NI 51-101 Oil and Gas Review Information Session

February 4, 2016
1. Introduction
2. Oil and Gas Regulatory Framework
3. Disclosure Commentary
4. Topics of Interest
5. Questions and Comments
6. Contact Information
The Alberta Securities Commission (ASC)
- Responsible for administering Alberta’s securities laws
- Entrusted to foster a fair and efficient capital market and to protect investors
- Encourages effective and compliant disclosure, based upon the provision of balanced, authentic, relevant and reliable information

Member of the Canadian Securities Administrators (CSA)
- Works to improve, coordinate and harmonize regulation of Canada's capital markets
• Within Corporate Finance Division
• Priorities
  • Review disclosure for compliance with securities legislation
  • Develop and maintain legislation and technical guidance
  • Be helpful and responsive
• Staff
  • Craig Burns, P.Geo., Manager, Petroleum
  • Tim Kravinchuk, P.Eng., Senior Petroleum Evaluation Engineer
  • Floyd Williams, P.Eng., Senior Petroleum Evaluation Engineer
  • Richard Bush, C.E.T., Petroleum Analyst
Recent activities

  - Published December 2014, effective July 1, 2015
- CSA Staff Notice 51-345 *Disclosure of Abandonment and Reclamation Costs in National Instrument 51-101 Standards of Disclosure for Oil and Gas Activities and Related Forms*
  - Published November 2015
- 2015 Oil and Gas Review Report
  - Published December 2015
Agenda

1. Introduction

2. Oil and Gas Regulatory Framework
   a) Legislation
   b) Guidance

3. Disclosure Commentary

4. Topics of Interest

5. Questions and Comments

6. Contact Information
Oil and Gas Regulatory Framework

Legislation

- **Securities Act** (Alberta)

- **NI 51-101**
  - General disclosure standards and specific annual disclosure requirements for reporting issuers (RIs) engaged in oil and gas activities
  - Enacted September 2003
  - Amendments effective July 1, 2015
  - Five related forms for filing on SEDAR
Oil and Gas Regulatory Framework Legislation

- 51-101F1 *Statement of Reserves Data and Other Oil and Gas Information*¹ (Form 51-101F1) **New content with Amendments**
- 51-101F2 *Report on [Reserves Data][,] [Contingent Resources Data] [and] [Prospective Resources Data] by Independent Qualified Reserves Evaluator or Auditor*¹ (Form 51-101F2) **New content and title**
- 51-101F3 *Report of Management and Directors on Oil and Gas Disclosure*¹ (Form 51-101F3) **New content**
- 51-101F4 *Notice of Filing of 51-101F1 Information*² **Unchanged**
- 51-101F5 *Notice of Ceasing to Engage in Oil and Gas Activities*³ (Form 51-101F5) **New form**

¹See section 2.1 of NI 51-101; to be filed with securities regulatory authority for the most recent financial year
²For RIs that file the reports required under section 2.1 of NI 51-101 in their annual information form
³See section 6.2 of NI 51-101
Officials in [city, country] have made multiple deals with local businesses. Additionally, [city, country] has a strong tradition of supporting the arts and culture. Finally, there is a growing interest in sustainable development and environmental conservation.
Oil and Gas Regulatory Framework Guidance

- Canadian Oil and Gas Evaluation Handbook (COGE Handbook)
  - Technical standard for NI 51-101, referenced in
    - Section 5.2(1)(a)(iii) - reserves
    - Section 5.3 - terminology
    - Section 5.9(2)(b) - resources other than reserves (ROTR)
    - Section 5.10(1)(c) - analogous information
    - Form 51-101F2

- Per section 1.1 of NI 51-101
  - Amended from time to time (effective on publishing)
Oil and Gas Regulatory Framework
Guidance

