This is in addition to specific prospectus requirements for financial information satisfying significant acquisitions.
- (2) **Disclosure of Resources** - The disclosure of *resources*, excluding *proved* and *probable reserves*, is generally not mandatory under *NI 51-101*, except for certain disclosure concerning the issuer's unproved *properties* and *resource* activities as described in Part 6 of *Form 51-101F1*, which information would be incorporated into the prospectus. Additional disclosure beyond this is voluntary and must comply with ~~sections 5.9, 5.10 and 5.16~~ **Part 5** of *NI 51-101*, as applicable. However, the general securities disclosure obligation of "full, true and plain" disclosure of all *material* facts in a prospectus would require the disclosure of *resources* that are *material* to the issuer, even if the disclosure is not mandated by *NI 51-101*. ~~Any such disclosure should be based on supportable analysis.~~
- (3) **Proved or Probable Undeveloped reserves** - Further to the guidance provided in subsection 5.2(4) of this Companion Policy, *proved* or *probable undeveloped reserves* must be reported in the year in which they are recognized. If the *reporting issuer* does not disclose the *proved* or *probable undeveloped reserves* just because it has not yet spent the capital to develop these *reserves*, it may be omitting *material* information, thereby causing the *reserves* disclosure to be misleading. If the issuer has a prospectus, the prospectus might not contain full, true and plain disclosure of all *material* facts if it does not contain information about these *proved undeveloped reserves*.
- (4) **Reserves Reconciliation in an Initial Public Offering** - In an initial public offering, if the issuer does not have a *reserves* report as at its prior year-end, or if this report does not provide the information required to carry out a *reserves* reconciliation pursuant to item 4.1 of *Form 51-101F1*, the *CSA* may consider granting relief from the requirement to provide the *reserves* reconciliation. A condition of the relief may include a description in the prospectus of relevant changes in any of the categories of the *reserves* reconciliation.

- (5) **Relief to Provide More Recent *Form 51-101F1* Information in a Prospectus -**
If an issuer is filing a preliminary prospectus and wishes to disclose *reserves data* and other *oil* and *gas* information as at a more recent date than its applicable year-end date, the CSA may consider relieving the issuer of the requirement to disclose the *reserves data* and other information as at year-end.

An issuer may determine that its obligation to provide full, true and plain disclosure obliges it to include in its prospectus *reserves data* and other *oil* and *gas* information as at a date more recent than specified in the prospectus requirements. The prospectus requirements state that the information must be as at the issuer's most recent financial year-end in respect of which the prospectus includes financial statements. The prospectus requirements, while certainly not presenting an obstacle to such more current disclosure, would nonetheless require that the corresponding information also be provided as at that financial year-end.

We would consider granting relief on a case-by-case basis to permit an issuer in these circumstances to include in its prospectus the *oil* and *gas* information prepared with an *effective date* more recent than the financial year-end date, without also including the corresponding information effective as at the year-end date. A consideration for granting this relief may include disclosure of *Form 51-101F1* information with an *effective date* that coincides with the date of interim financial statements. The issuer should request such relief in the covering letter accompanying its preliminary prospectus. The grant of the relief would be evidenced by the prospectus receipt.

PART 6 MATERIAL CHANGE DISCLOSURE

6.1 Changes from Filed Information

Part 6 of *NI 51-101* requires the inclusion of specified information in disclosure of certain material changes.

The information to be filed each year under Part 2 of *NI 51-101* is prepared as at, or for a period ended on, the *reporting issuer's* most recent financial year-end. That date is the *effective date* referred to in subsection 6.1(1) of *NI 51-101*. When a material change occurs after that date, the filed information may no longer, as a result of the material change, convey meaningful information, or the original information may have become misleading in the absence of updated information.

Part 6 of *NI 51-101* requires that the disclosure of the material change include a discussion of the *reporting issuer's* reasonable expectation of how the material change has affected the issuer's *reserves data* and other information contained in its filed disclosure. This would not necessarily require that an *evaluation* be carried out. However, the *reporting issuer* should ensure it complies with the general disclosure requirements set out in Part 5, as applicable. For example, if the material change report discloses an updated *reserves* estimate, this should be prepared in accordance with the *COGE Handbook* and by a *qualified reserves evaluator or auditor*.

This material change disclosure can reduce the likelihood of investors being misled, and maintain the usefulness of the original filed *oil* and *gas* information when the two are read together.

APPENDIX 1
to
COMPANION POLICY 51-101CP
STANDARDS OF DISCLOSURE
FOR OIL AND GAS ACTIVITIES

SAMPLE RESERVES DATA DISCLOSURE

Format of Disclosure

NI 51-101 and *Form 51-101F1* do not mandate the format of the disclosure of *reserves data* and related information by *reporting issuers*. However, the CSA encourages *reporting issuers* to use the format presented in this Appendix.

Whatever format and level of detail a *reporting issuer* chooses to use in satisfying the requirements of *NI 51-101*, the objective should be to enable reasonable investors to understand and assess the information, and compare it to corresponding information presented by the *reporting issuer* for other reporting periods or to similar information presented by other *reporting issuers*, in order to be in a position to make informed investment decisions concerning securities of the *reporting issuer*.

A logical and legible layout of information, use of descriptive headings, and consistency in terminology and presentation from document to document and from period to period, are all likely to further that objective.

Reporting issuers and their advisers are reminded of the *materiality* standard under section 1.4 of *NI 51-101*, and of the instructions in *Form 51-101F1*.

See also sections 1.4, 2.2 and 2.3 and subsections 2.7(8) and 2.7(9) of Companion Policy 51-101CP.

Sample Tables

The following sample tables provide an example of how certain of the *reserves data* might be presented in a manner consistent with *NI 51-101*.

These sample tables do not reflect all of the information required by *Form 51-101F1*, and they have been simplified to reflect *reserves* in one country only. For the purpose of illustration, the sample tables also incorporate information not mandated by *NI 51-101* but which *reporting issuers* might wish to include in their disclosure; shading indicates this non-mandatory information.

SUMMARY OF OIL AND GAS RESERVES
as of December 31, 2006
~~CONSTANT FORECAST PRICES AND COSTS~~ [OPTIONAL SUPPLEMENTARY DISCLOSURE]

RESERVES CATEGORY	RESERVES ⁽¹⁾							
	LIGHT <u>CRUDE</u> <u>OIL</u> AND MEDIUM <u>CRUDE</u> OIL		HEAVY <u>CRUDE</u> OIL		<u>CONVENTIONAL</u> NATURAL GAS ⁽²⁾		NATURAL GAS LIQUIDS	
	Gross (Mbbbl)	Net (Mbbbl)	Gross (Mbbbl)	Net (Mbbbl)	Gross (MMcf)	Net (MMcf)	Gross (Mbbbl)	Net (Mbbbl)
PROVED								
Developed Producing	xx	xx	xx	xx	xx	xx	xx	xx
Developed Non-Producing	xx	xx	xx	xx	xx	xx	xx	xx
Undeveloped	xx	xx	xx	xx	xx	xx	xx	xx
TOTAL PROVED	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
PROBABLE	xx	xx	xx	xx	xx	xx	xx	xx
TOTAL PROVED PLUS PROBABLE	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx

(1) Other product types must be added if material.

(2) Estimates of reserves of natural gas may be reported separately for (i) associated and non-associated gas (combined), (ii) solution gas and (iii) coal bed methane.

☐ OPTIONAL
SUPPLEMENTARY

INCLUDES COMMENT LETTERS

SUMMARY OF NET PRESENT VALUES OF FUTURE NET REVENUE
as of December 31, 2006**2014**
~~**CONSTANT PRICES AND COSTS [OPTIONAL SUPPLEMENTARY DISCLOSURE]**~~
FORECAST PRICES AND COSTS

RESERVES CATEGORY	NET PRESENT VALUES OF FUTURE NET REVENUE										
	BEFORE INCOME TAXES DISCOUNTED AT (%/year)					AFTER INCOME TAXES DISCOUNTED AT (%/year)					UNIT VALUE BEFORE INCOME TAX DISCOUNTED AT 10%/year
	0 (MM\$)	5 (MM\$)	10 (MM\$)	15 (MM\$)	20 (MM\$)	0 (MM\$)	5 (MM\$)	10 (MM\$)	15 (MM\$)	20 (MM\$)	(\$/Mcf) (\$/bbl)
PROVED											
Developed Producing	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx
Developed Non-Producing	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx
Undeveloped	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	
TOTAL PROVED	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xx
PROBABLE	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx
TOTAL PROVED PLUS PROBABLE	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxx

☐ ~~OPTIONAL
SUPPLEMENTARY~~

Reference: Item 2.2 of ~~Form 51-101F1~~

INCLUDES COMMENT LETTERS

**TOTAL FUTURE NET REVENUE
(UNDISCOUNTED)
as of December 31, 2006
~~CONSTANT PRICES AND COSTS [OPTIONAL SUPPLEMENTARY DISCLOSURE]~~**

RESERVES CATEGORY	REVENUE (M\$)	ROYALTIES (M\$)	OPERATING COSTS (M\$)	DEVELOP MENT COSTS (M\$)	ABANDONM ENT AND RECLAMATI ON COSTS (M\$)	FUTURE NET REVENUE BEFORE INCOME TAXES (M\$)	INCOME TAXES (M\$)	FUTURE NET REVENUE AFTER INCOME TAXES (M\$)
Proved Reserves	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Proved Plus Probable Reserves	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx

☐ OPTIONAL
SUPPLEMENTARY

Reference: ~~Item 2.2 of Form 51-101F1~~

**FUTURE NET REVENUE
BY PRODUCTION GROUP
as of December 31, 2006**
~~CONSTANT PRICES AND COSTS [OPTIONAL SUPPLEMENTARY DISCLOSURE]~~

RESERVES CATEGORY	PRODUCTION GROUP	FUTURE NET REVENUE BEFORE INCOME TAXES (discounted at 10%/year) (M\$)
Proved Reserves	Light and Medium Crude Oil (including solution gas and other by products)	xxx
	Heavy Oil (including solution gas and other by products)	xxx
	Natural Gas (including by products but excluding solution gas from oil wells)	xxx
	Non-Conventional Oil and Gas Activities	xxx
Proved Plus Probable Reserves	Light and Medium Crude Oil (including solution gas and other by products)	xxx
	Heavy Oil (including solution gas and other by products)	xxx
	Natural Gas (including by products but excluding solution gas from oil wells)	xxx
	Non-Conventional Oil and Gas Activities	xxx

<div style="border: 1px solid black; width: 40px; height: 15px; display: inline-block;"></div>	OPTIONAL SUPPLEMENTARY	Reference: Item 2.2 of Form 51-101 F1
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INCLUDES COMMENT LETTERS

SUMMARY OF OIL AND GAS RESERVES
as of December 31, 2006
FORECAST PRICES AND COSTS

RESERVES CATEGORY	RESERVES ⁽¹⁾							
	LIGHT AND MEDIUM OIL		HEAVY OIL		NATURAL GAS ⁽²⁾		NATURAL GAS LIQUIDS	
	Gross (Mbbl)	Net (Mbbl)	Gross (Mbbl)	Net (Mbbl)	Gross (MMcf)	Net (MMcf)	Gross (Mbbl)	Net (Mbbl)
PROVED								
Developed Producing	xx	xx	xx	xx	xx	xx	xx	xx
Developed Non-Producing	xx	xx	xx	xx	xx	xx	xx	xx
—Undeveloped	xx	xx	xx	xx	xx	xx	xx	xx
TOTAL PROVED	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
PROBABLE	xx	xx	xx	xx	xx	xx	xx	xx
TOTAL PROVED PLUS PROBABLE	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx

(1) Other product types must be added if material.

(2) Estimates of reserves of natural gas may be reported separately for (i) associated and non-associated gas (combined), (ii) solution gas and (iii) coal bed methane.

SUMMARY OF NET PRESENT VALUES OF FUTURE NET REVENUE
as of December 31, 2006
FORECAST PRICES AND COSTS

RESERVES CATEGORY	NET PRESENT VALUES OF FUTURE NET REVENUE										
	BEFORE INCOME TAXES DISCOUNTED AT (%/year)					AFTER INCOME TAXES DISCOUNTED AT (%/year)					UNIT VALUE BEFORE INCOME TAX DISCOUNTED AT 10%/year
	0 (MM\$)	5 (MM\$)	10 (MM\$)	15 (MM\$)	20 (MM\$)	0 (MM\$)	5 (MM\$)	10 (MM\$)	15 (MM\$)	20 (MM\$)	(\$/Mcf) (\$/bbl)
PROVED											
Developed Producing	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx
Developed Non- Producing	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx
Undeveloped	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx
TOTAL PROVED	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xx
PROBABLE	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx
TOTAL PROVED PLUS PROBABLE	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxx

- (1) A reporting issuer may wish to satisfy its requirement to disclose these unit values by inserting this disclosure for each category of proved reserves and for probable reserves, by ~~production group~~product type, in the chart for item 2.1(3)(c) of *Form 51-101F1* (see sample chart below entitled Future Net Revenue by ~~Production Group~~Product Type).
- (2) The unit values are based on net reserve volumes.

Reference: Item 2.1(1) and (2) of *Form 51-101F1*

TOTAL FUTURE NET REVENUE

**(UNDISCOUNTED)
as of December 31, ~~2006~~2014
FORECAST PRICES AND COSTS**

RESERVES CATEGORY	REVENUE (M\$)	ROYALTIES (M\$)	OPERATING COSTS (M\$)	DEVELOPMENT COSTS (M\$)	ABANDONMENT AND RECLAMATION COSTS (M\$)	<u>RECLAMATION COSTS (M\$)</u>	FUTURE NET REVENUE BEFORE INCOME TAXES (M\$)	INCOME TAXES (M\$)	FUTURE NET REVENUE AFTER INCOME TAXES (M\$)
Proved Reserves	xxx	xxx	xxx	xxx	xxx	<u>xxx</u>	xxx	xxx	xxx
Proved Plus Probable Reserves	xxx	xxx	xxx	xxx	xxx	<u>xxx</u>	xxx	xxx	xxx

Reference: Item 2.1(3)(b) of *Form 51-101F1*

INCLUDES COMMENT LETTERS

**FUTURE NET REVENUE
BY ~~PRODUCTION GROUP~~ PRODUCT TYPE
as of December 31, ~~2006~~ 2014
FORECAST PRICES AND COSTS**

RESERVES CATEGORY	PRODUCTION GROUP <u>PRODUCT TYPE</u>	FUTURE NET REVENUE BEFORE INCOME TAXES (discounted at 10%/year) (M\$)	UNIT VALUE (\$/Mcf) (\$/bbl)
Proved Reserves	Light <u>Crude Oil</u> and Medium Crude Oil (including solution gas and other by-products)	xxx	xxx
	Heavy <u>Crude</u> Oil (including solution gas and other by-products)	xxx	xxx
	<u>Bitumen</u>	<u>xxx</u>	
	<u>Natural Gas Liquids</u>	<u>xxx</u>	
	<u>Synthetic Crude Oil</u>	<u>xxx</u>	
	<u>Conventional</u> Natural Gas (including by-products but excluding solution gas and by-products from oil wells)	xxx	xxx
	Non-Conventional Oil and <u>Coal Bed Methane</u>	<u>xxx</u>	
	Gas Activities Hydrates	<u>xxx</u>	
Proved Plus Probable Reserves	<u>Shale Gas</u>	<u>xxx</u>	
	<u>Synthetic Gas</u>	xxx	xxx
	Total	xxx	
	Light <u>Crude Oil</u> and Medium Crude Oil (including solution gas and other by-products)	xxx	xxx
	Heavy <u>Crude</u> Oil (including solution gas and other by-products)	xxx	xxx
	<u>Bitumen</u>	xxx	
	<u>Natural Gas Liquids</u>		
	<u>Synthetic Crude Oil</u>		
	<u>Conventional</u> Natural Gas (including by-products but excluding solution gas from oil wells)		

INCLUDES COMMENT LETTERS

Non-Conventional Oil and Gas Activities	<u>Coal Bed Methane</u>	xxx	xxx
Hydrates	<u>Shale Gas</u>		
<u>Synthetic Gas</u>			
Total		xxx	

Reference: Item 2.1(3)(c) of *Form 51-101F1*

INCLUDES COMMENT LETTERS

SUMMARY OF OIL AND GAS CONTINGENT AND PROSPECTIVE RESOURCES⁽¹⁾

as of December 31, 2014

FORECAST PRICES AND COSTS

CONTINGENT AND PROSPECTIVE RESOURCES⁽²⁾

<u>RESOURCES CATEGORY</u>	<u>CONTINGENT AND PROSPECTIVE RESOURCES⁽²⁾</u>							
	<u>LIGHT CRUDE OIL AND MEDIUM CRUDE OIL</u>		<u>HEAVY CRUDE OIL</u>		<u>CONVENTIONAL NATURAL GAS</u>		<u>NATURAL GAS LIQUIDS</u>	
	<u>Gross (Mbbbl)</u>	<u>Net (Mbbbl)</u>	<u>Gross (Mbbbl)</u>	<u>Net (Mbbbl)</u>	<u>Gross (MMcf)</u>	<u>Net (MMcf)</u>	<u>Gross (Mbbbl)</u>	<u>Net (Mbbbl)</u>
<u>CONTINGENT</u>								
<u>1C</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>
<u>2C</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>
<u>3C</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>
<u>PROSPECTIVE</u>								
<u>Low estimate</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>
<u>Best estimate</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>
<u>High estimate</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>	<u>xx</u>

(1) This disclosure is triggered by optional disclosure of contingent or prospective resources in the statement prepared in accordance with item 1 of section 2.1 of NI 51-101

(2) Other product types must be added if material.

