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SHELL GAMES: CORPORATE GOVERNANCE AND ACCOUNTING FOR OIL AND GAS RESERVES

HEARING

BEFORE THE

COMMITTEE ON FINANCIAL SERVICES
U.S. HOUSE OF REPRESENTATIVES

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SHELL GAMES: CORPORATE GOVERNANCE AND ACCOUNTING FOR OIL AND GAS RESERVES

Wednesday, July 21, 2004

U.S. HOUSE OF REPRESENTATIVES,
COMMITTEE ON FINANCIAL SERVICES,
Washington, D.C.

The committee met, pursuant to call, at 2:20 p.m., in Room 2128, Rayburn House Office Building, Hon. Michael G. Oxley [chairman of the committee] Presiding.

Present: Representatives Oxley, Feeney, Sherman, Inslee, Lucas of Kentucky, Clay, Scott, and Bell.

The CHAIRMAN. The committee will come to order. I apologize for being late.

I understand you offered to chair, Mr. Sherman.

Mr. SHERMAN. Yes.

The CHAIRMAN. We will take that under advisement.

Nearly 2 years ago, this committee passed the most critical securities legislation enacted since the 1930s, the Sarbanes-Oxley Act of 2002; and with the Act's corporate reforms and rigorous measures taken by the Public Company Accounting Oversight Board, it helped rebuild investor confidence in our capital markets.

The corporate governance failures that led to the passage of the legislation have not completely disappeared. Tomorrow this committee will hear reports from a panel of experts on how the Sarbanes-Oxley Act has benefited the American investor and helped to restore accountability in the governing bodies of publicly traded corporations. Today, we examine some unfortunate examples of why that reform was necessary.

The abuses of corporate insiders who contemptuously disregarded the interests of public shareholders while seeking their own personal enrichment unfortunately were not limited to any one industry. However, the problems that have recently been alleged at El Paso and Shell, among others, raise some compelling questions about accounting practices and internal controls at energy companies. There has been growing unease in the industry about a widespread tendency to overlook reserves.

Regulators cracked down on energy companies in the 1970s when it appeared they were being cavalier with their reserves disclosures. A report by Energy Consultancy in 2001 noted the pressure on managers of publicly traded energy companies, quote, "to push the envelope of credibility in efforts to buoy investor confidence and thus increase stock value," end quote. The consultants blame the

overbooking on incentive programs that offer bonuses for big reserves estimates.

Financial statements of energy companies like those of all public companies necessarily include estimates that may not ultimately prove to be accurate. In the oil and gas industry, the most important number which is an estimate is a company's proven reserves, the oil and gas in the ground that a company claims to own. If reserves estimates are made in a way that is biased, for example, because bonuses are tied to high reserves estimates, this obviously compromises the financial statements of any company.

I understand that Shell has since removed reserves bookings as a component of executive performance reviews that are used to calculate bonuses. We will examine whether additional steps should be taken to ensure that oil companies' reserves estimates are not compromised by improper incentives. We will examine the accounting rules themselves to ensure that the rules that the SEC has put in place have kept up with technology to provide investors with the most accurate possible information about a company's true reserves and, accordingly, its financial position.

Some critics contend that the rules of the Commission, that currently apply to whether reserves can be treated as proven or not, are outdated. We will learn more about these concerns today.

And we will examine questions of appropriate governance in light of the unusual corporate structure at Shell. Some experts have attributed the lack of transparency at Shell to the company's unique corporate arrangement, which consists of two separate boards charged with overseeing the company.

I am encouraged by reports that Shell has already undertaken a review of its corporate structure in response to this criticism. I believe there is significant opportunity for Shell to repair some of the confidence that has been lost by remaking its corporate structure to reflect the image of transparency and candor that is embodied in the majority of publicly traded corporations as a result of the Sarbanes-Oxley Act.

I look forward to hearing testimony from our distinguished panel of witnesses, and the Chair's time has expired. Are there further opening statements?

[The prepared statement of Hon. Michael G. Oxley can be found on page 28 in the appendix.]

Does the gentleman from California seek recognition?

Mr. SHERMAN. First, Mr. Chairman, thank you for the brilliance in deciding to hold these hearings, first, because it gives us a chance to talk more about accounting issues, and second, because it helps illustrate our cooperative role with the Committee on Energy and Commerce, where we are engaged in protecting investors in securities markets and they focus on industrial regulation.

I have spoken often at this committee of the need to have verifiable information that goes outside the four corners of the financial statements. Over the last century and-a-half, we have developed a system for reporting historical, completed transactions in an organized way and in a way that, in the absence of truly egregious behavior, is reliable. But we have been forwarding the same information, that is to say, only if it is a transaction with an outsider from the company, it is financial, it is completed, then it af-

fects the income statement or the balance sheet. And we have discovered how to do this, how to give investors reliable information.

You need GAAP, and you need what I would pronounce "GAAS. That is to say, you need generally accepted accounting principles or some other system that defines what you are reporting—that is to say, define what is a proven reserve barrel of oil.

Second, you need Generally Accepted Auditing Standards. And you need some system whereby a third party comes in and verifies that a particular fact meets the definition.

Now, we do that with financial information. We do that for a balance sheet and income statement, which we have been doing for well over a century. They added a funds statement, which is just a recapitulation of the information on the income statement. The balance sheet, that is recent, only 20, 30 years old.

We haven't done anything for a long time to expand what accountants and auditors do. But we all know that very important for investing in oil companies is, what are the reserves; if you are investing in a manufacturing company, what is their back order. That would be the first question I would ask at Boeing before I cared what their earnings per share were. If I were looking at a retailer, I would like to know what their same store year-to-year sales were.

But the fact that this information is quite relevant to investors has been ignored by an accounting world that reports only the irrelevant, verifiable information. And so we need a system, either from this committee or from the SEC, that defines the information that investors deserve—and it will vary from industry to industry—that has a system for defining the terms whether you are defining a dollar of income on an income statement or a barrel of reserves on a reserves statement, and defines and has some profession—perhaps the big four would want to do this; they haven't done it so far; I am sure there are other entrepreneurs that can get into the attestation business—but defines how you are going to have professionals verify that the information in the report is reliable.

If we—either our committee should do that or the SEC should do that, or the SEC should appoint an outside body similar to the FASB or the ICPA, or perhaps those organizations, to define this information that we need, describe the professional qualifications of those who will verify it, define materiality standards so we know what standards to hold the verification of professionals to.

Until then, we will have verifiable, audited information about Shell, about what their financial transactions were, and we will have to guess whether their statement of oil reserves is accurate. We will not have any verification of it.

And, oh, by the way, that might be more important than the information that is verified.

So I think that the Congress was wise in getting this committee involved in the investor protection area. We have had that responsibility for less than 2 Congresses. And it is now time for our committee to prod, or legislate, and make sure that all the important information to investors, or as much as possible, is laid out in the SEC-filed statements with definitions that are established with a verification profession that investors can count on. And perhaps the first place to start is that oil companies should publish a statement

of reserves with some attestation professionals signing an opinion indicating that we can rely upon it.

The CHAIRMAN. The gentleman's time has expired.

Mr. SHERMAN. I thank you for your indulgence.

The CHAIRMAN. Other members seeking an opening statement?

The gentleman from Georgia.

Mr. SCOTT. Thank you very much, Mr. Chairman. Let me congratulate you as the winning manager of the congressional baseball team. You did an astounding job and did it in the Casey Stengel way, with grace, style and charm.

The CHAIRMAN. The gentleman can have as much time as he wants.

Mr. SCOTT. I want to thank you, Chairman Oxley and Ranking Member Frank, for holding this hearing today on corporate governance and the accounting for oil and gas reserves.

The Royal Dutch Shell group had unique corporate structures, which have led to accounting inconsistencies. In addition, the company had perverse incentives for corporate executives which led them to overstate energy reserves. This corporate combination finally came to a head when Shell had to restate its oil and gas reserves statement by 20 percent. As a result, Shell had to admit that it overstated profits by $276 billion over several years.

The El Paso Corporation also had to restate its reserves by 41 percent.

The chain of events at Shell may have been prevented if third-party certification of a company's energy reserves was in place. This committee should consider whether or not additional corporate governance rules may be necessary to better account for our energy reserves.

I look forward to hearing from this distinguished panel. I am very interested in a few issues, such as third-party verification of energy accounting, the SEC investigation into the Shell accounting procedures, and a discussion on successful methods versus full cost methods of accounting reserves and whether they are accurate and dependable. I look forward to a very informative hearing.

Thank you, Mr. Chairman.

The CHAIRMAN. The gentleman's time has expired.

Does the gentleman from Texas seeks recognition?

Mr. BELL. Thank you very much, Mr. Chairman. I am not going to engage in the shameless sucking up, as demonstrated by my colleague from Georgia. I do appreciate your holding this hearing and putting together such a distinguished panel that features not only one, but two individuals from Houston, I am very proud to say.

I represent a large part of Houston, which many consider the energy capital of the world. We will probably hear more about that today. My perspective may be a little bit different since the industry employs hundreds of thousands of people in the Houston area. So it is vitally important to me and my constituents that we avoid any suggestion of scandal or taint in the industry, that we avoid any further corporate collapses in the energy industry. As everybody here knows, we have suffered through Enron in a very up-close and personal fashion in Houston, along with the rest of the country.

I believe what we are here to discuss today could point to looming problems in the industry, and if we continue to see similar problems on a wider level in the energy industry, I am anxious to hear how that might translate to the hard-working men and women in the field. Could we be looking at heavy job losses, and just what might the impact be to investors?

So I look forward to the testimony. And thank you, Mr. Chairman, for holding this hearing.

The CHAIRMAN. The gentleman's time has expired.

The Chair now turns to our distinguished panel and let me introduce them from my left to right: Mr. Eric Knight, Managing Director of Knight Vinke Asset Management LLC; Mr. Matthew Simmons, Chairman and Chief Executive Officer of Simmons & Company International; Mr. Jonathan E. Duchac, Associate Professor of Accounting, Wayne Calloway School of Business and Accountancy from Wake Forest University, the Demon Deacons; and Dr. Bala G. Dharan, J. Howard Creekmore Professor of Accounting, Jesse H. Jones Graduate School of Management from Rice University, the Owls.

We are glad to have you all with us, and we appreciate, on relatively short notice, your ability to appear before the committee. And Mr. Knight, we will begin with you.

STATEMENT OF ERIC KNIGHT, MANAGING DIRECTOR, KNIGHT VINKE ASSET MANAGEMENT LLC

Mr. KNIGHT. Before I start, since we have had little advance notice, maybe you haven't had a chance to read the materials attached. I want to bring to your attention a couple of the exhibits which I am going to refer to.

After my biography, there is a letter which we and CalPERS wrote publicly to the boards of Royal Dutch and Shell Transport. There is an editorial which I wrote for the Financial Times in March. And there is something I wanted to point out, which is the agenda for the Royal Dutch meeting, which I am going to refer to because it brings up an interesting point.

My name is Eric Knight, and I am the Managing Director of Knight Vinke Asset Management, a New York-based asset management firm registered with the SEC as an investment advisor under the Investment Advisers Act of 1940. Our investment strategy involves investing in fundamentally sound public companies where suboptimal stock market performance can be attributed in some way to poor governance structures and practices which we interpret in the broadest sense. In such cases, we work with the company's institutional and other shareholders to overcome or redress these governance problems and aim, thereby, to obtain a rerating of the stock and make a profit on our investment.

Through Knight Vinke Institutional Partners, an investment fund which invests in European equities, we hold approximately 1.32 million shares of Royal Dutch Petroleum with a market value of approximately $70 million. CalPERS, who have a $200 million commitment to invest in our fund separately, also have holdings in Royal Dutch Petroleum and Shell Transport & Trading, amounting to stock with a combined market value of approximately $580 million.