- Recent amendments
  - Detailed guidelines for estimation and classification of bitumen resources (Bitumen Guidelines), published April 2014
  - Guidelines for estimation and classification of resources other than reserves (ROTR Guidelines), published July 2014
1. Introduction
2. Oil and Gas Regulatory Framework
3. Disclosure Commentary
   a) Overview
   b) Resources Other Than Reserves
   c) Type Wells (Type Curves), Drilling Locations and Associated Information
4. Topics of Interest
5. Questions and Comments
6. Contact Information
Disclosure Commentary
Overview

- We review disclosure
- Main review types
  - Screening
  - Continuous disclosure
  - Prospectus
    - Short form
    - Long form
  - Press release
  - Technical
Disclosure Commentary
Overview

- Purpose is to ascertain compliance with securities legislation
  - \textit{Securities Act} (Alberta)
    - Section 92(4.1) prohibits misleading statements
  - NI 51-101
    - COGE Handbook
Disclosure Commentary
Overview

- Review outcomes
  - No action
  - Advisory comment(s) - **Most common**
  - Amend and restate request
  - Issuer placed in default
  - Management cease trade order
  - Cease trade order
  - Enforcement referral
Frequent deficiencies observed during recent reviews involve
- Resources other than reserves
- Type wells (type curves), drilling locations and associated information
Disclosure Commentary
Resources Other Than Reserves

- Mostly contingent resources and prospective resources
- Risk and uncertainty
  - Reserves have uncertainty only
  - ROTR have risk and uncertainty
- Per section 5.9(1)(d) of NI 51-101
  - Disclose risks and level of uncertainty for anticipated results in either
    - Same document
    - Supporting filing
Disclosure Commentary
Resources Other Than Reserves

- Per section 5.7(2) of 51-101CP
  - Disclosure under section 5.9(1)(d)
    - Reasonable
    - Meaningful
    - Appropriate to size
  - Expressed either
    - Quantitatively as probabilities
    - Qualitatively by description
• Per section 5.9(2)(d)(iii) of NI 51-101
  • Specific significant positive and negative factors required if disclosure under section 5.9(1)(d) includes either
    • ROTR estimate in which the RI has or intends to acquire an interest
    • Estimated value attributable to estimated quantity
  • Examples per section 5.7(3)(c) of 51-101CP
    • Lack of infrastructure
    • Abandonment and reclamation costs
    • Legal, capital, political, technological or business factors
Disclosure Commentary
Resources Other Than Reserves

- Per Item 6.2.1 of Form 51-101F1
  - Identify and discuss significant economic factors or uncertainties on properties with no reserves assigned
Deficient disclosure example per section 5.9(1)(d) of NI 51-101

Significant risks and uncertainties that may affect the Company’s contingent resources and associated future net revenue include:

- material changes to existing taxation or royalty rates;
- changes to environmental laws and regulations;
- fluctuations in product pricing;
- changes to capital expenditures and operating costs;
- surface access issues;
- receipt of regulatory approvals;
- availability of services and processing facilities; and
- unforeseen production performance issues.
May be analogous information
  - Section 5.10 of NI 51-101
  - Section 5.8 of 51-101CP
  - Section 2(a) of CSA Staff Notice 51-327

Recall section 92(4.1) of Securities Act (Alberta)
  - Prohibition on misleading statements
  - Misleading by omission specifically prohibited

Ensure a factual and balanced approach
Discourse Commentary
Type Wells, Drilling Locations and Assoc. Information

- Observations
  - Attribution
    - Disclosure must be prepared by a qualified reserves evaluator or auditor
      - Sections 5.2(1)(a)(ii), 5.9(2)(a) and 5.10(1)(c) of NI 51-101
    - Indicate source
  - COGE Handbook
    - Disclosure must be prepared in accordance with the COGE Handbook
      - Sections 5.2(1)(a)(iii), 5.9(2)(b) and 5.10(1)(c) of NI 51-101
    - Confirm compliance
    - Terminology and category per section 5.3 of NI 51-101
      - See section 5.7(3)(b) of 51-101CP
Methodology
  - Recall analogous information requirements
  - Section 5.3.5 of volume 1 of the COGE Handbook discusses certainty levels
    - Long term results shouldn’t vary from certainty levels
      - 1P, 2P, 3P
      - 1C, 2C, 3C
Disclosure Commentary
Type Wells, Drilling Locations and Assoc. Information

