

Ryder Scott Reserves Conference

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Booking Unconventional Reserves (and Resources) Under Canadian Disclosure Rules National Instrument 51-101 Standards of Disclosure for Oil and Gas Activities

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A|S|C Disclaimer

Alberta Securities Commission

The views expressed in this presentation are solely the personal opinions of the speaker and do not necessarily reflect those of the ASC or other organizations referenced.

Outline of Presentation

- Current Regulations and Process
- What is Changing?
- Disclosure of Resources
- ASC Guidance
- ASC Contacts



Securities Regulations

ASC Mandate

- Build investor confidence and maintain the smooth operation of the Alberta Capital market.

ASC's goal on effective and compliant disclosure

- Balanced, authentic, relevant and reliable disclosure of oil and gas information

Applicable Oil & Gas Legislation

- Alberta Securities Act and Regulation
- National Instrument 51-102 *Continuous Disclosure Obligations*
- Oil and Gas Disclosure
 - **National Instrument 51-101** *Standards of Disclosure for Oil and Gas activities*
 - CSA Staff Notice 51-324 *Glossary to NI 51-101*
 - Revised CSA Staff Notice 51-327 *Guidance on Oil and Gas Disclosure*
 - CSA Staff Notice 51-309 *Acceptance of Certain Foreign Professional Boards as a “Professional Organization”*
 - ASC Staff Notice 51-702 *Establishing Reserves Estimates in Oil and Gas Accumulations*

- National Instrument 13-101
System for Electronic Document Analysis and Retrieval (SEDAR)
- National Instrument 71-102
Continuous Disclosure and Other Exemptions Relating to Foreign Issuers
- Multilateral Instrument 51-105
Issuers Quoted in the U.S. Over-the-Counter Markets

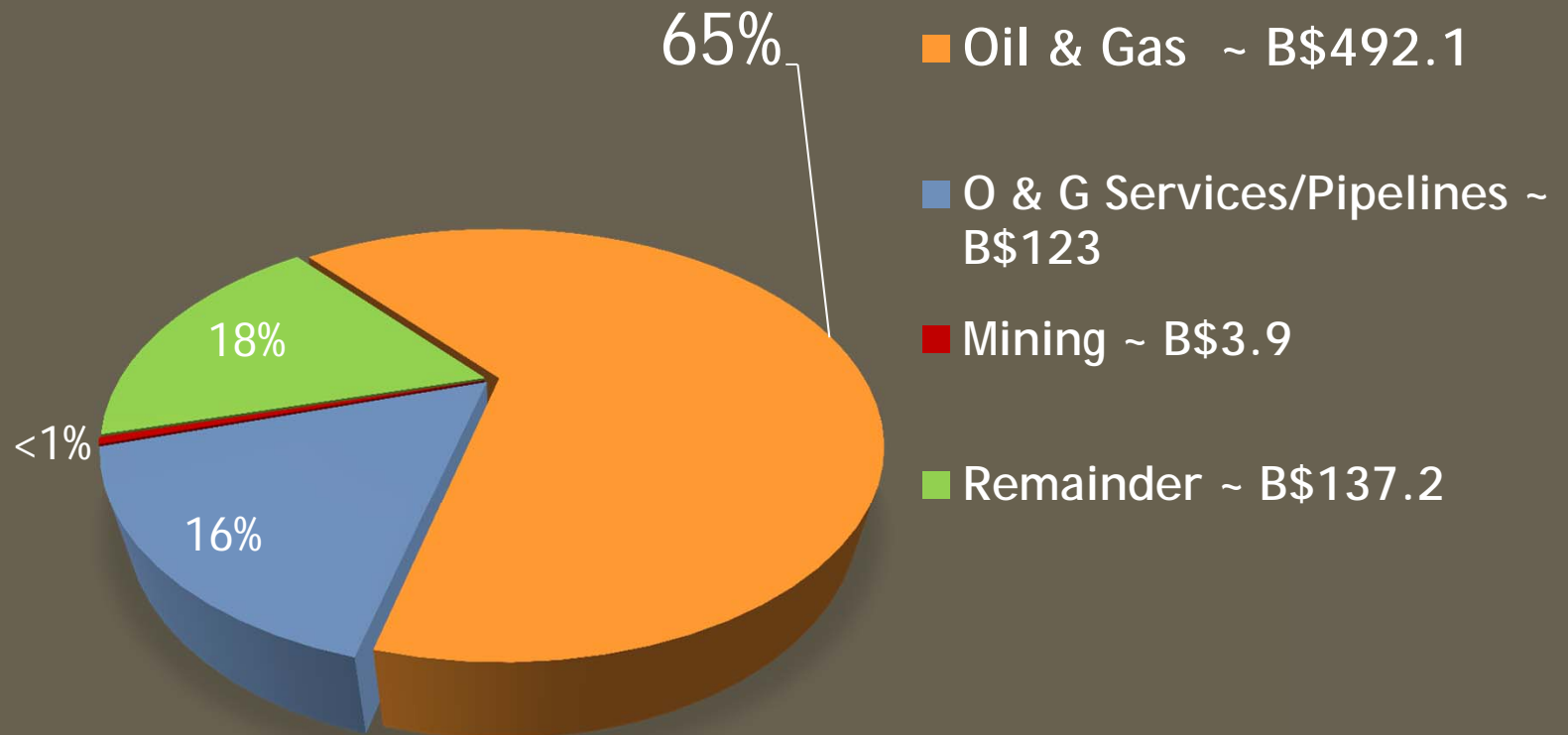
Purpose and Scope of NI 51-101

NI 51-101 is accompanied by:

1. Form 51-101F1 *Statement of Reserves Data and Other Oil and Gas Information*
2. Form 51-101F2 *Report on Reserves Data by Independent Qualified Reserves Evaluator or Auditor*
3. Form 51-101F3 *Report of Management and Directors on Oil and Gas Disclosure*
4. Form 51-101F4 - *Notice of Filing NI51-101F1 Information in AIF*
5. Companion Policy 51-101CP *Standards of Disclosure for Oil and Gas Activities*

<http://albertasecurities.com/Companies/OilGas/Pages/default.aspx>

Market Capitalization of Alberta Prime Reporting Issuers



Active Reporting Issuers as of March 31, 2013

Purpose and Scope of NI 51-101

- The purpose of the NI 51-101 is to enhance the quality, consistency, timeliness and comparability of public disclosure by reporting issuers concerning their upstream oil and gas activities
- NI 51-101 only applies to:
 - information that is material
 - reporting issuers engaged directly or indirectly in “oil and gas activities”

Oil and Gas Activities

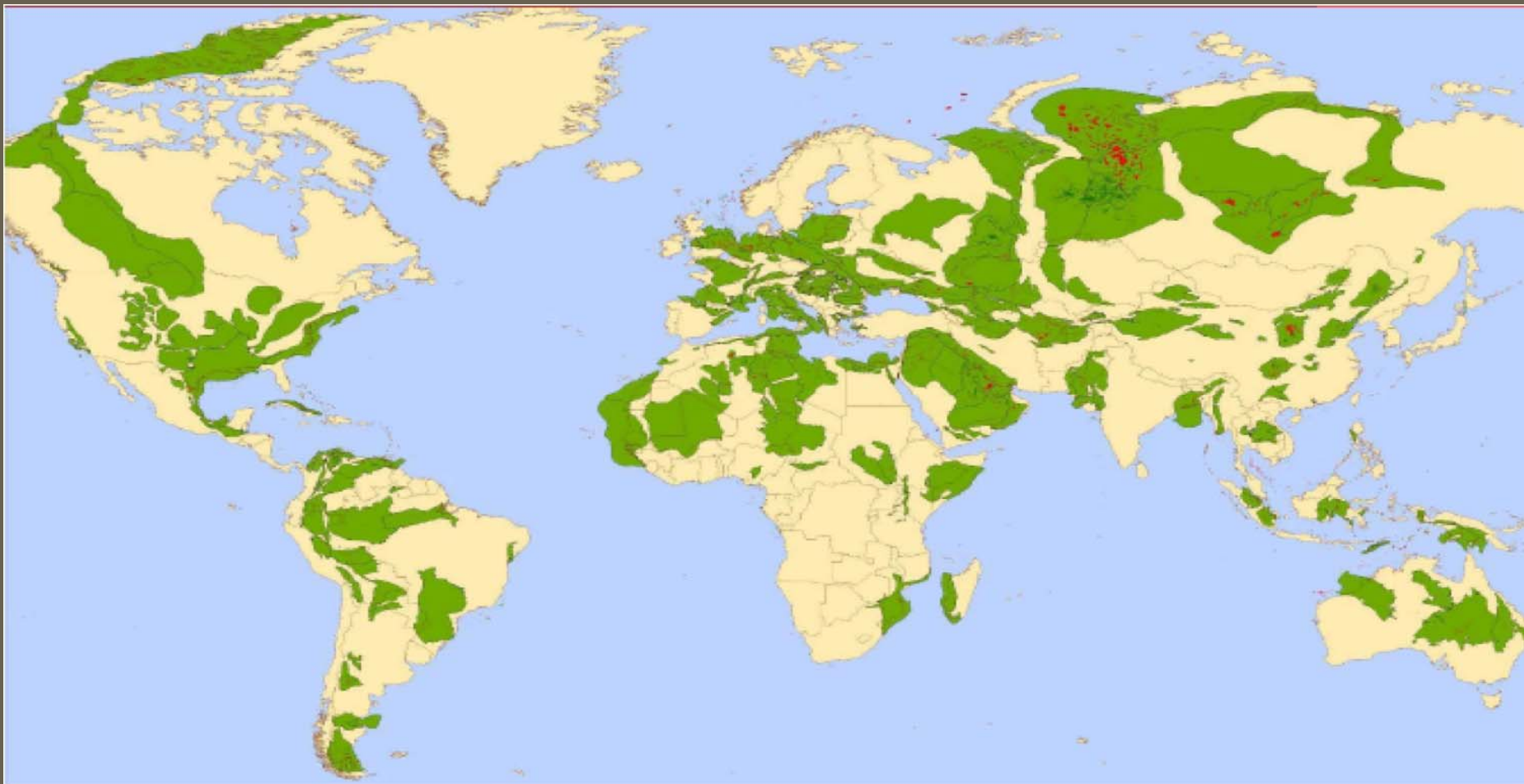
- “Oil and gas activities“ include :
 - (A) the search for *crude oil or natural gas in their natural states and original locations;*
 - (B) the acquisition of *property rights or properties for the purpose of exploring for or removing oil or gas from their natural locations;*

Oil and Gas Activities

(C) the construction, drilling and production activities necessary to retrieve oil and gas from their natural locations and the acquisition, construction, installation and maintenance of field gathering and storage systems including lifting the oil and gas to the surface and gathering, treating, field processing and field storage; and

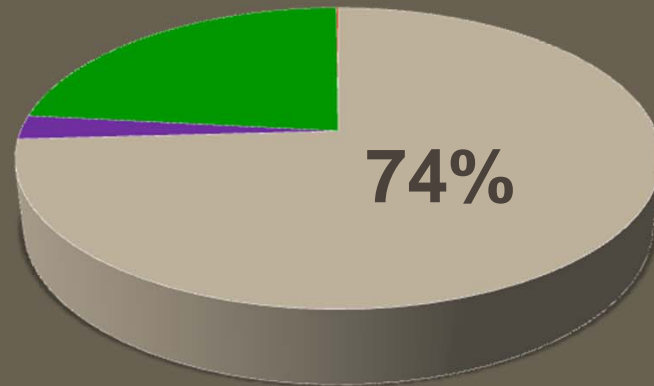
(D) the extraction of hydrocarbons from oil sands, shale, coal or other non-conventional sources and activities similar to those referred to in clauses (A), (B) and (C) undertaken with a view to such extraction;