We have been working with CalPERS and other institutional shareholders of the Royal Dutch Shell group, both in Europe and in the U.S., with a view to pressing its boards and management into reexamining their unusual governance practices and accepting a more orthodox corporate governance framework.

Why are we interested in governance at Shell? Although as recently as 2002, the boards of the Royal Dutch Shell group declared that they prided themselves in upholding the highest standards of integrity and transparency in their governance of the company and that they aim to be at the forefront of internationally recognized best governance practice, we believe that reality presents a different picture.

In light of the multiple reserves restatements over the past few months and the astonishing revelations of the Davis Polk report, shareholders can perhaps be forgiven for being skeptical. The group concedes that the framework within which the boards operate is conditioned to some extent by Royal Dutch's unique relationship with Shell Transport, and this results in some special arrangements which may not be appropriate to other companies. We felt it necessary, therefore, to look carefully into these special arrangements.

During the course of our due diligence, we asked our counsel in the Netherlands, the U.K., and the U.S. to prepare a report on the Royal Dutch Shell Group's governance structures based on publicly available information, and a copy of this report is included in the attached materials.

By way of background, the Royal Dutch Shell Group of companies is 100 percent owned by two holding companies: Royal Dutch, which owns 60 percent, is the largest listed company in the Netherlands; and Shell Transport, which owns 40 percent, is one of the 10 largest in the U.K. Royal Dutch is managed by a supervisory board and a management board, as is usual in the Netherlands, whereas Shell Transport has a unitary board comprised of executives and nonexecutives which is the structure most commonly found in the U.K. It is important to realize, however, that both Royal Dutch and Shell Transport are pure holding companies with no operating activities of their own.

The following is a summary of some of the more surprising facts which emerged from our analysis.

The operating companies of the Royal Dutch Shell Group, i.e., a group of companies below the two parent holding companies, are managed on a day-to-day basis by an informal committee of senior managers, the so-called "Committee of Managing Directors," and not by a chief executive officer. Substantial power and autonomy is given to the CEOs of each of the Group's four main operating companies. And although there is a chairman of the CMD, none of these executives reports formally to this person.

The boards of Royal Dutch and Shell Transport are comprised of different groups of individuals responsible to separate shareholder constituencies, and it is unclear, therefore, exactly to whom the CMD and its chairman report or are accountable. The two parent company boards come together on a regular basis in a large gathering known as "the Conference," and this is yet another informal

body vested with no formal powers and unaccountable directly to the shareholders of either holding company.

The Royal Dutch supervisory board, which is perhaps the most powerful of the different Shell governing bodies, as it controls the majority shareholder in the operating companies, is effectively a close-knit self-perpetuating body. This results from the existence of a class of so-called "priority" shares which have the exclusive right to nominate board representatives at Royal Dutch and to reject nominations by shareholders.

As of now, the members of the Royal Dutch supervisory management boards hold or control 100 percent of these priority shares and have the ability to control their own nominations. This self-perpetuating mechanism is wholly inconsistent with internationally accepted principles of good governance.

Despite mounting evidence of poor internal communication, inadequate controls, lack of accountability and unclear reporting lines Shell's management and board members still maintain that the reserves debacle had nothing to do with structure.

We disagree.

Shell's management has operated for years, indeed decades, with none of the basic building blocks of modern governance. Its divisional management did not report formally to a group chief executive; its divisional CFOs did not report to a group CFO. The person presented as the chief executive, the chairman of the CMD, apparently lacked either the authority or responsibilities or the accountability normally associated with a chief executive. He reported to two boards comprised of different individuals and so, effectively, to none. And the boards of Royal Dutch were shielded from shareholder intervention through the priority share mechanism, which made them effectively a closed shop.

The Royal Dutch Shell Group's unusual board and management structures may not have been entirely to blame for the misstatement of reserves, but we believe that they and the corporate culture they foster certainly contributed to the problem.

Royal Dutch, as a foreign private issuer, is currently exempt from the proxy rules under the U.S. Securities laws, despite the fact some $25 billion in market value of its shares are represented on the U.S. markets. Nevertheless, in the build-up to this year's annual meeting, Royal Dutch employed a permanent U.S. proxy solicitor to obtain support for a resolution giving a shareholder discharge to its supervisory and management board members. I refer to the third exhibit, which is the agenda for the Royal Dutch annual meeting.

In itself, this would not be remarkable were it not for the fact that the resolution was strongly opposed by the mostly European shareholders who attended the annual meeting and that, despite this opposition, the resolution was passed thanks to a large block of proxies coming mostly from the U.S., these proxies held by the board coming from mostly the U.S. shareholders.

Approximately 25 percent of Royal Dutch shares are held in the U.S. in the form of ADRs; and in this context, we ask ourselves:

Did U.S. shareholders know, or were they made aware, that item 2 of the agenda, covering approval of the accounts, payment of the dividend and discharge of the board members, all presented as a

single item, were in fact separate resolutions each to be voted on separately?

Did they know that shareholders could have voted in favor of the accounts and the dividend, of course, which is important, but against the discharge?

Had Royal Dutch not been exempted from the provisions of the U.S. proxy rules, we believe that the SEC could have asked for clarification on these points; and in light of recent events, the votes could have gone the other way.

In conclusion, if Shell and other multinationals want substantial access to the U.S. capital markets, it seems anomalous that they should be held to lower disclosure standards than their U.S. peers, EXXON, for example. This applies to proxy solicitation just as it does to reserves accounting.

The CHAIRMAN. Thank you, Mr. Knight.

[The prepared statement of Eric Knight can be found on page 55 in the appendix.]

The CHAIRMAN. Mr. Simmons.

STATEMENT OF MATTHEW SIMMONS, CHAIRMAN AND CHIEF EXECUTIVE OFFICER, SIMMONS & COMPANY INTERNATIONAL

Mr. SIMMONS. I am honored to address the accounting and financial disclosure of the oil and gas industry. I believe the topic is timely and extremely important, as I feel that our entire energy reporting system, globally and in the United States, is badly in need of reform.

The CHAIRMAN. Mr. Simmons, could you give a little bit of background of your company?

Mr. SIMMONS. For the last 30 years, I have chaired and founded a company called Simmons & Company in Houston. We are a specialized investment banking firm that concentrates entirely in energy. We are a research-driven firm, and I am a member of the National Petroleum Council and the Council on Foreign Relations and the Atlantic Council of the United States. We have about 150 employees and have completed 550 transactions at a value of about $60 billion.

I do believe that our energy reporting system is badly in need of reform. I think our current system lacks the reliability and transparency that should be mandatory for something as important to our economy and way of life as energy.

Until Shell Oil Company shocked the world with its 20 percent reserves reclassification, followed by a litany of other reserves, I think too many energy industry observers casually assumed that the information presented by our publicly held oil and gas companies was quite accurate.

In fact the system has always had numerous flaws, and these flaws grew in magnitude in recent years as fewer appraisal wells were drilled, as new oil and gas exploration and exploitation projects became increasingly complex, as decline rates in existing oil and gas fields accelerated and as new projects got increasingly smaller in terms of potential reserves.

A tell-tale sign that the reported oil and gas results were askew was the wide number of public companies who have routinely reported additions of 120 to 150 percent, compared to the annual gas

and oil production each year, while fewer and fewer of these same companies were showing any meaningful growth in production volumes.

In reality, a host of time-tested measures to assess reserves and their potential recovery dwindled as the price of oil and gas stayed too low to commercially afford the standard tests. The industry ended up using far fewer outside third-party reserves engineers. The number of appraisal wells that always follow a new field discovery fell. The use of coring to test a new reservoir's rock properties started to be dismissed as becoming obsolete. Instead, the industry began relying far more heavily on less costly geophysical data and computer modeling. And while the geophysical technology has improved by quantum leaps, as have computer techniques to interpret this data, neither of these data can begin to determine the limits of where the producible reserves lie.

In a low price environment that the industry struggled through for too long, pressures also mounted to declare proven reserves status as early as possible so all additional costs could be capitalized, and too often, the proved declaration status was probably premature.

This led to a widespread industry bias of booking aggressively high levels of proven reserves while spending far less money to create these reserves than would have occurred a decade ago. This not only created a cushion of proved reserves that might or might not ever get produced, but it also led to a possible illusion that the cost of finding and developing a barrel of gas was actually less than the amount of money that needed to be spent.

These are not the only deficiencies in our energy data system. Today, the single biggest factor to begin estimating the company's or country's future oil and gas production is to properly assess the decline rates in the company's existing gas and oil production base. Yet these decline rates are now accelerating through the use of modern technology that draws reserves out of the ground far faster. Yet there are no reports issued by any public company, any private company or any national oil company that even hint at the annual decline rates for the entire production base, let alone the decline by production region or on a field-by-field basis.

Reserves estimating will never be a precise science. It is a series of complex estimates. But even if the reserves estimates could be found to be precise, the data would still not provide an analyst with any reliable tool to begin assessing field-by-field production declines or provide information on the degree to which a reporting company possibly is being overly conservative or overly aggressive.

The data deficiencies extend to the global oil and gas systems. In fact, the lack of quality data is far worse for all national oil companies, particularly the OPEC member companies.

We have now evolved into a systematic "trust me" era for energy providers. With the capital intensity of the industry now starting to soar with the world's remaining spare oil capacity slim to possibly now becoming nonexistent, with our petroleum inventories now operating on a just-in-time basis, this "trust me" era needs to end. The time has come for all key oil and gas producers to join in a reform of how reserves and current production is reported.

The Energy Information Agency in the United States has recently requested that all natural gas producers begin supplying timely current production data to our government. Today, the best natural gas supplying information lags real production by as much 6 to 24 months. We can no longer tolerate such a time lag. While company-by-company reporting of their production data to the EIA would be costly, I would argue it is too costly to our economy's well-being to not have such timely, accurate production data.

This fall, the National Energy Agency will be calling for a mandated new set of proven reserves reports and a detailed field-by-field production report by all key global oil producers. I applaud the EIA and the IEA's data reform efforts. But as the IEA, in particular, begins pressing the national oil companies and, in particular, the OPEC producing companies for this new data reform, it is critical that our leading U.S. oil and gas producers join in and take the lead in this data reform. Otherwise, it will be easy for any OPEC producer to balk at reform if Exxon Mobil, BP, Shell, et cetera, are not held to the same standards.

In my opinion, the single best data reform is to require all significant oil and gas producers to begin timely reporting of field-by-field daily oil production or production from key producing units, and accompany this new disclosure by the number of producing well bores from each production unit so analysts and public policy planners can begin assessing field-by-field production declines. Absent such data, there is no way to guess at future supplies by company or by country.

On the proven reserves side, an important change would be to begin reporting, by key production unit or field, three key reserves estimates. First is the current estimate of the original hydrocarbons in place, second is the current estimate of the ultimate recoverable reserves, and third is the cumulative amount of reserves already produced. The remaining recoverable reserves can then be broken into proven, probable and possible.

With this added layer of disclosure, it is not so crucial that every producer meet the same 90 percent probability test embedded in proved reserves. Analysts can gauge the quality of layers of reserves left to produce and then dig out better answers through follow-up analysis. Today there is so little data that is disclosed that such analysis is either difficult or impossible.

These new reforms also need to have some form of third-party expert certification to ensure that the data is being accurately reported. Third-party reserves engineers do not need to calculate proven reserves, just as CPA firms do not need to produce a company's financial statement; and it adds a degree of comfort to have an independent expert certify that the data was properly prepared.

