

1. Should we replace our rules-based current oil and gas reserves disclosure requirements, which identify in specific terms which disclosures are required and which are prohibited, with a principles-based rule? If yes, what primary disclosure principles should the Commission consider? If the Commission were to adopt a principles-based reserves disclosure framework, how could it affect disclosure quality, consistency and comparability?

2. Should the Commission consider allowing companies to disclose reserves other than proved reserves in filings with the SEC? If we were to allow companies to include reserves other than proved reserves, what reserves disclosure should we consider? Should we specify categories of reserves? If so, how should we define those categories?

The Commission should re-examine its stance on allowing companies to disclose reserves other than proved reserves. There are several reserve definition frameworks that could be chosen, including SPE or WPC that classify reserves as proved, probable, possible, etc. We would suggest that companies be allowed to report all categories of reserves, but that the reporting of reserves should include clear definitions of the classification of reserves and the associated risk or quality of the reserve estimates. There are many instances, such as unconventional gas, enhanced oil recovery, seismic interpretations and other projects, wherein reserve quantities other than proved can be established within reasonable ranges of expectations and values. We believe that investors should be able to have access all of a company's reserve information when making their investment choices. Many of these non-proved reserves appear in other presentations to the investing community and thus the information is available to investors and is being used by the investment community. It seems ironic that this information must then be excluded from reports filed with the Commission.

3. Should the Commission adopt all or part of the Society of Petroleum Engineers – Petroleum Resources Management System? If so, what portions should we consider adopting? Are there other classification frameworks the Commission should consider? If the Commission were to adopt a different classification framework, how should the Commission respond if that framework is later changed?

4. Should we consider revising the current definition of proved reserves, proved developed reserves and proved undeveloped reserves? If so, how? Is there a way to revise the definition or the elements of the definition, to accommodate future technological innovations?

5. Should we specify the tests companies must undertake to estimate reserves? If so, what tests should we require? Should we specify the data companies must produce to support reserves conclusions? If so, what data should we require? Should we specify the process a company must follow to assess that data in estimating its reserves?

No.

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?

The concept of reasonable certainty as defined by the Commission Staff should be reconsidered. The purpose of a company making reserve estimates and disclosures to investors is to give the investors an evaluation of that Company's proved reserves. Reserves should be estimated based on the data that is available at the time of the estimate as determined within the applicable regulations, and as additional data becomes available the reserve estimate should be adjusted accordingly, regardless of whether that adjustment is positive or negative. In fact, it would seem appropriate that there are as many negative adjustments as there are positive adjustments. To assume that future data is only going to increase estimated reserves is just not consistent with the uncertainty involved in estimating reserves. The Commission staff appears to understand and accept that certain data, such as price changes or cost changes, can increase or decrease reserve estimates over time; therefore, it would seem reasonable that other additional technical data could also result in reserve increases or decreases.

7. Should we reconsider the concept of certainty with regard to proved undeveloped reserves? Should we allow companies to indefinitely classify undeveloped reserves as proved?

In many ways the Staff's interpretations of what reserves are proved undeveloped could be improved, especially in instances of unconventional gas reservoirs. In most unconventional gas reservoirs wells are located on 320 acre or 640 acre spacing and thus an offset is a location (320 acre or 640 acre unit) adjoining the producing unit. If production data and subsequent drilling mandate that for effective drainage of the reservoir closer spacing is required, the one offset rule would effectively reduce the amount of acreage previously considered as proved undeveloped. In this case, the one offset rule results in eliminating proved undeveloped locations that met the definition of a proved undeveloped location before closer spacing is imposed. The closer spacing results in a distance that is less than the original distance between a producer and its associated proved undeveloped location, and thus the location under the one offset rule no longer meets the definition. If a proved undeveloped location meets the definition of a proved undeveloped location at any time, the proved developed location should not be subject to a revised one offset definition.

We believe that proved undeveloped locations that remain on a company's books for extremely long periods of time can be questionable and should be regularly reviewed. Oil and gas companies' primary assets are their oil and gas reserves, and thus if a company consistently reviews its proved undeveloped locations and confirms that the location is still in the company's future development plans, and the reserves associated with the location are still producible at the existing operating conditions and at the stated future development costs, then the reserves are still an asset and should not be removed

from the company's proved reserve report. If at any time the company determines the location is no longer part of its future development plan, then the location should be removed from the proved reserve report regardless of whether the location is still economic under existing operating conditions. A company may wish to classify this well as a probable reserve or under another reserve category to track the reserve as a company asset if it is deemed to be economic but not part of the company's future development plans.