(3) The disclosure in this table must comply with section 5.9 of NI 51-101

Reference: Item 2.1(4)(a) of Form 51-101F1

SUMMARY OF NET PRESENT VALUES OF FUTURE NET REVENUE⁽¹⁾
(CONTINGENT AND PROSPECTIVE RESOURCES)
as of December 31, 2014
FORECAST PRICES AND COSTS

<u>RESOURCES CATEGORY</u>	<u>NET PRESENT VALUES OF FUTURE NET REVENUE</u>									
	<u>BEFORE INCOME TAXES DISCOUNTED AT (%/year)</u>					<u>AFTER INCOME TAXES DISCOUNTED AT (%/year)</u>				
	<u>0 (MM\$)</u>	<u>5 (MM\$)</u>	<u>10 (MM\$)</u>	<u>15 (MM\$)</u>	<u>20 (MM\$)</u>	<u>0 (MM\$)</u>	<u>5 (MM\$)</u>	<u>10 (MM\$)</u>	<u>15 (MM\$)</u>	<u>20 (MM\$)</u>
<u>CONTINGENT</u>										
<u>1C</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>
<u>2C</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>
<u>3C</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>
<u>PROSPECTIVE</u>										
<u>Low Estimate</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>
<u>Best Estimate</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>
<u>High Estimate</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>

☐ **OPTIONAL
SUPPLEMENTARY**

(1) This disclosure is triggered by optional disclosure of contingent or prospective resources in the statement prepared in accordance with item 1 of section 2.1 of NI 51-101

(2) The disclosure in this table must comply with section 5.9 of NI 51-101

Reference: Item 2.1(4)(b) of Form 51-101F1

SUMMARY OF PRICING ASSUMPTIONS
as of December 31, ~~2006~~2014

CONSTANT PRICES AND COSTS⁽¹⁾

Year	OIL ⁽²⁾				NATURAL GAS ⁽²⁾ AECO Gas Price (\$Cdn/MMBtu)	NATURAL GAS LIQUIDS FOB Field Gate (\$Cdn/bbl)	EXCHANGE RATE ⁽³⁾ (\$US/\$Cdn)
	WTI Cushing Oklahoma (\$US/bbl)	Edmonton Par Price 40 ⁰ API (\$Cdn/bbl)	Hardisty Heavy 12 ⁰ API (\$Cdn/bbl)	Cromer Medium 29.3 ⁰ API (\$Cdn/bbl)			
Historical (Year End)							
2003 <u>11</u>	xx	xx	xx	xx	xx	xx	xx
2004 <u>12</u>	xx	xx	xx	xx	xx	xx	xx
2005 <u>13</u>	xx	xx	xx	xx	xx	xx	xx
2006 <u>14</u> (Year End)	xx	xx	xx	xx	xx	xx	xx

 OPTIONAL
SUPPLEMENTARY

- (1) This disclosure is triggered by optional supplementary disclosure of item 2.2 of *Form 51-101F1*.
(2) This summary table identifies benchmark reference pricing schedules that might apply to a reporting issuer.
(3) The exchange rate used to generate the benchmark reference prices in this table.

Reference: Item 3.1 of *Form 51-101F1*

SUMMARY OF PRICING AND INFLATION RATE ASSUMPTIONS
as of December 31, ~~2006~~2014
FORECAST PRICES AND COSTS

Year	OIL ⁽¹⁾				NATURAL GAS ⁽¹⁾ AECO Gas Price (\$Cdn/MMBtu)	NATURAL GAS LIQUIDS FOB Field Gate (\$Cdn/bbl)	INFLATION RATES ⁽²⁾ %/Year	EXCHANGE RATE ⁽³⁾ \$US/\$Cdn
	WTI Cushing Oklahoma \$US/bbl	Edmonton Par Price 40 ⁰ API \$Cdn/bbl	Hardisty Heavy 12 ⁰ API \$Cdn/bbl	Cromer Medium 29.3 ⁰ API \$Cdn/bbl				
Historical ⁽⁴⁾								
2003 11	xx	xx	xx	xx	xx	xx	xx	xx
2004 12	xx	xx	xx	xx	xx	xx	xx	xx
2005 13	xx	xx	xx	xx	xx	xx	xx	xx
2006 14	xx	xx	xx	xx	xx	xx	xx	xx
Forecast								
2007 15	xx	xx	xx	xx	xx	xx	xx	xx
2008 16	xx	xx	xx	xx	xx	xx	xx	xx
2009 17	xx	xx	xx	xx	xx	xx	xx	xx
2010 18	xx	xx	xx	xx	xx	xx	xx	xx
2011 19	xx	xx	xx	xx	xx	xx	xx	xx
Thereafter	xx	xx	xx	xx	xx	xx	xx	xx

(1) This summary table identifies benchmark reference pricing schedules that might apply to a reporting issuer.

(2) Inflation rates for forecasting prices and costs.

(3) Exchange rates used to generate the benchmark reference prices in this table

(4) Item 3.2(1)(b) of *Form 51-101F1* also requires disclosure of the *reporting issuer's* weighted average historical prices for the most recent financial year (2006~~14~~, in this example).

 OPTIONAL
SUPPLEMENTARY

Reference: Item 3.2 of *Form 51-101F1*

INCLUDES COMMENT LETTERS

**RECONCILIATION OF
COMPANY GROSS RESERVES
BY PRODUCT TYPE⁽¹⁾**

FORECAST PRICES AND COSTS

FACTORS	LIGHT <u>CRUDE OIL</u> AND MEDIUM <u>CRUDE OIL</u>			HEAVY <u>CRUDE OIL</u>			ASSOCIATED AND NON- ASSOCIATED <u>CONVENTIONAL</u> <u>NATURAL GAS</u>		
	Gross Proved (Mbbl)	Gross Probable (Mbbl)	Gross Proved Plus Probable (Mbbl)	Gross Proved (Mbbl)	Gross Probable (Mbbl)	Gross Proved Plus Probable (Mbbl)	Gross Proved (MMcf)	Gross Probable (MMcf)	Gross Proved Plus Probable (MMcf)
December 31, 2005 ¹³	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Extensions & Improved Recovery Technical Revisions	xx	xx	xx	xx	xx	xx	xx	xx	xx
Discoveries	xx	xx	xx	xx	xx	xx	xx	xx	xx
Acquisitions	xx	xx	xx	xx	xx	xx	xx	xx	xx
Dispositions	xx	xx	xx	xx	xx	xx	xx	xx	xx
Economic Factors	xx	xx	xx	xx	xx	xx	xx	xx	xx
Production	xx	xx	xx	xx	xx	xx	xx	xx	xx
December 31, 2006 ¹⁴	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx

(1) The reserves reconciliation must include other product types, including bitumen, natural gas liquids, synthetic crude oil, ~~bitumen~~, coal bed methane, gas hydrates, shale oil, gas and shale synthetic gas, if material for the reporting issuer.

Reference: Item 4.1 of *Form 51-101F1*

Gaffney, Cline & Associates

Gaffney, Cline & Associates

5555 San Felipe Street,
Suite 550
Houston, TX 77056
Telephone: +1 713 850 9955

www.gaffney-cline.com

February 07, 2014

RJHS/gjh/AH-14-1005.00/gcah.63.14

For the attention of:

British Columbia Securities Commission
Alberta Securities Commission
Financial and Consumer Affairs Authority of Saskatchewan
Manitoba Securities Commission
Ontario Securities Commission
Autorité des marchés financiers
Financial and Consumer Services Commission (New Brunswick)
Superintendent of Securities, Department of Justice and Public Safety, Prince Edward Island
Nova Scotia Securities Commission
Securities Commission of Newfoundland and Labrador
Superintendent of Securities, Northwest Territories
Superintendent of Securities, Yukon
Superintendent of Securities, Nunavut

c/o Michael Jackson
Oil and Gas Compliance Counsel
and MMe Anne-Marie Beaudoin, Corporate Secretary
Autorite des marches financiers

Response to CSA Notice from Gaffney, Cline & Associates

Gaffney, Cline & Associates (GCA) welcomes the opportunity to respond to the "CSA Notice and Request for Comment, Proposed Amendments to National Instrument 51-101 *Standards of Disclosure for Oil and Gas Activities* and Proposed Changes to Companion Policy 51-101CP *Standards of Disclosure for Oil and Gas Activities*". The subject of this response is in regard to the reporting of Resources Other Than Reserves (ROTR) and in particular to the disclosure of net present value of future net revenue for Contingent Resources and Prospective Resources.

As is clearly stated in NI 51-101 section 5.9, the reporting issuer is required (if reporting ROTR) to "ensure that their disclosure includes the risks and uncertainties that are appropriate and meaningful for their activities." Further, "This may be expressed quantitatively as probabilities or qualitatively by appropriate description. If the reporting issuer chooses to express the risks and level of uncertainty qualitatively, the disclosure must be meaningful and not in the nature of a general disclaimer."

However, GCA notes that Forms F1 and F2 require the reporting of the "net present value of future net revenue" for these resources, apparently without any proximate discussion of the associated risks or, apparently, the need for a quantification of the impact of such risks on the NPVs.

In GCA's view, the presentation of un-risked NPVs for Contingent Resources and Prospective Resources could be greatly misleading. Perhaps there are other mechanisms in place to ensure that this does not happen in practice, but from a review of the document this is not clear. Without appropriate adjustment of NPVs for all the contingency factors (including, in the case of Prospective Resources, the likelihood of discovery), GCA would not be in favor of this aspect of the proposed amendment. Even if a requirement for adjusting NPVs is explicitly included, GCA would recommend at a minimum very strong guidance as to how such adjustment should be incorporated. In that context, some worked examples of what is acceptable and what is not acceptable, as part of guidance notes to the amendment, should be included.

On a related topic, we note in connection with the reporting of Contingent Resources and Prospective Resources on Form F2 (for instance) that there is no discussion about aggregation of volumes at the 2C and Best Estimate level (respectively) to reach the country- or geographic region-level volumes and NPVs requested. It is GCA's view that for both types of resources (and especially for Prospective Resources) there would be an over-statement of both volumes and NPVs if the associated risks are not incorporated. Depending on the intent, specific guidance on how such aggregation should be accomplished is recommended.

Gaffney, Cline and Associates (GCA) is a leading global independent oil and gas advisory organization that routinely reports upon reserves and resources for various statutory and management purposes. GCA has experience in reporting on a large number of exchanges around the world including those whose reporting requirements are governed by NI 51-101 and the US SEC, as well as those using the SPE PRMS as their main reserves and resource reporting standard. GCA currently has two representatives on the SPE Oil and Gas Reserves Committee, one as Past Chairman.

Yours sincerely,

Gaffney, Cline & Associates



Rawdon J.H. Seager
Director – Global Quality Assurance



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 CALGARY, ALBERTA T2P 5C5
 FAX (403) 237-1902
 TEL (403) 237-1234
 www.talisman-energy.com

January 15, 2014

Alberta Securities Commission
 British Columbia Securities Commission
 Financial and Consumer Affairs Authority of Saskatchewan
 Manitoba Securities Commission
 Ontario Securities Commission
 Autorité des marchés financiers
 Financial and Consumer Services Commission (New Brunswick)
 Superintendent of Securities, Department of Justice and Public Safety, Prince Edward Island
 Nova Scotia Securities Commission
 Securities Commission of Newfoundland and Labrador
 Superintendent of Securities, Yukon
 Superintendent of Securities, Northwest Territories
 Superintendent of Securities, Nunavut

Re: Proposed Amendments to National Instrument 51-101
and Companion Policy 51-101CP

Dear Sirs/Madams:

Talisman Energy Inc. ("Talisman") is pleased to have this opportunity to provide comments in response to the Canadian Securities Administrators' proposed amendments to National Instrument 51-101–*Standards of Disclosure for Oil and Gas Activities* ("Proposed NI 51-101") and related Companion Policy 51-101CP ("Proposed 51-101CP").

As a global upstream oil and gas company, headquartered in Canada, Talisman welcomes aspects of the proposed amendments that are intended to increase flexibility and recognize that oil and gas reporting issuers, many of whom operate in different regulatory regimes, should be permitted to supplement their Canadian oil and gas disclosures with those prepared pursuant to such other regimes. We also welcome the shift towards a more principle-based approach provided such approach gives issuers the flexibility to disclose metrics that are meaningful and relevant to their respective businesses, accompanied by appropriate explanations if such metrics are non-standard.

In the remainder of this letter, we draw your attention to aspects of the proposed amendments that, in our opinion, warrant clarification and/or further attention and discussion.

1. Alternative Evaluation Standard

Section 5.18 of Proposed NI 51-101 contains a distinction between disclosure that is required under the laws of a foreign jurisdiction and disclosure that is not required under the laws of a foreign jurisdiction, providing less onerous requirements with respect to disclosure that is *required* under the laws of a foreign jurisdiction. For example, for disclosures that are required, a cross-reference to the SEDAR website where a reporting issuer's NI 51-101 estimates are located is sufficient, whereas for disclosures that are not required, the disclosure of NI 51-101 estimates is needed in the document itself.

In order to access capital markets in the United States, Talisman is listed on the New York Stock Exchange, is a Form 40-F annual filer and voluntarily files a Form F-10 prospectus from time to time. All of the US oil and gas information Talisman provides is in accordance with US requirements and the substantial majority of Talisman's US oil and gas disclosures are required in order for Talisman to access US capital markets. Please confirm that, with respect to oil and gas disclosures that are required in order for Talisman to access US capital markets, Talisman is subject to the less onerous requirements set forth in this section.

2. Resource Disclosure in Form 51-101F1

Although Talisman has not historically disclosed contingent or prospective resource estimates in its Form 51-101F1, and we understand that new provisions in this section do not extend to the disclosure of contingent or prospective resource estimates outside of the Form 51-101F1, we note the complexities raised by new provisions of Proposed NI 51-101 which require issuers to disclose the net present value of future net revenue in respect of any contingent or prospective resource estimate included in the Form 51-101F1. The new provisions require issuers to ascribe economic value to resources (that are not themselves required to be economic), which could result in misleading or confusing disclosures caused by issuers ascribing vastly different economic values to contingencies depending on their circumstances, the disclosure of negative net present values, and others.

The aforementioned provisions of Proposed NI 51-101 also require resource disclosure contained in a Form 51-101F1 to be evaluated or audited by an independent qualified reserves evaluator ("IQRE"). We ask the Canadian Securities Administrators to please confirm that such provisions would not result in any termination or change to the IQRE exemption order that Talisman obtained in December 2010.

3. Abandonment & Reclamation Costs

Proposed NI 51-101 requires abandonment costs to be separated from reclamation costs in future net revenue disclosure. Talisman currently has global systems in place to track combined abandonment and reclamation costs and it would be costly and challenging to track the costs separately in the various economic modelling systems used. For a company like Talisman, estimated reclamation costs are a small portion of combined abandonment and reclamation costs and as such, we respectfully submit that the value of such disclosure is disproportionate to the amount of work required to separate them. We request that Proposed NI 51-101 be revised to permit issuers to continue to disclose on a combined basis and footnote as such, particularly where a reporting issuer's estimate of either abandonment costs or reclamation costs are less than a certain percentage (eg 20%) of the whole. Furthermore, we request that reporting issuers be provided a one year transition period in order to comply with any such requirement.

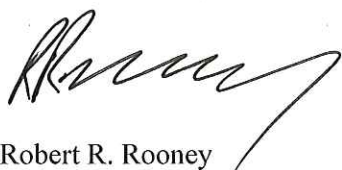
4. Definition of Bitumen

Proposed NI 51-101 introduces a new definition of “bitumen” which refers to a viscosity threshold of 10,000 mPa·s (cP). Our concern with ascribing a viscosity threshold is that there may be circumstances where hydrocarbons which, consistent with industry standards, should be classified as “heavy oil” because they are recoverable by conventional means, would need to be classified as “bitumen” instead, due solely to viscosity. In order to prevent this situation, we recommend adoption of the definition of bitumen contained in the Petroleum Resources Management System (“PRMS”). The PRMS definition, which is consistent with industry standard, describes bitumen as follows: “[i]n its natural viscous state, it is not normally recoverable at commercial rates through a well and requires the implementation of improved recovery methods such as steam injection.”

Thank you for the opportunity to submit comments on Proposed NI 51-101 and Proposed 51-101CP. If you have any questions, or require any further information, please do not hesitate to contact me at (403) 237-1234 or by email at brooney@talisman-energy.com.

Sincerely,

TALISMAN ENERGY INC.