The beauty of enacting the detailed breakout of key production reserves data by key units is that all companies already possess this data. It is the data that a lender requires when a company wants to borrow funds against reserves. It is what any company wanting to sell reserves needs to furnish to knowledgeable buyers. If it means a company has to add 20 or 30 more pages to its financial reports, this is a small cost when compared to today's system, which leaves too many shareholders or potential shareholders in

the dark. Why should shareholders not have the same access to the same data any lender or reserves buyer demands?

If this data reform happens, and it could happen quickly if all stakeholders join in the request for such key data, the whole world would be better off. We will begin a new era when genuine analysis of our energy system's reliability and true profitability can be ascertained. The time for this reform is at hand, and this committee can play an important role in helping this reform be effective.

Thank you for the opportunity of addressing this issue.

The CHAIRMAN. Thank you, Mr. Simmons.

[The prepared statement of Matthew Simmons can be found on page 96 in the appendix.]

The CHAIRMAN. Professor Duchac.

STATEMENT OF JONATHAN DUCHAC, Ph.D., ASSOCIATE PROFESSOR OF ACCOUNTING, WAYNE CALLOWAY SCHOOL OF BUSINESS AND ACCOUNTANCY, WAKE FOREST UNIVERSITY

Mr. DUCHAC. Thank you, Mr. Chairman.

The accounting for oil and gas reserves has a long and tumultuous history and has been periodically the subject of considerable debate in Congress, the accounting community and the financial markets. The recent reserves restatements by a number of companies in the oil and gas industry have once again placed increased scrutiny on the calculation and determination of oil and gas reserves information and prompted this committee to consider the current accounting rules for oil and gas—whether the current accounting rules for oil and gas reserves should be revisited.

Oil and gas reserves are, by definition, an estimate and subject to considerable uncertainty. The amount of oil and gas reserves that are disclosed in a company's financial reports are determined by two factors, the definition of reserves and the reserves estimation process.

The definition of reserves for companies listing on U.S. securities exchanges is established by the Securities and Exchange Commission and provides a conceptual foundation for the reported estimates. This definition focuses on proven reserves and attempts to limit the variability of reported reserves information. While the SEC's definition is not flawless, it is widely considered to be one of the more rigorous and conservative reserves definitions in place.

The reserves estimation process is a complex process whereby companies use a wide array of data to develop an estimate of a company's crude oil and gas reserves. Because the process is complex, uncertain and relies heavily on estimates, the resulting reserves values are subject to considerable uncertainty and estimation. The use of estimates such as these is not uncommon in financial accounting as estimates are frequently relied upon when financial information, subject to uncertainty, provides relevant data points for the users of financial information.

Central to the accounting estimation process is the presumption that these accounting estimates will be unbiased and made in good faith. Random error is an inherent and unavoidable aspect of the reserves estimation process and cannot be eliminated. However, for reserves estimates, to be an effective source of information for ex-

ternal constituencies, this information must be free of bias or intentional error.

Because of the uncertainty associated with reserves calculations, additional information often becomes available that prompts subsequent adjustments to reported reserves. If that information is incorporated in the reserves estimates in a timely and unbiased fashion, the adjustments are treated prospectively. However, if the reserves estimates are known to change and a company fails to adjust reserves estimates to reflect these known changes in the underlying fact pattern, the disclosed reserves are problematic because they do not portray the best estimate of the company's reserves at the time they are reported. Thus, the most significant challenge associated with oil and gas reserves estimates lies not in the use of estimates but in ensuring that the estimates are made in good faith and accurately reflect the most recent information about a company's reserves. If the disclosed reserves do not meet these constraints, then the value of the information is significantly diminished.

When reserves estimates are biased or not made in good faith, correction of these estimates may lead to the restatement of reported reserves, as we have seen in recent months. In these situations, the accounting rules have little influence on the ultimate outcome because the errors were the result of a breakdown in the reporting process for the reserves estimates, as opposed to a poorly functioning accounting rule. The more salient question to consider in this case is, what steps could have been taken that would have reduced the chances of presenting reserves estimates that did not accurately reflect the underlying data, data set and fact pattern.

I would argue that the most effective remedy for this problem is not to focus on the accounting rules for reserves estimates, but to improve the procedures surrounding the reporting and determination of those reserves estimates.

While there is no question that expanding the detail on reserves disclosures will provide relevant information to the users of financial information, such additional information would not directly address the problems underlying the recent reserves restatements. Rather, process-oriented improvements would have the greatest impact on reserves disclosure quality. This can be accomplished through several possible actions, including ensuring the companies have in place a well-developed and well-functioning internal control system for the calculation and reporting of reserves estimates; two, conducting an independent review of oil and gas reserves estimates that follows closely along the lines of an audit; and three, limiting the amount of performance-based compensation that is tied to reserves balances.

Focusing on process-oriented solutions such as these would, in my opinion, have the greatest impact on improving the quality and usefulness of oil and gas reserves information.

The CHAIRMAN. Thank you, Professor.

[The prepared statement of Jonathan E. Duchac can be found on page 51 in the appendix.]

The CHAIRMAN. Professor Dharan.

STATEMENT OF BALA G. DHARAN, J. HOWARD CREEKMORE PROFESSOR OF ACCOUNTING, JESSE H. JONES GRADUATE SCHOOL OF MANAGEMENT, RICE UNIVERSITY

Mr. DHARAN. Chairman Oxley, Ranking Member Frank and members of the committee, I want to thank you for this opportunity to present my analysis of the accounting and disclosure issues related to oil and gas reserves. I am a professor of accounting at the Jesse Jones Graduate School of Management at Rice University, Houston, where I have taught since 1982. Given the time available for my oral testimony, I will present here only the summary of my analysis, and my written testimony has been submitted to the committee.

The CHAIRMAN. Without objection, all of the statements will be made part of the record.

Mr. DHARAN. Having useful and reliable information on oil and gas reserves is enormously important to the U.S. policymakers, managers of the companies, investors and the public. Over 150 publicly owned U.S. oil and gas producers filed reserves data in recent years and the reported total reserves for oil and gas is valued at over $3 trillion.

Companies currently are required to provide unaudited estimates of proved reserve quantities to the Securities and Exchange Commission, using definitions provided by the SEC. In theory, since the SEC definitions are conservative and, in this era of rising oil and gas prices and improving recovery techniques, it is hard to envision scenarios where companies could report significant downward "technical revisions" in proved reserves. In practice, however, recent large downward revisions in proved reserves by Shell and El Paso, and smaller restatements by a handful of other companies, have shown that the reserves data are indeed vulnerable to disclosure quality risk. In fact, as investors learn more about how reserves are estimated and reported, it might come as a shock to them that items on a company's balance sheet such as cash and receivables are subject to far more external audit and internal controls than proved reserves estimates.

Some in the industry argue that we just need some small fixes to improve the usefulness and reliability of reserves data. Others are calling for more disclosures. However, I think it is really a case of a larger credibility gap that affects the reserves disclosures, and it requires potentially new regulations or at least new industry action to address the problem.

The credibility gap is caused by what I call two related factors, quality credibility and reporting credibility. The quality credibility which affects the relevance of the reserves information is caused by a lack of common technical standards and lack of training and certification programs to propagate the standards among all evaluators. There is also no industry-wide peer review or monitoring program.

The reporting credibility which affects reliability is caused by the fact that reserves disclosures are not audited by external auditors or by external or independent reserves evaluators. Despite this lack of any auditing requirements, it is indeed a credit to the hard work and dedication of the industry's engineers and evaluators that the

reserves numbers they produce are generally stable and are subject to very few downward adjustments overall.

Rather than relying on continued luck, it is preferable for the industry to seriously consider proposals for certification and reserves audit. The five proposals I am going to outline here, if accepted, would make reserves data more reliable and subject to the same level of auditing standards as other key items on the company's financial reports.

The first proposal is to require a certification program for reserves evaluators. Several industry leaders have called for certification requirements. Also, ethics education needs to be part of the training. Such a program should be easy to implement, given the highly talented work pool that constitutes this expected technical field and the technical nature of the reserves estimation process.

The second proposal, to improve the reliability of the reserves is to require an independent reserves audit. The term "reserves audit" refers to the use of independent external evaluators to audit the reserves report prepared by the company. If a reserves audit requirement is to be adopted, the SEC would need to work with the new auditing regulator and the petroleum industry to go over the technical auditing standards.

The third proposal is for the separation of the reserves auditing function from the reserves consulting. As we learned from the recent corporate scandals involving the mixing of auditing and consulting, the SEC should require a strict separation between reserves auditing and reserves consulting functions by a firm for the same client.

Fourth, the industry and the SEC need to adopt a principles-based approach. The SEC and the industry tend to rely on a rules-based rather than a principles-based approach. Instead, they should, along with the FASB, allow a principles-based implementation of the disclosure requirements, while at the same time imposing strict internal control and external audit requirements on the industry.

Finally, the SEC should work toward common international standards for reserves disclosures by working with the IASB. Despite the highly technical nature of the reserves estimation process, both preparers and users of reserves information know that reserves estimation is not an exact science. This makes reserves disclosures inherently subject to information quality problems.

I had mentioned that the current credibility gap is a product of quality gap and the reporting gap. In my testimony, I will outline five proposals for regulators for closing the credibility gap of the disclosed data. These changes which I support will lead to a significant improvement in the quality and reliability of reserves data for all users, including the management of energy companies.

Thank you for the opportunity to present my views. I will be glad to respond to your questions.

[The prepared statement of Bala G. Dharan can be found on page 31 in the appendix.]

The CHAIRMAN. Thank you and thanks to all of our panel members. Let me begin with a question for all of you.

First of all, I would like each one of you, perhaps starting with Dr. Dharan: Why are so many companies at fault for overstating

reserves? Is there one particular cause? Is it the incentive to do so, or is it just simply incompetence or is there a bad intent?

Succinctly, where do we stand on that whole issue?

Mr. DHARAN. Chairman, I think the low oil prices that we had in the late 1990s was part of the problem, along with the lack of attention to internal controls that would have caused and prevented many of the conflicts that came over the last 6 months. The Sarbanes-Oxley Act clearly has allowed companies, or forced companies, to focus on these issues today, but they should have been doing this all along for the last 5 or 10 years.

Mr. DUCHAC. I would agree with Professor Dharan. I think the real issue here is that there has been a lack of internal controls in terms of getting the information from the estimation process to the financial reports. And there seems to have been—at least if you look at the big restatements, there has been a big breakdown in the internal controls between the estimation process and what shows up in the financial statements.

So really, especially if you look at the big breakdowns we have had, it is an internal control problem; and hopefully that is being resolved by the Sarbanes-Oxley Act.

The CHAIRMAN. Thanks for the advertisement. Actually, we are having an oversight hearing tomorrow on that very subject, and obviously internal controls will be a major function. This dovetails very well with what we are going to go after tomorrow. So I thank both of you.

Mr. Simmons.

Mr. SIMMONS. I agree with what both of the previous speakers have said, that the lack of oversight and the lack of attention was the problem.

But I think the heart of the issue was that the collapse of oil and gas prices basically didn't commercially allow these companies to actually collect the same data that they used to be able to do. And we then coincidentally developed a suite of technology that essentially convinced too many people that you didn't need to do these tests.

So it wasn't any sort of a systematic way of overstating our reserves. These are decent companies, by and large, but we ended up trapping the industry into a system of not being able to afford to do the data collection that has effectively set the limits to what the reserves were. We created the illusion that costs were coming down and the whole thing ended up creating a house of cards. So it was low price.

Mr. KNIGHT. I can only speak about Shell, because I have not looked at the U.S. companies. But what I can say about Shell is, I think the reason for the problem is really two reasons. The first is there was a lack of resources allocated to this issue internally. And the other issue is, I think there is a cultural disregard for the need to satisfy reporting requirements within the company that were just felt not important enough.

