

## MODERNIZATION OF THE OIL AND GAS REPORTING

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September 7, 2008

- B. Year-End Pricing**
- 1. 12-month average price**

### Request for Comment

Should the economic producibility of a company's oil and gas reserves be based on a 12-month historical average price?

Yes, the use of a 12 month average historical price should provide a consistent plus comparable basis for all companies.

Should we consider an historical average price over a shorter period of time, such as three, six, or nine months?

No, the 12 month historical average provides both enough data to avoid significant, possibly short term changes due to rapid fluctuations but enough data to honor a changing trend.

Should we consider a longer period of time, such as two years? If so, why?

No, the use of 2 years would tend to be stagnant based on the changes seen during the past 24 months.

Should we require a different pricing method? No

Should we require the use of futures prices instead of historical prices? No

Is there enough information on futures prices and appropriate differentials for all products in all geographic areas to provide sufficient reporting consistency and comparability?

There is not enough good data, or any basis for outsiders to know how the futures trends were influenced. This is very speculative.

Should the average price be calculated based on the prices on the last day of each month during the 12-month period, as proposed?

Yes, that is a consistent, logical, and easy method to calculate repeatable benchmark.

Is there another method to calculate the price that would be more representative of the 12-month average, such as prices on the first day of each month?

There may be other acceptable methods.

Why would such a method be preferable?

None of the methods may be better than the other, and the proposed methodology is logical. However, a better method may be to use the actual average for each field over the proper 12 months period, including all adjustments and differentials.

The average should be calculated on a field by field basis rather than a company wide basis.

Should we require, rather than merely permit, disclosure based on several different pricing methods? **No**

If so, which different methods should we require?

**Only the 12 month average should be permitted. The inclusion of alternate pricing methods will lead to large discrepancies between companies, confusion by share holders, and a pressure for everyone to “pump up” their price forecasts to look better than their peers in the eyes of stock analysts. This will lead to widespread overselling and hype by overly zealous operators.**

Should we require a different price, or supplemental disclosure, if circumstances indicate a consistent trend in prices, such as if prices at year-end are materially above or below the average price for that year? **No**

If so, should we specify the particular circumstances that would trigger such disclosure, such as a 10%, 20%, or 30% differential between the average price and the year-end price? **No**

If so, what circumstances should we specify?

**No, this is the reason for the 12 month average. Historically, the use of single day, year end pricing has not reflected either quarterly or annual pricing trends and has been manipulated by energy traders.**

## **2. Trailing year-end**

### **Request for Comment**

Should the price used to determine the economic producibility of oil and gas reserves be based on a time period other than the fiscal year, as some commenters have suggested? **Yes**

If so, how would such pricing be useful?

**This would allow the companies to complete their work and eliminate some numbers that may not be confirmed or hard to generate quickly at the end of the year.**

Would the use of a pricing period other than the fiscal year be misleading to investors?

**No, the filing could simply state that the 12 month historical average was determined using the non-weighted average of the 12 close of the month prices for the period of October 1, 2006 and September 30, 2007. (Dates**

are for example only).

Is a lag time between the close of the pricing period and the end of the company's fiscal year necessary? **Yes**

If so, should the pricing period close one month, two months, three months, or more before the end of the fiscal year?

**The three month time lag should give all companies more than enough time to prepare and document the source of their pricing (on a field by field basis).**

Explain why a particular lag time is preferable or necessary.

**Based on experience working with several companies of various sizes, it is evident that the accounting figures often significantly lag the calendar. For companies that appear to be current or not needing a time lag, they often have a history of making adjusted or amended filings after the facts are finalized.**

Do accelerated filing deadlines for the periodic reports of larger companies justify using a pricing period ending before the fiscal year end?

**Yes. It is hard to describe how often the accounting figures get revised and how long it takes to get reliable data.**

### **3. Prices used for accounting purposes**

#### **Request for Comment**

Should we require companies to use the same prices for accounting purposes as for disclosure outside of the financial statements?

**YES and only one price scenario for all purposes should be used, the 12 month average. To mandate an average price for reserves and a single day price for accounting will lead to confusion, increased work load and will not assist transparency. This is a very bad idea that will lead to a poorer understanding by investors, bankers, and oil companies alike.**

Is there a basis to continue to treat companies using the full cost accounting method differently from companies using the successful efforts accounting method? For example, should we require, or allow, a company using the successful efforts accounting method to use an average price but require companies using the full cost accounting method to use a single-day, year-end price?

**Mandate the average 12 month historical pricing and only the 12 month historical pricing for all cases.**

Should we require companies using the full cost accounting method to use

a single-day, year-end price to calculate the limitation on capitalized costs under that accounting method, as proposed? **No**

If such a company were to use an average price and prices are higher than the average at year end or at the time the company issues its financial statements, should that company be required to record an impairment charge?

**Yes, the 12 month historical average price should be the price for all calculations.**

Should the disclosures required by SFAS 69 be prepared based on different prices than the disclosures required by proposed Section 1200?

**All disclosures should be based on a 12 month historical average.**

If proved reserves, for purposes of disclosure outside of the financial statements, other than supplemental information provided pursuant to SFAS 69, are defined differently from reserves for purposes of determining depreciation, should we require disclosure of that fact, including quantification of the difference, if the effect on depreciation is material?

**No need for a separate disclosure if all prices based on 12 month historical average.**

What concerns would be raised by rules that require the use of different prices for accounting and disclosure purposes? **YES**. For example, is it consistent to use an average price to estimate the amount of reserves, but then apply a single-day price to calculate the ceiling test under the full cost accounting method? **Absolutely not.**

Would companies have sufficient time to prepare separate reserves estimates for purposes of reserves disclosure on one hand, and calculation of depreciation on the other? **No**

Would such a requirement impose an unnecessary burden on companies? **Yes**

Will our proposed change to the definitions of proved reserves and proved developed reserves for accounting purposes have an impact on current depreciation amounts or net income and to what degree?