Robert R. Rooney
Executive Vice-President and General Counsel

Imperial Oil Limited
Fifth Avenue Place
237 Fourth Avenue SW
Calgary, AB T2P 0H6

Mark D. Taylor, P. Eng.
Operations Technical Engineering Manager
Imperial Oil Resources

Tel: (403) 237-3058
Fax: (403) 232-5307

January 16, 2014

British Columbia Securities Commission
Alberta Securities Commission
Financial and Consumer Affairs Authority of Saskatchewan
Manitoba Securities Commission Ontario Securities Commission
Autorité des marchés financiers
Financial and Consumer Services Commission (New Brunswick)
Superintendent of Securities, Department of Justice and Public Safety, Prince Edward Island
Nova Scotia Securities Commission
Securities Commission of Newfoundland and Labrador
Superintendent of Securities, Northwest Territories
Superintendent of Securities, Yukon
Superintendent of Securities, Nunavut

Attention:

Michael Jackson
Oil and Gas Compliance Counsel
Alberta Securities Commission
Suite 600, 250-5th Street SW
Calgary, Alberta T2P 0R4

and;

Me Anne-Marie Beaudoin
Corporate Secretary
Autorité des marchés financiers
800, square Victoria, 22e étage
C.P. 246, tour de la Bourse
Montréal (Québec) H4Z 1G3

Imperial Oil Limited
Fifth Avenue Place
237 Fourth Avenue SW
Calgary, AB T2P 0H6

Mark D. Taylor, P. Eng.
Operations Technical Engineering Manager
Imperial Oil Resources

Tel: (403) 237-3058
Fax: (403) 232-5307

Re: Imperial Oil Comments
Proposed Amendments to National Instrument 51-101 and Companion Policy 51-101CP

Mr. Jackson, Me. Beaudoin:

Imperial Oil Limited (“we” or “the company”) is pleased to provide comments on the CSA’s proposed amendments to National Instrument 51-101 *Standards of Disclosure for Oil and Gas Activities* (“NI 51-101”) and proposed changes to Companion Policy 51-101CP *Standards of Disclosure for Oil and Gas Activities*.

Imperial Oil fully supports the need to enhance the quality and consistency of reporting issuers’ disclosure of oil and gas activities. We therefore offer the attached responses to the questions posed by the CSA, which we hope will assist in achieving its objectives as well as maintaining the integrity of reporting under NI-51 101.

Sincerely,

/s/ Mark D. Taylor

Attachment

INCLUDES COMMENT LETTERS

- 1. The Proposed Amendments would permit an issuer to disclose reserves prepared in accordance with, for example, the SEC regime supplementary to reserves disclosed under NI 51-101. Do you support the proposal to permit the supplementary disclosure of reserves prepared under a regime comparable to the COGE Handbook, as is set out in proposed section 5.18 of NI 51-101? Please explain your views.**

We support the amendment as set out in proposed section 5.18. The number of issuers subject to reporting in multiple jurisdictions and the close economic ties between Canada and, for example, the United States make it important for disclosure under other similar regimes to be permitted.

- 2. The Proposed Amendments eliminate the requirement to disclose a reporting issuer's reserves data by production group. Do you support the removal of the requirement to disclose reserves data by production group? Please explain your views.**

We take no exception to eliminating the requirement to report reserves data by production group or the adoption of the product type definitions from COGE. The CSA should consider reducing the number of product types as listed in Section 1.1(v) or amending NI 51-101 to specifically allow reporting issuers to combine similar product types if reasonable. For example, if multiple liquid product types are produced from the same field or if one or more of the product types is not material to the reporting issuer.

- 3. A reporting issuer that includes contingent resources and prospective resources is not currently required to have those estimates prepared by an independent qualified reserves evaluator. Do you support the requirement in proposed item 2 of section 2.1 of NI 51-101 for an independent qualified reserves evaluator to evaluate or audit any contingent resources or prospective resources included in the annual statement of reserves data? Please explain your views.**

We support the proposed requirement for an independent qualified reserves evaluator to evaluate or audit any contingent resources or prospective resources included in the annual statement of reserves data. This requirement would ensure the information contained in the annual statement of reserves data (Form 51-101F1) is of the highest standards of quality, integrity and consistency amongst issuers. We provide this support with an understanding that issuers such as Imperial, who have internally generated reserves data that is at least as reliable as independently generated reserves data, will be exempted from the requirement for the qualified reserves evaluator to be independent.

- 4. Do you support the requirement in proposed paragraph 4 of item 2.1 of Form 51-101F1 to provide low, best and high estimates of volume and net present value of future net revenue in respect of any contingent resources or prospective resources included in the annual statement of reserves data? Please explain your views.**

We do not support the requirement to provide estimates of value (net present value of future net revenue) for contingent or prospective resources disclosed in Form 51-101F1. Determining value for contingent and prospective resources is dependent on significant factors such as recovery technology, market access and development plans, costs and schedule. There is the potential for significant variations in the assumptions around these factors among various parties assigning value to a resource. Given the potential variability and uncertainty in the assumptions necessary to determine value for contingent and prospective resources, we believe the proposed amendment may reduce comparability between issuers, heighten the potential for misleading data and detrimentally impact the integrity of disclosures.

Also, we do not support the proposed requirement that, if a reporting issuer chooses to disclose estimates of volume for contingent or prospective resources in Form 51-101F1, that the issuer must provide low, medium and high estimates. Disclosure of the medium or 'best' estimate of volume is sufficient. We do support the position that, if the reporting issuer chooses to disclose the higher estimate, then the issuer must also disclose the corresponding low estimate, as currently required under NI 51-101 Section 5.17(1).

- 5. When a reporting issuer discloses an oil and gas metric, the Proposed Amendments would require the reporting issuer to disclose the standard, methodology and meaning of the disclosed metric, and if there was no identifiable standard, the parameters used in calculating the oil and gas metric and a cautionary statement. Do you support the proposed amendment to section 5.14 of NI 51-101 to impose the above described disclosure-based approach to oil and gas metrics such as BOEs, finding and development costs, netbacks, etc.? Please explain your views.**

We do not take exception to the proposed disclosure-based approach to oil and gas metrics.



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2014-01-17

British Columbia Securities Commission
 Alberta Securities Commission
 Financial and Consumer Affairs Authority of Saskatchewan
 Manitoba Securities Commission
 Ontario Securities Commission
 Autorité des marchés financiers
 Financial and Consumer Services Commission (New Brunswick)
 Superintendent of Securities, Department of Justice and Public Safety, Prince Edward Island
 Nova Scotia Securities Commission
 Securities Commission of Newfoundland and Labrador
 Superintendent of Securities, Northwest Territories
 Superintendent of Securities, Yukon
 Superintendent of Securities, Nunavut

c/o

Mr. Michael Jackson, Oil and Gas Compliance Counsel
Alberta Securities Commission
Suite 600, 250 5th Avenue SW
Calgary, Alberta T2P 0R4

and

MM^{rs} Anne-Marie Beaudoin, Corporate Secretary
Autorité des marchés financiers
800, square Victoria, 22^e étage
C.P. 246, tour de la Bourse
Montréal (Québec) H4Z

Delivered via email to: Michael.jackson@asc.ca and consultation-en-cours@lautorite.gc.ca

Re: Proposed Amendments to NI-51-101

Dear Messrs. and Mmes.:

Thank you for the opportunity to submit our comments in response to the proposed amendments to NI51-101 and NI51-101CP.

RPS Energy, a division of RPS Group PLC, is a consulting firm which acts as an independent qualified reserve evaluator of oil and gas reserves and resources. RPS Energy operates out of offices in Calgary, London, Henley, Houston, Perth and Singapore, and certifies reserves and resources for clients listing on all major exchanges worldwide.

Attached is a four page document which comprises a consolidated response from the various RPS Energy offices worldwide.

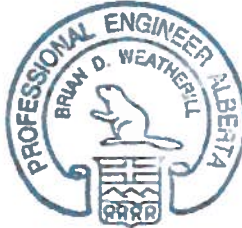


- 2 -

Yours sincerely,

RPS Energy Canada Ltd.

A handwritten signature in blue ink, appearing to read "B. Weatherill".



Brian D. Weatherill, P.Eng.
Project Director & Reservoir Evaluations Specialist

Encl

RPS Comments on Proposed Changes to NI51-101**Summary Comment:**

While RPS applauds the intent of disclosing valuations of Resources Other Than Reserves (“ROTR”), RPS is concerned that to require future net revenue cash flow NPV based valuations across the board for all categories and sub-categories of ROTR does not accommodate the wide variety of valuation uncertainties associated with the wide variety of project maturity across this spectrum. RPS is also concerned that for ROTR volumes which have been categorized as sub-economic or non-recoverable, but which may become economic in the future with the removal of a critical contingency, it makes no sense to require reporting of a negative value if a reporting issuer chooses to disclose those volumes.

Recommendations:

If ASC wishes to advance the reporting of value for ROTR then RPS recommends:

- Allow the reporting to be at a level of detail, and using the methodology equivalent to the entity’s normal business practices in the management of the ROTR portfolio.
- For all categories of ROTR, require the disclosure of the ROTR sub-category and a discussion of the reasons for the sub-categorization.
- Rather than requiring a NPV value based on cash flow analysis, allow the value reporting to be based on methodologies appropriate to the project maturity sub-category and/or economic status of the resource.
- For Contingent Resources (“CR”)
 - For CR categorized as “Development Pending” and “Development Unclassified or On Hold”, require the reporting of a NPV based on cash flow analysis
 - For CR categorized as “Development Not Viable” or “Sub-economic” or “Unrecoverable”:
 - Where the value is either unknown or negative and there is a likelihood that the value may become positive and the ROTR reclassified upon the removal of certain known contingencies, allow reporting of volumes only, and
 - if value is reported, allow the valuation to be determined by an appropriate methodology, which may be other than NPV cash flow value basis
 - Require a description of the reasons for the sub-categorization of the CR and a discussion of the technical and business risks/uncertainties associated with the CR
- For Prospective Resources (“PR”),
 - It is preferable to report valuation on an NPV cash flow basis, however in many cases where this may be unreasonable, inaccurate or inappropriate, allow reporting based on other valid valuation methodologies (eg. For sub-categories such as “sub-economic”, or “economic status undetermined” or “unrecoverable”) where there is a likelihood that the value may become positive and the ROTR reclassified upon removal of certain known contingencies, allow reporting of volumes only for ROTR subcategories where the value is either unknown or negative

RPS submits the following specific responses to the questions in the CSA Notice and request for Comments:

(ASC Questions in **bold italics** followed by the RPS response)

1. ***The Proposed Amendments would permit an issuer to disclose reserves prepared in accordance with, for example, the SEC regime supplementary to reserves disclosed under NI 51-101. Do you support the proposal to permit the supplementary disclosure of reserves prepared under a regime comparable to the COGE Handbook, as is set out in proposed section 5.18 of NI 51-101? Please explain your views.***

RPS has no comment on this question.

2. ***The Proposed Amendments eliminate the requirement to disclose a reporting issuer's reserves data by production group. Do you support the removal of the requirement to disclose reserves data by production group? Please explain your views.***

RPS has no comment on this question

3. ***A reporting issuer that includes contingent resources and prospective resources is not currently required to have those estimates prepared by an independent qualified reserves evaluator. Do you support the requirement in proposed item 2 of section 2.1 of NI 51-101 for an independent qualified reserves evaluator to evaluate or audit any contingent resources or prospective resources included in the annual statement of reserves data? Please explain your views.***

RPS supports this proposed requirement.

Reason: For consistency with Reserves reporting requirements.

4. ***Do you support the requirement in proposed paragraph 4 of item 2.1 of Form 51-101F1 to provide low, best and high estimates of volume and net present value of future net revenue in respect of any contingent resources or prospective resources included in the annual statement of reserves data? Please explain your views.***

RPS supports the intent of this proposed requirement but does **not** support proposed requirement as it is currently written.

Reasons:

- The requirement does not differentiate between the level of detail of analysis and reporting for various ROTR categories and sub categories.
 - The requirements state that a “net present value of future net revenue” must be included. This implies that a full cash flow analysis of future net revenue is required, regardless of the economic status of the project, whereas it may be more appropriate and adequate to conduct an economic assessment on the basis of analogue information, where it is available, or on a unit per well basis.

- To determine a cash flow based NPV value of a CR or PR asset requires the definition of a (development) project associated with the asset. However, for resource assets at a relatively immature level of project maturity, the degree of uncertainty associated with defining the project will dominate the determination of value. It is RPS' opinion is that it is more important to require the reporting to include the project maturity Sub-Category (COGEH terminology) or Sub-Class (PRMS terminology) associated with the ROTR asset, and then to allow a level and methodology of economic evaluation commensurate to be with the project, rather than requiring all classes and sub classes of ROTR to be valued based on a future net revenue analysis,
- For Contingent Resources that are classified as Economic Contingent Resources, RPS supports the concept of reporting based on NPV valuation of future net revenues associated with those resources. However for Contingent Resources classified as Sub-Economic Contingent Resources, RPS contends that there is no merit in tabulating a negative value, and it is more important (and should be sufficient) to simply categorize the CR as sub-economic with a description of the reasons it is evaluated as such. If there are critical contingencies which, upon removal would change the categorization, then these contingencies should be reported and discussed. Furthermore, it is important that the assumptions made in quantifying the Chance of Development be reported and discussed.
 - Similarly, if a CR which is at an early evaluation stage has been classified as "Development Unclassified-Economic Status Undetermined", or if a CR asset is categorized as being Unrecoverable discovered petroleum initially in place, it should be sufficient to report the CR subcategory without including a NPV based value.
 - Similarly, if a CR has been classified as Development On Hold, it should be sufficient to report the CR subcategory without including a (negative) NPV value. For CR which have been classified as Development on Hold which show a positive NPV value, reporting the value should be encouraged.
 - In all of these cases, it would be equally valuable to the investor if the report contained a detailed discussion of the contingencies associated with the asset.
- For Prospective Resources, additional concerns apply:
 - Where the PR asset has been evaluated using NPV cash flow analysis, the evaluation should also include discussion of the assumptions made in quantifying the Chance of Development and the Chance of Discovery (geological probability of success).
 - Whether the PR asset has been evaluated using NPV cash flow analysis, through the use of minimum economic field size assessment based on analogues or including unit value per unit volume models, a full description of the methodology employed and the assumptions made should suffice for reporting.
 - As in the case of CR reporting, where the PR is currently assessed as being sub-economic or unrecoverable (say due to lack of commercial technology in the case of unconventional resources), to analyze and report negative values does not make sense.
 - Where companies have multiple prospects on a lease or licence, special guidance is needed. Each prospect should be evaluated and reported separately on both a risked and unrisked basis. However opinions differ as to whether the total value of such a lease or licence should be the sum of all prospect values or the expectation of success given the drill out of the prospective resource portfolio over a sensible time frame? The former would provide an overly optimistic assessment of the value of the licence or lease as it assumes an unrealistic level of exploration success (i.e. 100%). The latter is a far more realistic assessment of future value but, again, requires careful guidance. Proprietary software such as IHS's GEx and Logicom's REP adopt the latter approach. RPS would offer to assist in writing such guidelines.

- In some cases, for Prospective Resources, the commerciality terms are not known until after a discovery is made and a commerciality declaration is secured. The independent qualified reserves evaluator, where the commercial terms of the licence are not yet defined, will be in no position to prepare a cash flow based evaluation. It is in these cases that those resources should be reportable separately from those that can be valued.
- RPS is concerned that certain reporting issuers may consider this requirement alone to be so burdensome that it may force companies to re-consider the merits of listing as a public company in Canada, and seek listings on exchanges elsewhere. However, RPS understands that disclosure of ROTR will remain optional and believes that the rigour in providing estimates of value of these resources should be to the benefit to the investor and to the exchange as over time companies with good resource portfolios will want their resources accepted on the exchange.

5. When a reporting issuer discloses an oil and gas metric, the Proposed Amendments would require the reporting issuer to disclose the standard, methodology and meaning of the disclosed metric, and if there was no identifiable standard, the parameters used in calculating the oil and gas metric and a cautionary statement. Do you support the proposed amendment to section 5.14 of NI 51-101 to impose the above described disclosure-based approach to oil and gas metrics such as BOEs, finding and development costs, netbacks, etc.? Please explain your views.

RPS supports this proposed requirement.

Reason: This requirement should increase the clarity and transparency of the reporting and should be feasible without imposing any undue burdens upon the reporting company.

END OF RPS Comments on Specific Questions.

Greg Vogelsang, P.Geo.
 President
 Président

Paul Rennick, P.Geo.
 President-Elect
 Président élu

Tim Corkery, P.Geo.
 Past-President
 Présidente sortante

Raymond Reichelt,
 P.Geo.
 Treasurer
 Trésorier

Oliver Bonham, P.Geo.
 Chief Executive Officer
 Chef de la direction

17 January 2014

British Columbia Securities Commission
 Alberta Securities Commission
 Financial and Consumer Affairs Authority of Saskatchewan
 Manitoba Securities Commission
 Ontario Securities Commission
 Autorité des marchés financiers
 New Brunswick Securities Commission
 Superintendent of Securities, Department of Justice and Public Safety, Prince Edward Island
 Nova Scotia Securities Commission
 Securities Commission of Newfoundland and Labrador
 Registrar of Securities, Northwest Territories
 Registrar of Securities, Yukon Territory
 Superintendent of Securities, Nunavut

By email and mail

Attention:

Michael Jackson
 Oil and Gas Compliance
 Counsel
 Alberta Securities Commission
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Me Anne-Marie Beaudoin
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 Montréal (Québec) H4Z 1G3
 Fax: 514-864-6381
consultation-en-cours@lautorite.qc.ca

Dear Me. Beaudoin and Mr. Jackson:

**Re: CSA Notice and Request for Comments – Proposed Amendments to NI 51-101
 Standards of Disclosure for Oil and Gas Activities and Proposed Changes to
 Companion Policy 51-102CP Standards of Disclosure for Oil and
 Gas Activities**

We are pleased to comment on the Canadian Securities Administrators (“CSA”) Notice and Request for Comment on the Proposed Amendments to National Instrument 51-101 Standards of Disclosure of Disclosure for Oil and Gas Activities and Proposed Changes to Companion Policy 51-102CP Standards of Disclosure for Oil and Gas Activities.

Geoscientists Canada (the Canadian Council of Professional Geoscientists) is the national umbrella organization whose members are the ten provincial / territorial professional bodies that govern the practice of geoscience in Canada.

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COMMENTS
 LETTERS

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Geoscientists Canada, through its Securities Committee, canvassed all its constituent members associations for comments on this matter.

