

February 18, 2008

Securities and Exchange Commission

Subject: Concept Release on Possible Revisions to the Disclosure Requirements  
Relating to Oil and Gas Reserves.

I am a petroleum engineer with a small private practice. I began my career 41 years ago with a major oil company, spent 13 years with a relatively large petroleum engineering consulting company with 8 of those years spent managing one of 3 division offices, and have been operating my own practice for 20 years. For 34 of my 41 years practicing as a petroleum engineer, I have been wrestling with the means by which one should determine the value of oil and gas reserves. In 2001 the Society of Petroleum Evaluation Engineers (SPEE) published a document titled "Perspectives of The Fair Market Value of Oil and Gas Interests." I was the chairman of the committee that produced that document and editor of the final publication. The Society of Petroleum Engineers (SPE) just this year published its Volume V(B) of the Petroleum Engineering Handbook. I wrote Chapter 19, Valuation of Oil and Gas Reserves.

For the years when I was with a larger consulting firm, I regularly dealt with SEC reporting issues but I find it personally much more rewarding to work with companies to assist them with their internal decision making. Value assessments require the considerations which are indicative of the many issues suggested by the 15 questions of your concept release. There are so many important issues and I have strong feelings about most of them but my strongest has to do with the term "reasonable certainty". I address only question 6.

***6. Should we reconsider the concept of reasonable certainty? If we were to replace it, what should we replace it with? How could that affect disclosure quality? Should we consider requiring companies to make certain assumptions? Should we prohibit others?***

***Should we reconsider the concept of reasonable certainty?*** My primary interest is in the recognition of the true confidence one can place on estimated quantities and the cash flow expected to be derived from their production. There is really no way to precisely determine a specific degree of confidence in a single reserve estimate. Probabilistic reserve estimates which set forth a distribution of outcomes are conceptually the best answer but still no better than the evaluator's judgment as to the parameters behind the distribution. For my evaluation purposes I must target the expected outcome. I think investors deserve the information to make reasonable judgments in that regard but it needs to be presented in a fashion that can be digested with relative ease. Expected outcome is what individual estimates made under the reasonable certainty criteria have generally represented.

The Petroleum Resources Management System (PRMS) which was recently adopted by the SPE and other organizations is a robust classification system. Within that system reserves can be estimated and classified either deterministically or probabilistically. The probabilistic standard for proved reserves is significantly more conservative (yields lower proved quantities) than the deterministic standard of reasonable certainty as it has been

historically applied. I have made presentations to both individuals and technical groups where I provided an example from historical industry practice that clearly suggests the difference in estimate quantities using the different procedures for estimating proved reserves to be 20 percent. I am sure there are other examples that would yield varying results but I believe the one I use is indicative of standard industry practice.

So, in answer to the question, the concept of reasonable certainty should be abandoned in favor of an alternate system that recognizes a range of outcomes.

***If we were to replace it, what should we replace it with?*** The term reasonably certainly has served the industry well both within its use for SEC reporting and for other purposes. A more robust classification system would certainly be of utility in the assessment of value. A proved and probable system with the proved portion being more conservative than the traditional meaning of reasonable certainty is probably the most appropriate.

***How could that affect disclosure quality?*** Traditional deterministic estimates of proved quantities have included the quantities that could be classed as probabilistic proved under the PRMS system plus a portion of the quantities classed as probable in the probabilistic system. Proved reserve quantities that have been estimated with the reasonable certainty criteria are likely, from a statistical perspective, to approximate a quantity equivalent to probabilistic proved plus some portion (half?) of probabilistic probable. Given that a better understanding of the range of possible outcomes would be conveyed from the separate disclosure of proved and probable reserves, the quality should be better. If the disclosure is to be of a single value such as proved plus half of probable, the quality of the information will not be materially improved.

***Should we consider requiring companies to make certain assumptions? Should we prohibit others?*** It seems appropriate for the SEC to embrace many aspects of the PRMS but I think certain restrictions such as lowest known hydrocarbons should be either maintained or that quantities exceeding that or other historical extent limitations should always be disclosed separately.

It is appropriate for the SEC to specify pricing criteria. It seems to me that the SEC should from time to time issue releases that modify how prices used in reports are to be determined. It needs to be somewhat dynamic because that is the nature of the market. The average price over some recent 3 to 12 month period would often be best. The end of that period should proceed the as of date (usually December 31) by at least 2 months. Circumstances might arise where it would be appropriate for the specified pricing criteria to include an additional factor or factors (separately for oil and gas and perhaps other products) to be applied to the average price from the standardization period.

I hope my comments are constructive.



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