If we change the definitions of proved reserves and proved developed reserves to use average pricing for accounting purposes, what would be the impact of that change on current depreciation amounts and on the ceiling test? Would the differences be significant?

**There may be a year one change, but from that point forward, there should be a more stable system with less fluctuation.**

## **Summary of Prices for Reserves and Accounting Disclosures**

If a single day year end price is kept for accounting purposes, it would be the same volatile, system that is now in place which causes wide variations in year end estimates. It would be a grievously fatal flaw in the proposed new definitions to mix price scenarios. Either change everything to a 12 month historical average or leave everything the way it is and live with the same flawed system. The mixed system is worse than the present system.

**C. Extraction of Bitumen and Other Non-Traditional Resources**  
**Request for Comment**

Should we consider the extraction of bitumen from oil sands, extraction of synthetic oil from oil shales, and production of natural gas and synthetic oil and gas from coalbeds to be considered oil and gas producing activities, as proposed? **Yes**

The extraction of coal raises issues because it is most often used directly as mined fuel, although hydrocarbons can be extracted from it. As noted above, we propose to include the extraction of coalbed methane as an oil and gas producing activity. However, the actual mining of coal has traditionally been viewed as a mining activity. In most cases, extracted coal is used as feedstock for energy production rather than refined further to extract hydrocarbons. However, as technologies progress, certain processes to extract hydrocarbons from extracted coal, such as coal gasification, may become more prevalent. Applying rules to coal based on the ultimate use of the resource could lead to different disclosure and accounting implications for similar coal mining companies based solely on the coal's end use. How should we address these concerns?

If the end product is sold as a synthetic oil or gas, it should be part of the oil and gas activities.

Should all coal extraction be considered an oil and gas producing activity?

No, coal extraction for sale as coal for power generation, heating, etc, should remain a mining activity.

Should it all be considered mining activity?

No, the activity should be classified by the end product or point of sale for the producer.

Should the treatment be based on the end use of the coal? **Yes**

Please provide a detailed explanation for your comments.

Basically, this allows oil and gas activities to capture all reserves or

resources that ultimately are sold as oil or natural gas and leads to a more comparable reserves estimate between companies with different resource bases.

Similar issues could arise regarding oil shales, although to a significantly less extent, because those resources currently are used as direct fuel only in limited applications. How should we treat the extraction of oil shales? If the final product at the point of transfer from the owner to buyer is an oil, or synthetic oil, or natural gas, it should be an oil and gas activity.

If adopted, how would the proposed changes affect the financial statements of producers of non-traditional resources and mining producers?

This will add significantly to the oil and gas reserves for producers of unconventional resources or resource plays. It will more accurately reflect both the companies' reserves but the country's reserves and will be a valuable improvement for investors, strategic energy planners, and the government in the management of domestic resources.

**D. Reasonable Certainty and Proved Oil and Gas Reserves**  
**Request for Comment**

Is the proposed definition of “reasonable certainty” as “much more likely to be achieved than not” a clear standard?

It is not too much different from the current interpretive guidance and practice.

Is the standard in the proposed definition appropriate?

I would propose the following: “When deterministic methods are used to estimate oil and gas reserves, such as changes due to increased availability of geoscience (geological, geophysical, petrophysical, and geochemical), engineering, economic data, using reliable technology or reliable, repeatable techniques for a given area are made to estimate ultimate recovery (EUR) at any given time, reasonably certain EUR is much more likely to increase or remain constant than to decrease.

Would a different standard be more appropriate?

This standard would be achievable with proper training of reserve evaluators.

Is the proposed 90% threshold appropriate for defining reasonable certainty when probabilistic methods are used?

Yes. The 90% threshold should be reached at the reservoir level and not at a summary or portfolio level.

Should we use another percentage value? Not for the proved criteria.

## 1. New technology

### Request for Comment

Is our proposed definition of “reliable technology” appropriate? Should we change any of its proposed criteria, such as widespread acceptance, consistency, or 90% reliability?

The proposed definition is good. However, the use of 90% reliability is very subjective and hard to measure or document. Companies must be able to present a compelling case at all times to support the techniques or technologies used in their reserve determination. Reliability of a technique or method will vary by region. Additionally, noting what percentage of reserves using each type of technology is excessive detail. So called “classical methods” such as standard decline curve analysis, P/Z, and others do not need to be specifically noted, unless called upon in specific fields. Techniques such as pressure vs. depth determination of fluid contacts, or drainage area size, shape, or drainage distance determined by well testing, or use of early life RTA programs should be noted.

Is the open-ended type of definition of “reliable technology” that we propose appropriate?

Yes, the burden of providing a compelling supporting case rests on the reporting company and must be provided if called for by the SEC.

Would permitting the company to determine which technologies to use to determine their reserves estimates be subject to abuse?

Unfortunately, some companies will abuse or misuse any reliable technology (or classical, time tested techniques) either due to poor application or understanding, or intentional manipulation of data to reach a pre determined outcome or larger number regardless of how the definitions are written. The SEC should impose large fines for such intentional misuse and mandatory incarceration for individuals, including board members, executives, managers, supervisors, middle managers, and the actual reserve evaluators for their second or third intentional or willful offense.

Do investors have the capacity to distinguish whether a particular technology is reasonable for use in a particular situation?

No, unfortunately, many investors, financial analysts, politicians, lobbyists, and the media generally do not have the background, training, or specific regional experience to intelligently distinguish between different technologies. They are often fooled by hype generated by a company, service company, investment banker, stock analyst, politician, lobbyist, or misguided, opinionated media reports.

What are the risks associated with adoption of such a definition?

The risks again, are generally the mis-application, lack of training, or intentional abuse of the data or technology to arrive at an outcome. The

best outcome would be to make the companies accountable and hold them to a standard by using appropriate penalties.