The following are comments we received from Geoscientists Nova Scotia (the Association of Professional Geoscientists of Nova Scotia), as a result of its consultation with individual senior geoscience practitioners in the sector in that jurisdiction:

General Comments:

This document appears to have been written specifically for onshore jurisdictions? The offshore regions on the east coast of Canada are jointly managed by federal/provincial regulatory agencies such as the Canada Nova Scotia Offshore Petroleum Board (CNSOPB) and the Canada-Newfoundland and Labrador Offshore Petroleum Board (CNLOPB). The Board's jointly manage their respective offshore areas on behalf of both the Federal government and the appropriate Provincial government. When considering the definition for a Qualified Person (QP) it may be appropriate to ensure this individual is registered within the respective province. (For example a QP evaluating "property" offshore Nova Scotia, within the CNSOPB's jurisdiction, should be registered in Nova Scotia).

Responses to Select Questions on Page 10095:

Question 1: I support the proposal to permit the supplementary disclosure of reserves prepared under a comparable regime to the COGE. It seems excessive to have companies duplicate effort when they have already prepared reserve estimate in a format that is comparable to COGE.

Question 3: This requirement seems onerous and may not be necessary if competent staff are completing these assessments. These staff should be required to document their methodology to ensure their work can be validated by a competent professional.

Question 4: Yes. I support the requirement proposed in item 2.1.4 of Form 51-101F1, however it should be noted that the economic factors (e.g. price forecasts, development costs etc.) used to develop these estimates contain significant uncertainty. Reporting issuers should ensure the reader understands the uncertainty behind these estimates.

Specific Comments:

• *Annex A (Section 2) - definition for "light crude oil". Does this definition include condensate which is in a vapour/gaseous form at reservoir conditions but condenses into a liquid at surface conditions?*

• *Annex A (Section 2) - definition for "reclamation costs". This definition appears to be specific to land based operations and does not consider offshore operations which require the seafloor to be "restored"?*

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• *Annex A (Section 30 – Item 5.2 (1)). It is not clear what is meant by “significant abandonment costs and reclamation costs”? The cost to conduct abandonment and reclamation operations offshore is many times more expensive than onshore as a result, would all these operations be deemed “significant” or “unusually high”? Perhaps an additional provision should be included for offshore operations?*

• *Annex B (Part 1.1 (5)). The Association of Professional Geoscientists of Nova Scotia is not listed as a Canadian Professional Organization?*

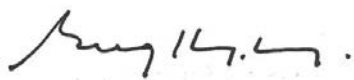
• *Proposed Amendment #2. (Product Types and Production Group). Removing the concept of production group and using qualifying definitions will better define the actual resource potential. (The numbers which have been thrown around considering unconventional plays have been unrealistic, in my opinion). We are constantly learning about these unconventional plays, so as the knowledge evolves, we need to become accountable for proper reserves prediction. Also, each unconventional play seems to have its own uniqueness, so, it should follow that reserves or potential reserves should have unique qualifications associated with them. (It is not all about permeability and porosity anymore!)*

• *Proposed Amendment #3. (Contingent and Prospective Resources). Specifically, "The Proposed Amendments provide clearer boundaries for the disclosure of contingent and prospective resources in the annual filings". I wonder what "boundaries" will be established? (Hopefully these are very clear so that each evaluation is equally represented and perhaps a cautionary statement should be included in this section as well) After all, as implied by the title, these types of resources still need to be proven.*

• *Proposed Amendment #4 is a good point and perhaps some standards should be suggested to alleviate this problem moving forward.*

This concludes the comments we received. We thank you for this opportunity to participate in this consultation process. Should any of our suggestions require further clarification or if you wish to discuss matters in greater detail, please contact the chair of Geoscientists Canada's Securities Committee, Garth Kirkham, P.Geo, (Phone: (778) 836-1070, or gdkirkham@shaw.ca) or Oliver Bonham - CEO Geoscientists Canada (obonham@ccpg.ca 604-412-4888)

Respectfully submitted,
Yours sincerely,



Greg Vogelsang, P.Eng., P.Geo.
President-Geoscientists Canada



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January 17, 2014

British Columbia Securities Commission
Alberta Securities Commission
Financial and Consumer Affairs Authority of Saskatchewan
Manitoba Securities Commission
Ontario Securities Commission
Autorité des marchés financiers
New Brunswick Securities Commission
Superintendent of Securities, Department of Justice and Public Safety, Prince Edward Island
Nova Scotia Securities Commission
Securities Commission of Newfoundland and Labrador
Superintendent of Securities, Northwest Territories
Superintendent of Securities, Yukon Territory
Superintendent of Securities, Nunavut

Attention: Michael Jackson
Oil and Gas Compliance Counsel
Alberta Securities Commission
Suite 600, 250-5th Street SW
Calgary, Alberta T2P 0R4

Anne-Marie Beaudoin
Corporate Secretary
Autorité des marchés financiers
800, square Victoria, 22e étage
C.P. 246, tour de la Bourse
Montréal, Québec H4Z 1G3

Dear Sirs/Medames:

Re: CSA Notice and Request for Comment

Proposed Amendments to National Instrument 51-101 *Standards of Disclosure for Oil and Gas Activities* -and- Proposed Changes to Companion Policy 51-101CP *Standards of Disclosure for Oil and Gas Activities*

Suncor Energy Inc. ("Suncor" or "we") appreciates the opportunity to submit this comment letter to the Canadian Securities Administrators ("CSA") in respect of its Notice and Request for Comment – Proposed Amendments to National Instrument 51-101 *Standards of Disclosure for Oil and Gas Activities* ("NI 51-101") and Proposed Changes to Companion Policy 51-101CP *Standards of Disclosure for Oil and Gas Activities* (collectively, the "Proposed Amendments"). Certain terms used and not defined in this comment letter have the meanings ascribed in NI 51-101.

Suncor is an integrated energy company headquartered in Calgary, Alberta. We are strategically focused on developing one of the world's largest petroleum resource basins – Canada's Athabasca oil sands. In addition, we explore for, acquire, develop, produce and market crude

oil and natural gas in Canada and internationally, and we transport and refine crude oil and market petroleum and petrochemical products in Canada. Periodically, we market third-party petroleum products. We also conduct energy trading activities focused principally on the marketing and trading of crude oil, natural gas and byproducts.

With regard to the specific questions posed in the CSA's Notice and Request for Comment, we have set forth below our comments:

1. *The Proposed Amendments would permit an issuer to disclose reserves prepared in accordance with, for example, the SEC regime supplementary to reserves disclosed under NI 51-101. Do you support the proposal to permit the supplementary disclosure of reserves prepared under a regime comparable to the COGE Handbook, as is set out in proposed section 5.18 of NI 51-101? Please explain your views.*

Suncor supports this proposal. Investors, lenders and investment analysts routinely compare Canadian reporting oil and gas issuers to issuers engaged in oil and gas activities that report under foreign regimes. Providing for a mechanism to disclose reserves in accordance with other regimes provides greater comparability between Canadian and foreign issuers' oil and gas disclosure.

2. *The Proposed Amendments eliminate the requirement to disclose a reporting issuer's reserves data by production group. Do you support the removal of the requirement to disclose reserves data by production group? Please explain your views.*

Suncor supports this proposal. The proposal brings consistency with other elements of reporting which are based on product type.

3. *A reporting issuer that includes contingent resources and prospective resources is not currently required to have those estimates prepared by an independent qualified reserves evaluator. Do you support the requirement in proposed item 2 of section 2.1 of NI 51-101 for an independent qualified reserves evaluator to evaluate or audit any contingent resources or prospective resources included in the annual statement of reserves data? Please explain your views.*

Suncor does not support this proposal. For most companies, the majority of contingent and/or prospective resources are contained within a relatively small fraction of their properties. To provide consistency with the evaluation/audit requirements for reserves, Suncor submits that any requirement for independent

evaluation or audit applicable to resources should only be applicable to at least 75% of each category of resources disclosed. This will eliminate the requirement to have independent evaluation or audit conducted on the many projects that cumulatively comprise a relatively small portion of total resources. Alternatively, the CSA could consider only requiring an independent evaluation or audit of projects where activities are being actively pursued to justify commercial viability in the foreseeable future (e.g., properties that meet the "Development Pending" criteria as per the Petroleum Resources Management System ("PRMS")). Further, Suncor proposes that remaining disclosed contingent resources and/or prospective resources (i.e. those not independently evaluated or audited) should be prepared or audited by a qualified reserves evaluator (not necessarily independent), but without need for audit or review by an independent qualified reserves evaluator. Suncor submits that such audit or review is not warranted for this relatively minor component of a reserves and resources portfolio.

4. *Do you support the requirement in proposed paragraph 4 of item 2.1 of Form 51-101F1 to provide low, best and high estimates of volume and net present value of future net revenue in respect of any contingent resources or prospective resources included in the annual statement of reserves data? Please explain your views.*

Suncor does not support this proposal.

Low, Best and High Estimates of Volume

Due to the relative immaturity of many projects classified as contingent resources, low (1C) and high (3C) estimates may vary widely due to limited information. If net present values ("NPVs") are to be reported for these estimates, then the considerations noted below are exacerbated for these contingent resource classes. Suncor maintains that the most meaningful and useful estimate of contingent resources is the best (2C) estimate. We recommend that only best estimate contingent resources be required to be reported, regardless of whether associated NPVs are to be reported or not, and that the current disclosure requirements under NI 51-101, section 5.17(2) be maintained, i.e., "If a reporting issuer discloses a high-case estimate of resources other than reserves, the reporting issuer must also disclose the corresponding low and best-case estimates". We also recommend a similar approach for prospective resources.

Net Present Value of Future Net Revenue

CSA Staff Notice 51-327 contains the statement, "When evaluations are incomplete such that it is premature to identify the economic viability of a project, it is acceptable to note that project economic status is 'undetermined'", thereby recognizing that it may not be possible to generate meaningful economics for some contingent and prospective resource projects.

PRMS application guidelines describe sub-classes of contingent resources as follows:

- Development Pending – projects that are actively subject to project-specific technical activities, such as appraisal drilling or detailed evaluation that is designed to confirm commerciality and/or to determine the optimum development scenario. In addition, it may include projects that have non-technical contingencies, provided these contingencies are being actively pursued by the developers and are expected to be resolved positively within a reasonable time frame. Such projects would be expected to have a high probability of becoming a commercial development;
- On Hold – projects that are considered to have at least a reasonable chance of commerciality, but where there are major non-technical contingencies (e.g., environmental issues) that need to be resolved before the project can move toward development;
- Development Unclassified – projects that are still under evaluation (e.g., a recent discovery) or require significant further appraisal to clarify the potential for development, and where contingencies have yet to be fully defined. In such cases the chance of commerciality may be difficult to assess with any confidence; and
- Development Not Viable – projects that are technically viable, but which have been assessed as having insufficient potential to warrant any further appraisal activities or any direct efforts to remove commercial contingencies.

There is an initiative underway to merge the Canadian Oil and Gas Evaluation Handbook (the “COGE Handbook”) and PRMS, increasing the likelihood that the aforementioned sub-classes of contingent resources will be adopted in Canada. Even if the standards are not merged, an update to the COGE Handbook is targeted for publication in 2014. The update is expected to include guidelines for the estimation and classification of resources other than reserves and incorporate maturity sub-classes for contingent resources similar to those in PRMS.

A recent draft of the proposed changes to the COGE Handbook contains the following statement: “The appropriate amount of economic evaluation will depend on the project status and maturity. The intent of this guidance is not to require an evaluator to build a detailed development plan and production and economic forecasts for a conceptual project. It may be adequate, for instance, for a decision on economic status to be based on analogue information in areas where this is available, or to conduct a break-even economic analysis on a per-well or per-pad basis for a conceptual project, provided the analysis incorporates a reasonable range of uncertainty for the key factors that impact value”.

The Proposed Amendments in relation to NPVs for reported contingent and/or prospective resources, if adopted, will likely not align, and will require a more rigorous evaluation, than what is expected to be contained in the revised COGE Handbook.

Suncor believes that rigorous economic evaluation (i.e., cash flow analysis) for projects described by the On Hold, Development Unclassified and Development Not Viable sub-class descriptions (per PRMS) provides no added benefit. Such analysis would, in many cases, be based on limited information and high level assumptions. As well, cash flows for projects that are not anticipated to begin within a few years will be heavily discounted. As a result, NPVs for such projects could vary within a wide range, may not be accurate or meaningful, and could even be misleading. Disclosure of NPVs for “Development Pending” projects may be reasonable, as these projects are likely to be sufficiently mature enough to have adequate technical and cost information in order to conduct meaningful cash flow analysis.

Economic evaluation is generally required in order to assess royalties. For the reasons stated above, Suncor submits that reporting contingent resources on a net basis is only relevant for projects for which meaningful economics can be generated. We therefore recommend that the reporting of contingent resources on a net basis not be required.

Alternatively, rather than requiring that NPVs be reported for contingent resources in annual reporting, Suncor suggests that the reporting of NPVs associated with contingent resources be prohibited in annual reporting. This would preclude the disclosure of values that are, in Suncor’s view, not very accurate or meaningful, and potentially even misleading.

5. *When a reporting issuer discloses an oil and gas metric, the Proposed Amendments would require the reporting issuer to disclose the standard, methodology and meaning of the disclosed metric, and if there was no identifiable standard, the parameters used in calculating the oil and gas metric and a cautionary statement. Do you support the proposed amendment to section 5.14 of NI 51-101 to impose the above described disclosure-based approach to oil and gas metrics such as BOEs, finding and development costs, netbacks, etc.? Please explain your views.*

Suncor supports this proposal. The proposal provides for flexibility while requiring adequate explanation around any disclosed metric. However, we recommend that, for consistency and comparability, the mandatory use of six thousand cubic feet of gas to one barrel of oil conversion factor (section 5.14(a) of NI 51-101) be retained for reporting equivalency between oil and gas as this has a scientific basis and is well understood and accepted. We also recommend the retention of associated sections 5.14 (b) and (d) of the current NI 51-101.

6. *Additional Comments*

- *Regarding Definition 1.1(f.2):* The COGE Handbook volume 1 defines conventional resources and conventional reserves as “..... localized **structural** or depositional geological....” The word “structural” is missing from the proposed definition of conventional natural gas in the Proposed Amendments. We recommend that it be re-inserted for consistency with the COGE Handbook definition.

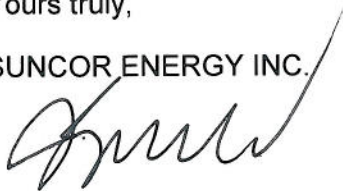
- *Regarding Definition 1.1(s) – oil and gas activities (item 3):* The term *field* is italicized in sub-item (s)(iii) but is not itself defined in either the existing NI 51-101 Glossary or the Proposed Amendments. We recommend including a definition for this term.
- *Regarding Definition 1.1(z.01) – reclamation costs:* The scope of the definition is not entirely clear. Unlike the proposed definition for *abandonment costs*, which references well-related abandonment costs specifically, the proposed definition for *reclamation costs* does not contain similar detail. We recommend amending the definition to better define its scope, and in particular, address whether it is meant to extend to costs beyond well-related reclamation costs.
- *Regarding item 22 of the Proposed Amendments:* Per the COGE Handbook volume 1, section 7.6.4, abandonment and reclamation costs to be considered in the reserves evaluation process “only include abandonment costs for existing and planned future wells”. The estimation of reclamation costs is not currently an area of expertise for independent reserves evaluators. Evaluators will therefore not likely be able to render an independent opinion in this regard and will need to rely on information provided by the reporting issuer or hire environmental experts, further increasing costs. We recommend that it be a requirement that only abandonment costs for existing and planned future wells be included in reserves evaluations and that Item 6.4 of Form 51-101F1 be retained, which calls for additional information concerning abandonment and reclamation costs to be disclosed.
- *Regarding item 29 of the Proposed Amendments:* Suncor supports reporting first attributed proved undeveloped reserves and probable undeveloped reserves for only the most recent three years and eliminating the requirement to report in the aggregate before that time. It is Suncor’s belief that aggregating information for the prior period is not useful.
- Clarification is required between the wording in section 3 of the Summary of the Proposed Amendments section (page 4) which reads, “The Proposed Amendments provided clearer boundaries ... including requiring the disclosure of future net revenue projections comparable to those provided for reserves data ...” and the requirements of item 24 which only call for “the net present value of future net revenue ...”. It is not clear as to whether only NPVs are required to be reported for contingent resources and prospective resources, or whether other elements of future net revenue must also be reported as per Form 51-101F1, item 2.1(3)(b).

On a final note, while the Proposed Amendments attempt to “bring NI 51-101 into harmony with proposed changes to the COGE Handbook”, it should be noted that amendments to the COGE Handbook are not yet finalized. Adoption of a sub-classification system for contingent resources, similar to that contained in PRMS, is being contemplated. It may be more

appropriate to wait until the proposed changes to the COGE Handbook are issued before amending NI 51-101 with respect to reporting resources other than reserves.

Yours truly,

SUNCOR ENERGY INC.

A handwritten signature in black ink, appearing to read 'J. Guillemaud', written over the company name.

Jolienne Guillemaud
Vice President & Controller

INCLUDES COMMENT LETTERS



Principal Officers:

Keith M. Braaten, P. Eng.
President & CEO
Jodi L. Anhorn, P. Eng.
Executive Vice President &
COO

Officers / Vice Presidents:

Terry L. Aarsby, P. Eng.
Caralyn P. Bennett, P. Eng.
Leonard L. Herchen, P. Eng.
Myron J. Hladyshevsky, P. Eng.
Todd J. Ikeda, P. Eng.
Bryan M. Joa, P. Eng.
Mark Jobin, P. Geol.
John E. Keith, P. Eng.
John H. Stilling, P. Eng.
Douglas R. Sutton, P. Eng.
James H. Willmon, P. Eng.

