



May 14, 2009

As a follow up to the Fifth Annual Ryder Scott Reserves Conference, we are posting the series of prepared questions concerning the new SEC reporting guidelines that were addressed by Dr. John Lee at the Conference on May 8th. Please note that this is not a comprehensive list of questions to be asked of the SEC, but only certain questions intended to focus on specific key interpretive issues. To prevent taking undue advantage of Dr. Lee's generosity as a presenter at the Ryder Scott conference, we ask that you submit any further questions to Ryder Scott directly. You may directly email any of the Ryder Scott presenters or you may submit questions via the FTP site as instructed in the conference book.

All information posted on the Ryder Scott website regarding our conference is subject to the conference disclaimer as shown below and the specific disclaimer of Dr. John Lee.

Conference Disclaimer - The information presented in today's presentations represents informed opinions about U.S. SEC reserves reporting regulations but does not purport to be identical to advice to be obtained from the SEC. As with any set of reserve definitions, the applicability of the guidance should be considered on a case by case basis.

RYDER SCOTT COMPANY, L.P.

Don P. Roesle, P.E.
Chairman and CEO

ANSWERS TO PREPARED QUESTIONS FROM RYDER SCOTT COMPANY CONCERNING THE APPLICATION OF THE NEW SEC REGULATIONS FROM THE MODERNIZATION OF OIL AND GAS REPORTING AS PRESENTED BY DR. JOHN LEE AT THE MAY 8th 2009 RYDER SCOTT ANNUAL RESERVES CONFERENCE

Forward by Ryder Scott Company: Please note that this is not a comprehensive list of questions, but only certain questions presented to Dr. John Lee at the May 8, 2009 Ryder Scott Reserves Conference. These questions are intended to focus on specific key interpretive issues. To prevent taking undue advantage of Dr. Lee's generosity as a presenter at the Ryder Scott conference, we ask that you submit any further questions to Ryder Scott directly.

Disclaimer by Dr. John Lee: The answers below reflect my opinions, and do not represent the opinions of the SEC or its staff. If I were to submit these questions and my answers to the SEC, I would not receive either confirmation or denial. Those questions and answers that the SEC considered to be important to a broad audience would be reviewed by technical, accounting, and legal staffs and the final opinion would be posted on the SEC website or disclosed in some other convenient way to the public. Other questions, considered to be of limited interest, would have to be raised in individual contacts with the staff. In my opinion, all these questions are of general interest and are likely to be answered by the SEC later this year.

1. The SEC "Modernization of Oil and Gas Reporting" Final Rule of December 31, 2008 clearly updates and replaces noted portions of the prior instructions of Rule 4-10(a) and Industry Guide 2. However, other SEC documents on reserves reporting, such as the Website guidance of March 31, 2001 ("Issues in the Extractive Industries") and SEC Staff Accounting Bulletin - Topic 12: Oil and Gas Producing Activities, also provide instructions.

QUESTIONS:

Which SEC documents other than Rule 4-10 and Guide 2 are still applicable and which have been superceded by the Final Rule? Will this guidance be forthcoming from the SEC?

- a. A specific example of the above is this: Does the added 4-10(a)(22) Proved Oil and Gas text stating "*The project to extract the hydrocarbons must have commenced or the operator must be reasonably certain that it will commence the project within a reasonable time.*" now replace the guidance from staff interpretation provided in the March 2001 Website document on what evidence of commitment is required to recognize Proved reserves in a new project?
- b. A specific example of the above is this: We note that under Section II.G. pg 2197 of the Modernization a statement is made that "*The current rules limit the use of alternative technologies as the basis for determining a company's reserves disclosures.*" Under the amended definition 4-10(a)(22) Proved Oil and Gas Reserves there is no specific reference as in the past to "*a company must use actual production or flow tests to meet the "reasonable certainty"*". Should an evaluator interpret this to mean that we may use one or more types of reliable technology but we must still clearly demonstrate the reasonable certainty of production from the zone in question at economic rates?

ANSWERS:

1. Rule 4-10, as revised, will still be applicable. Industry Guide 2 has been revised and incorporated in S-K section 229.1200 ff. The previous IG 2 will no longer be applicable.
 - a. This replaces previously issued guidance.
 - b. Yes, an evaluator may use one or more types of reliable technology; with that technology, the evaluator must demonstrate the reasonable certainty of economic production from the zone in question.

2. In the past, published staff interpretative guidance on the Oil and Gas Reporting rules has been very limited. Recently only comment letters (which are specifically described not to be general guidance) have provided some insights.

QUESTION:

Does the SEC plan any changes to general communications with filers and investors to provide clear, industry-wide clarifications to rules interpretation?

ANSWER:

The SEC plans to provide to investors and filers clear, industry-wide responses to questions that are being submitted asking for clarification of the new rules. The SEC also plans to remove obsolete guidance from its web site and replace it with guidance consistent with the new rules.