Is the proposed disclosure of the technology used to establish the appropriate level of certainty for material properties in a company's first filing with the Commission and for material additions to reserves estimates in subsequent filings appropriate?

Yes, a first filing should disclose the methodologies used.

Should we require disclosure of the technology used for all properties?

No, only significant changes in the ultimate recovery, or a significant change of methodology for a given field or major reservoir should be noted.

Should we require companies currently filing reports with the Commission to disclose the technology used to establish appropriate levels of certainty regarding their currently disclosed reserves estimates?

A general write up should highlight the methodology and technology used to estimate reserves for major properties, new discoveries, field extensions, or major (> 10% change of previous filing reserves, not ultimate recovery on a field level) revisions not caused by prices should be included.

## 2. Probabilistic methods

### Request for Comment

Are the proposed definitions of “deterministic estimate” and “probabilistic estimate” appropriate? Generally, yes.

Should we revise either of these definitions in any way? Yes

If so, how?

We propose to define the term “deterministic estimate” to mean an estimate that is based on using a single “most appropriate” value for each variable in the estimation of reserves, such as the company's determination of porosity, water saturation, reservoir extent, net pay, and all of the parameters necessary to estimate the original oil or gas in place in a reservoir, multiplied by the fraction of that oil or gas that can be recovered.

In addition, we propose to define the term “probabilistic estimate” as an estimate that is obtained when the full range of values that could reasonably occur from each parameter (from the geoscience, engineering, and economic data) is used to generate a full range of possible outcomes and their associated probabilities of occurrence. The P90 values in the probabilistic determination must not include values that have not been observed in the field or immediate area (Such as increased gross pay thickness, increased porosity, etc.) The P10 values should not truncate field size based on economic decisions assuming that small fields will not be developed. This will cause the outcome to have a bias toward the high end



by excluding the possibility of making an error in choosing to develop a field.

Are the statements regarding the use of deterministic and probabilistic estimates in the proposed definition of “reasonable certainty” appropriate? See comments following reasonable certainty.

Should we change them in any way? Yes

If so, how?

Additional Comments: Although some commentators claim the use of probabilistic estimates are preferable to establish proved reserves because these methods are derived through extensive statistical computer calculations using a wide range of potential values for parameters that affect the reserves estimate, such as possible recovery factors for a particular field or type of field, and so would be more rigorous than deterministic methods, the assumptions used to estimate the P90, P50, and P10 input values are also based largely on an evaluators experience and judgment and will vary greatly from evaluator to evaluator. If the distributions are based solely on observed data with nothing outside the observed values, the results may reflect better estimates. There is also concern that evaluators may have training in probabilistic techniques, but lack the judgment and experience to quality control the output or check if the output is reasonable.

Should an oil and gas company have the choice of using deterministic or probabilistic methods for reserves estimation, or should we require one method?

A company should have a choice of which method or methods they choose to estimate reserves.

If we were to require a single method, which one should it be?

If only one method were used, the deterministic method can be more easily checked against the data.

Why?

It is easier to verify and defend the input. It is more appropriately defended by documented data and interpretive maps. Often the probabilistic approach turns out to be a “black box” and the generators have difficulty justifying the input points for the study.

Would there be greater comparability between companies if only one method was used?

Probably not, so much of the reserves determination process subjective, or experienced based regardless of the methodology.

Should we require companies to disclose whether they use deterministic or probabilistic methods for their reserves estimates?

Absolutely. Companies should also be required to tell if they used different techniques for different fields. For example, probabilistic methods would appear to be more reliable early in the life of a project, while deterministic methods may be more appropriate later in the life cycle of a property.

### **3. Other revisions related to proved oil and gas reserves**

#### **Request for Comment**

Should we permit the use of technologies that do not provide direct information on fluid contacts to establish reservoir fluid contacts, provided that they meet the definition of “reliable technology,” as proposed?

Yes, the use of reliable technology to establish a downdip fluid contact should be allowed. At this time, it may include pressure vs. depth plots if the company can provide a compelling case upon request. Available seismic data and subsurface geology can not be in conflict with the pressure vs. depth plots. Again, penalties should be employed for those who willfully misuse or abuse this and other techniques. There should not be any other data that conflicts with extending the downdip portion of the reservoir to establish reasonable certainty and the data must clearly show the estimated contact. Examples include water production, pressure data, conflicting well data, or data showing a wide scatter.

Should there be other requirements to establish that reserves are proved? For example, for a project to be reasonably certain of implementation, is it necessary for the issuer to demonstrate either that it will be able to finance the project from internal cash flow or that it has secured external financing?

Yes, the company must demonstrate (upon SEC request) that cash flow, financing, partnerships, a history of accomplishing projects of similar magnitude, or other arrangements have been finalized. Negotiations in progress are not reasonably certain. Approvals by the company, partners, and government agencies must also be reasonably certain.

### **E. Unproved Reserves—“Probable Reserves” and “Possible Reserves”**

#### **Request for Comment**

Should we permit a company to disclose its probable or possible reserves, as proposed? **Yes**

If so, why?

If fairly presented, it does give an investor more insight to what the

company is and plans to do. It should be documented and defended by the company if requested.

Should we require, rather than permit, disclosure of probable or possible reserves? **No**

If so why?

Many companies are comfortable with booking only proved reserves and wish to have other less certain projects kept more confidential.

Should we adopt the proposed definitions of probable reserves and possible reserves? **Yes**

Should we make any revisions to those proposed definitions?

**One modification to probable.**

If so, how should we revise them?

**Proved and Probable reserves in sum are more likely than not to be recovered (> 50% probability).**

Are the proposed 50% and 10% probability thresholds appropriate for estimating probable and possible reserves quantities when a company uses probabilistic methods? **Yes**

Should probable reserves have a 60% or 70% probability threshold? **No**

Should possible reserves have a 15% or 20% probability threshold? **No**

#### **F. Definition of “Proved Developed Oil and Gas Reserves”**

##### **Request for Comment**

Should we revise the definition of proved developed oil and gas reserves, as proposed? **Yes**

Should we make any other revisions to that definition? If so, how should we revise it?

