Abstract

At the end of December 2008, the United States Securities and Exchange Commission (SEC) published revised regulations for the reporting of oil and gas reserves (Rule 4-10(a) of Regulation S-X). The previous rules had been in place since 1978, and the industry was becoming increasingly critical of the limitations imposed by these old regulations that ignored the very significant changes in technology that have taken place in the interim, as well as the mandated one-day price requirement and limitations on reporting non-traditional hydrocarbons or unproved reserve categories.

After a year of consultation, new rules, together with a lengthy discussion document, were published to be applicable effective January 1, 2010 to all filers with annual reports (10-K or 20-F) effective on or after 31st December, 2009 (and not before).

The new regulations are much more “principles based” than “rules based”, allowing for future and as yet unknown technological advances to be accommodated without needing to change the regulations. The SPE et al. “Petroleum Resources Management System” (SPE-PRMS) released in March 2007 formed a guide – and sometimes a verbatim source – for some of the revised definitions. There will now be much less difference between these two sets of definitions, which will ease companies’ (and consultants’) burdens.

This session will address the four key areas of interest to companies, investors, and securities analysts that received the attention of the SEC for revision:

- Oil and gas pricing – the change from a single-day price.
- The role of technology – the recognition of the role of technological advances with the onus on the company using it to demonstrate that it is “reliable”.
- Reporting of probable and possible reserves – now permitted (but not mandated).
The incorporation of “non-traditional” hydrocarbons (such as bitumen) into oil and gas activities.

Other important changes will briefly be touched upon.

Overall, the revised reporting requirements go a long way to addressing the industry’s criticisms of the current regulations. There are a few areas that may be subject to some ambiguity in interpretation, and it is reasonable to expect that certain clarifying guidance may be issued in the future.

References

Petroleum Resources Management System (http://www.spe.org/spe-app/spe/industry/reserves/prms.htm)

The New SEC Oil and Gas Reporting Regulations

“Modernization of Oil and Gas Reporting”

Rawdon J.H. Seager
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Wednesday.
January 14, 2009

Part II

Securities and Exchange Commission

17 CFR Parts 210, 211 et al.
Modernization of Oil and Gas Reporting: Final Rule
Background

- Current disclosure requirements adopted in 1978
  - Rule 4-10 of Regulation S-X
  - Supplemented by various other pronouncements

- “Since that time, there have been significant changes in the oil and gas industry and markets, including technological advances, and changes in the types of projects in which oil and gas companies invest their capital”

- “Concept Release” issued in December 2007 to invite industry suggestions for changes
  - Received 80 comment letters

- “Proposing Release” issued in June 2008 with proposed revisions
  - Received 65 comment letters

- Further industry feedback was incorporated into the final rules issued in late December 2008

- Effective date: January 1, 2010
  - Annual reports (10-K and 20-F) as of December 31, 2009 and after
  - And not before

- In August 2009 FASB approved revisions to align GAAP disclosures with the final SEC rule
The SEC’s Objectives

- To provide protection and transparency for investors

- Without sacrificing clarity and comparability

- The final definitions are geared to be more consistent with terms and definitions in the PRMS to improve compliance and understanding of the new rules
Four Focus Areas for Revisions

1. **Single-day** year-end pricing

2. The exclusion of activities related to the extraction of **bitumen** and other “non-traditional” resources

3. The limitations regarding the types of **technologies** that can be applied

4. The limitation on disclosing only **proved** reserves
New Pricing Rule

- Average price during the 12-month period prior to the ending date of the period covered by the report
- Determined as an un-weighted arithmetic average of the First-day-of-the-month price for each month within such period

WTI 2008 First of the Month Prices

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Inclusion of “Non-Traditional” Resources

- Will be able to report “saleable hydrocarbons, in the solid, liquid, or gaseous state, from oil sands, shale, coalbeds, or other nonrenewable natural resources which are intended to be upgraded into synthetic oil or gas, and activities undertaken with a view to such extraction”
  - Report at “terminal point” (raw or upgraded, as appropriate)

- Companies are prohibited from “including coal and oil shale that is not intended to be converted into oil and gas as oil and gas reserves”

- Volumes of synthetic oil and gas to be identified separately
Technology Limitations

- Adopted a new definition of “reliable technology” to broaden the types of technologies that a company may use to establish reserves estimates and categories.