January 17, 2014

British Columbia Securities Commission
Alberta Securities Commission
Financial and Consumer Affairs Authority of Saskatchewan
Manitoba Securities Commission
Ontario Securities Commission
Autorité des marchés financiers
Financial and Consumer Services Commission (New Brunswick)
Superintendent of Securities, Department of Justice and Public Safety, Prince Edward Island
Nova Scotia Securities Commission
Securities Commission of Newfoundland and Labrador
Superintendent of Securities, Northwest Territories
Superintendent of Securities, Yukon
Superintendent of Securities, Nunavut

**Re: Proposed Amendments to
National Instrument 51-101 and
Companion Policy 51-101CP**

In response to the CSA Notice and Request for Comment related to the Proposed Amendments to the National Instrument 51-101 and Companion Policy 51-101CP dated October 17, 2013, GLJ Petroleum Consultants respectfully submits our comments. In making these comments, we have followed the same order and numbering system as the original document.

Comments on Summary of the Proposed Amendments

1. Alternative Resources Evaluation Standard

We have no comments regarding the Proposed Amendments related to alternative resources evaluation standards.

2. Product Types and Production Group

It is our opinion that the requirement to provide future net revenue and associated unit values on either a production group or a product type basis is not a substantial benefit to investors and should be eliminated entirely.

The following is extracted from page 3 of the CSA document:

“Unconventional resources can have different costs associated with their recovery, despite technically being the same product. For example, shale gas and natural gas from a conventional reservoir are both technically natural gas, however, each has different production profiles, risks and costs associated with recovery.”

Based on the foregoing, it appears to us that the CSA believes that the unit value by product type is a comparable measure that has some meaning for comparing the value of one product type against another. We believe that this is an oversimplification since unit values vary significantly even within a single product type. For example, one Bcf of proved undeveloped natural gas reserves attributed to a conventional gas well in southern Alberta at a depth of 1,000 metres would have a significantly higher unit value than one Bcf of proved undeveloped natural gas reserves attributed to a conventional gas well in northern British Columbia at a depth of 3,000 metres. Other factors such as remaining life, production rate, natural gas liquid (NGL) yields, H₂S or CO₂ content, heating values and water/gas ratios also have a bearing on unit values for gas wells. Factors affecting oil wells includes production rate, solution gas/oil ratio, water cut, remaining life and production method.

Our interpretation of the Proposed Amendments is that the requirement to disclose a reporting issuer's reserves data by production group has not been eliminated in practical terms. In recognition of the difficulties in allocating future net revenue of solution gas and other by-products, it appears from the table on page 9 of Appendix 1 to NI51-101CP that elements of the production groups are being maintained. Furthermore, we do not believe that future net revenue will be reported separately for NGLs, as it is a by-product and would therefore be combined with the value of oil or gas. We believe that there can be similar issues in allocating field level costs in properties with wells involving more than one primary product type (i.e. contain some light & medium oil, heavy oil and gas wells).

We note that the Proposed Amendments now exclude shale oil from the product type. This appears to be inconsistent with the overall objective of the Proposed Amendments to disclose results by product type.

3. Contingent and Prospective Resources

In general, if a reporting issuer chooses to disclose contingent and/or prospective resources, we believe that the disclosure requirement should be for best estimate resources only. However, if the CSA mandates disclosure of additional categories, that disclosure should be consistent with the disclosure of reserves in that it would not be necessary to disclose the high estimate resources, similar to the optional disclosure of possible reserves.

We caution that the following items should be considered in the disclosure of prospective resources, otherwise the disclosure may be misleading:

- a) The chance of discovery and the risk resources should be disclosed. Where there are multiple prospects, the sum of unrisks resources is misleading. For example, if three prospects each have a 20% chance of discovery, then the sum of the unrisks resources has only a 0.8% chance of discovery.
- b) Proper methods for aggregation of prospective resources attributed to multiple prospects must be followed. We note that reporting issuers sometimes aggregate unrisks or risked prospective resources arithmetically but do not state why that may be misleading.
- c) Proper methods for risk of prospects with multiple target reservoir layers also must be followed. We note that reporting issuers sometimes arithmetically sum the unrisks prospective resources assigned to each layer in a single prospect. This can lead to an unrisks prospective resource for a prospect that may be several times higher than what should be reported.

The disclosure of future net revenue associated with resources may benefit the investor and provide a better understanding of the resources other than reserves. However, the development plans and markets for resources are sometimes poorly defined which may lead to misleading disclosure. The reporting issuer should disclose the relative quality of the development plan and associated cost estimates.

The requirement for the resources other than reserves to be prepared by an independent qualified reserves evaluator may provide more consistency in the determination of resources, however, without proper guidelines, there remains a risk that the disclosure may still be misleading, particularly for prospective resources. We are concerned that the pending COGEH Volume 2, Chapter 2 may not provide sufficient guidelines to ensure consistent disclosure of all resources.

4. Oil and Gas Metrics

We have no comments regarding the Proposed Amendments related to oil and gas metrics.

5. Marketability of Production and Reserves

We believe the reserves data should be aligned with financial disclosure of sales volumes, revenue and operating costs relating to oil and gas activities. We are therefore supportive of allowing those reporting issuers with upstream and downstream divisions to select alternate reference points for measurement prior to the point of sale. However, with reference to Aux Sable contracts, we believe there can be instances where the point of measurement (sale) could be after the point of delivery to a third party.

Under the Aux Sable contracts NGLs that are removed downstream from the delivery point into a system. The producer receives value for the NGLs based upon NGL market prices and provides financial reports that reflect their interpretation that the point of sale is effectively after the liquids are removed. The producer is being paid for the NGL component and the dry gas component less a fee. We have price forecasts for the individual NGL components and for the dry gas, so the net revenue calculation is reasonably straightforward. However, as independent evaluators, we have some challenges determining the proper future net revenue that would be attributed to the wet gas stream at the delivery point into a system. At the delivery point into the system, the price of wet gas is a combination of the NGL prices and the dry gas price less a fee. This is difficult to model as the price of NGL may be escalating at a much different rate than the price of dry gas. The future net revenue determined at the delivery point into the system may be misleading and would not be aligned with the issuers financial disclosure.

We understand that there may be concerns regarding the ownership of the products as the producer may not have the right to take the product in-kind. We note that this is not unlike many contractual arrangements whereby the producer gives up his right to take the product in-kind. We also note that, under the Aux Sable type contracts, the producer is exposed to market risk related to the future price of the NGLs and dry gas.

Furthermore, as independent qualified reserves evaluators, we rely on accounting statements for determination of NGL yields and product pricing. There must be consistency between the reserves data and the financial records of the reporting issuer.

6. Abandonment and Reclamation Costs

The proposed definition for future net revenue provided in Section 1.1 (n.3) indicates that future net revenue is to be net of abandonment costs and reclamation costs. Additional clarification is required for the proposed definitions of abandonment costs provided in Section 1.1 (a.01) and reclamation costs provided in Section 1.1 (z.01).

We note that the evaluator is evaluating the reserves, not the total company and items such as head office overhead and financing costs are not included. Furthermore, reserves evaluators are not able to assess reclamation costs at a reasonable cost. Therefore, reserves evaluations have commonly only included well abandonment costs for wells that have been assigned reserves in the calculation of future net revenue. Item 6.4 of Form 51-101F1 currently allows for the separate disclosure by the reporting issuer of abandonment costs and reclamation costs that were not deducted in the calculation of future net revenue by the reserves evaluator.

A result of the proposed repealing of Item 6.4 of Form 51-101F1 is that all abandonment costs and reclamation costs, as defined by the revised definitions, must be included in the future net revenue calculated by the reserves evaluator. It is not clear that abandonment and reclamation costs of non-reserves entities should be included in the reserves evaluation.

We have a number of comments related to the Proposed Amendments concerning abandonment costs and reclamation costs as follows:

- a) We interpret “surface facilities” and “any facilities” to exclude flowlines and pipelines.
- b) We interpret “in the vicinity of the well” to mean the well site only. Battery facilities, satellite facilities, gas processing facilities, gas compression facilities, and other facilities not located on the well site are excluded.
- c) We interpret “restoring land” to include the well site only.
- d) We interpret the phrase “arising from the anticipated development and production of resources” in the definition of future net revenue to mean that only the abandonment costs and reclamation costs associated with wells assigned resources and their respective well sites are to be included in the calculation of future net revenue.
- e) The repeal of Item 6.4 means that abandonment and reclamation costs associated with properties and wells with no assigned resources, all pipelines, and facilities not located on the well site will not be included in the reporting issuer’s disclosure.
- f) We are concerned with the inclusion of reclamation costs in the reserves data as it will require due diligence on the part of the independent qualified reserves evaluator that is outside their area of expertise and/or would require a reservation to be contained in the report to address liability, which may cause issue regarding Item 2.4 of NI51-101.

7. Reserves Presentation

We have no comments regarding the Proposed Amendments related to reserves presentation.

8. Other Amendments

We agree that evaluation reports should be prepared for a specific purpose as identified in an engagement letter and that consent is not required for disclosure by the reporting issuer for that purpose. Disclosure for any other purpose requires the consent of the evaluator.

We agree with using the effective date as the final date on which the independent qualified reserves evaluator is responsible for changes in the reporting issuer’s reserves data as proposed in the amended Form NI51-101F2.

Comments on ANNEX A

2. Section 1.1

- (a.01) A definition is required for “in the vicinity of the well”.
- (a.3) The proposed definition for bitumen has the potential to overlap with that of heavy crude oil. It is possible to have cold flow with viscosity greater than 10,000 mPa·s (cP).
- (f.2) We suggest removing the qualifier “for which the primary trapping mechanism is related to hydrodynamic forces and localized or depositional geological features” from the definition. For example the Montney gas play is not a shale gas, but would not fit within the proposed definition for conventional natural gas with this qualifier.
- (n.5) We suggest adding the word “relative” before density or re-wording the definition to eliminate the word “density”. API gravity is not a measure of density, but rather an inverse measure of the relative density of liquid petroleum versus that of water.
- (z.01) A definition is required for “land”.

4. Section 1.1

It is proposed to repeal Section 1.1(u). Section 1.1(t) should also be repealed as the definition for preparation date will not be required under the proposed amendment of Form 51-101F2.

5. Section 1.1(v)

Shale oil should be added to (i).

13. Section 5.9

- (a)(iii.1) (C) The wording here is awkward; suggest adding “based on” before “a conceptual”. Also the difference between a conceptual and a pre-development study is not clear and requires an explanation or perhaps only one term should be used.

21. Item 1.1 of Form 51-101F1

Are references to the preparation date still necessary?

24. Item 2.1 of Form 51-101F1

Regarding instruction (6): If the value at a 10% discount rate is negative, then the 1C may be sub-economic contingent, but no prospective resources should be assigned as it is unlikely that an exploration project would proceed with less than 10% return on an unrisks basis and there is no sub-economic prospective resource class. However, if the prospective resources are properly risks for chance of discovery, then the probability distribution should be truncated at the minimum economic size and the distribution recalculated to give a low, best and high estimate with the appropriately adjusted chance of discovery.

27. Item 4.1 of Form 51-101F1

Shale oil should be added to subsection 2(b).

29. Item 5.1 of Form 51-101F1

While we support removing “and, in the aggregate, before that time” from Item 5.1 1.(a) and 2.(b), it is our opinion that the requirement to disclose the reserves that were first attributed each year is not particularly meaningful for investors.

In Item 5.1 1.(b) and 2.(b), replacing “not planning to develop” with “deferring the development of” creates a sentence that does not make sense.

35. Form 51-101F2

The table under point 4.1 requires a resource volume for input. It is not clear if the units for that volume should be barrels of oil equivalent or cubic feet of gas equivalent or if the resource volume associated with each major product type should be disclosed.

In order to be more beneficial to investors; (1) economic and sub-economic contingent resources should be disclosed separately; and (2) prospective resources should be risked for chance of discovery or perhaps shown both unrisked and risked. If a reporting issuer has two or more projects with contingent resources and one of them is sub-economic, the summation of the projects could result in either an economic or sub-economic total which would be misleading.

Comments on ANNEX B

We plan to consult with legal counsel regarding section 5.4 on Written Consent and respectfully reserve the right to provide comments subsequent to the deadline stipulated in the CSA’s request for comments.

Comments on Appendix 1

For the table on page 11 titled Summary of Oil and Gas Contingent and Prospective Resources; (1) economic and sub-economic contingent resources should be disclosed separately in instances where there are multiple projects and the 2C is sub-economic in one or more project; and (2) prospective resources should be risked for chance of discovery. The same comment applies to the table on page 12 titled Summary of Net Present Values of Future Net Revenue.

We would be pleased to meet with representatives of the CSA or ASC to discuss any of the above points. Should you have any questions or comments regarding the foregoing, please contact the undersigned by email at kbraaten@gljpc.com or by telephone at 403-266-9515.

Yours truly,

GLJ PETROLEUM CONSULTANTS LTD.



Keith M. Braaten, P. Eng.
President & CEO

January 17, 2014

British Columbia Securities Commission
 Alberta Securities Commission
 Financial and Consumer Affairs Authority of Saskatchewan
 Manitoba Securities Commission
 Ontario Securities Commission
 Autorité des marchés financiers
 Financial and Consumer Services Commission (New Brunswick)
 Superintendent of Securities, Department of Justice and Public Safety, Prince Edward Island
 Nova Scotia Securities Commission
 Securities Commission of Newfoundland and Labrador
 Superintendent of Securities, Northwest Territories
 Superintendent of Securities, Yukon
 Superintendent of Securities, Nunavut

c/o, via email:

Alberta Securities Commission
 Suite 600, 250-5th St. SW
 Calgary, Alberta T2P 0R4

Attention: Michael Jackson
 Oil and Gas Compliance Counsel
 michael.jackson@asc.ca

Autorité des marchés financiers
 800, square Victoria, 22e étage
 C.P. 246, tour de las Bourse
 Montréal, Quebec H4Z 1G3

Attention: M^{re} Anne-Marie Beaudoin
 Corporate Secretary
 consultation-en-cours@lautorite.qc.ca

Dear: Ladies and Gentlemen:

Re: Certain Proposed Amendments to National Instrument 51-101 ("NI 51-101")

We act on behalf of certain Alberta oil and gas producers (collectively, the "Producers") in relation to this matter.

We make the submissions below on behalf of the Producers. These submissions generally outline some of the concerns and thoughts of the Producers and also of Insite Petroleum Consultants Ltd. ("Insite") in relation to certain of the proposed amendments to NI 51-101 and the possible interpretations of such amendments.

By way of background, the Producers all ship some of the natural gas and NGLs they produce to market through the Alliance pipeline and Aux Sable processing infrastructure and system. This system is depicted, in a simplified way, in Schedule A.

Pursuant to NGLs recovery/sharing agreements the Producers have with Aux Sable (the "Aux Sable NGLs Recovery Agreements"), the Producers receive market prices for their specific NGLs delivered into

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CALGARY: 2238735v2

the system, which are measured at receipt point meters into the system not at the processing plant exit, with Aux Sable retaining a share of the proceeds from the sale of the NGLs for its extraction/sales services. No flat or fixed payments are made to Producers under the Aux Sable NGLs Recovery Agreements -- Producers are each paid only for their specific NGLs delivered into the system at the prevailing market rates -- and Producers are not required to ship any NGLs under such agreements; they could extract their NGLs first and just ship dry gas. Accordingly, a Producer delivering its NGLs into the system has many of the same risks and rewards associated with the amount of NGLs in its production and the prices which it receives for them as it would have if it first extracted the NGLs by itself or through a third party and then sold them. The Aux Sable NGLs Recovery Agreements really just provide a Producer with an NGLs marketing alternative to a Producer first extracting its NGLs from its production prior to sale given the infrastructure and capital required to do so. These arrangements are further depicted and described in Schedule A.

Certain Proposed Amendments to NI 51-101 -- New Section 5.4 and Related Definitions and New Instructions to Item 2.1 of Form 51-101F1

New Section 5.4 and Related Definitions

We believe the new Section 5.4 requirements mandating disclosure of resources and commodity sales in reference to the "first point of sale" or an "alternate reference point" may result in inaccurate, misleading and non-comparable reporting of commodity production, reserve volumes and pricing received if such provisions are not revised or instructions thereto are not added to make it clear that such disclosure should reflect the actual and commercial reality of the products an issuer owns, produces and delivers to market and the prices it receives for them regardless of how the products are marketed.

At first blush, the concept of an "alternate reference point" rather than a "first point of sale" appears to provide an issuer with the necessary flexibility to ensure that the disclosure of its production, reserves and prices received are accurate and reflect the actual and commercial reality of its operations. However, this interpretation hinges on what is meant by the term "marketable". If "marketable" is interpreted to mean the products must be physically separated for sale to the market at that point in time, then this concept of an "alternate reference point" is neither useful nor does it reflect the commercial reality of certain commodity marketing arrangements.

If the "first point of sale" concept is retained, the "alternate reference point" concept should be instead focused on the issuer's products, at such point, being delineated and measured with the prices to be received for them by the issuer when ultimately sold at a later time to be subject to the terms of an agreement and be set in reference to market prices. If an issuer is receiving market prices for its actual production, whether separated or otherwise determined prior to sale, the issuer is subject to the risks and rewards of its actual production and the prevailing prices in the market. How an issuer markets its production does not affect the actual and commercial reality of an issuer's production, reserves volumes and pricing received and it should not affect the disclosure of same.