#### **G. Definition of “Proved Undeveloped Reserves”**

##### **1. Proposed replacement of certainty threshold**

##### **Request for Comment**

Are the proposed revisions appropriate?

**They are excellent, with only a few minor modifications.**

Would the proposed expansion of the PUDs definition create potential for abuses?

**Absolutely, but the companies that already abuse the definitions would continue to abuse them. Other companies that are currently compliant may have the tendency to extend the areal limits of a field too far. The phrase “at any distance from the productive units” is too broad. The burden**

**of proof to present a compelling case to estimate the proved area still rests with the reserve evaluators and must be clearly demonstrated upon**

demand. There will be a tendency to “see” more than the geophysical data clearly demonstrates. PUDs should be determined by the totality of the engineering and geoscience data available, including seismic data, appropriate documented analogs, and assessment of reservoir characteristics. Seismic data without a well penetration in the reservoir under evaluation is not sufficient for a proved undeveloped classification.

Should we replace the current “certainty” threshold for reserves in drilling units beyond immediately adjacent drilling units with a “reasonable certainty” threshold as proposed? **Yes**

Is it appropriate to prohibit a company from assigning proved status to undrilled locations if the locations are not scheduled to be drilled more than five years, absent unusual circumstances, as proposed?

**Yes, but the unusual circumstances could include historical market demand, pipeline capacity, facility capacity, reservoir energy conservation, optimization of facilities, including availability of platform slots, well surface locations, and maximization of ultimate recovery.**

Should the proposed time period be shorter or longer than five years? **No, 5 years seems reasonable if not generous for most situations.**

Should it be three years? **No** Should it be longer, such as seven or ten years? **No**

Furthermore, the SEC should require companies to track a PUD location from its creation until its drilling date and locations delayed (two or more times) should be dropped under the observation of no firm intention to develop without a compelling case for continued delay which does not include limited capital or better project choices. Many companies continue to roll forward projects with no intent of actually developing them, but want the PUD placeholders for possible property sale, DD&A, or book value.

Should the proposed definition specify the types of unusual circumstances that would justify a development schedule longer than five years for reserves that are classified as proved undeveloped reserves?

**The definition should list several acceptable reasons, but other reasons may be allowed on a case by case basis with a compelling case presentation by the booking company. The company should disclose all locations beyond 5 years and their specific reason for deferral.**

**2. Proposed definitions for continuous and conventional accumulations**  
**Request for Comment**

Should we provide separate definitions of conventional and continuous accumulations, as proposed? **Yes**

Would separate disclosure of these accumulations be helpful to investors?  
Yes

Should we revise our proposed definition of “continuous accumulations” in any way? Yes

For example, should the proposed definition provide examples of such accumulations? If so, how should we revise it?

The limits of a continuous accumulation must honor wells that lack either hydrocarbons, lack minimum porosity or permeability to produce, or in some cases the lack the necessary cleating (fractures) for wells to produce. In other words, the accumulation should not extend beyond negative data unless other compelling reasonably certain data exists. There are always field limits to “continuous” accumulations.

Should we revise our proposed definition of “conventional accumulations” in any way? Yes

If so, how should we revise it? Many conventional accumulations do not have a free hydrocarbon-water contact. They may be faulted reservoirs.

### **3. Proposed treatment of improved recovery projects** **Request for Comment**

Should we expand the definition of proved undeveloped reserves to permit the use of techniques that have been proven effective by actual production from projects in an analogous reservoir in the same geologic formation in the immediate area or by other evidence using reliable technology that establishes reasonable certainty?

The proved undeveloped reserves should be based on analogy, actual performance in the reservoir (pilot program), or test data using reliable technology. An unmatched or short matched computer model is not acceptable. I would also say analogous formation in the area, rather than same geologic formation. Definitions of what constitutes an appropriate analogy must be clearly established. The criteria of documenting an acceptable analogy change with the purpose of the analogy. The SPE Oil and Gas Reserves course outlines how to select and document an acceptable analogy for different oil and gas cases. Acceptable analogies should be based on a compelling case that includes many parameters, but not necessarily the six currently included on the SEC website. Somewhere, it needs to be clear that a natural water drive is not an analogy for a water injection or pressure maintenance program. A water injection or pressure maintenance program must have an acceptable, appropriate, analogy.

### **H. Proposed Definition of Reserves**

### **Request for Comment**

Is the proposed definition of “reserves” appropriate? Should we change it in any way? If so, how?

Estimated remaining quantities of oil and gas and related substances anticipated to be recoverable, as of a given date, by application of development projects to known accumulations based on:

1. Analysis of geoscience and engineering data;
2. The use of reliable technology;
3. The legal right to produce;
4. Installed means of delivering the oil, gas, or related substances to markets,
5. or the permits, financing, and the appropriate level of certainty (reasonable certainty, more likely as not, or possible but unlikely) to do so; and
6. Economic producibility at the 12 month historical prices and historical or documented revised costs.

### **I. Other Proposed Definitions and Reorganization of Definitions**

#### **Request for Comment**

Are these additional proposed definitions appropriate? **Yes**

Should we revise them in any way? **No**

Should we alphabetize the definitions, as proposed? **Yes**

Would any undue confusion result from the re-ordering of existing definitions? **No**

### **III. Proposed Amendments to Codify the Oil and Gas Disclosure Requirements in Regulation S-K**

#### **B. Proposed New Subpart 1200 to Regulation S-K Codifying Industry Guide 2 Regarding Disclosures by Companies Engaged in Oil and Gas Producing Activities**

##### **2. Proposed Item 1201 (General instructions to oil and gas industry-specific disclosures)**

#### **Request for Comment**

Are the proposed general instructions to Subpart 1200 clear and appropriate?