- Deficient disclosure examples
  - Type wells

Results exceed our type wells
Drilling locations

Current drilling inventory consists of approximately 4,000 low-risk locations.
1. Introduction
2. Oil and Gas Regulatory Framework
3. Disclosure Commentary
4. Topics of Interest
   a) Overview
   b) Abandonment and Reclamation Costs
   c) Resources Other Than Reserves
   d) Product types
   e) Reclassification of Reserves
   f) Reserves Reconciliation
   g) Modifications to Forms 51-101F2 and 51-101F3
   h) Ceasing to Engage in Oil and Gas Activities
5. Questions and Comments
6. Contact Information
Topics of Interest
Overview

- Topic rationale
  - Staff observations through disclosure reviews
  - Discussions with capital market participants
  - Information we think you should be aware of
  - Inquiries
**Topics of Interest**

**Abandonment and Reclamation Costs**

- **Changes** with Amendments include
  - Abandonment and reclamation costs (ARC)
    - New defined term
    - Added to section 1.1 of NI 51-101

---

**Abandonment and reclamation costs**

All costs associated with the process of restoring a *reporting issuer’s* property that has been disturbed by *oil and gas activities* to a standard imposed by applicable government or regulatory authorities.
Topics of Interest
Abandonment and Reclamation Costs

- Future net revenue (FNR)
  - **New** definition (term previously in CSA Staff Notice 51-324)
  - **Added** to section 1.1 of NI 51-101

*Future net revenue*

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* and *abandonment and reclamation costs*.

- All disclosed FNR must be net of ARC for all categories of
  - Reserves
  - ROTR
**Topics of Interest**

**Abandonment and Reclamation Costs**

- Disclosure of future net revenue (FNR) mandated in
  - Form 51-101F1
    - **Unchanged** Item 2.1(2), disclosure of net present value (NPV) of FNR by country in aggregate for categories in Item 2.1(1)
      - Proved developed producing reserves
      - Proved developed non-producing reserves
      - Proved undeveloped reserves
      - Proved reserves (in total)
      - Probable reserves (in total)
      - Proved plus probable reserves (in total)
    - If possible reserves disclosed
      - Possible reserves (in total)
      - Proved plus probable plus possible reserves (in total)
Topics of Interest
Abandonment and Reclamation Costs

- **New** Part 7, if contingent resources in the development pending sub-class are disclosed
- **Form 51-101F2**
  - **Unchanged** for proved plus probable reserves
  - **New** for contingent resources in the development pending sub-class, if disclosed, per Amendments
Topics of Interest
Abandonment and Reclamation Costs

- Disclosure of ARC mandated in
  - Form 51-101F1
    - **Unchanged** Item 2.1(3)(b)(v), disclosure by country in aggregate for categories in 2.1(3)(a)
    - **New** Instruction (1) of Item 5.2 Significant Factors or Uncertainties Affecting Reserves Data, discussion of significant ARC (wells, facilities, pipelines etc.)
    - **New** Instruction (1) of Item 6.2.1 Significant Factors or Uncertainties Relevant to Properties With No Attributed Reserves, discussion of ARC (wells, facilities, pipelines etc.)

- ARC requirements summarized in **new** CSA Staff Notice 51-345
Disclosure is generally optional

- Exceptions include
  1. If material per section 1.4 Materiality Standard of NI 51-101
  2. Information required concerning properties with no reserves per Part 6 Other Oil and Gas Information of Form 51-101F1
  3. Prospectus disclosure if material under NI 51-101
1. Section 1.4(2) of NI 51-101

[...] information is *material* in respect of a *reporting issuer* if it would be likely to influence a decision by a reasonable investor to buy, hold or sell a security of a *reporting issuer*.