If restrictive definitions and concepts versus commercial and market realities mandate what an issuer is required to disclose for its production, reserves volumes and prices received, disclosure will be inherently misleading and not comparable from issuer to issuer -- it will also not reflect the actual and commercial realities of what the issuer is producing, owns and is being paid for. Two different issuers with the same NGLs being owned, produced and sold at market prices could have dramatically different disclosure regarding their respective NGLs production, reserves and prices received based only on differing marketing methods versus the actual and commercial reality of what they own, produce and receive for their NGLs. Similarly, an issuer's disclosure regarding its NGLs production, reserves and prices received could change from year to year based only on the marketing arrangements employed by the issuer for its NGLs in any given year. We believe this would lead to misleading, non-comparable and inaccurate disclosure. These disclosure concerns are discussed in further detail below.

New Instructions to Item 2.1 of Form 51-101F1

The new instructions to Item 2.1 of Form 51-101F1 are fine on their face and reflect, we think, the current thinking and approach on the matter in any event. Our concern is with the way they may be interpreted in relation to certain marketing arrangements. These concerns are discussed below.

Possible Interpretations of Certain of the Proposed Amendments to NI 51-101

We refer you a presentation of the Alberta Securities Commission (the "ASC") on the evolution of, and proposed amendments to, NI 51-101 dated November 19, 2013 (the "Presentation").

The Presentation discusses disclosure of the value of resources at the "first point of sale" or at an "alternate reference point" and appears to focus, in relation to such concepts, on an issuer's ownership and ability to take in kind the products to be disclosed and when the products are physically extracted rather than determined for commercial purposes. We agree that an issuer needs to own the mineral rights to its products in order to assign reserves to them, but we do not agree that physical separation of the products, the issuer's ability to take in kind each distinct product or the issuer's title to each product prior to its ultimate sale is required to book reserves for each product.

As discussed above, we believe that if an issuer owns and produces natural gas and NGLs and chooses, based on infrastructure and economic considerations, to market its NGLs by having them delineated and measured at an agreed reference point with title to the products being transferred and the products being physically extracted prior to their ultimate sale due to infrastructure and processing requirements or considerations, this should not affect how an issuer discloses its NGLs production, reserves and prices received. The issuer should disclose its NGLs production, reserves and prices received based on what NGLs it owns, is producing and is delivering for sale and the prices it is being paid for such products as this is the actual and commercial reality associated with the issuer's assets, operations and return on its assets.

We understand the ASC's issues and concerns in relation to booking NGLs reserves where an issuer is merely being paid additional consideration for delivering wet gas where the amount of additional consideration it receives is not directly and measurably tied to the issuer's actual NGLs being delivered and/or market prices for the NGLs being delivered. In such circumstances the issuer is really just getting a simple premium for its wet gas and that's the product it shipped and was paid for.

As noted above, under the Aux Sable NGLs Recovery Agreements an issuer's natural gas and NGLs are being delineated and measured upon entering the system and the issuer is being paid market rates on its actual NGLs owned, produced and delivered for sale. In addition, and as noted above, if an issuer wanted to strip out its NGLs first and market them separately it is free to do so. The issuer is marketing its NGLs through the Aux Sable NGLs Recovery Agreements solely based on infrastructure and economic considerations vis-a-vis other marketing arrangements. We believe how an issuer markets its products in order to get market rates for them should not have a bearing on whether it can book the reserves for such products. As highlighted above under our disclosure concerns, this could result in an issuer's NGLs production, reserves booked and prices received for its commodities swinging dramatically from year to year depending on how the issuer marketed its production in any given year. The disclosure would not reflect reality and would confuse security holders and potential investors.

We also note the following. In Section 5.5.4 (a) of the Canadian Oil & Gas Evaluation ("COGE") Handbook which discusses ownership considerations, the discussion is focused on the distinction between ownership of the mineral rights, on the one hand, and having a contractual right to exploit and produce them, on the other hand. It is in this latter case that the COGE Handbook focuses on the ability to take in kind as being one of the elements that support ownership and booking of reserves notwithstanding that the issuer does not own the mineral rights. This scenario would arise, for example,

in relation to international production sharing contracts where the issuer does not own the mineral rights but, rather, has a right to share in the production (in kind or in cash) and is both taking on technical and market risk and has the opportunity for reward through its participation in producing activities. We do not believe that these ownership distinctions are intended to be or should be applied to the various stages of marketing products for sale where the issuer owns the mineral rights it is producing and delivering into the system for sale.

If an issuer owns the mineral rights and, as a result, the NGLs it produces, we believe that whether or not the issuer is able to take in kind or physically possess the actual NGLs it is delivering for sale, or still retains actual title to such products versus a contractual right to be paid for them, prior to their ultimate sale should not be the focus. What matters, we believe, is that the issuer is being paid market rates for the actual NGLs it owns, produces and delivers for sale through a marketing arrangement. This approach focuses on the risks and rewards an issuer is subject to for its produced NGLs and treats all issuers in the same manner regardless of their marketing arrangements.

Making a distinction based on the effect of marketing arrangements versus the actual and commercial reality of what an issuer owns, produces and is being paid for is, in our view, specious and will lead to issuer disclosure that is misleading, does not reflect reality and is not comparable from issuer to issuer or from year to year for a particular issuer. In addition, such disclosure will not give security holders and potential investors a true picture of the issuer's actual assets and operations and the risks and rewards associated with them on a stand alone basis, a year over year basis or as compared to other oil and gas issuers. It will also create a fiction in terms of what certain issuers would be required to disclose - i.e. no NGLs volumes and premium prices paid for its natural gas volumes when that is not the actual or commercial reality of what the issuer is producing, delivering for sale or receiving.

It is also important to note that in Section 9.4 of the "Guidelines for the Evaluation of Petroleum Reserves and Resources" published by the Society of Petroleum Engineers which deals with the elements supporting reserves reporting, it cites the published requirements by various SEC regulations to report reserves and states "a key aspect in all these regulations is the element of risk and reward" and that "risk and reward associated with oil and gas production activities stems primarily from the variation in revenues from technical and economic risks". It does not focus on title transfer or physical possession of the products to be sold, and the marketing arrangements employed by an issuer do not substantively affect the basic risks and rewards -- increases in NGLs produced and/or their prices lead to greater revenue and decreases in NGLs produced and/or their prices lead to reduced revenue.

The Position Taken on this Issue by Staff of the Securities and Exchange Commission (the "SEC")

The SEC regulations regarding reserves disclosure are similar to the proposed amendments to NI 51-101 in respect of same. Accordingly, we reached out to senior SEC staff to get their views on the booking of NGLs reserves. We were advised by Jonathan Duersch, the Associate Chief Accountant of the SEC, on January 16, 2014, that the SEC staff (both in the Office of the Chief Accountant and in the Corporate Finance Division) have not taken a definitive position (pro or con) on whether NGLs reserves should be booked by a producer in circumstances where it does not have physical possession of and title to its NGLs prior to their ultimate sale or a right to take in kind its share of its NGLs after processing and related costs -- i.e. in the circumstances we are highlighting in our submission above. Mr. Duersch advised us that SEC staff permit SEC issuers who deliver their NGLs for sale through marketing arrangements like those provided by the Aux Sable NGLs Recovery Agreements to book their NGLs reserves associated with such production and marketing and many do. In a November 2013 presentation by Mr. Duersch, he notes that "the SEC staff has not answered the question of NGLs reserves disclosures associated with percentage of proceeds contracts but understands there is diversity in practice. Accordingly it may be helpful to disclose the company's policy".

While we think it would be best for the proposed amendments to make it clear that NGLs reserves should be booked in the circumstances discussed herein for the reasons given above, at a minimum the proposed amendments should permit such disclosure so that the Canadian and United States approaches are the same and there is a level playing field for Canadian and United States oil and gas issuers. If, as Mr. Duersch notes, an issuer does or does not book the NGLs reserves in such circumstances according to its policies or those of its reserves evaluator, disclosure of what the issuer is doing and why is the key. This will allow security holders and potential investors to compare oil and gas issuers amongst each other and also a particular oil and gas issuer year over year.

Thank you for your time and consideration of the Producers' concerns and thoughts set forth above. We welcome the opportunity to discuss this further with you as necessary or expedient.

Yours truly,

Norton Rose Fulbright Canada LLP



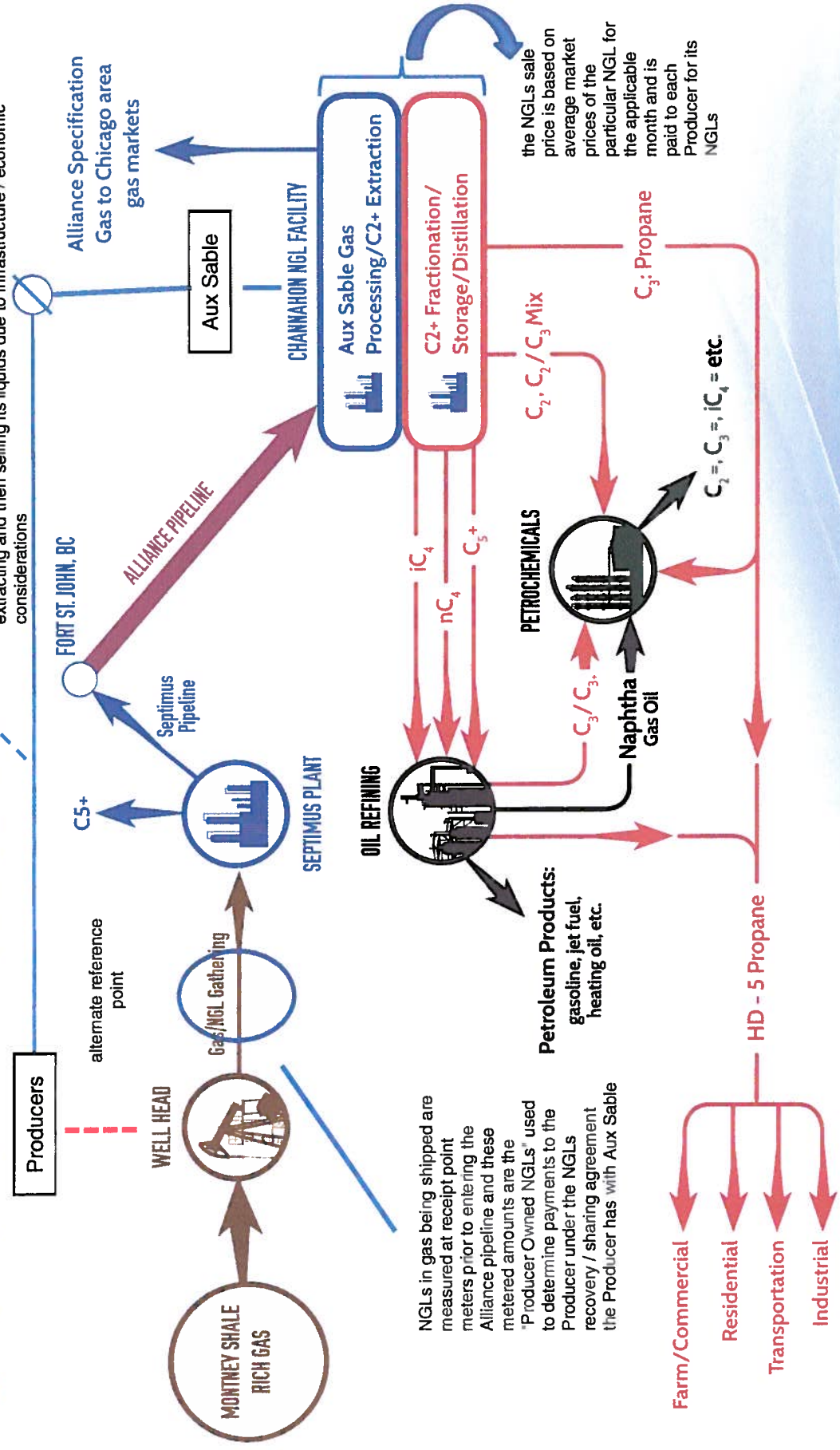
INCLUDES COMMENT LETTERS

Schedule A

INCLUDES COMMENT LETTERS

Aux Sable Canada Operating NGLs Recovers/Sharing Agreements with Producers

- NGLs Recovery / Sharing Agreement**
- Producer receives market rates for its Producer Owned NGLs with Aux Sable keeping a share of the proceeds for its extraction / sale services -- no flat / fixed payments to Producer
 - Producer is only paid for its actual NGLs delivered with no obligation or requirement under the agreement to deliver any NGLs
 - Increases / decreases in NGLs in gas shipped and in NGLs market prices directly affect the Producer -- it is subject to all risks / rewards of its liquids
 - really just an alternative NGLs marketing arrangement to a Producer first extracting and then selling its liquids due to infrastructure / economic considerations





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January 17, 2014

VIA EMAIL

British Columbia Securities Commission
Alberta Securities Commission
Financial and Consumer Affairs Authority of Saskatchewan
Manitoba Securities Commission
Ontario Securities Commission
Autorité des marchés financiers
Financial and Consumer Services Commission (New Brunswick)
Superintendent of Securities, Department of Justice and Public Safety, Prince Edward Island
Nova Scotia Securities Commission
Securities Commission of Newfoundland and Labrador
Superintendent of Securities, Yukon Territory
Superintendent of Securities, Northwest Territories
Superintendent of Securities, Nunavut

Alberta Securities Commission
Suite 600, 250-5th Street S.W.
Calgary, Alberta T2P 0R4
Fax: (403) 297-2072
E-mail: michael.jackson@asc.ca

Attention: Michael Jackson, Oil and Gas Compliance Counsel

Autorité des marchés financiers
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Montreal (Quebec) H4Z 1G3
Fax: (514) 864-6381
E-mail: consultation-en-cours@lautorite.qc.ca

Attention: Anne-Marie Beaudoin, Corporate Secretary

Re: Proposed Amendments to National Instrument 51-101 *Standards of Disclosure for Oil and Gas Activities* ("NI 51-101") and Proposed Changes to Companion Policy 51-101CP *Standards of Disclosure for Oil and Gas Activities* ("the Proposed Amendments")

Canadian Oil Sands Limited ("COS") supports the Canadian Securities Administrators (the "CSA") promoting better disclosure for reporting issuers engaged in oil and gas activities. COS appreciates the opportunity to provide comments and to be a part of the CSA's regulatory reform process.

COS holds a 36.74 per cent working interest in the Syncrude joint venture, providing a pure investment opportunity in Syncrude's crude oil producing assets. Located near Fort McMurray, Alberta, Syncrude Canada operates large oil-sands mines and an upgrading facility that produces a light, sweet crude oil on behalf of its joint venture owners. COS' primary business is its ownership in Syncrude and the marketing and sale of crude oil derived from such ownership.

COS has the following comments on the Proposed Amendments:

Contingent and Prospective Resources

We are of the view that reporting issuers should not be obligated to provide discounted future net revenue projections along with their disclosure of contingent or prospective resources nor should they be required to categorize their contingent and prospective resource estimates. The introduction of such requirements would result in additional expert costs to oil and gas reporting issuers and may actually be misleading to investors.

The current disclosure of best estimates for resources provides investors with some indication of potential resources that may someday be developed into reserves. Moreover, the current emphasis on the disclosure of the significant factors or uncertainties relevant to the resource estimates and, in the case of contingent resources, the specific contingencies that prevent the classification of the resources as reserves is comprehensive and adequate.

However, contingent and prospective resource figures that oil sands issuers choose to voluntarily disclose will generally be developed long in the future. Accordingly, considerable uncertainty exists with respect to accurately estimating future net revenues and costs for such resources. We believe that requiring issuers to provide future net revenue projections provides little, if any, benefit to investors and in fact implies a greater level of precision than is appropriate, causing investors to place undue reliance on such projections. Additionally, requiring issuers to categorize their resource estimates implies a degree of accuracy to investors that may not exist.

Abandonment and Reclamation Costs

We are of the view that reserves evaluators are not qualified to calculate abandonment and reclamation costs. Furthermore, we believe that the current disclosure of abandonment and reclamation costs in the audited financial statements and pursuant to existing NI 51-101 requirements provides investors with adequate information. We do not see a need to change the disclosure requirements for abandonment and reclamation costs at this time as any further evaluation of these costs would be redundant.

Thank you for the opportunity to comment on the Proposed Amendments.

Yours truly,

CANADIAN OIL SANDS LIMITED



Robert P. Dawson
Chief Financial Officer

- c. Darren K. Hardy, Senior Vice President, Operations
Trudy M. Curran, Senior Vice President, General Counsel and Corporate Secretary
Wesley R. Twiss, Chairman of the Audit Committee

January 09, 2014

British Columbia Securities Commission
Alberta Securities Commission
Financial and Consumer Affairs Authority of Saskatchewan
Manitoba Securities Commission
Ontario Securities Commission
Autorité des marchés financiers
New Brunswick Securities Commission
Superintendent of Securities, Department of Justice and Public Safety, PEI
Nova Scotia Securities Commission
Securities Commission of Newfoundland and Labrador
Registrar of Securities, Northwest Territories
Registrar of Securities, Yukon Territory
Superintendent of Securities, Nunavut

Attention: Mr. Michael Jackson
Oil and Gas Compliance Counsel
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M^e Anne-Marie Beaudoin
Corporate Secretary
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consultation-en-cours@lautorite.qc.ca

Dear Mr. Jackson and M^e Anne-Marie Beaudoin:

Re: CSA Notice and Request for Comment - Proposed Amendments to National Instrument 51-101 *Standards of Disclosure for Oil and Gas Activities* and to Companion Policy 51-102CP *Standards of Disclosure for Oil and Gas Activities* (collectively, the "Proposed Amendments")

Cenovus Energy Inc. ("Cenovus") is pleased to provide comments on the Proposed Amendments.