The addition of an optional sensitivity case is a bad idea which will confuse the investing public and lead to game playing by several companies. Are there any other general instructions that we should include in this proposed Item?

The requirement of accounting annually for undeveloped reserves held for more

than 5 years is burdensome. If the SEC requires companies to submit a one line summary with project start date, the SEC could flag projects on the books for more than 5 years and issue a comment letter for clarification or update.

Disclosure of technologies used should be limited to new reservoirs, assets representing more than 10% of a portfolio, or changes of remaining reserves greater than 10% of the previous year's reserves if the change is a result of using a new "reliable" technology or change in methodology.

For disclosure items requiring tabulated information, should we require companies to adhere to a specified tabular format, instead of permitting companies to reorganize, supplement, or combine the tables?

If these items are going to be required, one format makes it easier to summarize tables and make comparisons between companies.

In particular, should we permit a company to disclose reserves estimates from conventional accumulations in the same table as it discloses its reserves estimates from continuous accumulations?

Conventional and so called "unconventional" reserves should be reported and summed on separate tables in order to provide more detailed information to the investing public and government agencies in an easily usable fashion. If the tables have a standard format, they can be more easily combined for summary purposes.

### **3. Proposed Item 1202 (Disclosure of reserves)**

An optional sensitivity analysis table. [Is this probable and possible? Or price sensitivity?](#)

#### **i. Oil and gas reserves tables**

##### **Request for Comment**

Should we permit companies to disclose their probable reserves or possible reserves? [Yes](#)

Is the probable reserves category, the possible reserves category (or both categories) too uncertain to be included as disclosure in a company's public filings? [No](#)

Should we only permit disclosure of probable reserves? [No](#)

What are the advantages and disadvantages of permitting disclosure of probable and possible reserves, from the perspective of both an oil and gas company and an investor in an oil and gas company that chooses to provide such disclosure?

[Optional disclosure of both probable and possible reserves would give the companies a better opportunity to better reflect total value of their corporation. For](#)

the investor, it would provide a relative measure of the companies' growth potential and ranges or risk associated with the probable and possible categories.

Would investors be concerned by such disclosure? Most investors would not understand the disclosure, but don't understand the proved disclosures currently.

Would they understand the risks involved with probable or possible reserves? Most would not.

Would the proposed disclosure requirements provide sufficient disclosure for investors to understand how companies classified their reserves? The standardization of reserves by category would allow investors to compare companies.

Should the proposed Item require more disclosure regarding the technologies used to establish certainty levels and assumptions made to determine the reserves estimates for each classification? No. As previously noted, disclosure of technologies used should be limited to new reservoirs, assets representing more than 10% of a portfolio, or changes of remaining reserves greater than 10% of the previous year's reserves if the change is a result of using a new "reliable" technology or change in methodology.

Should companies be required to provide risk factor disclosure regarding the relative uncertainty associated with the estimation of probable and possible reserves? No. This is very subjective and would vary greatly between companies. Again, the promoters would use this to hype their investment. By leaving the reserves in probable or possible without a risk factor, probable would simply mean more likely than not or > 50% and possible would mean less likely than not or < 50% probability of occurrence.

Should we allow filers to report sums of proved and probable reserves or sums of proved, probable, and possible reserves? No

Or, to avoid misleading investors, should we allow only disclosure of each category of reserves by itself and not in sum with others, as proposed? The incremental probable and incremental possible reserves should be reported separately to highlight the differences in risk between the categories. Reserves in different risk categories should never be added together for reporting purposes.

Should we require disclosure of probable or possible reserves estimates in a company's public filings if that company otherwise discloses such estimates outside of its filings? If a company discloses probable or possible reserves any time during the year to the public, it should be required to report the year end probable and possible reserves and be held accountable for any variances in the estimated reserves reported.

Should we require all reported reserves to be simple arithmetic sums of all



estimates, as proposed? **Yes**

Alternatively, should we allow probabilistic aggregation of reserves estimated probabilistically up to the company level? **No, this is too hard to trace to the projects or input values.**

If we do so, will company reserves estimated and aggregated deterministically be comparable to company reserves estimated and aggregated probabilistically? **All aggregated values should be the simple arithmetic sum of each individual estimate.**

Should we revise the proposed form and content of the table? **Yes** If so, how should we revise the table's form or content? **The tables are not self explanatory and contain non essential detail levels. An alternate set of tables may be easier to use and provide**

TABLE A CONVENTIONAL RESERVES	Proved Reserves	
	Oil & Condensate	Natural Gas
PROVED RESERVES	(MBO)	(MMCF)
<b>DEVELOPED</b>		
Domestic USA		
International (non USA) Subtotal		
Country A		
Country B		
Country C		
Continue to 80% of non USA total		
Other countries remainder		
<b>SUBTOTAL DEVELOPED</b>		
<b>UNDEVELOPED</b>		
Domestic USA		
International (non USA) Subtotal		
Country A		
Country B		
Country C		
Continue to 80% of non USA total		
Other countries remainder		
<b>SUBTOTAL UNDEVELOPED</b>		
<b>TOTAL CONVENTIONAL PROVED RESERVES</b>		

TABLE B UNCONVENTIONAL or CONTINUOUS ACCUMULATION RESERVES	Proved Reserves	
	Liquid Product	Gas Product
PROVED RESERVES	(MBO)	(MMCF)
<b>DEVELOPED</b>		
Domestic USA		
International (non USA) Subtotal		
Country A		
Country B		
Country C		
Continue to 80% of non USA total		
Other countries remainder		
<b>SUBTOTAL DEVELOPED</b>		
<b>UNDEVELOPED</b>		
Domestic USA		
International (non USA) Subtotal		
Country A		
Country B		
Country C		
Continue to 80% of non USA total		
Other countries remainder		
<b>SUBTOTAL UNDEVELOPED</b>		
<b>TOTAL UNCONVENTIONAL or CONTINUOUS ACCUMULATION PROVED RESERVES</b>		