3. While much of the new Final Rule related to Proved reserves determination is tied to the principle of “reasonable certainty”, specific rules remain for the handling of faults as barriers to flow. The rules allow clear dynamic data demonstrating communication across a fault to be evidence of no barrier.

QUESTIONS:

Are there any static (i.e., pre-production) methods that can be used to demonstrate a fault is not a barrier to flow? If such a method could be shown as a “reliable technology” would that allow Proved area across a fault from a proven reservoir (if other requirements were met)?

ANSWER:

If such a method could be shown to be a “reliable technology” (on the basis of empirical evidence demonstrating that it has led to the correct conclusion much more often than not), and if other requirements were met, then it could be used to determine that certain faults were or were not barriers to flow.

4. The definition of Undeveloped oil and gas reserves of any category from Definition 31 (i) states *“Reserves on undrilled acreage shall be limited to those directly offsetting development spacing areas that are reasonably certain of production when drilled, unless evidence using reliable technology exists that establishes reasonable certainty of economic producibility at greater distances.”*

As stated in the above definition and underlined for emphasis, reasonable certainty of economic producibility would imply a high level of certainty and would appear to apply to only Proved Undeveloped reserves. However, the term, undeveloped, could potentially apply to Proved, Probable, and Possible reserves.

QUESTION:

Was the use of the term *reasonable certainty of economic producibility* used only to indicate a high level of expectation for the economic producibility, so that Probable and Possible could also be considered, and was not intended to prevent the assignment of Probable or Possible Undeveloped locations beyond the areas assigned as Proved Undeveloped? Otherwise the reasonable certainty requirement would eliminate the potential of assigning any Probable or Possible Undeveloped reserves.

ANSWER:

This wording applies only to Proved Undeveloped Reserves. The SEC will, in my opinion, clarify and expand this definition to indicate that reliable technology can be used to establish

the appropriate certainty level (likely as not, possible but not likely) required to recognize Undeveloped Probable and Possible Reserves

5. (Also with regard to the same definition in # 1 above)

QUESTION:

In the case of “resource plays” such as unconventional CBM and shale plays, as well as large conventional hard-rock plays in which there has been some development but still have areas requiring additional development, would you conceive of situations in which Proved Undeveloped might be assigned more than one location away if there are producing wells surrounding the undeveloped areas? If so, would you anticipate no more than two locations away, or three locations, or how many?

ANSWER:

With principles-based rules, we shouldn’t use hard and fast rules for the number of locations away to which Proved Undeveloped (or Unproved Undeveloped) Reserves can be assigned. We should, instead, establish with empirical evidence the distance from a control point to which a particular technology has repeatedly proved in practice to lead to the correct conclusion.

6. (With regard to horizontal locations, and the definition in #1 above)

QUESTION 1:

Is there any new guidance regarding the classification of Proved Undeveloped horizontal locations, or due to the nature and geometry of horizontal locations, would you expect the same guidance as before? (ie could you envision ever assigning Proved Undeveloped reserves to horizontal locations offsetting the “toe” of an existing horizontal producing well, if that location was moving in the direction of other successful, analogous producing horizontal wells?

QUESTION 2:

Could you envision assigning Proved Undeveloped reserves to parallel locations, which are more than one location away from an existing producing horizontal well, assuming those locations were moving in the direction of other successful, analogous producing horizontal wells? If so, no more than two, or three, or how many?

ANSWERS:

For horizontal wells, the flexible new rules imply that a filer may recognize Reserves of the appropriate category if a certain set of technologies has demonstrated repeatedly in practice in the formation of interest (or a verifiable analog) that the technologies lead to the correct conclusion as to the distance from a control point to the furthest extent of the Reserves the filer wishes to recognize. Stated more simply, if the filer can prove that horizontal wells more than one location away have proved historically to be commercial on the basis of certain technologies, then the filer can recognize these reserves. Please note that the evidence must be beyond reasonable doubt.

7. Definition 18 (ii) for Probable reserves states, *“Probable reserves may be assigned to areas of a reservoir adjacent to proved reserves where data control or interpretations of available data are less certain, even if the interpreted reservoir continuity of structure or productivity does not meet the reasonable certainty criterion.”*

QUESTION:

Does the use of the word adjacent in the above probable definition imply that the reservoir is likely in communication with other proved areas, as described in more detail in Definition 17 (v) for Possible Reserves? If so, what was the intent of the qualifier, “... *even if the interpreted reservoir continuity of structure or productivity does not meet the reasonable certainty criterion*” for Probable? This seems to be a conflict in terms.

ANSWER:

The intent was that 17(v) (Possible) and 18(ii) (Probable) communicate the same message without using exactly the same words. The difference, of course, is the level of certainty provided by available evidence: likely as not for Probable; possible but not likely for Possible.