- Annual disclosure requirements
 - Independent evaluation
 - Using COGEH(Canadian Oil and Gas Evaluation Handbook) as standard
 - Filing evaluation results and other information on SEDAR
 - Filing management report
- Part 5 applies to all continuous and other voluntary public disclosure
- Material change disclosure
- Prospectuses
- Directors' responsibility



World Shale Gas Deposits re-printed from Canada Free Press

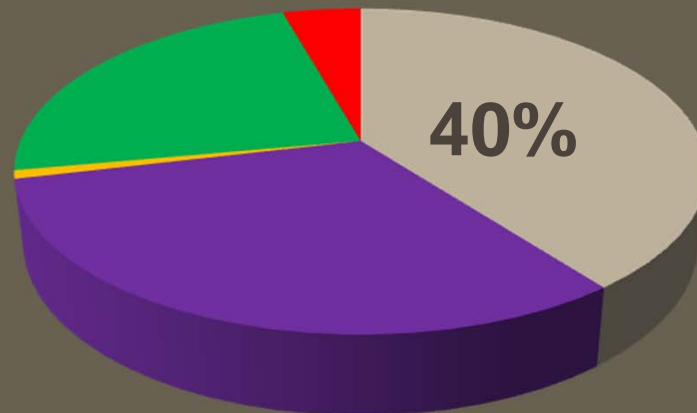
Changing Face of Resources



2003-2004

■ Conventional ■ Bitumen ■ CBM ■ Shale Oil/SCO ■ Shale Gas

2011-2012



■ Conventional ■ Bitumen ■ CBM ■ Shale Oil/SCO ■ Shale Gas



Differences between Conventional and Unconventional Resources

- Conventional resources occur in reservoirs for which the trapping mechanism is related to hydrodynamic forces and seals provided by localized structural or depositional geological features, as a result of which, they tend to have relatively well defined outer boundaries.
- Unconventional resources have a variety of trapping mechanisms and the primary control is regional stratigraphy, resulting in accumulations that may have very large areas and ill-defined boundaries. They may also be described as “dispersed”, “disseminated”, or “continuous” accumulations. Specialized extraction and processing technology are usually required.

Unconventional Resources Characteristics

- A really pervasive
- Lower porosities and much lower permeabilities
- Large Volumes (Billions bbl and Tcf)
- Long lead time
- Capital intensive
- Newer technology for extraction and processing
 - More than one transfer point
 - Various product types
- Pilots to establish producibility and commerciality



A|S|C Product Types

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"product type" means one of the following:

(i) in respect of conventional oil and gas activities:

- (A) light and medium *crude oil (combined)*;
- (B) *heavy oil*;
- (C) *natural gas excluding natural gas liquids; or*
- (D) *natural gas liquids; and*

(ii) in respect of non-conventional *oil and gas activities*:

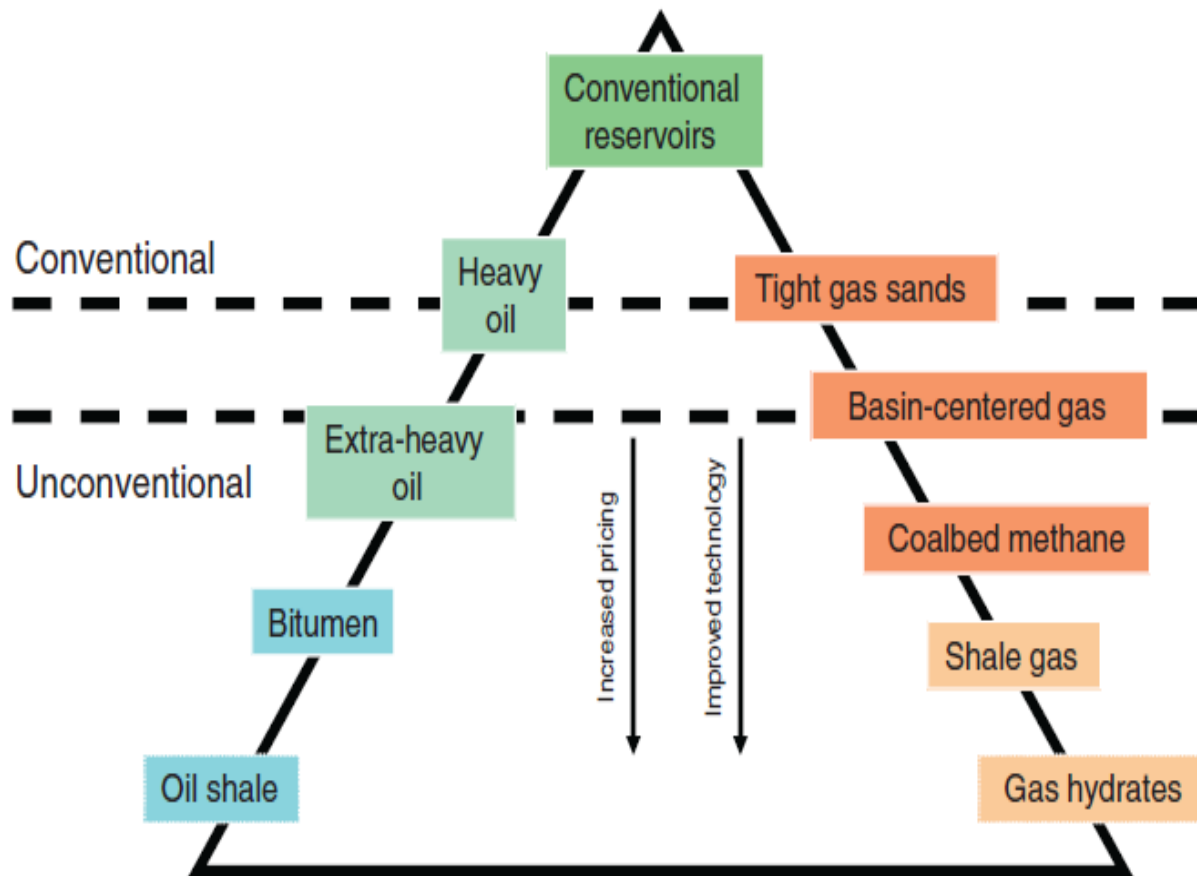
- (A) *synthetic oil*;
- (B) *bitumen*;
- (C) coal bed methane;
- (D) hydrates;
- (E) shale oil; or
- (F) shale gas;