8. Should we reconsider the concept of economic producibility? 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?

We do not think that the concept of economic producibility needs reconsideration, but we do think the definition of economic producibility should be clarified. We realize Regulation S-X and FASB 69 are two different regulations, but they are definitely tied together in many ways. Does economic producibility mean positive net undiscounted cash flow or a positive net present value utilizing a 10% discount rate? We do not think clarifying the definition would alter the quality of the reserves estimation process in any meaningful way.

9. Should we reconsider the concept of existing operating conditions? 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?

10. Should we reconsider requiring companies to use a sale price in estimating reserves? If so, how should we establish the price framework? Should we require or allow companies to use an average price instead of a fixed price or a futures price instead of a spot price? Should we allow companies to determine the price framework? How would allowing companies to use different prices affect disclosure quality and consistency? Regardless of the pricing method that is used, should we allow or require companies to present a sensitivity analysis that would quantify the effect of price changes on the level of proved reserves?

We have no objection to requiring companies to use a sales price in estimating reserves. We think that the term reserves is widely accepted to mean an estimated volume of oil or gas calculated at a certain price or price deck. We do believe that companies should be allowed to report as supplemental information reserves at prices or price decks other than the required price under the existing regulations. Given the volatility of oil and gas prices, the use of an average price may decrease the magnitude of that volatility and could also improve the accuracy and measurement of that particular price. It appears to us that use of a spot, last day price requires the use of a theoretical price rather than use of an actual price received, because most oil and gas sales or purchase contracts are based on averages of an index over some defined time period, or a

closing price of a particular index, and generally do not coincide, and may have no correlation, with the last day of the year price.

Allowing companies to report reserves on a variety of prices or price decks in addition to the prices required in the current regulations would provide investors greater knowledge of the potential reserve changes or variations that could occur if oil and gas prices moved dramatically in one direction or the other. One suggestion would be to allow companies to report reserves on prices that are based on a fixed percentage variance from the required price (i.e. +/-10%, +/-20% etc) if they so choose, but only along consistent guidelines applicable to all companies on the same basis. This would allow investors to evaluate the potential reserve changes for an individual company and to compare the relative effect of changes among different companies.

We would suggest that the price variations be limited to variances within relatively small reasonable ranges of the required price currently being used. Applying prices that vary significantly from the required price would require adjustments to expected operating costs and capital costs as well, since there is a general correlation between increasing or decreasing oil and gas prices and increased or decreased operating and capital costs.

Allowing companies to report reserves on price decks other than the current required price deck should not affect the quality of the reserve estimates or disclosures that companies prepare. Consistency can be maintained by allowing companies to report reserve estimates at varying prices by stating the variances and methodologies that are acceptable. The earlier suggestion [Note: not clear what reference to “earlier suggestion” is] would maintain the consistency of reporting reserves at various prices should companies decide to report reserves at varying prices.

11. Should we consider eliminating any of the current exclusions from proved reserves? How could removing these exclusions affect disclosure quality?

12. Should we consider eliminating any of the current exclusions from oil and gas activities? How could removing these exclusions affect disclosure quality?

The change here is probably more administrative than substantive, but given the dramatic increase in the activity in shales and coal throughout the US, the current exclusion of hydrocarbons from shales needs to be modified in Rule 4-10 (a) (1) (ii) (D). Rule 4-10 (a) (2) (iii) adds the word “oil shales” instead of “shales” but still lists natural gas from coal as an excluded reserve. In practice, companies are including natural gas from coal and shales and thus one would assume a bulletin from the SEC has allowed natural gas from shales and coal to be included.

13. Should we consider eliminating the current restrictions on including oil and gas reserves from sources that require further processing, e.g., tar sands? If we were to eliminate the current restrictions, how should we consider a disclosure framework for those reserves? What physical form of those reserves should we consider in evaluating such a framework? Is there a way to establish a disclosure framework that accommodates unforeseen resource discoveries and processing methods?

14. What aspects of technology should we consider in evaluating a disclosure framework? Is there a way to establish a disclosure framework that accommodates technological advances?

The majority of the technological advances that companies consider to be providing reasonable certainty are technologies that involve considerable amounts of individual interpretation, selective interpretation or modeling assumptions that are only verified after considerable production has occurred. Extreme caution should be exercised when considering whether or not to allow the use of geophysical data, pressure transient data and reservoir simulation results in place of actual direct measurements or production data. It would be extremely difficult to discuss or describe all of the assumptions or selective interpretations in a way that would enable investors to understand the potential reserve impacts that these assumptions or interpretations may have on the estimates.