I would like to illustrate, because what I am saying, I think, is quite important.

With respect to the resources which were allocated, information has been coming out in dribs and drabs over the last few months about how Shell has been organized, how it is organized internally.

And one of the things that struck me was my understanding that they only had one part-time reserves accountant working within a group of this size, responsible for collecting this data. The data was not being collected annually; it was on a sporadic basis.

One person for a group of this size, it just gives you some idea of just how little regard internally, within the organization, there was for the issue of reserves reporting under the regulatory definition. And the reason, I think, is that, throughout the organization, Shell has for years prided itself on its technology with respect to deep-water drilling, seismological testing and so on. It has been at the forefront of this technology. And I think what permeates from this is, the organization had far more confidence in its own estimates of what it regarded as proved reserves than anything else.

It is striking when one reads the annual reports to see the preface to this unaudited reserves data section, which always starts by saying that "We don't believe any of this stuff. It is not important. No one in the industry cares about it." I am paraphrasing a little bit, but that is what they say.

The first point is that within the organization, which is where the resources are necessary to collect the data, it wasn't given enough importance. And the second thing is the question of culture. And what perhaps better illustrates this is something that came out of the annual meeting of Royal Dutch 2 weeks ago. I was there. What I can tell you is that the supervisory board chairman, Mr. Aad Jacobs was being questioned by shareholders pretty hard as to how this whole reserves issue could have happened. Why weren't the board members aware of this? And why were they not paying more attention to reserves? After all, this is an oil company.

And the response was, We do meet with the management very frequently, and we have breakfast with them.

And the next question was, When did you last meet with the head of exploration?

And the answer was, I think October or November, 2 full months before this whole issue started coming out in the public arena.

And what emerged at this breakfast meeting, the head of exploration did, in fact, mention to Mr. Aad Jacobs, the chairman of the supervisory board, that there was a problem with reserves.

And when one of the shareholders asked, Well, what did you say to the head of exploration?

I asked him whether he had spoken to his boss.

And the next question was, Well, did you discuss this with any of your other board members?

And the answer was, I didn't feel it was necessary.

So I think that gives you some idea as to how groups such as Shell treated the issue of reporting.

Now, I think all of this is changing, of course, and it is now becoming evident that in order to have access to the U.S. capital markets there are certain rules which need to be respected regardless of whether or not you think this is important. This is changing, but that gives you some idea as to what was behind all of this.

The CHAIRMAN. Let me start with you, Mr. Knight, and go back here.

And that is SEC accounting standards, they need to be updated. If so, how?

Mr. KNIGHT. If I can give you my answer as an investor, we are an investor in Royal Dutch. We do a lot of due diligence. We didn't give a lot of importance to the SEC reserves data in our analysis. We looked at the data, but we did an analysis which went far beyond.

Essentially, what we were looking at was a company which had a very long tradition of planning for not the next year or the next 5 years, but the next 2 or 3 generations. That was the tradition of Shell and that was the reason why one bought stock in Shell. You bought it because of the dividends. You knew the dividends were going to increase and you could count on Shell. That was the tradition and the reason for investing in Shell. A little bit like gilt.

What was important to us, therefore, was to establish whether or not the company had the reserves, the long-term reserves in order to continue paying this dividend and in order to continue producing an increase in production and so on.

Clearly, the other thing which struck us was the fact that this company until the last year was doing all of its planning with an oil price not—unlike in the U.S., it was planning on a $16 oil price. This is at a time when the oil price was already over $30. They were doing their capital expenditure based on an assumption. It was clearly a long, long, way short.

This is the only industry which basically does its projections on the basis of their price, which is half of what the current market price is. And the reason that they did that was because they were all so shocked when the oil price went down to below $10 a barrel. They started planning on that basis; and therefore, that is what led, I believe, also, to a reduction in capital expenditure for about 2 years, which led to the Group's falling behind in terms of exploration and led also to what we regard as a temporary drop in its reserves replacement ratio.

To answer your question, I think—what I believe is required is that the rules, I think today, need to reflect the fact that many companies are exploring, producing an environment which is no longer the onshore environment of 20, 30 years ago. The cost of proving continuity of pressure between two wells is not $20,000 a hole or $50,000 a hole, it is $20 million a hole, and there are environmental risks associated with every hole that is drilled. That needs to be taken into account.

Companies such as Shell are able to make commercial assessments to develop these reserves on the basis of seismological and other data, which today I believe is not fully taken into account in the SEC rules. So I think that does need to be taken into account and the rules need to be changed. And if they are changed, it will be easier for the companies to follow the rules; and I think it will be more useful for investors because at least then the reserves data will more closely match the commercial data.

The CHAIRMAN. Mr. Simmons.

Mr. SIMMONS. I actually applaud the SEC's efforts in this area. And I think there are some flaws within the system that need to be addressed, but I actually take issue with a lot of my friends in the industry that argue that the standards are outmoded, the technology is removed. I believe actually that is part of the problem.

But I also think that the reality is in deep-water areas. It is hard to do flow meter tests. It does cost a lot to core a well. So I think the issue is far more complicated.

The standards are not outdated. I think we have kidded ourselves as an industry that technology created some knowledge it didn't.

Mr. DUCHAC. Consistent with what I said in my opening testimony, what you have got with the SEC's definition of "reserves" is an estimate; and the question is, does the SEC rule accurately reflect that estimate and would it change in the SEC rule, kind of narrow the level of uncertainty associated with it? Because estimates are going to be uncertain; they are inevitably going to be wrong. But as long as they are not wrong in a biased fashion, then you can't really say that the rule is outmoded.

The question is, can you reduce that level of uncertainty by changing the SEC rule? Possibly, but the question is, how much can you narrow the distribution on the uncertainty of these estimates and what are the costs of narrowing that uncertainty? And I guess, at the end of the day, the problems we have seen are not problems with the accounting rule.

The problems we have seen in these recent restatements are internal control problems. So a different accounting rule would not have generated a different result in these situations. And I am not necessarily sure a change in the accounting rule will get us any further down the road to more reliable or more user-friendly data. So I would tend to argue that the accounting rule per se is not the problem here.

Mr. DHARAN. The SEC rules are fairly strict and conservative as they stand right now with respect to the definition of proved reserves, and I am very comfortable with them. There is no reason to change them at this point. However, having said that, the rules are really a function of the audit process.

The reason why the SEC rules are as conservative as they are now is because it is rules-based as a result of the lack of audit requirement at the user end. And as companies adopt certification and external audit requirements, then we can expect or we can anticipate that the SEC would be more flexible in allowing companies to understand the principles behind the rules rather than trying to use the rules as bright lights.

At this point, I would not change the SEC rules until I set up those additional control mechanisms.

The CHAIRMAN. My time has expired.

The gentleman from Georgia, Mr. Scott.

Mr. SCOTT. Thank you very much, Mr. Chairman.

I would like to talk with you for a moment, Mr. Knight, on the governance issue of the Royal Dutch Shell Group. Could you explain to me the significance of the certain percentage, 25 percent, I think, of the Group's shares are exempt from U.S. proxy rules. And why is that and what is the downside of that in the governance issue?

And the other part is that in your testimony you mentioned that the CEOs of individual energy companies comprising Shell are powerful and they are autonomous, but it is yet unclear in terms

of their boards of directors, who they report to, who they are accountable to.

For example, it points out that the parent company boards meet at a conference, but this is an informal group and is not vested with any authority, and they are not accountable to the shareholders of either holding company. And it is somewhat confusing, but if you could clear up for us this rather roundabout way of the governance issue, the board of directors, the CEOs, and who is accountable to what; and why, given the fact that you have U.S. investors investing in 25 percent of the companies, they are exempt from U.S. proxy rules?

Mr. KNIGHT. Let me answer the second question first.

The—in any normal, large organization, you would expect to find the head of exploration, for example, the CEO of the exploration division, the exploration subsidiary, reporting to the group chief executive. That is what you find at any large company.

In the case of Shell, that is not the case. The CEO, Exploration, does not report to the Group CEO. Mr. Malcolm Brinded, who is the head of Exploration, does not report to van de Vijver, who is the Group chief executive.

The question is, who does he report to? There is no real answer. I believe he does what he wants. I think that is at the heart of the problem.

The question is then, who does the Group chief report to? There isn't a real answer to that. The way they have operated is a way which is totally informal. There is this committee that is described probably as the best way to run a club. But to run a major multinational company this way is astonishing.

The analogy I use, Shell is like a big oil tanker. And at the helm, you don't have one person who is responsible for getting the tanker to the destination; you have a committee of people, all of whom are sitting around the helm. The chief engineer, continuing my analogy, the head of the Exploration Department, does not report to the bridge. He does what he likes, goes forward, backwards. They have tremendous autonomy.

There are cases where Shell has been competing—different departments of Shell have been competing against each other for acquisitions using their own departments, their own finance departments and legal departments. It is really, truly astonishing that a group of this size and this importance can be managed in this way. The conference, which is the informal group on these two boards, informal committee, and an informal group of people. So once again the whole structure is unaccountable to any one group of shareholders.

So, under these circumstances I think it is—is it surprising, really, that you don't have any strong central guidance as to what the basic values of the group should be?

My answer is that under these circumstances, there is—it is not surprising at all, and the first thing shareholders and regulators and others should be doing is to ensure that these things are tidied up to ensure that this isn't going to happen in the future, because they can beat their breasts and be sorry about it, but, frankly, I don't see anything which is going to prevent this from happening

again at the moment, unless these very basic governance issues are sorted out.

Mr. SCOTT. Well——

Mr. KNIGHT. Now if I may turn to the first question. Royal Dutch, which is the holding company and owned 60 percent of the group, and is the largest public company in the Netherlands, is owned to a very large extent by U.S. institutional shareholders. Twenty percent of its stock is held in the U.S. in the form of ADRs, stock which is traded in New York, which is just held by U.S. institutions. In fact, of the top seven shareholders of Royal Dutch, four are American institutions. Only one is Dutch. It is not as if it is a quasicompany controlled by Dutch, you have a number of other German institutions and so on. So this group has a very strong, a very strong tie with the United States. When I say that 25- or $30 billion of stock is traded every day in the United States, that is what I mean; a quarter of the company is held by U.S. investors.

It just seems strange, therefore, that under the current rules which applied with respect to the private issuers means that foreign companies which come to the United States and have access to the U.S. capital markets are not obliged to publish a proxy statement, for example. When they hold their annual meeting, they are not obliged to publish information which they may be giving to ISS and others, for example, for the case they are making in favor of voting for or against a specific resolution. There is nothing which shareholders can find out about in the public domain which will tell them what the company is doing until they get to the annual meeting and they discover there is a large block of proxies which is held by the shareholders and makes any vote by the shareholders completely a waste of time.

Mr. SCOTT. Let me ask you this. This is the final minute of my time.

Mr. FEENEY. [Presiding.] Without objection, the gentleman has an additional minute.

Mr. SCOTT. Thank you very much.

How prevalent is this when you look at what they are doing as compared with what other international energy companies are doing? Is this the standard operating procedure with these loose governance and lack of accountability?

Mr. KNIGHT. My experience with most non-U.S. companies which have shares traded in the U.S. is that generally speaking they don't bother to solicit proxies, because they don't really need to. Shares in Europe, for example, are mostly held in bearer form. It is very difficult for institutions to again actually vote their stock.

In this case Shell had a very good reason for doing this. They wanted to get their shareholders to give the board members and the management members a clean slate. They wanted them to give them an absolution. They were looking for what is known as a legal discharge, and they got it, and they got this through the mechanism, by using this, by using this exemption. I just think that under the circumstances, as a shareholder who voted against giving the discharge, it is a little—is perhaps—is perhaps a little bit irritating, to say the least.