2. Part 6 of Form 51-101F1

- Item 6.2 – Properties With No Attributed Reserves
- Item 6.2.1 – Significant Factors or Uncertainties Relevant to Properties With No Attributed Reserves
3. Prospectus disclosure

- Item 5.5 – Issuers with oil and gas operations of Form 41-101F1
- Section 5.10 Prospectus Disclosure of 51-101CP

(2) Disclosure of Resources – [...]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 reporting issuer, even if the disclosure is not mandated by NI 51-101.

- Also see section 5.7(1) Disclosure of Resources Generally of 51-101CP
New Part 7 – Optional Disclosure of Contingent Resources Data and Prospective Resources Data of Form 51-101F1

Requirements include

- Estimates disclosed as an appendix to Form 51-101F1
- Estimates risked for chance of commerciality
- Best estimates
Topics of Interest
Resources Other Than Reserves

- Contingent resource estimates in applicable project maturity sub-class

- NPV of FNR for development pending sub-class of contingent resources
- Cautionary statement that clarifies the uncertainty

Modified from the ROTR Guidelines
Some considerations

- Section 2.1(2)(b)(ii) of NI 51-101 replaced
  - Estimates disclosed as an appendix to Form 51-101F1 evaluated or audited by independent qualified reserves evaluator or auditor
    - Per unchanged section 5.9(2), independence not required for disclosure outside Form 51-101F1

- Guidance (4) of new Part 7
  - Disclosure beyond development pending sub-class might be misleading where significant uncertainty and risk exists
Topics of Interest
Resources Other Than Reserves

- Per unchanged section 5.9(1) Disclosure of Resources Other than Reserves
  - 5.9(1)(d) requires risks and level of uncertainty for all disclosure
    - See section 5.7(2) of 51-101CP
- Per new section 5.9(2)(d)(iii.1) of NI 51-101
  - Accompany disclosure with
    - Estimated cost to achieve commercial production
    - Project timeline
    - Recovery technology
    - If based on conceptual or pre-development study
### Changes with Amendments include

- All product types now defined in section 1.1 of NI 51-101
  - Most sourced from the COGE Handbook and modified
  - Hydrocarbon sources and recovery processes now emphasized

<table>
<thead>
<tr>
<th>Old</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>conventional activities</strong></td>
<td><strong>bitumen</strong></td>
</tr>
<tr>
<td>light &amp; medium crude oil (combined)</td>
<td>coal bed methane</td>
</tr>
<tr>
<td>heavy oil</td>
<td>conventional natural gas</td>
</tr>
<tr>
<td>natural gas excluding natural gas liquids</td>
<td>gas hydrates</td>
</tr>
<tr>
<td>natural gas liquids</td>
<td>heavy crude oil</td>
</tr>
<tr>
<td></td>
<td>light crude oil &amp; medium crude oil combined</td>
</tr>
<tr>
<td><strong>non-conventional activities</strong></td>
<td>natural gas liquids</td>
</tr>
<tr>
<td>synthetic oil</td>
<td>shale gas</td>
</tr>
<tr>
<td>bitumen</td>
<td>synthetic crude oil</td>
</tr>
<tr>
<td>coal bed methane</td>
<td>synthetic gas</td>
</tr>
<tr>
<td>hydrates</td>
<td>tight oil</td>
</tr>
<tr>
<td>shale oil</td>
<td></td>
</tr>
<tr>
<td>shale gas</td>
<td></td>
</tr>
</tbody>
</table>
Topics of Interest
Product Types

- **New** product type tight oil

  **Tight oil**

  **Crude oil**: 

  (a) contained in dense **organic-rich** rocks, including low-permeability shales, siltstones and carbonates, in which the **crude oil** is primarily contained in microscopic pore spaces that are poorly connected to one another, **and**