- Reliable technology is a grouping of one or more technologies (including computational methods) that has been:
  - field tested
  - demonstrated to provide reasonably certain results
  - with consistency and repeatability
  - in the formation being evaluated
  - or in an analogous formation

- For newly-disclosed reserves, or material additions, provide a general discussion of the technologies used to establish the appropriate level of certainty for reserves estimates.
Probable and Possible Reserves

- The previous limitation on disclosing only proved reserves has been removed

- Companies will now have the option (but not the requirement) to report probable or possible reserves

- Contingent or Prospective Resources may not be reported

- “Reserves” are now defined
Some Key Points on Reserves

- **Reserves are now defined**
  - “Estimated remaining quantities of oil and gas and related substances anticipated to be economically producible, as of a given date, by application of development projects to known accumulations”
  - Reasonable expectation that there will exist:
    - the legal right to produce
    - installed means of delivering ... to market
    - all permits and financing required to implement the project

- **Undeveloped reserves**
  - Should be drilled within five years (unless specific circumstances justify a longer time)
  - Require that a development plan has been adopted

- **Reserves based on “economic producibility”**
  - Different from PRMS concept of commerciality

  Revenue that exceeds, or is reasonably expected to exceed, the costs of the operation

Otherwise, very similar to the PRMS
### Summary of Oil and Gas Reserves as of Fiscal-Year End
Based on Average Fiscal-Year Prices

<table>
<thead>
<tr>
<th>Reserves category</th>
<th>Oil (mbbls)</th>
<th>Natural Gas (mmcf)</th>
<th>Synthetic Oil (mbbls)</th>
<th>Synthetic Gas (mmcf)</th>
<th>Product A (measure)</th>
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<td>PROVED</td>
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**Countries with >15% of reserves (proved oil equivalent basis)**

**Sales products of other non-renewable natural resources that are intended to be upgraded into synthetic oil and gas**

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### Sensitivity of Reserves to Prices
By Principal Product Type and Price Scenario

<table>
<thead>
<tr>
<th>Price Case</th>
<th>Proved Reserves</th>
<th>Possible Reserves</th>
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<tbody>
<tr>
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<td>Oil mbbls</td>
<td>Gas mmcf</td>
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<td>Scenario 1</td>
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<td>Scenario 2</td>
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**Based on stated different price and cost criteria**
Methodologies

- SEC now acknowledges both deterministic and probabilistic methodologies

**Deterministic**
- Proved – “reasonable certainty to be economically producible”
  - reasonably certain EUR is much more likely to increase or remain constant than to decrease
- Probable - as likely as not that actual remaining quantities recovered will exceed the sum of estimated proved plus probable reserves
- Possible – low probability of exceeding proved plus probable plus possible reserves

**Probabilistic**
- 1P – at least a 90% probability
- 2P – at least a 50% probability
- 3P – at least a 10% probability

*Very similar to the PRMS*
SEC 2009 Summary

- Similar definition of “reserves” to PRMS
- Probable and possible reserves (but not resources) reportable
- Pricing based on a 12-month average of first-day-of-the-month prices
  - This is one major difference from PRMS
- Probabilistic methods recognized (same definitions as in the PRMS)
- “Reliable technology” (as defined) may be used in the evaluation of reserves
- Non-traditional resources (such as bitumen) can be reported
- Requirements for internal control processes and procedures
The pessimist complains about the wind;
The optimist expects it to change;
The realist adjusts the sails.
The New SEC Oil and Gas Reporting Regulations

“Modernization of Oil and Gas Reporting”