Mr. SCOTT. So you have 60 percent of the shareholders of the United Kingdom, another 30 or 40 percent with the Netherlands, and 25 percent with the United States?

Mr. KNIGHT. Excuse me, if I may correct you. There are two companies. Royal Dutch, which owns 60 percent of the group, Royal Dutch is a Dutch company. You have Shell Transport, which is an English company, which owns 40 percent of the group. Each of these has its own shareholders and has its own board members. So you have two companies, public companies. The Dutch company, which owns 60 percent of the group, has a very large U.S. component in the shareholders.

Mr. FEENEY. The gentleman's time has expired.

Mr. SCOTT. Thank you.

Mr. FEENEY. Mr. Duchac, you suggest that it is not simply the accounting issues at Shell, but it is an industry wide epidemic of overreporting reserves. One of the things that you touch on, I didn't hear you speak to, but in your written testimony, is the incentives and bonuses that are delivered to officers based on the amount of reserves.

Can you describe in greater detail what those incentives and bonuses look like across the industry, and how we could disincentivize overreporting by the executives?

Mr. DUCHAC. I would probably put a disclaimer there. I don't think I was quite that aggressive in my comments.

Mr. FEENEY. We are inviting you to be as aggressive as you like.

Mr. DUCHAC. But one of the issues that I think surfaced was that as part of the bonus compensation or as part of the compensation schemes for some of the management teams was that they were compensated at a number of factors, one of those factors being an increase in the amount of the reserves, which, you know, intellectually, at least, up front makes sense.

If you are an oil company, you want to expand your reserve base, so you want to incentivize your managers to have successful drilling exploration efforts. The downside of that is that when you put that incentive into the bonus scheme, you are now in a situation where you may provide an incentive for many engineers to not report downward or revisions of that number because of the impact that it will have on their own personal compensation schemes.

Different companies have different plans. I can't really speak to across-the-board generalizations, but there are certain—different companies have different plans. But to the extent that those reserves are used as part of their bonus schemes, it is a—it is a potential factor that will contribute to reserve estimation problems.

Mr. FEENEY. Mr. Simmons, in light of Mr. Duchac's testimony about the incentives, your testimony includes the notion that there is no such thing as proven reserves until the well runs dry essentially. You don't know until you are tapped out how much is down there. So, with respect to reporting requirements, and in light of the fact that some or most companies want to encourage the accumulation of reserves, understandably, how can we best define actual reserves, or what term would you use and how would you go about diagnosing? You suggested independent auditors, for example, but give us some suggestion about how we can more accurately define these things.

Mr. SIMMONS. Well, I think at the heart, at the heart of the issue is forcing or suggesting or voluntarily getting the disclosure standard so enough key data is in the company's reports that analysts can basically dig into it and analyze the data. Which is why I come back so strongly to field-by-field or key production-unit-by-production-unit reports on production, on number of well bores and on these three variations of reserves, the amount that you think the structure totally holds, because that is the starting point of coming to finally P1 or 90 percent, the amount you think you can ultimately recover, and both of those should change over time as you find more data, go up or down, and then finally the amount that has been totally produced so that you know what the residue is.

Whether you want to go out and further break out P1, P2 and P3, which is proven, probable or possible, it is a good idea. But I would say just breaking the data out, it is the equivalent, or maybe a little bit towards the equivalent, of towards the tail end of the conglomerate era who finally decide that it was really sort of crazy to have a company just total their sales and total their earnings, because analysts actually couldn't tell whether LTV was an aerospace company or sporting goods company, and out of that came the business segment reserve report, business segment reporting.

I think until we get to some form of unit-by-unit breakout, we can do all sorts of changes, we can do all sorts of government issues, and we are still going to leave analysts in the dark. I think until analysts have the right data—my sense is that there are still smart analysts around that will dig into the data. It is just when you don't have the data, we basically have the blind leading the blind.

Mr. FEENEY. Mr. Knight, speaking about the blind leading the blind, you have talked about the governance problems at Shell and the fact that they basically report to themselves. It is a very closed organization, based on your testimony. But we do have sort of an industrywide issue about overreporting, according to the other testimony.

So have you looked at the other companies in the industry and what has motivated them to overreport, since you have concentrated on Shell's governance structure? How does Shell's governance problems relate to the industrywide aspect of this overreporting problem?

Mr. KNIGHT. Well, Shell has some very particular problems of its own, which I have talked about, and which I don't think I need to repeat. I think it is quite interesting with the data which has been coming out on reserves. There is a field in Norway called Ormen Lange, which is a field on which there is very little hard data available. I think I was talking to one of my colleagues on the panel here. I understand there are only four wells that have been drilled in this field, but there are a number of companies, reporting companies, which have shares in this field.

The percentage of the total of the overall—the overall reserve part, if you like, which they are reporting as proven is very different from one company to the other. It goes as low as 25 or 35 percent in one case or as high as 80 or 85 percent in another for the same field, same—the data in theory should be identical.

I think that to the extent that the information is made available, analysts, as Mr. Simmons was saying, being perfectly skeptical about this company's submission because they can compare it with some other companies'—other companies' data with regard to a specific field—it becomes very difficult, when the world is broken down into four regions, and you really don't know which fields we are talking about. We don't even know which countries we are talking about in some cases.

Mr. FEENEY. Thank you.

The gentleman from Texas. Mr. Bell. You are recognized for 5 minutes.

Mr. BELL. Thank you, Mr. Chairman.

Mr. Simmons, I wanted to go back to something you testified about earlier, just to be clearer about the data being unaffordable, and you talked about some of the data collection techniques. Is that what made it unaffordable, because the technology involved in collecting the data was so expensive, or did I not follow that correctly?

Mr. SIMMONS. Let me take the example of cutting the core on an appraisal well. I sat next to the senior vice president of exploration of one of our major oil companies in charge of Latin America about 6 or 8 weeks ago, and I said, let me ask you about your impression about coring. Has that become kind of obsolete? Because if I ask about 100 people, I would get, oh, yes, we just don't do that much in boring. He said, you know, when we are operating the field, I would not dream of not cutting the core and flow-testing, he said; it can cost 20- to $40 million more, but it is the only insurance of saving a $2 billion mistake. But the longer we had this low-price environment, you literally—you basically turn a project into being uncommercial if you did that.

Mr. BELL. If you cut the core.

Mr. SIMMONS. If you basically drilled the multiple number of appraisal wells. So out of necessity, as opposed to a conspiracy, company after company started tossing the towel in. That is one of the reasons that the independent reserve engineers started not getting hired. It was a cost-cutting measure. People started all getting comfortable that we really didn't need to do that anymore, and, in my opinion, that was wrong and led to an enormous potential overstatement of reserves as a systemic problem.

Mr. BELL. Dr. Dharan, I see you shaking your head.

Mr. DHARAN. Well, not that I disagree or anything, but I was just also commenting, thinking about the fact that with a large energy company, there is always competition for resources, and when the oil prices were as low as they were—even hard to believe now—but just 6, 7 years ago, the competition within the companies was such that the exploration side was usually getting the least amount of budget.

And some of the problems that the other panelists have mentioned really are the result of those internal problems. But at the same time, I totally agree with Mr. Simmons that none of that should have permitted companies to cut down on the necessary validation process that they needed to do to evaluate the reserve quantities. I think that should have been the number one budget item regardless of the other commitments the companies had.

Mr. BELL. Mr. Simmons is someone who is intimately involved in the financing of energy companies and projects. What do you see as the best route for regulators to take in the wake of the Shell case? And also, should we be concerned with the reactive, overreaching policy that could perhaps hamper long-term production?

Mr. SIMMONS. I think the worst long-term thing that could happen to our entry into the oil and gas business in the United States is a crisis of confidence in the whole reserve issue. We have just had the convergence, market-to-market accounting, and this is a totally different deal. But I think if we have a litany of reserve writedowns, we are asking for a crisis of confidence in an extremely capital-intensive industry, in a risky industry, and there is nothing capital hates more than geological risk and disclosure risk.

So I really think it is really important that the key stakeholders in this area realize we have a badlyflawed energy system. We will never get perfection on 90 percent. Trying to get any 5 companies to try to agree on what is 90 percent certainly is a joke.

But there are so many strides we could be making. I go back to my remarks that I made in my oral and my written is watch the efforts of IAA in Paris, because they are really going the same 9 yards and trying to get the same disclosure of OPEC, where we have no data.

One of the reactions that they are getting from the key OPEC members is why should we have to report things that we are not insisting on U.S. public companies? I say, no, everybody ought to be held to these standards.

So I think data reform is extremely important. Whether, again, field-by-field is the best answer or not—the nice thing about it is everyone should have the data so you are not talking about a whole new generation of accounting. But I just think we need to move quickly into that area, or we are going to have a crisis of confidence, and it will badly hurt our U.S. energy supplies. This is too capital-intensive an industry to scare capital away right now.

Mr. BELL. Whenever you are talking about perhaps more regulation, there is always a fear of overreaching, and I would like to pose this to the whole panel in closing: How do you think we will best avoid overreaching?

We will start down here and just move down the line.

Mr. DHARAN. I think as long as we focus on the quality of disclosures and not the quantity of disclosures, we could first improve the existing disclosures; make sure that is working before imposing additional cost of new disclosure. So to some extent we should always, of course, be concerned about potentially regulating to prevent the problem that has already gone away in some ways.

I am not saying that it has happened here, but I just feel that by first focusing on the quality of disclosures by helping the industry implement an auditing system, we could then set up the environment where we could ask questions about do we need more information, and if so, what is the cost of collecting it, what are the downsides, and have those kinds of discussions, without somebody also questioning the validity or usefulness of even existing information.

Mr. DUCHAC. I would probably agree with that and say that the focus really needs to be on process rather than product. If at the

end of the day—I am not sure adding to the disclosure base right now is really going to do anything right now, putting four pages in an annual report with more detail will really help the external constituents.

I think what will help them is focus on improving the process that generates that estimate so that that process is more consistent across companies. So if you are comparing two or three companies, you know that the reserve estimation process is done in a rather consistent basis for each company so that you are comparing apples to apples, and that the process is thorough so that the estimates that are ultimately generated are the numbers that end up in the finance reports. So I would argue more focused process in which those numbers are generated.

Mr. SIMMONS. And I would just conclude, among my whole field-by-field reporting, that if the industry actually had this, it would actually help the industry run itself infinitely better, so I think everybody wins. And, yes, it is a bit more complicated, but, again, analysts are actually smarter than we give them credit for if they have stuff to analyze, but not right across the board, and right now we are in the dark, and something has to change.

Mr. BELL. Mr. Knight.

Mr. KNIGHT. I would like to put a slightly different perspective on this. The idea that you publish proved reserves lends—leads me perhaps to think what is not proved reserves just isn't there. The truth of the matter, it is there.

Frequently the only difference between what is proved and isn't is how much is budgeted by a company to take it out of the ground. It is a question of budgeting. I think companies need to be free to allocate capital as they see fit. The idea of trying to impose on that company a standard which is presented in a way as being an all-encompassing measure of reserves is, I think, slightly—is, I think, difficult to apply.

I think the reality is that most people who invest in this industry, particularly when they invest outside of the U.S., whether it is less consistency of data, if you like, we are looking at companies which operate in different areas and regimes and so on, you need to look at other data.

What I think is important is to get the data out there. There is maybe a slight cost in the sense of getting consistency of that data may be difficult, but actually having the information out there and allowing people to form their own views as to what are probably reserves or possible reserves.