  (b) that typically requires the use of hydraulic fracturing to achieve economic **production** rates.
Definition **added** for product type shale gas

- **Shale gas**
- **Natural gas:**

  (a) contained in dense organic-rich rocks, including low-permeability shales, siltstones and carbonates, in which the *natural gas* is primarily adsorbed on the kerogen or clay minerals, **and**

  (b) that usually requires the use of hydraulic fracturing to achieve economic production rates.
Topics of Interest
Product Types

- **New** section 1.1(4) Additional Disclosure of 51-101CP
  - Supplement disclosure with specific information
  - Choose closest product type
  - Mustn’t be misleading

- Some considerations
  - Disclose
    - Crude oil typically requiring hydraulic fracturing to be economic as **product type tight oil**
    - Natural gas usually requiring hydraulic fracturing to be economic as **product type shale gas**
Topics of Interest
Reclassification of Reserves

- Section 5.3.3 *Commercial Risk* of volume 1 of the COGE Handbook

...estimated recoverable quantities must be associated with a project(s) that has demonstrated *commercial viability* [...] the chance of *commerciality* is effectively 100%.

- See section 5.3.2 *Commercial Status* of volume 1 of the COGE Handbook for commerciality criteria

- Reclassification of reserves to contingent resources
  - See section 2.5.5 *Project Maturity Sub-Classes for Contingent Resources* of volume 2 of the COGE Handbook
Item 4.1 of Form 51-101F1

- Requires annual reconciliation of
  - Gross proved reserves (in total)
  - Gross probable reserves (in total)
  - Disclosure required by
    - Country
    - Product type per Item 4.1(2)(b)
    - Reserve change category per Item 4.1(2)(c)

- Opening and closing balance is needed to reconcile product types, so cannot reconcile those added or repealed with Amendments

- Explanations for changes required per Item 4.1(2)(c); consider footnotes
Topics of Interest
Modifications to Forms 51-101F2 and 51-101F3

- Per section 2.1(2) Report of Independent Qualified Reserves Evaluator or Auditor of NI 51-101
  - Annual filing of report in accordance with Form 51-101F2 required
    - Form 51-101F2 Report on [Reserves Data][,] [Contingent Resources Data] [and] [Prospective Resources Data] by Independent Qualified Reserves Evaluator or Auditor
    - Title and content modified with Amendments for contingent resources and prospective resources
Topics of Interest
Modifications to Forms 51-101F2 and 51-101F3

- Per section 2.1(3) Report of Management and Directors of NI 51-101
  - Annual filing of report in accordance with Form 51-101F3 required
    - Form 51-101F3 Report of Management and Directors on Oil and Gas Disclosure
  - Content modified with Amendments; now includes two alternatives
    - [Alternative A: Reserves Data to Report or Contingent Resources Data or Prospective Resources Data to Report]
    - [Alternative B: No Reserves to Report and No Resources Other than Reserves to Report]
Topics of Interest
Ceasing to Engage in Oil and Gas Activities

- **New** Form 51-101F5 with Amendments per **new** section 6.2

  Ceasing to Engage in Oil and Gas Activities of NI 51-101

  - 51-101F5 *Notice of 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*.

- See section 1.1 of NI 51-101 for **new** definition of oil and gas activities
Please contact us regarding NI 51-101 matters.

General
51-101@asc.ca

Craig Burns, P.Geo.
Manager, Petroleum
craig.burns@asc.ca or (403) 355-9029

Floyd Williams, P.Eng.
Senior Petroleum Evaluation Engineer
floyd.williams@asc.ca or (403) 297-4145

Tim Kravinchuk, P.Eng.
Senior Petroleum Evaluation Engineer
timothy.kravinchuk@asc.ca or (403) 355-4181

Richard Bush, C.E.T.
Petroleum Analyst
richard.bush@asc.ca or (403) 592-3056

Website
www.albertasecurities.com