15. Should we consider requiring companies to engage an independent third party to evaluate their reserves estimates in the filings they make with us? If yes, what should that party’s role be? Should we specify who would qualify to perform this function? If so, who should be permitted to perform this function and what professional standards should they follow? Are there professional organizations that the Commission can look to set and enforce adherence to those standards?

The Commission should not require all companies to engage independent third parties to evaluate their reserve estimates. In our experience the reserve estimates made by independent third parties are no more accurate than estimates made by individual

companies employing experienced engineers and geologists that have been trained in the requirements of Regulation S-X. In many cases it is difficult to transfer all of the relevant required information to properly estimate reserves from the company to the third party evaluator. It is also difficult for a third party evaluator to accurately assess reserves when you consider that the company estimator is working with the property or field throughout the entire year and third party evaluator is making a reserve estimate based on the information supplied to them over a very short time period.

Engineers and geologists that have experience in working with oil and gas reservoirs are completely capable of estimating reserves consistently and accurately when properly trained in the SEC regulations that apply to estimating reserves. Engineers can choose to be tested and certified as Professional Engineers by state Professional Engineering Boards. The testing and certification process requires a minimum four years of experience in an engineering position, a testing of the engineer's fundamental engineering knowledge, professional references and a final test after the engineer has gained the requisite experience. Both the fundamentals exam and professional exam are administered by the National Council of Engineering Examiners, and thus the testing is consistent throughout the United States. The Society of Petroleum Engineers assists the NCEES in the preparation of the problems used on the Professional Exam for testing petroleum engineers. This certification and registration is sufficient and should be strongly encouraged for reserve estimators.

In addition to the areas for comment identified above, we are interested in any other issues that commenters may wish to address and the benefits and costs relating to investors, issuers and other market participants of the possibility of revising disclosure rules pertaining to petroleum reserves included in Commission filings. Please be as specific as possible in your discussion and analysis of any additional issues. Where possible, please provide empirical data or observations to support or illustrate your comments.

Enhanced Oil Recovery

Since 1978 there have been significant gains in technology and experience with enhanced oil recovery applications. The knowledge and experience gained since 1978 provides sufficient data for reserves to be estimated with reasonable certainty from the application of enhanced oil recovery prior to the project being implemented and a production response being observed. Given the experience gained and the application of the more widely applied enhanced oil recovery techniques, the Commission should consider excluding the requirement of a production response in the case of the more widely applied enhanced oil recovery techniques such as water flooding and CO₂ flooding that have been proved with reasonable certainty to recover additional quantities of oil.

Although water flooding was performed prior to 1978 for many years, the application of CO₂ flooding began in 1974. Thus, a minimum of 34 years of additional experience and

knowledge has been gained since SEC reserve rules were created. The Commission does allow for the booking of proved reserves in enhanced oil recovery projects based on analogy, but the analogy definition is limited to the same reservoir in nearby fields where the reservoir properties are equal to or better than the reservoir characteristics of the analogy. The body of knowledge available today as a result of the experience and applications of enhanced oil recovery since 1978 allow the reserve estimator to estimate reserves with reasonable certainty in future enhanced oil recovery projects in fields and reservoirs that do not meet the current definition of analogy under applicable SEC rules, and thus either the definition of analogy should be modified or the requirement of a production response should be deleted. It has been proven that if CO₂ is injected into an oil reservoir in sufficient quantities to contact and re-pressure a reservoir, additional oil will be recovered. The issue of whether or not this additional oil is a reserve is based on the economic conditions that exist at the time, not on whether or not additional oil will be recovered.

Today's SEC rules do not allow companies with considerable non-proven reserves recoverable with enhanced oil recovery applications to report those amounts. We believe these rules are a disservice to investors and present them with an inaccurate representation of the total oil and gas assets of a particular company.

While we support the Commission in its efforts to seek input on potential changes to the reporting and disclosure of oil and gas reserves, we believe that any changes in the recording and disclosure of oil and gas reserve information could also impact the accounting treatment for certain costs and related financial statement disclosures. We believe it may be time to reconsider certain aspects of the accounting and related disclosures for oil and gas companies, and would hope the Commission considers the accounting aspects of any changes in the reporting of oil and gas reserves.

Thank you for this opportunity to speak to these issues.