Current Standards

- Concepts of conventional and non-conventional* (unconventional) resources are useful general terms but are increasingly outdated because many so-called unconventional resources have been in production for some time now
- NI 51-101 and COGEH were written mainly for Conventional Resources but also applies to Unconventional Resources

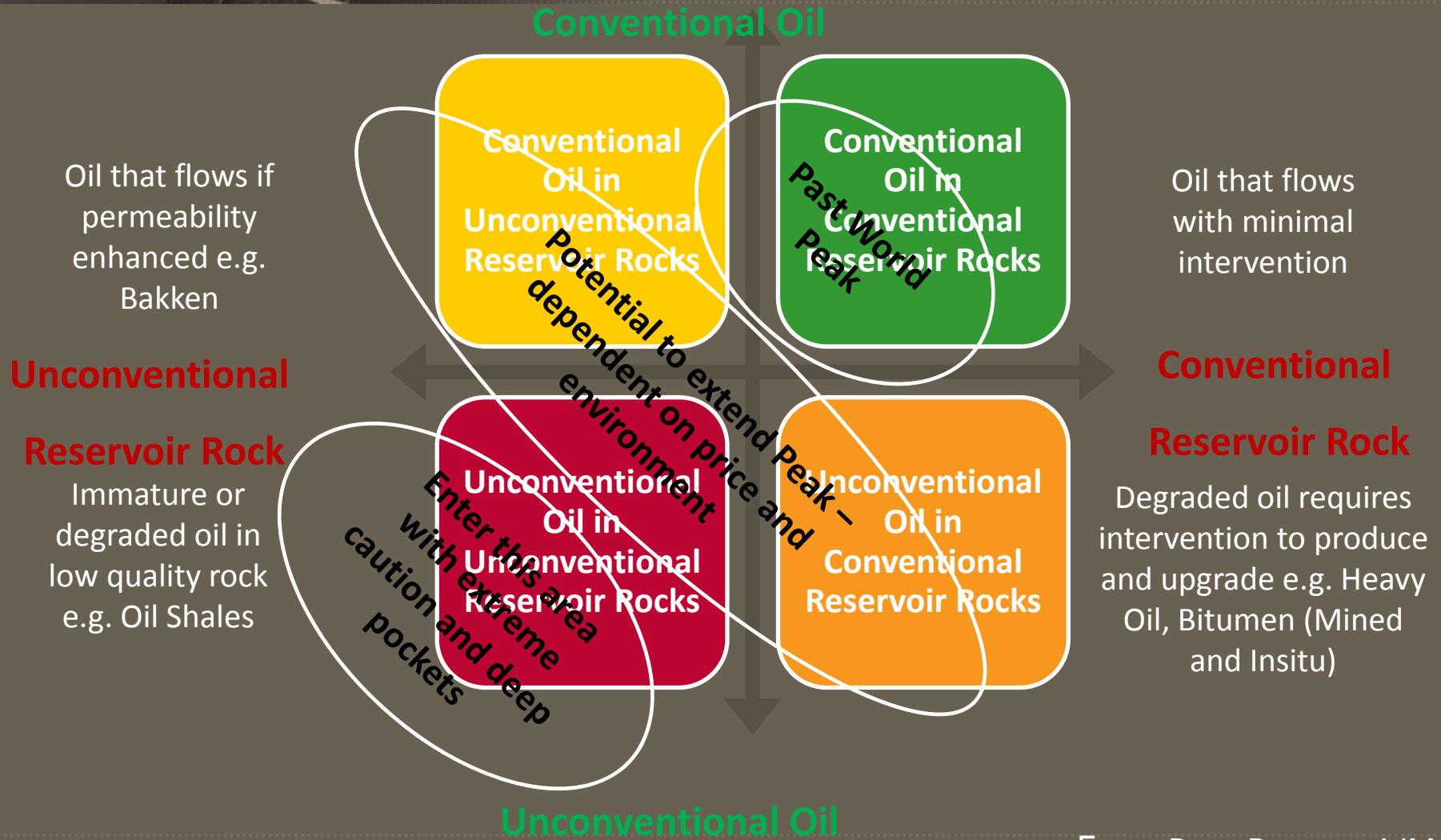
*NI 51-101 uses the term “Non-conventional” instead of “Unconventional”

Distinction of Conventional and Unconventional Resources



(modified from Holditch, 2003)