TABLE C – Total of PROVED RESERVES - addition of Tables A and B  
 TABLES D, E, F – Repeat Tables for Incremental Probable Reserves  
 TABLES G, H, I – Repeat Tables for Incremental Possible Reserves

Should we eliminate the current exception regarding the disclosure of estimates of resources in the context of an acquisition, merger, or consolidation if the company previously provided those estimates to a person that is offering to acquire, merge, or consolidate with the company or otherwise to acquire the company's securities? *These volumes are so speculative, they should not influence an investor, but may enhance the value of a sale to a knowledgeable buyer or give a reason for one company to pursue another company.*

If so, would this create a significant imbalance in the disclosures being made to the possible acquirer, as opposed to the company's shareholders? *No, the values are an upside that the public never sees now.*

**ii. Optional reserves sensitivity analysis table**  
**Sensitivity of Reserves to Prices**

## By Principal Product Type and Price Scenario

Price Case	Proved Reserves			Probable Reserves			Possible Reserves		
	Oil	Gas	Product A	Oil	Gas	Product A	Oil	Gas	Product A
	mbbls	mmcf	measure	mbbls	mmcf	measure	mbbls	mmcf	measure
Scenario 1									
Scenario 2									

### **Request for Comments**

Should we adopt such an optional reserves sensitivity analysis table? **No. Optional reserves based on different sensitivities would confuse and mislead investors. There are many companies that would run up their perceived value using their own internal estimates. They should not be allowed under any circumstance. This would promote hype, over sale of stocks and lead to more corporate failures with the investors holding the bag.**

Would such a table be beneficial to investors? **No, see above.**

Is such a table necessary or appropriate? **It is not necessary or appropriate.**

Should we require a sensitivity analysis if there has been a significant decline in prices at the end of the year? **No, the 12 month average will be a self correcting mechanism that lowers the volatility of short term changes.**

If so, should we specify a certain percentage decline that would trigger such disclosure? **No. The historical average is a giant leap forward from the current one day price, but adding sensitivities or triggers would lead to more uncertainty and less stable reporting than is currently in place.**

Should we revise the proposed form and content of the table? If so, how should we revise the table's form or content? **Drop this table**

As noted above in this release, SFAS 69 currently uses single-day, year-end prices to estimate reserves, while the reserves estimates in the proposed tables would be based on 12-month average year-end prices. If the FASB elects not to change its SFAS 69 disclosures to be based on 12-month average year-end prices, should we require reconciliation between the proposed Item 1202 disclosures and the SFAS 69 disclosures? **If FASB will not change to a 12 month average, then the SEC reported reserves should stay with the single day year end price. Two different reported reserves values would confuse investors, bankers, and government officials.**

What other means should we adopt to promote comparability between these disclosures? **One price scenario should be used. If the proposed definitions and rules are adopted as proposed and FASB does not adopt the more practical approach, then report the reserves based on a 12 month historical average and the reserves based on a single day constant price should be reported separately with no reconciliation. In this**

case, the prices used should be displayed in a table in each set of reserves disclosures. The reconciliation is not necessary, because all of the differences are due to pricing.

**iv. Separate disclosure of conventional and continuous accumulations**

**Request for Comment** Should we require separate disclosure of conventional accumulations and continuous accumulations, as proposed? The separate disclosures of conventional and continuous accumulations would allow an investor to see the impact of new technology reserves. At this time, however, natural gas production through wellbores from coalbeds or shales is considered conventional. Perhaps the differentiation should be based on process or degree of frontier development rather than continuous vs. conventional reservoirs. Liquids or gases produced from mined reserves or heavily altered products from their natural state should be reported separately.

Should we permit combining of columns if the product of the oil and gas producing activity is the same, such as natural gas, regardless of whether the reserves are in conventional or continuous accumulations? This is probably the best solution.

**v. Preparation of reserves estimates or reserves audits**

In the Concept Release, we sought comment on whether the rules should require a company to retain an independent third party to prepare, or conduct a reserves audit on, the company's reserve estimates. Most commenters urged the Commission not to adopt such a requirement. Some believed that a company's internal staff, particularly at larger companies, should be in a better position to prepare those estimates.

Any memberships, in good standing, of the person (regardless of whether an employee or third party) with a self-regulatory organization of engineers, geologists, other geoscientists, or other professionals whose professional practice includes reserves evaluations or reserves audits, that:

Admits members primarily on the basis of their educational and experience qualifications;

**Request for Comments**

Should we require companies to disclose whether the person primarily responsible for preparing reserves estimates or conducting reserves audits meets the specified qualification standards, as proposed? Yes, the company's executives should sign an affidavit that the person primarily responsible for preparing reserves estimates or conducting reserves audits meets the specified qualifications. The proof of this must be provided to the SEC if the company is asked in a reserves audit. If a company has numerous individuals over different areas of reserves, submittal of qualifications will become burdensome.

Should we, instead, simply require companies to disclose such a person's qualifications? No, just a statement that the individuals have met the

qualifications.