What do I think of allowing people to make investment decisions on the basis of their own assessment and on the basis of more complete information? By focusing solely on proved reserves, which are only a small part of the iceberg since companies have projects which last decades, if you like, and which are going to create reserves in the future, I think misses a large part of the equation. I think, therefore, what I would like to see is more information, less focus on what is proven and what is not proven, because, frankly, the idea of what is proved is slightly artificial.

Mr. BELL. Thank you. Thank you very much.

Mr. FEENEY. Thank you.

Congressman Scott, do you have additional questions?

Mr. SCOTT. No thank you, Mr. Chairman.

Mr. FEENEY. Congressman Bell.

Thank you, gentlemen, very much for your testimony. We appreciate your view, and it is an interesting insight.

With that, Congressmen Scott and Bell, we adjourn.

[Whereupon, at 3:40 p.m., the committee was adjourned.]

A P P E N D I X

July 21, 2004

Opening Statement

Chairman Michael G. Oxley
Committee on Financial Services

"Shell Games: Corporate Governance and Accounting for Oil and Gas Reserves"
July 21, 2004

Nearly two years ago, this Committee passed the most critical securities legislation enacted since the 1930s, the Sarbanes-Oxley Act of 2002. While the Act's corporate reforms and the rigorous measures taken by the Public Company Accounting Oversight Board have helped rebuild investor confidence in our capital markets, the corporate governance failures that led to the passage of the legislation have not completely disappeared.

Tomorrow, this Committee will hear reports from a panel of experts on how the Sarbanes-Oxley Act has benefited the American investor and helped to restore accountability in the governing bodies of publicly traded corporations. Today, we examine some unfortunate examples of why that reform was necessary.

The abuses by corporate insiders who contemptuously disregarded the interests of public shareholders while seeking their own personal enrichment unfortunately were not limited to any one industry. However, the problems that have recently been alleged at El Paso and Shell, among others, raise some compelling questions about accounting practices and internal controls at energy companies.

There has been growing unease in the industry about a widespread tendency to overbook reserves. Regulators cracked down on energy companies in the 1970s when it appeared they were being cavalier with their reserve disclosures. A report by an energy consultancy in 2001 noted the pressure on managers of publicly traded energy companies "to push the envelope of credibility in efforts to buoy investor confidence and thus increase stock value." The consultants blamed the overbooking on incentive programs that offered bonuses for big reserve estimates.

The financial statements of energy companies, like those of all public companies, necessarily include estimates that may not ultimately prove to be accurate. In the oil and gas industry, the most important number, which is an estimate, is a company's proven reserves – the oil and gas in the ground that a company claims to own. If reserve estimates are made in a way that is biased – for example, because bonuses are tied to high reserve estimates – this obviously compromises the financial statements of the company. I understand that Shell has since removed reserve bookings as a component of executive-performance reviews that are used to calculate bonuses.

We will examine today whether additional steps should be taken to ensure that oil companies' reserve estimates are not compromised by improper incentives.

In addition, we will examine the accounting rules themselves to ensure that the rules that the SEC has put in place have kept up with technology to provide investors with the most accurate possible information about a company's proved reserves, and, accordingly, its financial position. Some critics contend that the rules that the Commission currently applies to determine whether reserves can be treated as "proven" or not are outdated. We will learn more about these concerns today.

And finally, we will examine questions of corporate governance, in light of the unusual corporate structure at Shell. Some experts have attributed the lack of transparency at Shell to the company's unique corporate arrangement, which consists of two separate boards charged with overseeing the company. I am encouraged by reports that Shell has already undertaken a review of its corporate structure in response to this criticism. I believe there is significant opportunity for Shell to repair some of the confidence that has been lost by re-making its corporate structure to reflect the image of transparency and candor that is embodied in the majority of publicly traded corporations as a result of the Sarbanes-Oxley Act.

I look forward to hearing testimony from our distinguished panel of witnesses.

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July 21 2004

Opening Statement by Congressman Paul E. Gillmor
House Financial Services Committee
Full Committee Hearing entitled "Shell Games: Corporate Governance and Accounting for Oil and Gas Reserves"

Thank you, Mr. Chairman, for holding this important hearing to allow us to learn more regarding the overstatement of profits to the tune of $276 million by the Royal Dutch/Shell Group and the accounting mistakes that resulted in such a large restatement by the world's third largest publicly traded oil company.

It has been reported that the accounting problems at Shell were triggered by massive overbooking of oil and natural-gas proven reserves, those still in the ground owned by the company, and that such overbooking is a widespread practice in the oil industry.

I would like today's witnesses to comment on the 2001 report by Rose and Associates that cited pressure on mangers of publicly traded energy companies "to push the envelope of credibility in efforts to buoy investor confidence and thus increase stock value." I am also interested to learn if they agree on the widespread nature of this problem, and if so, if they could give this committee their recommendations on how to best address the problem.

Thank you again, Mr. Chairman, for your leadership on this issue and for continuing this Committee's commitment to fully reviewing corporate governance failures and addressing their underlying causes.

Improving the Relevance and Reliability of Oil and Gas Reserves Disclosures

Prepared Testimony

Bala G. Dharan
J. Howard Creekmore Professor of Accounting
Rice University, Houston, TX

Presented to the US House Committee on Financial Services

Hearings "Shell Games: Corporate Governance and Accounting for Oil and Gas Reserves"

July 21, 2004

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Improving the Relevance and Reliability of Oil and Gas Reserves Disclosures

Presented to the US House Committee on Financial Services
July 21, 2004

Chairman Oxley, Representative Frank, and members of the Committee, I want to thank you for inviting me to present my analysis of the oil and gas industry's accounting and disclosure issues related to reserves. I am honored to be given this opportunity to testify here today.

I am a professor of accounting at the Jesse H. Jones Graduate School of Management, Rice University, Houston, where I have taught since 1982. I have also taught accounting at Northwestern University, the University of California, Berkeley, and the Harvard Business School. I am also a Certified Public Accountant in the state of Texas.

Where We are Now

Having useful and reliable information on oil and gas reserves is enormously important to the US policy makers, managers of the companies, investors, and the public. Over 150 publicly owned U.S. oil and gas producers file reserves data in their 10-K, and their reported total reserves of oil and gas is valued at over $3 trillion. Financial analysts covering the industry generally find that for energy companies, over 70 percent of the total market value is determined by the amount of proved reserves the company has.

Companies currently are required to provide *unaudited* estimates of proved reserves quantities to the Securities and Exchange Commission (SEC), using strict and conservative definitions provided in the SEC regulations for proved and proved developed reserves. In theory,

given these strict definitions, and in this era of rising oil and gas prices and improving recovery techniques, it is hard to envision scenarios where companies could report significant downward "technical revisions" in proved reserves. In practice, however, recent large downward revisions in proved reserves by Shell (20 percent reduction of proved oil and gas reserves) and El Paso (41 percent reduction of proved gas reserves), and smaller restatements by a handful of other companies such as Forest Oil, Vintage Petroleum, Nexen, Husky Energy, and Western Gas Resources, has shown that the reserves data are indeed vulnerable to disclosure quality risk. These events confirm that despite their overall reliability, the current unaudited reserves data are viewed by investors and analysts as just not reliable enough. In fact, as investors learn more about how reserves are estimated and reported, it might come as surprising to them that items on a company's balance sheet, such as cash and accounts receivable, which contribute to only a small part of the total value of the company, are subject to far more external audit and internal controls than proved reserves estimates despite the reserves being the main driver of an energy company's upsteam value.

Some in the industry argue that only small fixes are needed to improve the usefulness and reliability of reserves data. Others have called for more disclosures. However, the issue for the industry is really the credibility gap that affects the disclosures of reserves data, and resolving it requires potentially new regulations or at the least new industry action.

The credibility gap is caused by two related factors, quality credibility and reporting credibility. These two terms correspond to two fundamental characteristics of accounting information – relevance and reliability. The "quality credibility," which affects the relevance of the reserves information for investors and other users, is caused by a lack of common technical standards and lack of training and certification programs to propagate the standards among all

evaluators. The "reporting credibility," which affects the reliability of the reported information, is caused by the fact that reserves disclosures are not audited by external auditors or by independent reserves evaluators. It is also further affected by the fact that until recently companies had not paid attention to potential financial incentive conflicts for managers who manage the reserve estimation process, such as the effect of the reserves classification on capitalization versus expensing decisions, and other potential effects on managers' compensation and bonuses. While the Sarbanes-Oxley Act has made companies pay serious attention to these conflicts by requiring companies to have their internal control processes certified, there is still a potential need to require external audits of the reserves estimation process to fully address the reporting credibility.

Making reserves disclosures more useful to investors would require addressing the credibility gap issue comprehensively, by improving both the relevance and reliability of the disclosures, which in turn requires significant improvements to the processes by which reserves data are currently estimated, audited and reported. Both the industry and the SEC need to take concrete steps that will result in the end-users perceiving the reserves data as reliable and useful for valuation purposes. In my following remarks, I elaborate on this assessment and discuss several proposals and recommendations for improvement.

Importance of Reserves Disclosures

Surveys of investors and petroleum industry managers show that investors *want to* believe the reserves numbers, but *do not,* for the most part, rely on them. A 2002 survey of investors and industry managers conducted by an accounting firm found that most oil and gas company executives thought that their corporations' share prices were undervalued by investors relative to

the true value of reserves and expected future cash flows from them. At the same time, most analysts interviewed for the survey said that the quality of disclosures of O&G firms were inadequate for use in valuing the companies, even though they agreed that reserves disclosures were important.

Academic research by accounting professors over two decades on the use of reserves disclosures by investors, including early work I have done in this area, has also shown that investors generally find reserves disclosures useful for valuing a company. Academic studies have shown generally that the reserves disclosures, including the standardized measure of cash flows and changes in the standardized measure, do have information value to investors. But the research findings also suggest that investors' reliance on reserves disclosures varies widely with several other factors, including the size of the company and the accounting methods used for exploration costs. Overall, the research findings suggest that the unaudited reserves disclosures of companies are not viewed by investors as adequately reliable for valuation purposes, unless the data are also supported by other audited financial disclosures of the company.

Shell's reserves restatement early this year shocked the markets and the industry for the magnitude of the downward restatement. 3.9 billion barrels of oil equivalent, or about 20 percent of Shell's total proved reserves, were reclassified as a result of the restatement from proved category to other categories. Apart from Shell, however, there have been few reserve restatements by major US companies. As noted, only a handful of other companies have restated their proved reserves estimates this year. Still, many analysts and investors are surprised and confused by the revisions. After all, investors have a right to think that the reported proved reserves numbers are technically determined and should be reliable and not fuzzy. As noted above, the SEC does have a strict and conservative definition of what can be classified as proved

reserves. It is no wonder that investors and regulators are asking whether there may be fundamental estimation and reporting issues related to reserves estimation that need to be addressed.

Current Disclosure Requirements

Given the strategic importance of reliable oil and gas reserves estimates, all major US energy producers with significant oil and gas reserves are currently required by the Securities and Exchange Commission to report their estimates of proved developed reserves and proved undeveloped reserves in their annual filings with the SEC. The SEC disclosure regulations (Reg 210.4-10) on reserves date back to the energy crisis of the late 1970s. Even though the reserves data are disclosed in the annual filings as footnotes to audited financial statements, the footnotes themselves are not audited by the auditing firms and are clearly labeled in the 10-K filings as "unaudited."