Re-examining Oil Terminology

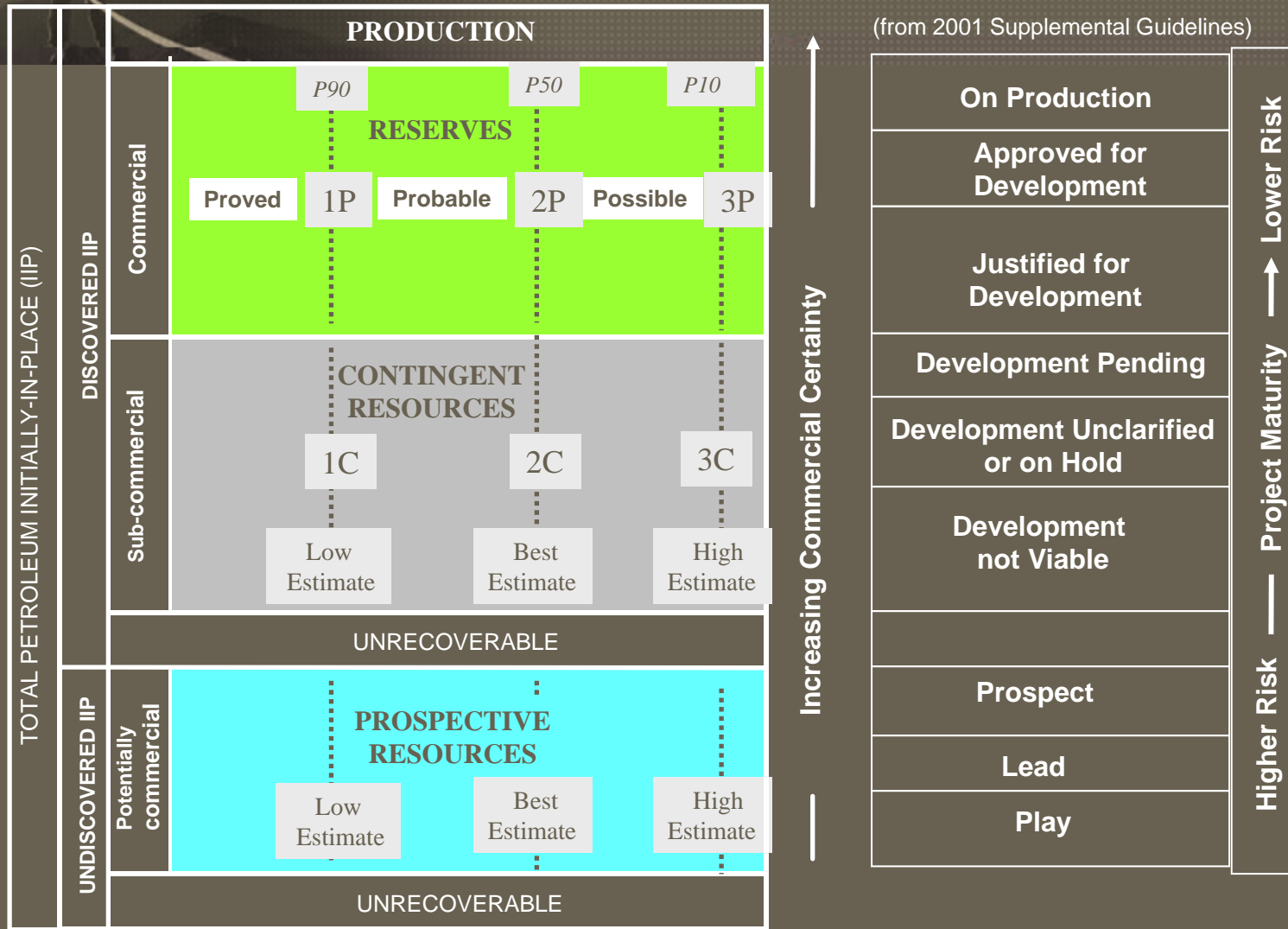


From Dave Russum, AJM

Assessment and Classification Issues of Unconventional Resources

- Basic assessment, classification and categorization principles in COGEH are applicable to both conventional and unconventional resources
 - estimate in place and economic recoverable volumes; classify as reserves and resources; categorize reserves based on certainty level
- Some definitions, the approach and evaluation techniques may have to be modified and adapted for unconventional resources

Subclasses by Project Maturity Status



Not to scale

Modified from SPE PRMS Application Guidelines

Classification of *Reserves and of Resources Other Than Reserves (ROTR)*

- Section 5.3 of NI 51-101 requires that
 - any disclosure of reserves or of *ROTR* must apply the applicable categories and terminology set out in the COGEH.
 - disclosure of *reserves or of ROTR must relate to the most specific category of reserves or of ROTR in which the reserves or ROTR can be classified.*

Disclosure of *Resources Generally* –

- *The disclosure of resources is **not mandatory***
- *Annual disclosure concerning unproved properties and resource activities 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 *ROTR* are voluntarily disclosed.*
- *For prospectuses, *ROTR* that are material to the issuer, even if the disclosure is not mandated by NI 51-101.*

5.9 Disclosure of *ROTR*

- (1) If a *reporting issuer* discloses anticipated results from resources which are not currently classified as reserves, the reporting issuer must also disclose in writing, in the same document or in a supporting filing:
- (a) the reporting issuer's interest in the resources;
 - (b) the location of the *resources*;
 - (c) the *product types* reasonably expected;
 - (d) the risks and the level of uncertainty associated with recovery of the *resources*; and
 - (e) in the case of *unproved property*, if its value is disclosed,
 - (i) the basis of the calculation of its value; and
 - (ii) whether the value was prepared by an *independent party*.