Should we require disclosure regarding a person's objectivity when a company prepares its reserves estimates in-house? **How could this be realistically accomplished? Perhaps if the company has an internal audit committee that reports to the board of directors this could be assessed.**

Should the proposed disclosures regarding objectivity be required only if a company hires a third party to prepare its reserve estimates or conduct a reserves audit, as proposed? **The third party must be able to demonstrate its independence and objectivity. The company must be able to demonstrate the independence and objectivity of an in house audit internal audit.**

If a company prepares its reserves estimates in-house, should we require disclosure of any procedures that the company has taken to preserve that person's objectivity? **Very difficult to assess or prove.**

Should we require disclosure of whether the internal person meets specified objectivity criteria? **Very difficult to assess or prove.**

For example, should we apply the some of the same criteria that we propose to apply to third party preparers? If so, which ones? **The company must state that the criteria of objectivity has been met and be able to prove it on demand.**

Consistent with the SPE's auditing guidance regarding internal auditors, should we require companies to disclose whether that person (1) is assigned to an internal-audit group which is (a) accountable to senior level management or the board of directors of the company and (b) separate and independent from the operating and investment decision making process of the company and (2) is granted complete and unrestricted freedom to report, to one or more principal executives or the board of directors, any substantive or procedural irregularities of which that person becomes aware? **Absolutely. In addition, members of this internal audit group should have recourse to report irregularities to the SEC if not addressed by the company's management with protection under "whistle blower" laws. Reporting to the SEC should only be done after informing the management of the company that such a report will be filed or can be filed concurrently. This does not mean that a difference of opinion between professionals needs to be reported, but intentional disregard for SEC compliance or willful incorporation of improper reserves estimation techniques.**

Should we require disclosure with other specific independence or objectivity standards and, if so, what? **See above.**

Should we revise any of the proposed provisions regarding a person's objectivity or technical qualifications? **The experience to qualify should be under the supervision of a qualified reserve evaluator.**

Should the proposal require disclosure of other criteria that would have bearing on determining whether the person is objective or qualified? **No**

Should a company be required to present risk factor disclosure if its reserves estimates were not prepared by a person meeting the objectivity and technical qualifications? **The company must sign an affidavit that the reserves were prepared by an individual or company meeting the criteria.** Because of the inherent uncertainty regarding estimates of probable and possible reserves, should we require the proposed disclosure only if a company chooses to disclose probable or possible reserves? **A qualified evaluator must be responsible for any reserves estimate, proved, probable, or possible.**

Should we require that a third party prepare reserves estimates or conduct a reserves audit if a company chooses to disclose probable or possible reserves estimates? **No, these should be subject to less scrutiny, because by definition they carry more risk.**

Should we require the proposed disclosure only if the company is using technologies other than those which are allowed in our current definitions to establish levels of certainty? **No, whether using new reliable technology or established ‘classical’ technology, the evaluator must be qualified.**

**vi. Contents of third party preparer and reserves audit reports**

**Request for Comment**

Should we require a company to file reports from third party reserves preparers and reserves auditors containing the proposed disclosure when the company represents that a third party prepared its reserves estimates or conducted a reserves audit? **Yes**

As an alternative, should we not require that the third party’s report be filed, but that the company must provide a description of the third party’s report? **No, this will lead to half truths and omissions from the description.**

If so, should we specify that the company’s description of the third party’s report should contain the information that we propose to require in the third party’s report? **Require the third party report and hold the company and the third party responsible for the reports with criminal and civil penalties.**

Should we specify the disclosures that need to be included in third party reports? **Yes**

If so, is the disclosure that we have proposed for the reserves estimate preparer’s and reserves auditor’s reports appropriate? **Yes**

Should these reports contain more or less information? **They appear very comprehensive.**

If they should include more information, what other information should they include? If less, what proposed information is not necessary?

A good guideline is the SPE course on Petroleum Reserves that completely outlines what should be incorporated in a reserves report. The proposed definitions almost mirror that section of the course.

In an audit, should we specify the minimum percentage of reserves that should be examined and determined to be reasonable? **Yes** If so, what should that percentage be? **The 80% noted in the SPE guidelines is adequate.**

Should it be 50%, 75%, 90% or some other percentage? **No** If so, why? **The 80% noted in the SPE guidelines is adequate.**

If the company engages multiple third parties to conduct reserves audits on different portions of its reserves, should the definition of reserves audit be conditioned on each third party evaluating at least 80% of the reserves covered by its reserves audit, as proposed? **No**

Is the scope of a reserves audit defined by geographic areas? **Many times the properties audited by a given third party are defined by geographic area, proximity to the office responsible for the reserves reporting for that area, or the third party that performed the evaluations for a previous owner or partner.**

If so, should the definition of a reserves audit be based on the third party's evaluation of 80% of the reserves located in the geographic areas covered by the reserves audit? **A total of 80% of the total reserves of the company should be audited by any combination of the third party's work.**

Would disclosure that a company has hired a third party to audit only a portion of its reserves be confusing to investors? **No, but the company may chose to make a clarification statement.**

Is there a danger that investors will not be able to ascertain the extent of the reserves audit? **It should be clearly stated that "In total, 80% of the company's reserves have been audited or appraised by independent third parties." An improvement might include that 25% of the reserves were audited by XYZ, 33% by MNO, etc.**

Should we require that a company could not disclose that it has conducted a reserves audit unless 80% of all of its reserves have been evaluated by a third party or, if the company hires multiple third parties, by all of the third parties collectively? **No. If the company has only the new discoveries, acquisitions, new projects, or major fields audited, it may prepare an internal estimate for the other existing fields. This is quite common. This should be stated in the reserves report or annual report.**

Is the proposed definition of "reserves audit" appropriate? Should we revise this proposed definition in any way? **The definition is quite good. Comment: once a field has been placed on an audit list, it can not be removed, or shopped to another third party unless that is disclosed, including the reason for the removal of the field or change in**

audit party.