The SEC disclosure rules on reserves are highly respected. The SEC uses strict definitions of the terms "proved" and "proved developed" reserves, and there is general consensus in the industry and among analysts that the SEC's definitions are quite conservative, if not too restrictive. Under SEC definitions, reserves can only go in the "proved" category reporting if there is "reasonable certainty" that they can be developed at current prices.In Reg. § 210.4-10, the SEC defines proved oil and gas reserves as "the estimated quantities of crude oil, natural gas, and natural gas liquids which geological and engineering data demonstrate with **reasonable certainty** to be **recoverable** in future years from **known reservoirs** under **existing economic and operating conditions**." (Emphasis added.) As noted, the key highlighted phrase in the above definition is "reasonable certainty." The SEC has interpreted this phrase especially quite

strictly and appropriately so, and has generally required evidence from test wells, rather than allowing companies to rely on newer technologies for estimating reserves. Specifically, the SEC requires that "Reservoirs are considered proved if economic producibility is supported by either **actual production or conclusive formation test**."

The SEC's definition for "proved developed" reserves is even more stringent: "Proved developed oil and gas reserves are reserves that can be expected to be recovered through **existing wells with existing equipment and operating methods**." (Emphasis added.) A key element of this definition is that capital expenditures for the development of a field should be generally complete or fully committed to, in order to include the field as proved.

Companies also provide additional reserves-related data to other federal agencies, including the Energy Information Administration's Financial Reporting System. Finally, the Financial Accounting Standards Board (FASB), in its Statement No. 69, "Disclosures about Oil and Gas Producing Activities," requires extensive unaudited footnote disclosures related to a "standardized measure of discounted future net cash flows relating to proved oil and gas reserve quantities," and of annual changes in this standardized measure.

A checklist of all the items that are required to be disclosed by an SEC Registrant with significant oil and gas reserves as a result of the current SEC regulations and FASB Statement No. 69 would run to several pages. Significant financial and non-financial items in such a checklist would include:

- Accounting Policies (audited):
  - Method of accounting for costs incurred in oil and gas producing activities and the manner of disposing of capitalized costs related to those activities.
  - Accounting policy for capitalizing internal costs associated with oil and gas producing activities and amount capitalized during the current year.

- Capitalized Costs and Other Costs (audited):

  - Aggregate capitalized costs relating to oil and gas producing activities and the amount of the related accumulated depreciation, depletion, amortization, and valuation allowances.
  - Aggregate capitalized costs of unproved properties
  - Capitalized costs of support equipment and facilities
  - For each significant geographic area, total costs (both capitalized and expensed) of property acquisition, exploration, and development.
  - Acquisition costs of proved properties

- Financial results of operations of oil and gas producing properties (audited)

- Proved oil and gas reserve quantities (unaudited)
  - Proved reserves, beginning and ending
  - Proved developed reserves, beginning and ending
  - Important economic factors or significant uncertainties affecting components of proved reserves

- Standardized measure of discounted future net cash flows (unaudited)

- Changes in the standardized measure of discounted future net cash flows (unaudited)

- Other disclosures related to full cost accounting (audited)

- Production-related by geographic areas (audited)
  - Average sales price per unit of oil produced and of gas produced
  - Average production cost (lifting cost) per unit of production
  - Productive wells and acreage

- Other data (audited)
  - Undeveloped acreage
  - Drilling activities

As can be seen from this incomplete list, US energy companies are already required to provide a considerable amount of disclosures covering both financial and non-financial aspects of their business. However, the list also indicates that all disclosures related reserves (quantity as well as the standardized measure of cash flows) are unaudited. Therefore, investors and regulators looking to find the cause of the credibility gap in reserves disclosures should naturally focus first on the quality of data and reporting standards of current disclosures rather than on potential additional disclosures.

Taken together, the strict and conservative definitions and interpretations used by the SEC for proved and proved developed reserves should, in theory, lead to highly reliable estimates of oil and gas reserves. Assuming the SEC's strict definition of "reasonable certainty" is correctly applied at the field level, it is hard to envision scenarios where there could be significant downward "technical revisions" in proved reserves in this era of rising oil and gas prices and improving recovery techniques. In fact, as new recovery technologies are developed by the industry, the recoverable quantities of reserves can only go up, except for reductions due to actual production. In practice, as mentioned earlier, we find that reserves disclosures suffer from several problems of consistency in estimation and a lack of audit. As a result, investors and analysts do not find the unaudited reserves data as credible enough. The reason for this credibility gap is a combination of lack of external audit of the reserves disclosures, industry-wide certification program, structured companywide monitoring and training programs, and peer review programs. These issues are addressed next.

Verifiable Reserves Data: Lack of Audit and Certification

Given the importance of the reserves disclosures for investors and regulators, it is surprising that there has been very little focus in the financial media on how the reserves data are prepared and reported by companies. Currently, reserves disclosures in the financial statements are not audited by independent public accountants, nor are they audited by any petroleum industry-designated independent evaluators. Performing the critical "reserves evaluator" function currently does not also require any recognized certification program or other mandatory industry-wide training requirements. There is also no industry-wide peer review or monitoring program of the work.

An industry standard approved by the Society of Petroleum Engineers (SPE), titled "Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves Information," provides guidance to reserves evaluators. However, there is no industry-wide system to enforce the standards.

A recent industry conference attended by both petroleum evaluators and representatives from the SEC also revealed that many industry evaluators are not in agreement with the implementation details of the SEC regulations.

The Sarbanes-Oxley Act's requirement for internal control certification has recently made oil and gas companies in the US to reevaluate the internal control processes used to determine and document the reserves data. I expect that the main benefit of the changes being introduced as a result of the implementation of Sarbanes-Oxley Act is the avoidance of obvious conflicts situations, such as tying the compensation of an evaluator with the reserves estimation. It is possible that such financial incentives and bonuses led to some of the overvaluations by companies reported earlier this year. Another type of conflict that a strong internal control would prevent is the effect of reserves classification on the capitalization or expensing of certain drilling costs. For example, for companies following the successful effort accounting, classifying a field as proved undeveloped would allow the capitalization of the subsequent costs of drilling and development of the field. (Until such a classification, the drilling costs are considered to be exploratory costs and are expensed under that accounting procedure.) The capitalization would, in the short-term, lead to less expenses and larger reported income. If a division's manager is compensated based on the income measure, then the manager would benefit from having the field classified as proved. As a result of the increased responsibilities placed on management by Sarbanes-Oxley Act's internal control requirements, many companies should be able to identify

and correct such potential conflict situations that affect either financial incentives or reported earnings numbers. These are important benefits that would ultimately improve the overall credibility of reserves numbers. However, the Sarbanes-Oxley Act would not be sufficient to address other reserves estimation issues, such as who should do the reserve evaluation, what they should do, and how they should do it.

Despite this lack of any auditing requirement or training standards, it is indeed a credit to the hard work and dedication of the industry's engineers and evaluators that the reserves numbers they produce are generally stable and are subject to very few downward adjustments. Among the restatement cases this year, Shell's internal investigations have shown so far that the problem of overvaluation of proved reserves was limited to just two or three geographic areas. The other cases of reserves restatements this year, including that of El Paso Corp., may well have been exposed from the process of implementing the Sarbanes-Oxley Act's internal control certification requirement.

Nevertheless, rather than relying on continued luck, it is preferable for the SEC and the industry to seriously consider proposals for certification and external reserves audit, and other proposals affecting the quality of reserves disclosures and regulations. The five proposals discussed below, if implemented, would make reserves data more reliable and subject to the same level of auditing standards and reliability as key other items on the company's financial reports.

Recommendations for Actions by the SEC and the Industry

1. Certification Program

The above discussion of the current state of reserves disclosures and the potential problems of reliability and audit of the reserves data lead to several possible action items for the industry and the SEC. The industry does have strong and well-functioning independent groups, to some of which reserves evaluators usually belong. They include the Society of Petroleum Engineers (SPE), Society of Petroleum Evaluation Engineers (SPEE), and the American Association of Petroleum Geologists (AAPG). The idea of developing and implementing an industry-wide certification program for petroleum reserves evaluators has been explored and discussed by all these groups. Several industry leaders have also called for a certification requirement, and I endorse the idea as well.

For reserves evaluation, which is basically a science and technology-driven area, a certification program would be relatively easy to conceptualize and implement. This is because the main focus of certification in such a highly technical area, where most industry participants already have highly specialized education and training in engineering or geology, is to standardize practices rather than invent new practices. In addition, the program would need to focus on educating the evaluators about the disclosure regulations of the SEC. Also, as in accounting, auditing, law, medicine and other professions where members have public responsibilities, ethics education needs be a necessary part of the training. Once again, these programs should be easy to implement given the highly talented work pool that constitutes this respected technical field and the technical nature of the reserves estimation process.

Under some certification options discussed by industry, the reserves estimation for SEC reporting purposes would still be done certified petroleum reserves evaluators who are

employees of the companies they are evaluating, rather than by outside or so-called third-party evaluators. Some companies now voluntarily use third-party evaluators for preparing SEC-reported reserves data. These tend to be small companies and their motivation seems to be related to having better access to credit markets. The decision to use outside or third-party evaluators is currently left to the companies. However, other industry leaders, especially consulting firms, have said such an approach would not result in increased credibility of reserves data, which is the main objective everyone is seeking. They have called for either regulation or industry agreement to take this function outside the company. Of course, even under such a scenario, most large companies would continue to employ internal staff of evaluators for purposes other than SEC reporting.

In the end, the use of internal versus external evaluators is a business process outsourcing issue and has no direct relevance to the quality of reported reserves data. However, what is much more important is whether the resulting reserves data are audited by independent auditors. This is addressed next.

2. Reserves Audit

Related to the certification program, a second proposal from some industry leaders to improve the reliability of reserves data is to require a so-called "reserves audit". It is important to note that not all industry observers agree on what the term reserves audit means, or on who should do it. There is also some debate as to what the role of independent external auditing firms should be in this audit function. A common use of the term reserves audit refers to the use of independent external evaluators to "audit" the "reserves report" prepared for the company. (The "reserves report" is usually the basis for a company's reserves data reported to the SEC.) This type of audit

of reserves reports is currently not performed by the independent external auditors of a company's financial reports. Hence, reserves audit refers to a new audit function that needs to be developed by the petroleum industry, with the help of the auditing industry. The AICPA Audit and Accounting Guide, "Audits of Entities with Oil and Gas Producing Activities," provides overall guidance for independent external auditors on auditing the companies' financial statements and footnotes. However, there is no industry auditing standard pertaining to the auditing of reserves report since the disclosures are presented as unaudited in the financial reports filed with the SEC. If a reserves audit requirement is to be adopted, the SEC would need to work with the new auditing regulator, PCAOB, and with the petroleum industry to develop technical auditing standards for auditing the reserves reports and consider implementing them.

An immediate benefit of developing and implementing a reserves audit system will be to use them as a basis for SEC's own internal reserves review process. The Sarbanes-Oxley Act, which requires the SEC to review public company financial filings at least once every three years, will likely impose new burdens on the SEC to review the reserves disclosures. The reserves audit process, if implemented by all SEC registrants who report reserves data, would greatly reduce the SEC's own resource requirements under the Act for reserves review.

A new auditing requirement for reserves report might also provide the SEC with the flexibility it would need to handle industry demands for relaxing its 25-year old definition of proved and proved developed reserves. Many industry observers, including leading financial analysts covering the industry, claim that the SEC's standards are too rigid and that they have not kept pace with the technological advances in the industry on measuring reserves. On the contrary, in the absence of an external auditing requirement and in the absence of industry standardization of practices through certification, regulators and financial statement users are

forced to demand strict and unchanging criteria. For example, the SEC requires the use of oil and gas prices as of the last day of fiscal year rather than permit the use of an average price for the quarter or the year. Similarly, the FASB has adopted a very highly specified and restrictive "rule-based" procedure for its disclosure requirement concerning the standardized measure of cash flows. These restrictions are most likely a result of the existing credibility gap in reserves data and a desire on the part of regulators and standard-setters not to worsen the credibility gap. Implementing a rigorous reserves audit requirement, along with standardization of measurement practices, would allow the SEC and the FASB to favorably consider several industry proposals to modify their regulations concerning the definition of reserves or the calculation of the standardized measure of cash flows.