5.9 Disclosure of *ROTR*

(2) If disclosure referred to in subsection (1) includes an estimate of a quantity of *ROTR* in which the reporting issuer has an interest or intends to acquire an interest, or an estimated value attributable to an estimated quantity, the estimate must:

(a) have been prepared or audited by a *qualified reserves evaluator or auditor*;

(b) have been prepared or audited in accordance with the *COGEH*;

(c) be classified in the most specific category of *ROTR*, as required by section 5.3; and

5.9 Disclosure of *ROTR*

- (d) be accompanied by the following information:
 - (i) a definition of the *resources category used for the estimate*
 - (ii) the *effective date of the estimate*;
 - (iii) the significant positive and negative factors relevant to the estimate;
 - (iv) in respect of *contingent resources, the specific contingencies which prevent the classification of the resource as reserves; and*

5.9 Disclosure of *ROTR*

(v) a cautionary statement that is proximate to the estimate to the effect that:

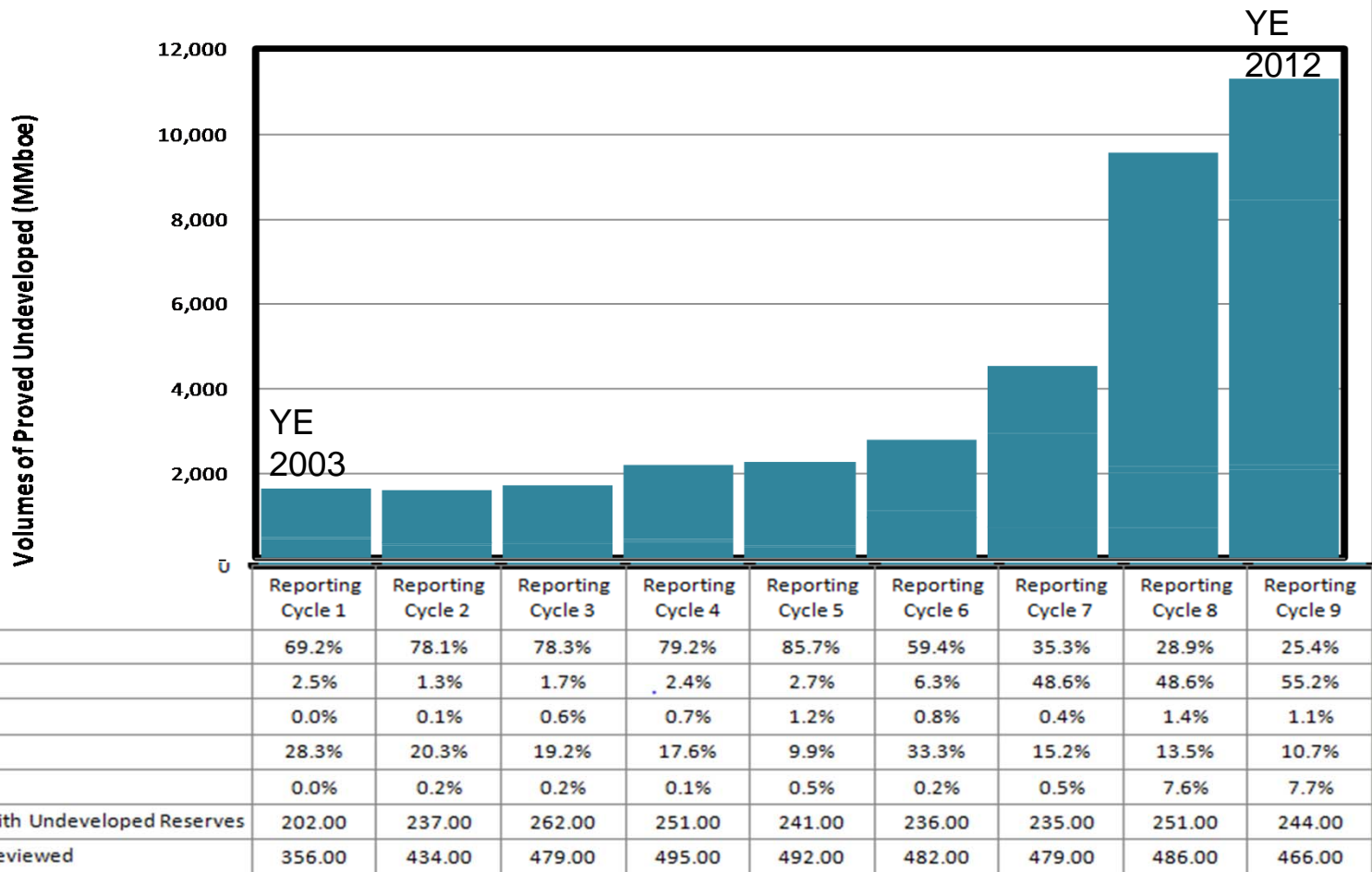
(A) in the case of discovered resources or a subcategory of discovered *ROTR*:

“There is no certainty that it will be commercially viable to produce any portion of the resources.”; or