**vii. Solicitation of comments on process reviews**

**Request for Comment**

Should we require disclosure of whether a company has conducted a process review? **No**

Notwithstanding the relative lack of rigor of a process review compared to a reserves audit, would investors find such information useful? **Most investors would get a false or inflated sense of security by including comments on the process review. It can be helpful to the company, but is frequently used by companies to mislead investors.**

The proposal does not prohibit disclosure of process reviews. Is there a danger that the public may be confused by such disclosure? **Yes**

Should we prohibit disclosure of any type of reserves-related activity other than the preparation of the reserves estimates or a reserves audit? **Yes**

**4. Proposed Item 1203 (Proved undeveloped reserves)**

**Conversion of Proved Undeveloped Reserves**

**Request for Comment**

Should we adopt the proposed table? **No, it is too easy to switch wells and mask the actual drilling of previously booked PUDs.**

Alternatively, should we simply require companies to reclassify their PUDs after five years? **Yes, unless the company presents a compelling case to go beyond 5 years. Once a PUD is booked, it must have a way to identify it and if it is changed, moved, drilled, reserves transferred or dropped. A one line electronic summary with year of project development would be easy to track and show intent. The SEC could follow this via the one line summary and comment letters.**

Should the table require disclosure of other categories of changes to the status of PUDs, such as acquisitions, removals, and production? Should we add any categories? **This table is unnecessary, burdensome, and misleading to investors.**

Some of the abuse related to PUD disclosure may be related to companies' desire to show proved reserves in light of our prohibition on disclosure of probable reserves. Would the proposed rules permitting disclosure of probable reserves reduce the incentive to categorize reserves as PUDs? If so, is the proposed table necessary? **No, the abuse stems largely from pressure to book volumes as proved, regardless of actual intent.**

Should we require disclosure of the reasons for maintaining PUDs that have been classified as PUDs for more than five years, as proposed? **Yes**

If not, why not? **If the intent is there and the reserves are legitimate, the company must be**



able to document a compelling case to leave the PUDs on the proved books.

Should we require a company to disclose its plans to develop PUDs and to further develop proved oil and gas reserves, as proposed? No If not, why not? By tracking the start date, exceptions can be spotted and addressed. Requiring the disclosure places additional regulations and work on all companies and the companies abusing the system will still abuse the system and the honest companies will incur significant cost and still be transparent and fairly presented.

Should we require the company to discuss any material changes to PUDs that are disclosed in the table? If not, why not? The table should not be required, but any material changes to PUDs should be reconciled in the annual reports.

## 6. Proposed Item 1205 (Drilling and other exploratory and development activities)

Currently, Industry Guide 2 only calls for disclosure of the drilling of exploratory and development wells. However, we believe that distinguishing between extension well drilling and exploratory drilling is important because exploratory drilling typically is associated with the discovery of new reservoirs, and thus new sources of oil and gas, rather than merely the extension of an existing field.

### Request for Comment

Should we provide a delayed compliance date, as proposed above? It depends on when the new definitions are finalized and if the SEC definitions are in line with FASB.

If we provide a delayed compliance date, should we permit early adoption by companies? No, this would lead to a mixing of reports with different definitions.

### **IX. General Request for Comment**

Other Items that need to be addressed in the definitions of oil and gas reserves:

1. Clarification of the definition of net reserves. Current interpretations are very different between companies and countries as to who owns reserves in a foreign concession. Can a company ever own reserves or does it only have an interest in the revenue share?
2. If a company receives a revenue interest and there is clear risk and opportunity for reward, that should result in a reportable reserves volume, even if the host country is still the owner of all reserves. Several companies currently book their working interest and declare any revenues paid to the host as a tax. Others book an equivalent net interest.
3. If Company A owns a percentage of the stock of Company B, can Company A claim reserves as a result of their ownership in Company B? For example, Company B is the operator of several

- international fields. Company A owns 50% of Company B. Can Company A claim 50% of the net reserves of Company B?
4. Can an appropriate recovery factor for a pressure maintenance project be booked without an analogue, using a comparison to a water drive reservoir or computer model for the reservoir?
  5. Can pressure data from wells connected to another group of wells through an aquifer be used to determine LKH or drainage radius?
  6. If gas is injected into a reservoir for pressure maintenance, secondary recovery, gas condensate recycling projects, gas cap maintenance, maximization of oil recovery, or other enhancement projects, and the gas is to be sold later, why not include that gas as reserves? Even if the gas is not from its original reservoir? This is not to justify storage fields as reserves, but to account for gas still in the ground to be sold to an end user later.
  7. Clarification as to what constitutes a response of a water flood.
  8. More clarification as to how to support a compelling analogy in different reserves booking scenarios. See SPE Petroleum Reserves course.
  9. Inclusion or exclusion of non-hydrocarbons from reported reserves volumes. Recommend PRMS, as sold basis, which can include CO<sub>2</sub>, H<sub>2</sub>S if sold with the gas, but removed if the non hydrocarbons are removed prior to sale.
  10. Inclusion of revenue from non hydrocarbon sale if the product is sold as a result of oil and gas operations. Same as PRMS.
  11. Inclusion of third party revenue (not reserves) from processing to offset expenses in a shared or rented facility. Would suggest the revenue be 80% of previous year income in year 1, half in year two (40% of base year), half in year three (20% of base), and zero thereafter. This will better reflect true economics of shared facilities.
  12. The reserves should be estimated with one and only one price forecast for all public reporting purposes to the SEC and other Federal government agencies.
  13. Reporting should be clarified and uniform, but several of the suggested new reports are not in line with the paperwork reduction act.

## **B. Summary of Information Collections**

The proposals would increase existing disclosure burdens for annual reports on Forms 10-K<sup>165</sup> and 20-F and registration statements on Forms 10, 20-F, S-1, S-4, F-1, and F-4 by creating the following new disclosure requirements, many of which were requested by industry participants:

Disclosure of reserves from non-traditional sources (i.e., bitumen, shale, coalbed methane) as oil and gas reserves; Coalbed methane and shale gas produced through a wellbore should be considered conventional reserves.

### **C. Paperwork Reduction Act Burden Estimates**

We estimate that, on average, companies will incur a burden of 35 hours to prepare these disclosures in an annual report or registration statement. [This is greatly under estimated.](#)

We estimate that this burden would be 20 hours per foreign private issuer. [This is greatly under estimated.](#)