8. Furthermore, with regards to # 5 above, the Note to paragraph (a) (26) for the new definitions states: “*Reserves (underlined for emphasis) should not be assigned to adjacent reservoirs isolated by major, potentially sealing, faults until those reservoirs are penetrated and evaluated as economically producible.....such areas may contain prospective resources...*”

QUESTION:

Could you ever envision a compelling case made to assign Probable or Possible reserves to an unpenetrated fault block in the Gulf of Mexico area? For instance, if two isolated producing fault blocks are separated by an adjacent fault block and the seismic data appears to show a consistent bright spot response over all three fault blocks, even though you do anticipate the middle unpenetrated fault block to be separated by major sealing faults from the other two,..... could this be considered a compelling case for Probable or Possible reserves.....and not just a resource? ...or is an unpenetrated, completely pressure separated fault block NEVER TO BE CONSIDERED to have reserves no matter what other circumstances and data may indicate?

ANSWER:

In my judgment, resources in an unpenetrated, completely separated fault block should not be considered to be Reserves of any category until (or unless) seismic interpretation technology (or some other alternative technology) can provide the appropriate certainty level to support the Reserves recognized. The filer has the obligation to provide the empirical proof for the validity alleged to support the Reserves category claimed. Such a claim is likely to be viewed with skepticism.

9. Continuing on with Definition 18 (ii) for Probable reserves “...*Probable reserves may be assigned to areas that are structurally higher than the proved area if these areas are in communication with the proved reservoir.*” Also from the Definition 17 (v) “...*Possible reserves may be assigned to areas that are structurally higher or lower than the proved area if these areas are in communication with the proved reservoir.*”

QUESTION:

Is the intent of the definitions that probable reserves cannot be assigned downdip of proved areas, such as below a lowest known hydrocarbon limit....but instead can be no higher classification than possible?

ANSWER:

No, the definitions do not intend to require that Probable Reserves not be assigned downdip of proved areas. Downdip Reserves can be either probable or possible, depending on whether the available evidence indicates that they are either (1) likely as not or (2) possible,

but not likely. Again, empirical evidence which shows that, in similar circumstances, the correct conclusion was reached repeatedly is crucial.

10. PUD Disclosure- Consider the case where a registrant discloses a material PUD which will not be developed for 6 years from the as of date of the current filing. In the next year's disclosure this PUD becomes uneconomic due to pricing and is removed from the proved reserves and taken off the approved development schedule but the following year prices are such that it becomes economic again and is put back on the drilling schedule but development is still scheduled seven years from the as of date of the current filing.

QUESTION:

Does the timing for the 5 year period to development restart with the filing in year three where the PUD becomes economic again or does the well retain the original date which is now less than five years to development?

ANSWER:

This looks like an accounting issue, which I should probably avoid. Nevertheless, my intuition suggests that the clock starts over if a PUD becomes a resource and is then reclassified as a PUD. (Remember the disclaimer.)

11. The Final Rule does not require (or even address) reporting of 2009 changes to Proved reserves at year-end 2009 with separate disclosure of changes that would have been reported under prior rules and incremental changes due to use of the new Final Rule.

QUESTION:

Is this separate reporting of the basis for Proved reserves changes required by other SEC regulations? If not, is it expected that accounting rules (SFAS or other rules) will require this? If not required, do regulators expect companies will do this anyway?

ANSWER:

We will need to wait on revisions to SFAS 69, if any and other guidance from FASB and SEC later this year to determine the correct answer to this important question.

12. PUD Disclosure - When does the first comment in the 10k need to occur relative to the requirement for - *"Explain the reasons why material amounts of proved undeveloped reserves in individual fields or countries remain undeveloped for five years or more after disclosure as proved undeveloped reserves"* need to occur? Put another way, if a registrant has had a material amount of PUDs on the books since 2000 for an individual field, are they required to discuss the reason for this in their 10k?

ANSWER:

I believe that decisions on whether any parts of the new rules are to be applied retroactively are under discussion. Some filers have argued that records on status of previous PUD recognition may not be available and thus that the "five-year rule" should be implemented in disclosures for the first time five years from now. We'll have to wait for guidance on this issue.

13. With the changes to Proved reserves determination from the Final Rule, are there any previously accepted Proved reserves determination methods or practices that will no longer be acceptable under the new rules? Can you provide examples of such methods or practices?

ANSWER:

I can't think of any determination methods or practices for Proved Reserves that were consistent with the previous rules that will not be allowed under the new rules. Please note the qualifier "consistent with the previous rules." The SEC staff has consistently interpreted the "reasonable certainty" criterion to mean "much more likely than not." Some filers have interpreted the criterion differently.

14. The standard for a "reliable technology" seems generally understandable. However it is not fully clear exactly how the qualification of a technology as "reliable" should be shown and documented to satisfy SEC questioning.

QUESTION:

Could you explain what is expected from filers that use a reliable technology in Proved reserves determination to provide sufficient evidence of the intended reliability?

ANSWER:

The filer should gather empirical evidence, showing that the technologies used led to correct decisions most of the time in the reservoir of interest or in a verifiably analogous reservoir.