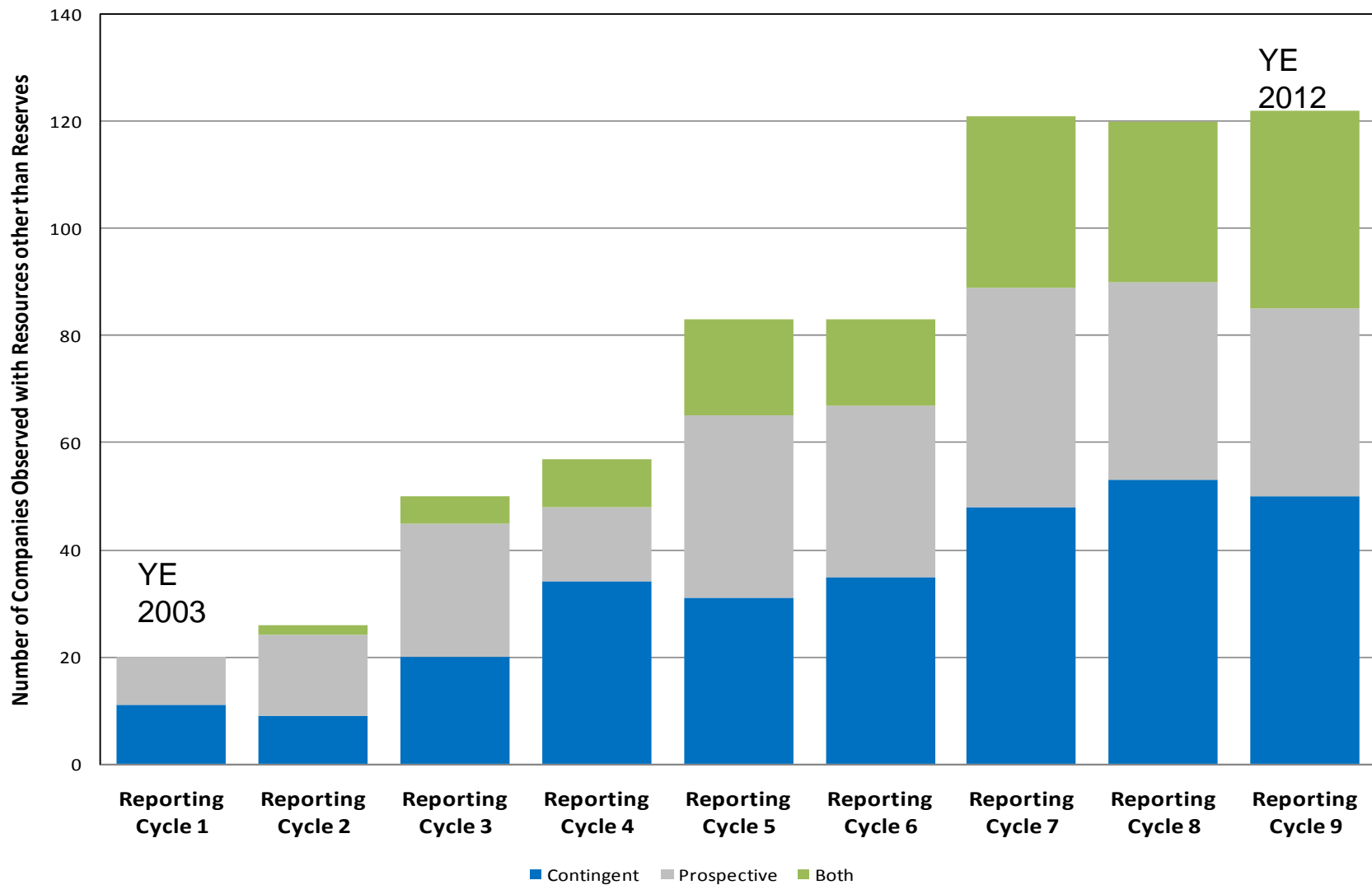
(B) in the case of undiscovered resources or a subcategory of undiscovered resources:

“There is no certainty that any portion of the resources will be discovered. If discovered, there is no certainty that it will be commercially viable to produce any portion of the resources.”

Proved Undeveloped Reserves



Contingent and Prospective Resources Disclosure by Reporting Cycle



Some Deficiencies in Resources Disclosure

- Not clear whether lease gross, gross, company interest or net volumes are disclosed and whether they are risked
- Discussion of significant positive and negative factors in estimating resources quantity is missing or insufficiently disclosed.
- Non-standard product types and metrics.

Some Deficiencies in Resources Disclosure

- Not always clear what project is being evaluated or how it is intended to progress.
- Discussion of risks and uncertainties is missing or inadequate (boilerplate language).
- Contingencies and the steps to remove them are often poorly described.
- Contingent or prospective resources are disclosed one year but not the next, without explanation.



Provide More Guidance for Unconventional Resources Evaluation and Disclosure

1. SPEE to Update COGEH

- Vol. 3 Bitumen Evaluation Guidelines
- Vol. 2. Chapter 2 Guidelines for Estimation and Classification of ROTR

2. On Going updates to NI 51-101

3. ASC and CSA Staff Notices

- CSA Staff Notice 51-327 Oil and Gas Disclosure: ROTR Data (2009, 2010, 2011)
- ASC Staff Notice 51-702 (2013)



NI 51-101: Potential Amendments Being Considered

- Provide more guidance
- Keep up with industry activities, especially in non conventional resources
- Disclose diverse product types
- Amendments progressing through approval stages
- There will be a public comment period

51-327: Misrepresentation or Misleading Statements

- New guidance on the general responsibilities of oil and gas reporting issuers and the experts on whom they rely in formulating disclosure of oil and gas information;
- New guidance on the following disclosure topics:
 - disclosure of after-tax net present value of future net revenue;
 - the use of BOEs;
 - disclosure of well-flow test results;



51-327 Contingent and Prospective Resources

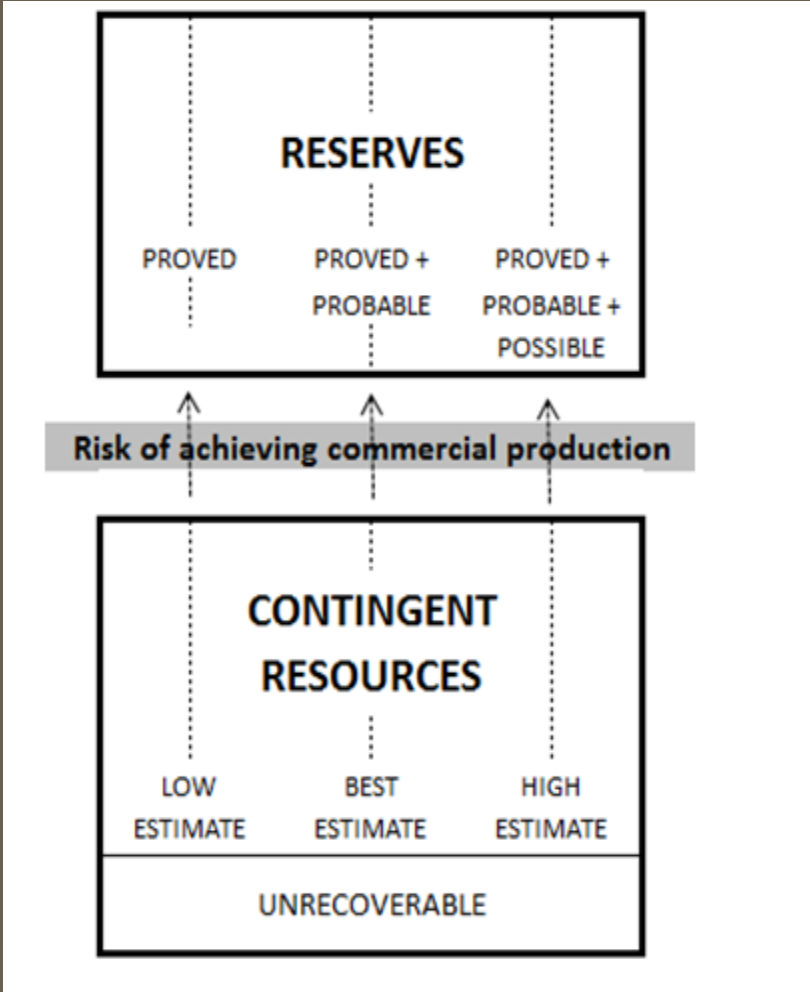
- Expanded guidance on the following disclosure topics:
 - evaluation, classification and disclosure of unconventional hydrocarbons, including revised guidance on disclosure of contingent resources;
 - classification to the most specific class and category of resources;