Cenovus is a leading Canadian integrated oil company, listed on both the Toronto and New York stock exchanges. The company has oil sands projects in Northern Alberta and conventional oil and natural gas production in Alberta and Saskatchewan. Cenovus also has an ownership interest in two U.S. refineries.

We commend the efforts of the Canadian Securities Administrators ("CSA") to promote better disclosure of resources other than reserves and associated metrics among oil and gas reporting issuers.

In general, Cenovus supports the direction the CSA has taken. However, we take issue or require further clarification with the following items in your Proposed Amendments;

- We strongly disagree with the CSA's proposal to have reporting issuers disclose future net revenue estimates for contingent and prospective resources. We believe disclosure of this information would be difficult to verify and thus possibly unreliable due to the significant uncertainties involved in the long-term forecasts required to calculate this information.
- We also disagree with the proposal to require disclosure of detailed project descriptions associated with disclosed contingent and prospective resources. For issuers such as Cenovus, with multiple sources of these resources, the disclosure would be onerous and would impact competitive positions.
- In addition, Cenovus believes that further guidance needs to be provided regarding abandonment and reclamation costs in the Proposed Amendments.

These issues are addressed in more detail in our responses to the questions posed in the Request for Comment, attached to this letter as Appendix A.

Thank you for the opportunity to provide comments on the Proposed Amendments. We are available at your convenience should you be interested in further discussion on our comments or the Proposed Amendments.

Yours truly,

Cenovus Energy Inc.



Ivor M. Ruste, FCA
Executive Vice-President & Chief Financial Officer

APPENDIX A

Question 1: The Proposed Amendments would permit an issuer to disclose reserves prepared in accordance with, for example, the SEC regime supplementary to reserves disclosed under NI 51-101. Do you support the proposal to permit the supplementary disclosure of reserves prepared under a regime comparable to the COGE Handbook, as is set out in proposed section 5.18 of NI 51-101? Please explain your views.

Cenovus supports the CSA's proposal to permit supplementary disclosure of reserves prepared under a regime comparable to the COGE Handbook as set out in proposed section 5.18 of NI 51-101. We support this proposal with the understanding that a numeric reconciliation of any supplementary disclosure with the NI 51-101 disclosure will not be required.

Canadian oil and gas companies conducting business outside of Canada may be subject to resources disclosure obligations distinct from those required by NI 51-101. We commend the CSA's initiative to allow for supplementary disclosure prepared in accordance with an alternative resources evaluation standard. This will allow reporting issuers the ability to meet the needs of multiple stakeholders more effectively.

We agree with the CSA's approach that providing alternative supplementary disclosure should be tempered with the required conditions that need to be met by the alternative resources evaluation standard to help ensure the appropriate use of this supplementary disclosure by reporting issuers.

Question 2: The Proposed Amendments eliminate the requirement to disclose a reporting issuer's reserves data by production group. Do you support the removal of the requirement to disclose reserves data by production group? Please explain your views.

Cenovus supports the CSA's proposal to remove the requirement to disclose reserves data by production group. Cenovus's production portfolio currently includes the following product types: light and medium oil, heavy oil, bitumen, natural gas, coalbed methane ("CBM"), and natural gas liquids ("NGLs"). CBM and NGLs are considered "associated by-products" in the definition of production group. Since our CBM production is not material on a stand-alone basis, we have disclosed our CBM reserves and production together with our natural gas reserves and production. Historically we have included NGLs with our light and medium oil production in our future net revenue disclosure.

The proposal to eliminate production groups would effectively require that we associate, for future net revenue disclosure, NGLs with natural gas rather than with light and medium oil. Although this will necessitate an adjustment to our disclosure, we support CSA's effort to give greater emphasis to both the source and process for recovery of the oil and gas, and move away from grouping unconventional resources.

While Cenovus supports the use of product types and the elimination of production group, we have a few additional suggestions:

- With respect to gaseous hydrocarbons, we recommend there be just one product type: "natural gas". Although we appreciate that the other proposed gaseous hydrocarbon product types (conventional natural gas, CBM, gas hydrates, shale gas, and synthetic gas) differ from each other on the basis of their origin, we do not believe that these further refinements of this category necessarily provide greater insight to the reader on the value of a reporting issuer's reserves and resources.
- We recognize that the proposed definitions for bitumen and heavy crude oil were taken directly from the COGE Handbook. However, we believe the definitions for bitumen and heavy oil could result in inconsistent application across the industry. The proposed definition for bitumen is based on viscosity, while the definition for heavy crude oil is based on API gravity. We are aware of situations where some "heavier" oils fit into both definitions. We recommend that the proposed definitions for these two product types be revised to create a clear distinction between them or allow an interpretive placement of "heavier" oils into one

product type or the other, provided such interpretive placement is disclosed clearly to the reader.

Question 3: A reporting issuer that includes contingent resources and prospective resources is not currently required to have those estimates prepared by an independent qualified reserves evaluator. Do you support the requirement in proposed item 2 of section 2.1 of NI 51-101 for an independent qualified reserves evaluator to evaluate or audit any contingent resources or prospective resources included in the annual statement of reserves data? Please explain your views.

Cenovus supports the CSA's proposal to require that contingent and prospective resource estimates be prepared by an independent qualified reserves evaluator ("IQRE"). It is Cenovus practice to disclose both contingent and prospective resources estimates prepared by an IQRE. We believe that requiring those estimates to be either evaluated or audited by IQREs is highly desirable since it will improve the reliability of disclosure available to the reader.

Question 4: Do you support the requirement in proposed paragraph 4 of item 2.1 of Form 51-101F1 to provide low, best and high estimates of volume and net present value of future net revenue in respect of any contingent resources or prospective resources included in the annual statement of reserves data? Please explain your views.

While Cenovus supports the optional disclosure of low, best, and high estimates of contingent and prospective resources volumes, we do not support the CSA's proposed requirement for reporting issuers to also disclose the associated future net revenue estimates, given the unreliability of those estimates, the difficulty of establishing the uncertainties of the estimates, and their limited value to the reader.

In the interest of full and transparent disclosure, Cenovus has chosen to disclose low, best and high estimates of contingent and prospective resources for its bitumen only, which comprises about 97% of our total contingent and prospective resources. We have further limited our contingent resources disclosure to include only those bitumen volumes which are economic at reasonable forecasts of prices and costs, and that can be produced using established technology.

Our IQREs prepare economic evaluations of our contingent resources based on development scenarios which we believe to be reasonable approximations of future development plans. Although we have not previously disclosed future net revenue estimates associated with our disclosed contingent resources volumes, this information is made available to us by our IQREs. However, we have chosen not to disclose this information given the high degree of uncertainty associated with the development timing and cost assumptions used to generate those estimates. Given these uncertainties, we believe that future net revenue disclosure for contingent resources would likely be of limited value to the reader.

Prospective resources estimates are largely based on regional geological models and seismic data, with no supporting well information except as incorporated into the regional model. While we may have a significant level of confidence in the volume estimates for our prospective resources, the lack of supporting well information makes preparation of reliable development scenarios speculative at best. Substantial effort will be required to create development scenarios on which to base forecasts of production and costs. Defining the uncertainties associated with every development scenario will render their descriptions virtually meaningless, which we anticipate would be of limited value to a reader. For this reason, we strongly believe that any forecast of production costs and future net revenue for prospective resources likely to be of limited value to the reader.

To avoid disclosing future net revenue estimates associated with contingent and prospective resources that are likely to have questionable uncertainties, and be of limited value and use to the reader, we urge the CSA to remove the requirement in the Proposed Amendments to provide future net revenue estimates associated with contingent and prospective resources.

We also urge the CSA to remove the requirement to provide detailed descriptions of development projects associated with disclosed contingent and prospective resources. For issuers with disclosed

contingent and prospective resources located in multiple accumulations, each requiring its own development plan, this requirement in the Proposed Amendments will be onerous. Given the extensive descriptions required to define uncertainties around the development of such projects, Cenovus believes that such descriptions, except in very broad terms, provide very limited useful information, and may also negatively impact an issuer's competitive position.

Question 5: When a reporting issuer discloses an oil and gas metric, the Proposed Amendments would require the reporting issuer to disclose the standard, methodology and meaning of the disclosed metric, and if there was no identifiable standard, the parameters used in calculating the oil and gas metric and a cautionary statement. Do you support the proposed amendment to section 5.14 of NI 51-101 to impose the above described disclosure-based approach to oil and gas metrics such as BOEs, finding and development costs, netbacks, etc.? Please explain your views.

Cenovus supports the CSA's proposed amendment to section 5.14 of NI 51-101 requiring an adequate description of optionally disclosed metrics. We believe that the suggested approach, while eliminating a prescribed standard for calculation of Finding and Development Costs, will help facilitate transparency and provide greater understanding by the public of oil and gas metrics disclosed by reporting issuers.

Other Comments:

While Cenovus appreciates the merit of the Proposed Amendments in defining what constitutes abandonment and reclamation costs for the purpose of calculating future net revenues for reserves, we believe the CSA should provide further guidance on the following related matters:

- Do the abandonment and reclamation costs need to be applied at the asset level, where they are likely to impact the economic life of the asset, or can they be applied at a corporate level, where no individual asset is likely to be impacted?
- Could IQREs be reasonably expected to develop independent expertise in ascertaining or estimating abandonment and reclamation costs given that most of the data that are likely to support these estimates are internally generated by a reporting issuer, or would IQREs be allowed to rely on estimates provided by reporting issuers?
- Currently, Cenovus provides future net revenue summaries for proved total reserves and for proved plus probable reserves. Although we have expressed earlier our objection to providing future net revenue estimates for contingent and prospective resources, in the event the CSA proceeds to implement this requirement as currently drafted, we suggest that the CSA clarifies further whether abandonment and reclamation costs need to be classified as well in accordance with these asset classifications. Corollary to this, where would CSA propose abandonment and reclamation costs associated with depleted and/or non-productive assets be included?
- Should abandonment and reclamation costs include liabilities associated with future leases, wells, facilities, and pipelines as may be forecasted in future net revenue calculations, or should they be restricted to existing abandonment and reclamation liabilities?

January 17, 2014

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Calgary, AB
T2N 3K8

Mr. Michael Jackson
Oil and Gas Compliance Counsel
Alberta Securities Commission
Suite 600, 250-5TH Street S.W.
Calgary, Alberta
T2P 0R4

RE: NI 51-1001 Standards of Disclosure for Oil and Gas Activities - Proposed Amendments

Dear Mr. Jackson,

I have been a registered professional engineer with APEGA since 1983. I am also a member of the Society of Petroleum Engineers (SPE). My professional experience includes twenty-three years as a reserve evaluator at GLJ Petroleum Consultants Ltd. and over seven years as an engineer at Scotiabank; six years with Scotia Waterous and one year in Corporate Banking. In particular, my recent banking experience (October 2006 to January 2014) has given me a perspective on the reliance that financial institutions, corporations and individual investors place on reserve and resource disclosure.

I attended your presentation regarding proposed disclosure changes at a meeting of the Calgary chapter of the Society of Petroleum Evaluation Engineers (SPEE) on November 19, 2013. I would like to respond to the following question:

4. Do you support the requirement in proposed paragraph 4 of item 2.1 of Form 51-101F1 to provide low, best and high estimates of volume and net present value of future net revenue in respect of any contingent resources or prospective resources included in the annual statement of reserves data? Please explain your views.

I do not support this requirement to provide net present value (NPV) estimates for disclosure of resources. By definition, resources do not have requirement of commerciality. Therefore, NPV estimates of resources will incorporate assumptions that have a low level of certainty and are unlikely to be applied consistently by evaluators. While your presentation asserted that "disclosure of contingent resources without providing information as to economic viability could be misleading", it is equally true that providing resource NPV's may be misleading. In fact, I believe that the danger to investors is even greater as there will be a tendency to compare or equate resource valuations with reserves. For this reason, this proposed requirement needs to be very carefully considered.

Please be advised that the views presents herein are my personal views and not those of Scotiabank.

I applaud the ASC for their diligent work on this initiative that includes many important changes. Thank you for the opportunity to respond to the proposed amendments. Please feel free to contact me at 403-218-6779 or by e-mail joan.simmins@scotiabank.com.

Regards,



Joan Simmins P.Eng.



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February 5, 2014

British Columbia Securities Commission
Alberta Securities Commission
Financial and Consumer Affairs Authority of Saskatchewan
Manitoba Securities Commission
Ontario Securities Commission
Autorite des marches financiers
Financial and Consumer Services Commission (New Brunswick)
Superintendent of Securities, Department of Justice and Public Safety, Prince Edward Island
Nova Scotia Securities Commission
Securities Commission of Newfoundland and Labrador
Superintendent of Securities, Northwest Territories
Superintendent of Securities, Yukon
Superintendent of Securities, Nunavut

Dear Sir/Madam:

Re: CSA Notice and Request for Comment - Proposed Amendments to National Instrument 51-101 *Standards of Disclosure for Oil and Gas Activities*

Husky Energy is pleased to provide comments on the “CSA Notice and Request for Comment - Proposed Amendments to National Instrument 51-101 *Standards of Disclosure for Oil and Gas Activities*”. Husky is a publicly held integrated energy and energy related company headquartered in Calgary, Alberta with total assets greater than \$35 billion. Husky has exploration and production assets in Canada in Alberta, British Columbia, Saskatchewan, Newfoundland and Labrador, the Northwest Territories and internationally in offshore Greenland, United States, offshore China and offshore Indonesia.

We are pleased that the securities commissions have requested comments on the proposed amendments to NI 51-101 before completing the process. Husky has chosen to comment on certain items of the most significance to Husky, but that does not imply that there may not be other beneficial changes to the proposed amendments.

Husky's recommendations are summarized as follows:

- Change the definition of Bitumen and/or Heavy Oil.
- Change the requirement to identify each significant event and specific time period for a Contingent Resources project.
- Remove the requirement to disclose the low and high estimates of Contingent and Prospective Resources if disclosed in the annual filing.
- Remove the requirement to disclose the net present value of Contingent and Prospective Resources if disclosed in the annual filing.

Husky's recommendations and supporting discussion are provided in more detail below.

Item 2. - NI 51-101 Section 1.1 is amended by adding the following definitions:

(a.3) "*bitumen*" means the naturally occurring viscous mixture, consisting mainly of pentanes and heavier *hydrocarbons*, with a viscosity greater than 10,000 mPa.s (cP) measured at the mixture's original temperature in the *reservoir* and at atmospheric pressure on a gas-free basis;

(n.5) "*heavy crude oil*" means *crude oil* with a density greater than 10 degrees API gravity and less than or equal to 22.3 degrees API gravity;

These two definitions, as written, are contradictory for a significant portion of Husky's heavy oil production that is produced conventionally. This production is mostly primary production using CHOPS and horizontal wells or waterflood. It does not include thermal or tertiary recovery projects. The graphs in Appendix A show a large number of oil samples from Husky's conventional producing wells. The density for almost all of the samples is 10 degrees API or greater and would be defined as *heavy crude oil*, however the viscosity for a significant portion of the samples is greater than 10,000 cP and would be defined as *bitumen*, for the same reserves.

The cost structure and timing of development of a project is vastly different for conventional heavy oil production compared to a thermal bitumen development. If Husky's primary production was classified as bitumen, there would be less transparency in Husky's disclosure since we have both conventional heavy oil production and thermal projects. There would also be a lack of comparability between other companies with thermal bitumen projects.

When the SEC modernized their rules in 2009, they defined bitumen as;

Bitumen, sometimes referred to as natural bitumen, is petroleum in a solid or semi-solid state in natural deposits with a viscosity greater than 10,000 centipoise measured at original temperature in the deposit and atmospheric pressure, on a gas free basis. In its natural state it usually contains sulfur, metals, and other non-hydrocarbons.

PRMS defines Natural Bitumen as;

Natural Bitumen is the portion of petroleum that exists in a semisolid or solid phase in natural deposits. In its natural state, it usually contains sulfur, metals, and other non-hydrocarbons. Natural Bitumen has a viscosity greater than 10,000 milliPascals per second (mPa.s) (or centipoises) measured at original temperature in the deposit and atmospheric pressure, on a gas free basis. In its natural viscous state, it is not normally recoverable at commercial rates through a well and requires the implementation of improved recovery methods such as steam injection. Natural Bitumen generally requires upgrading prior to normal refining. (Also called Crude Bitumen.)

We recommend that the wording from the SEC and PRMS definitions of bitumen, or something similar, be added to the current definition. The key is to include the words “in a solid or semi-solid state” to differentiate between heavy oil that may be produced from primary wells and bitumen that must have some additional energy, such as steam, applied to be produced. In addition, we recommend the definition of heavy oil be changed to include the words, “that can be produced under primary recovery”, to be clear and comparable.

Item 13. - Section 5.9 is amended by

(a) inserting the following subparagraph in paragraph (2) (d):

(iii.1) a description of the project including

(A) each significant event in the project and the specific time period in which each event is expected to occur;

(B) the recovery technology; and

(C) whether the project is a conceptual or pre-development study

Contingent Resources projects are immature compared to reserves projects. Due to the interpretation of what is a significant event and the requirement of the specific time period, it is probable that widely varying assumptions will be made and there will not be consistency or comparability in different company's disclosures. The requirements in (B) and (C) are good for clear disclosure.