51-327 Contingent and Prospective Resources

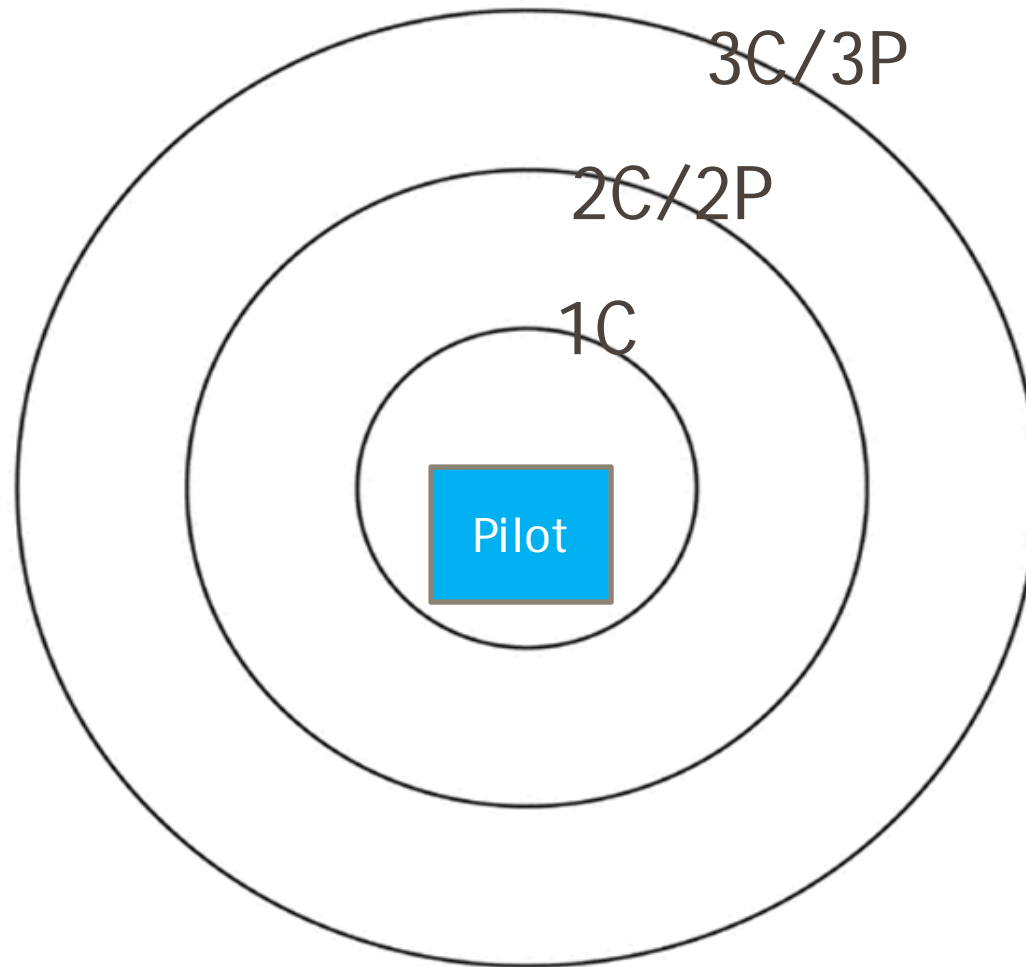
- Guidance carried forward from the original version of CSA Notice 51-327 with little or no change on the following disclosure topics:
 - stand-alone possible reserves;
 - aggregation of resource estimates for several properties;
 - use of the term “best estimate”;
 - prospective resources.

- On May 29, 2013, the ASC issued ASC Staff Notice 51-702 *Establishing Reserves Estimates in Oil and Gas Accumulations*
 - COGEH only permits the assignment of reserves where there is both established technology and demonstrated commercial viability.
 - Established technology is defined in Appendix A to COGEH Vol. 1 as “methods that have been proven to be successful in commercial applications.”
 - Optimising a recovery process and characterising a reservoir using an experimental scheme does not meet the requirement for established technology.

Reclassifying Contingent Resources to Reserves



Issues in Promoting Only Some Resources in a Project



Pilot Uneconomic, can only book as Contingent Resources

ASC's Engagement with Industry

- Petroleum Advisory Committee (PAC)
- Multi-jurisdictional liaisons
- Response to industry queries and reporting issuer queries
- Involvement with Industry committees
 - SPE OGRC
 - SPEE (Calgary Chapter)
- Conferences and presentations:
 - Over 100 presentations since 2003



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