We recommend that this requirement (A) should be amended to be more general and indicate expected timing for the project and not the specific events and timing of each event. The disclosure should be principle based, similar to other proposed amendments to NI 51-101.

Item 24. - Item 2.1 of Form 51-101 F1 is amended by inserting the following:

4. Contingent Resources or Prospective Resources – If the reporting issuer discloses *contingent resources or prospective resources* in the statement filed,
(a) low, best and high estimates are required to be disclosed

This amendment requires the low, best and high estimates of Contingent Resources or Prospective Resources to be disclosed. These projects are immature compared to reserves projects and Prospective Resources are less mature than Contingent Resources projects. Due to the many assumptions that will be required to complete a low and high estimate in addition to the best estimate evaluation, it is probable that there will not be consistency or comparability in different company's disclosures. The most detailed company planning is completed using the best estimate evaluation and therefore it is the most appropriate to ensure good disclosure and comparability. If companies have completed sufficient analysis and wish to disclose low, best and high estimates, this should be allowed. The CSA Staff Notice 51-327 states that if the high estimate is disclosed then a low estimate must also be disclosed. This is a good requirement for clear disclosure.

We recommend that this requirement should be deleted.

(b) the net present values are required to be disclosed

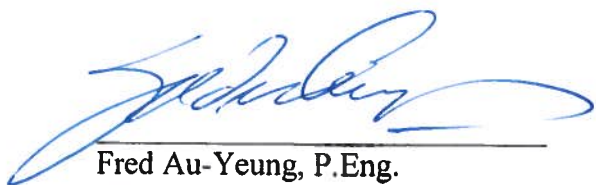
This amendment requires the full economic evaluation of Contingent Resources or Prospective Resources. By their nature, these projects are immature compared to reserves projects. Many assumptions will be required to complete a net present value evaluation. It is probable that different companies will use widely different assumptions, and if there is not consistency in these evaluations, then there will not be comparability in the net present values. This false precision could lead to more misleading disclosure and lack of transparency than not including net present values.

We recommend that this requirement should be deleted.

Yours truly,

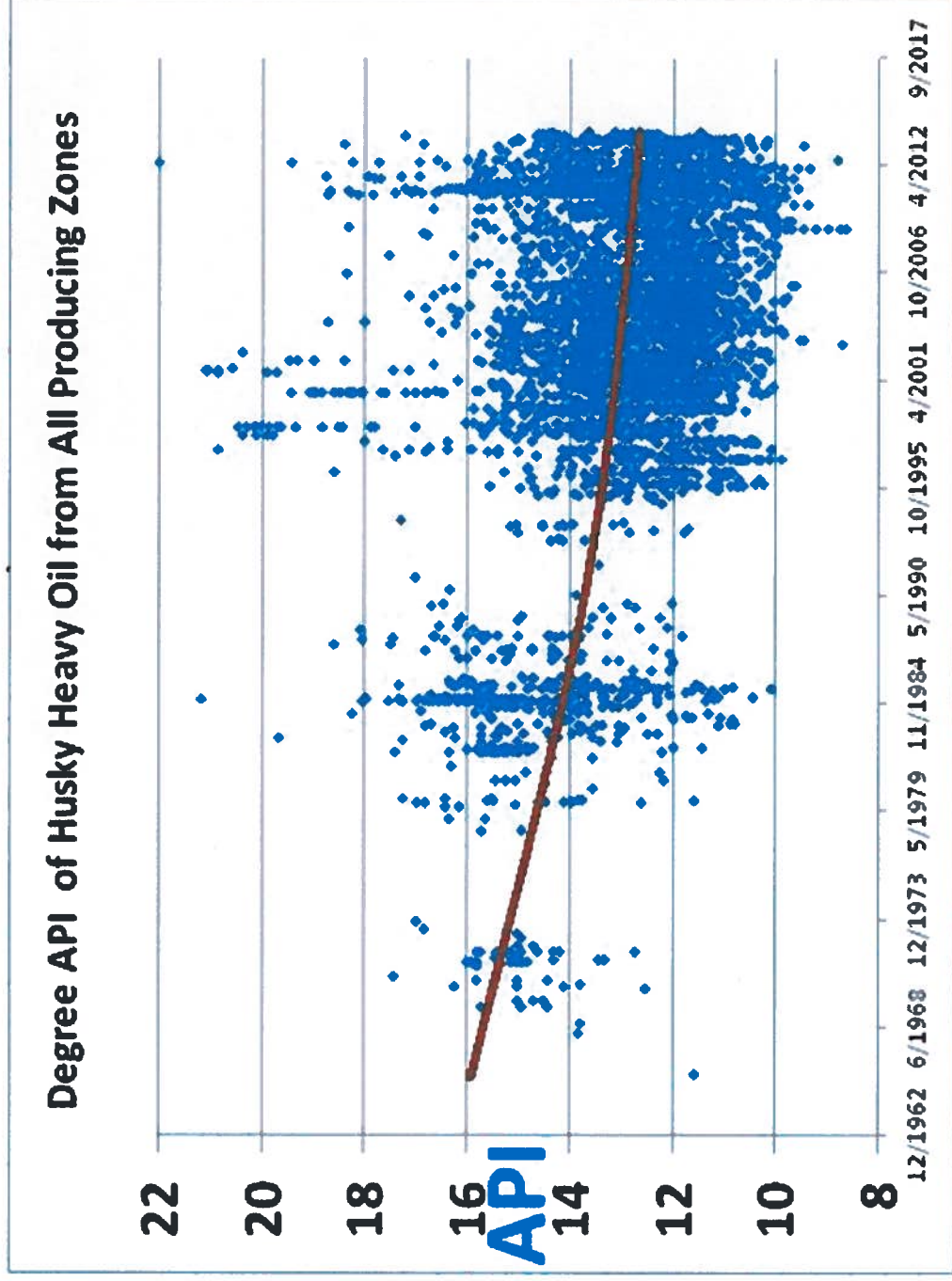


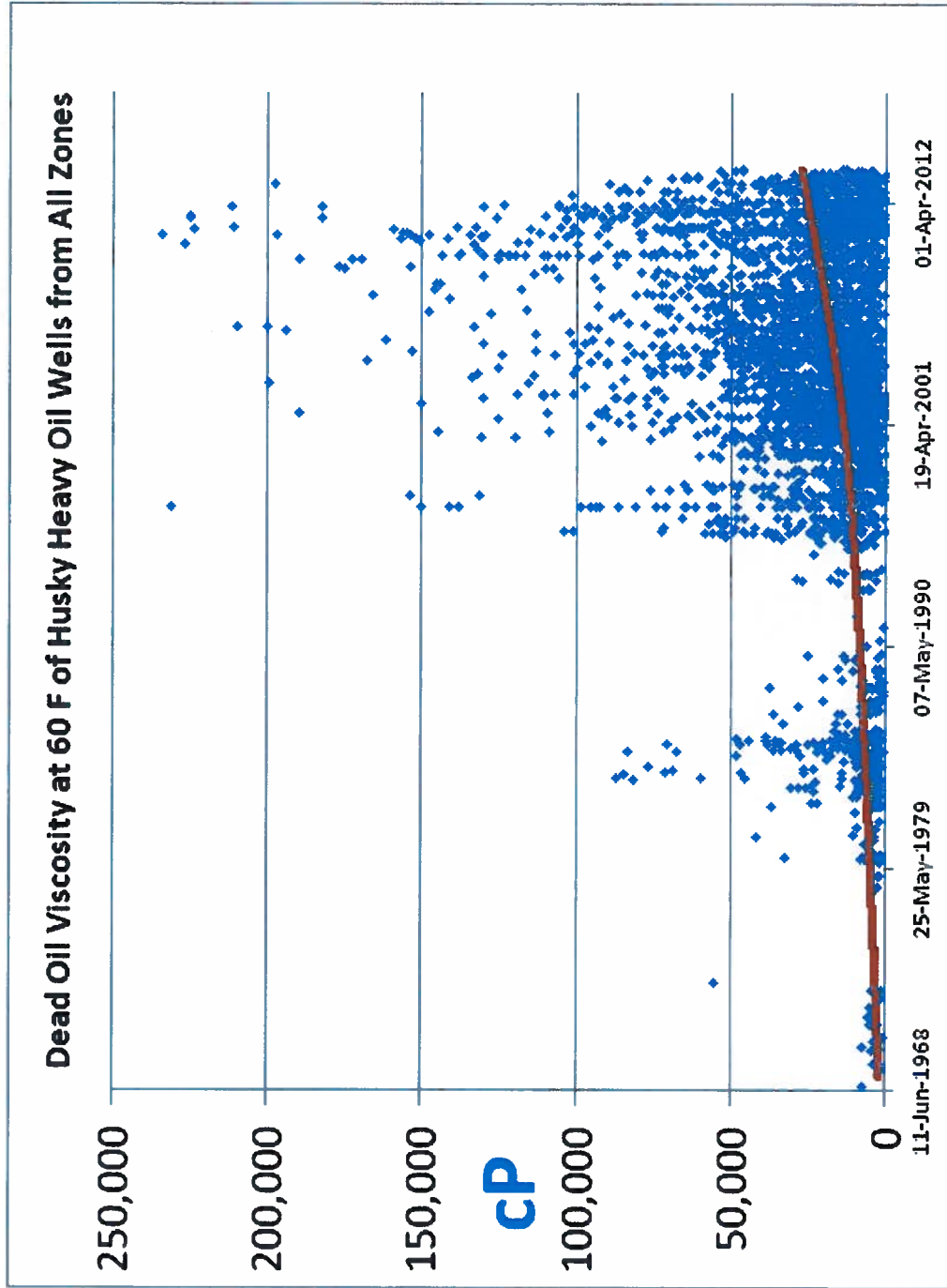
Janice Knoechel, P.Eng.
Reserve Specialist



Fred Au-Yeung, P.Eng.
Manager, Reservoir Engineering
IQRE, Husky Energy

Appendix A







February 7, 2014

British Columbia Securities Commission
 Alberta Securities Commission
 Financial and Consumer Affairs Authority of Saskatchewan
 Manitoba Securities Commission
 Ontario Securities Commission
 Autorite des marches financiers
 Financial and Consumer Services Commission (New Brunswick)
 Superintendent of Securities, Department of Justice and Public Safety, Prince Edward Island
 Nova Scotia Securities Commission
 Securities Commission of Newfoundland and Labrador
 Superintendent of Securities, Northwest Territories
 Superintendent of Securities, Yukon
 Superintendent of Securities, Nunavut

Attention: Mr. Michael Jackson
 Oil and Gas Compliance Counsel
 Alberta Securities Commission
 Suite 600, 250 – 5th Street SW
 Calgary AB T2P 0R4

Dear Mr. Jackson:

Re: CSA Notice and Request for Comment – Proposed Amendments to:

- **National Instrument 51-101 *Standards of Disclosure for Oil and Gas Activities* (NI 51-101), and**
 - **Companion Policy 51-101CP *Standards of Disclosure for Oil and Gas Activities* (NI 51-101CP)**
- (collectively, the “Proposed Amendments”)**

Canadian Natural Resources Limited (“Canadian Natural”) is pleased to provide comments on the Proposed Amendments. Canadian Natural is a senior oil and natural gas production company, listed on both the Toronto and New York stock exchanges. The company has continuing operations in its core areas located in Western Canada, the U.K. portion of the North Sea and Offshore Africa.

Canadian Natural Resources Limited

Suite 2500, 855 - 2 Street SW, Calgary, Alberta, T2P 4J8 T 403.517.6700 www.cnrl.com

Canadian Natural supports the need to enhance the quality, consistency and integrity of the disclosure of oil and gas activities by reporting issuers. Regarding the Proposed Amendments, we agree with or have no comment on most of the items. Following are our comments on the five specified questions and on certain items of the Proposed Amendments.

1. *The Proposed Amendments would permit an issuer to disclose reserves prepared in accordance with, for example, the SEC regime supplementary to reserves disclosed under NI 51-101. Do you support the proposal to permit the supplementary disclosure of reserves prepared under a regime comparable to the COGE Handbook, as is set out in proposed section 5.18 of NI 51-101? Please explain your views.*

Canadian Natural supports the amendment as set out in proposed section 5.18. We endorse the CSA's proposal to allow the use of an alternative reserves or resources evaluation standard to meet disclosure requirements outside of Canada. Canadian Natural's support is with the understanding that an arithmetic reconciliation of the NI 51-101 disclosure with any supplementary disclosure will not be required.

2. *The Proposed Amendments eliminate the requirement to disclose a reporting issuer's reserves data by production group. Do you support the removal of the requirement to disclose reserves data by production group? Please explain your views.*

Canadian Natural agrees with this amendment regarding the change from Production Group to Product Type. We do however have concerns with certain proposed Product Type categories and definitions.

With respect to the Product Type "Bitumen", Canadian Natural disagrees with the proposed definition. There is a technical conflict in using API gravity to define heavy crude oils and viscosity to define bitumen. A significant portion of heavy crude oils, as defined by API gravity, have viscosities much greater than 10,000 cP. We recommend a definition for bitumen to be similar to the PRMS definition for Natural Bitumen:

Natural Bitumen is the portion of petroleum that exists in a semisolid or solid phase in natural deposits. In its natural state, it usually contains sulfur, metals and other non-hydrocarbons. Natural Bitumen has a viscosity greater than 10,000 milliPascal second (mPa.s) (or centipoise) measured at original temperature in the deposit and atmospheric pressure, on a gas free basis. In its natural viscous state, it is not normally recoverable at commercial rates through a well and requires the implementation of improved recovery methods such as steam injection. Natural Bitumen generally requires upgrading prior to normal refining. (Also called Crude Bitumen.)

As implied by the definition, bitumen recovery requires the application of thermal in situ technology and tertiary recovery processes for deep deposits, or mining methods for shallow

deposits. We also recommend the definition of heavy crude oil be changed to include the words “that can be produced under primary recovery methods” to be clear and comparable.

Canadian Natural firmly disagrees with the need to differentiate natural gas into the proposed product types and urges the CSA to consider a single product type for gaseous hydrocarbons: “Natural Gas”:

- The primary basis for the proposed natural gas product types is their origin.
- Natural gas fluid properties do not substantially change with differing origins and therefore the price per Mcf or GJ does not substantially change.
- Operating costs do not vary materially due to differing origins.
- The application of horizontal drilling or multi-frac completion technology is not restricted to the Shale natural gas product type; the same technology is applied to certain Conventional natural gas and Light and Medium crude oil reservoirs.
- Refinement of the single Natural Gas product type into the proposed list of natural gas product types does not provide greater insight to the reader on the value of reporting issuer’s reserve or resource estimates.

Natural Gas Liquids are associated by-products of natural gas and are included in the future net revenue (FNR) for the primary natural gas or crude oil product types; Canadian Natural recommends that the Natural Gas Liquids should be removed from the Future Net Revenue by Product Type disclosure.

3. *A reporting issuer that includes contingent resources and prospective resources is not currently required to have those estimates prepared by an independent qualified reserves evaluator. Do you support the requirement in proposed item 2 of section 2.1 of NI 51-101 for an independent qualified reserves evaluator to evaluate or audit any contingent resources or prospective resources included in the annual statement of reserves data? Please explain your views.*

Canadian Natural supports the proposal requiring an IQRE to evaluate or audit any contingent resources or prospective resources included in the annual statement of reserves data. This requirement would ensure the resource information contained in Form 51-101F1 is of the same quality, reliability and consistency as the reserves estimates.

4. *Do you support the requirement in proposed paragraph 4 of item 2.1 of Form 51-101F1 to provide low, best and high estimates of volume and net present value of future net revenue in respect of any contingent resources or prospective resources included in the annual statement of reserves data? Please explain your views.*

Canadian Natural does not support the requirement to provide estimates of net present value of future net revenue for contingent or prospective resources included in Form 51-101F1 or in other disclosure. Determining value for contingent and prospective resources is dependent on many significant assumptions including recovery technology, market access, development plans, capital costs, product prices and corporate priorities. Development scenarios for prospective resources are speculative at best due to very limited well

information. There is the likelihood for significant variations and ambiguity in the assumptions around these factors. Disclosing future net revenue estimates for contingent and prospective resources, that likely have material uncertainties, are of limited value and use to the reader. We urge the CSA to remove this requirement. For the same reasons, we recommend the CSA remove the requirement to provide detailed descriptions of development projects associated with disclosed contingent and prospective resources.

5. *When a reporting issuer discloses an oil and gas metric, the Proposed Amendments would require the reporting issuer to disclose the standard, methodology and meaning of the disclosed metric, and if there was no identifiable standard, the parameters used in calculating the oil and gas metric and a cautionary statement. Do you support the proposed amendment to section 5.14 of NI 51-101 to impose the above described disclosure-based approach to oil and gas metrics such as BOEs, finding and development costs, netbacks, etc.? Please explain your views.*

Canadian Natural supports the proposed amendment to section 5.14 requiring an acceptable description of the optionally disclosed metrics.

Additional Comment

Canadian Natural acknowledges the benefit of the Proposed Amendments in defining and separating the abandonment and reclamation costs. We will continue to account for the abandonment and reclamation costs of our existing property, plant and equipment in our consolidated financial statements under Asset Retirement Obligations (ARO). Abandonment and reclamation costs for future undeveloped reserves are included in the future net revenue of the undeveloped reserves.

Thank you for the opportunity to provide comments on the Proposed Amendments. Please contact us if you require further discussion on our comments or the Proposed Amendments.

Yours truly,



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