3. Separation of Reserves Auditing from Reserves Consulting

As the SEC pursues the feasibility and implementation issues of the reserves audit proposal, it should keep in mind several lessons learned from the recent corporate scandals involving the mixing of auditing and consulting. In particular, the scandals and subsequent investigations have shown the need to exclude external auditors from performing any advisory roles for the same company in potential conflict with their auditing role. A similar strict separation should be required between reserves auditing and reserves consulting.

4. Principles Based Approach to Disclosure Regulations

As noted above, many industry analysts have called for the SEC to consider recent technological advances in the industry and modify its definition of proved and proved developed reserves accordingly. However, financial analysts and others covering the industry have also argued that

the current definitions used by the SEC to define proved reserves are often loosely interpreted by industry, especially with respect to determining the economic feasibility of a field, and should be made more strict as part of the move to require standardization and external audit. The SEC's definition of proved reserves requires "reasonable certainty" that the products can be "recoverable in future years" under "existing economic and operating conditions." These are often interpreted in practice to mean net undiscounted positive cash flows, even if it is just a dollar. No minimum rate of return is required to justify the classification of a field as proved or proved developed. These procedures suggest a tendency by the SEC and the industry to choose "rules-based" rather than a "principles-based" approach whenever the regulations about reserves disclosures are interpreted. Instead, it would make more sense for the SEC and the FASB to allow companies to use more flexible economic and technological criteria for classifying the reserves as proved, while at the same time imposing strict internal control and external audit requirements to prevent potential abuse of the flexibility.

Another result of the current rules-based approach to estimating reserves is that many oil and gas companies preface their disclosures of the FASB's standardized measures with boiler-plate disclaimers that raise serious questions in investors' minds about the credibility gap discussed earlier. These strongly-worded disclaimers end up mostly scaring off investors who want to rely on the disclosures and thus reduce the usefulness of reserves disclosures. The standardized measures, of course, are fundamentally based on the proved reserved data, and hence any language used by the company that raises questions about the usefulness of these FASB disclosures also questions investors' reliance on the proved reserves disclosures, even though companies typically do not preface the reserves disclosures with similar remarks. An example of

a disclaimer that might precede the standardized measure disclosures is the following from ChevronTexaco's 2002 Form 10-K:

> "The information provided does not represent management's estimate of the company's expected future cash flows or value of proved oil and gas reserves. Estimates of proved reserve quantities are imprecise and change over time as new information becomes available. Moreover, probable and possible reserves, which may become proved in the future, are excluded from the calculations. The arbitrary valuation prescribed under FAS No. 69 requires assumptions as to the timing and amount of future development and production costs. The calculations are made as of December 31 each year and should not be relied upon as an indication of the company's future cash flows or value of its oil and gas reserves."

It is expected that such disclaimers would be less frequent, and firms could required to stop using them in the 10-K, if the proposals for a principles-based approach to estimating and disclosing reserves and the standardized measure are adopted along with effective certification and audit requirements.

5. Common International Standards

The disclosure problems of Shell highlighted the differences in financial reporting standards between the US and several other major economies. The International Accounting Standards Board (IASB), whose International Financial Reporting Standards (IFRS) have been adopted by over 35 countries worldwide and are also required to be followed by all public companies in the European Union starting next year, has been working for several years to develop accounting and reporting standards for extractive industries, starting with a detailed Issues Paper in 2000. In January 2004, the IASB released its proposed standards in Exposure Draft ED 6, "Exploration for and Evaluation of Mineral Resources." The proposal in ED 6 is very limited in scope and it is clear that the IASB would need more time to develop more comprehensive standards covering reserves quantities and standardized measure of cash flows. This time period provides the SEC

and the FASB to work with the IASB and international securities regulators to develop consistent disclosure provisions.

Conclusion

Despite the highly technical nature of the reserves estimation process, both preparers and users of the reserves information know that reserves estimation is not an exact science. Estimates are based on limited data obtained from small regions, which are then extrapolated to the whole field. Reserves estimations are also based on expected production paths over long periods of time. Many alternative procedures are often available and widely used for making similar technical or economic determinations. These factors make reserves disclosures inherently subject to information quality problems.

Yet we know that reserves data are extremely important to investors to value and assess the performance of energy companies, and are equally important to regulators and the public given the critical role of the energy sector in the economy. It is clear, then, that reserves data should be disclosed in a way that minimizes the credibility gap that afflicts the current disclosures. The current credibility gap is a product of a quality gap, which affects the relevance of the disclosed information to users, and a reporting gap, which affects the reliability of the information. In this report, I have discussed five specific proposals for actions available to regulators for closing the credibility gap of the disclosed reserves data.

The first element of these proposals is a certification program to standardize and regulate the "who-what-how-when" of reserves evaluators' function (who will do the evaluations, what will they do, how will they do it, and when will they do it), along with training requirements, including ethics requirements and knowledge of SEC regulations. The certification program will

address the quality or relevance issue. The second major element in improving the credibility of reserves data is to for the SEC to work with the PCAOB to develop procedures for an external audit of reserves and to require an external reserves audit of the disclosures for all SEC registrants. The third proposal is to require the strict separation of reserves evaluation function from the reserves audit function, similar to the way audit and consulting functions are currently handled by the Sarbanes-Oxley Act and other SEC regulations. Fourth, the SEC and the industry should move toward a principles-based approach in regulations and accounting standards for both reserves quantity and the standardized measure of cash flows. Finally, the SEC and the industry should work toward convergence in international standards for reserves estimation and disclosures. These five changes, which I support, will lead to a significant improvement in the quality and reliability of reserves data for all users, including the management of energy companies, their investors, and the public.

The technical expertise and overall quality of personnel in the petroleum reserves industry is already very high. Thanks to the work done by these highly trained and dedicated personnel, reserves disclosures have the potential to be very reliable and useful when disclosed. The proposals discussed here will help close the credibility gap currently perceived by investors and users, and will result in increased use of the reserves information by managers, regulators and the investor community.

Appendix

BIOGRAPHICAL PROFILE OF

BALA G. DHARAN, Ph.D., CPA

Bala Dharan is the J. Howard Creekmore Professor of Management at the Jones Graduate School of Management, Rice University, Houston. He is also an Adjunct Professor of Management at Baylor College of Medicine, Houston. He has extensive research and consulting experience in financial reporting and accounting issues in the energy industry, as well as investment analysis and business valuation, and is frequently cited by media on accounting issues. He has also been invited twice to testify before Congress on financial reporting scandals and accounting standard-setting process.

Bala received a PhD in management from Carnegie Mellon University, Pittsburgh, in 1981, following an MS. His previous education includes a B.Tech in chemical engineering from Indian Institute of Technology, Madras, and an MBA from Indian Institute of Management, Ahmedabad. He is a Registered Investment Advisor and a Certified Public Accountant in Texas.

Bala has been on the Rice University faculty since 1982. He has also been a visiting professor at the Harvard Business School and at University of California, Berkeley, and a faculty member at the Kellogg Graduate School of Management at Northwestern University. At Rice, Bala teaches management courses for MBA students, as well as popular courses on finance, accounting and valuation for executives. He has published widely in major U.S. and international journals. His research centers on the use of financial information by investors, and in particular on the effect of accounting changes on the quality of information reported to investors. He has also held research seminars in over forty universities, and has served on the editorial boards of *The Accounting Review*, *Accounting Horizons* and *The Asia-Pacific Journal of Accounting*. He is co-author of the books *Readings and Notes on Financial Accounting* and *Enron: Corporate Fiascos and Legal Implications*.

Bala is a member of the American Institute of Certified Public Accountants, American Accounting Association, Canadian Academic Accounting Association, Financial Executives International, and American Finance Association.

United States House of Representatives
Committee on Financial Services
Hearing on Corporate Governance and Accounting for Oil and Gas Reserves

2:00 pm, Wednesday July 21, 2004
Room 2128 Rayburn House Office Building

Written Testimony of Jonathan Duchac, Ph.D
Calloway School of Business
Wake Forest University

Thank you for inviting me. The comments that follow and my testimony before this committee are the result of my academic research, and reflect my individual opinions based on an academic review of the oil and gas industry and the publicly available information surrounding the numerous oil and gas reserve restatement that have occurred in recent months.

The accounting for oil and gas reserves has a long and tumultuous history, and has periodically been the subject of considerable debate in Congress, the accounting community, and the financial markets. The recent reserve restatements by a number of companies in the oil and gas industry have once again placed increased scrutiny on the calculation and determination of oil and gas reserve information, and prompted this committee to consider whether the current accounting rules for oil and gas reserves should be revisited in light of recent events.

Oil and Gas Reserves

Oil and gas reserves are, by definition, an estimate and subject to considerable uncertainty. The amount of oil and gas reserves that are disclosed in a company's

financial reports are determined by two factors: (1) the definition of reserves, and (2) the reserve estimation process.

The ***definition of reserves*** for companies listing on U.S. securities exchanges is established by the Securities and Exchange Commission, and provides a conceptual foundation for the reported estimates. While the definition of reserves varies across countries, the SEC's definition is widely considered to be the most rigorous and conservative reserve definitions in place.

The ***reserve estimation process*** is a complex process whereby companies use a wide array of data to develop an estimate of the value of a company's proved oil and gas reserves. Because the process is complex, uncertain, and relies on data which are estimates, the resulting reserve values are subject to considerable uncertainty and estimation error. The use of estimates such as this is not uncommon in financial accounting, as estimates are frequently used when financial information subject to uncertainty provides relevant data points for users of financial information. Central to the accounting estimation process, however, is the presumption that accounting estimates will be unbiased and made in good faith.

Random error is an inherent and unavoidable aspect of the reserve estimation process, and cannot be eliminated. However, for reserve estimates to be an effective source of information for external constituencies, this information must be free of bias or intentional error. Because of the uncertainty associated with reserve calculations,

additional information often becomes available that prompts adjustments of reserve estimates to reflect new and revised information. If that information is incorporated in the reserve estimates in a timely and unbiased fashion, the adjustments are treated prospectively. However, if reserve estimates are known to have changed, and companies fail to adjust reserve estimates to reflect known changes in the underlying fact pattern, the disclosed reserves are problematic because they do not portray the best estimate of the company's reserves at the time they are reported. Thus, the most significant challenge associated with oil and gas reserve estimates lies not in the use of estimates, but in ensuring that the estimates are made in good faith and accurately reflect the most recent information about a company's reserves. If the disclosed reserves do not meet these constraints, then the value of the information is significantly diminished.

Importance of Internal Controls in the Reserve Estimation Process

If reserve estimates are found to have been biased and not made in good faith, it may lead to significant subsequent restatement of financial information. In these situations, the accounting rules have little influence on the ultimate outcome, because the errors were the result of a breakdown in the reporting process for reserve estimates, as opposed to a poorly functioning accounting rule. The more salient question to consider in this case is what steps could have been taken that would have reduced the chances of presenting reserve estimates that do not accurately reflect the underlying data set and fact pattern?

I would argue that the most effective remedy for this problem is not to focus on the accounting rules surrounding reserve estimates, but to improve the procedures

surrounding the reporting and determination of those reserve estimates. This can be accomplished through several possible actions, including: (1) insuring that companies have in place a well developed and well functioning internal control system surrounding the calculation and reporting of reserve estimates, (2) conducting an independent audit of oil and gas reserve estimates, and (3) limiting the amount of performance based compensation that is tied to reserve balances. Focusing on process oriented solutions such as this would, in my opinion, have the greatest impact on improving the quality and usefulness of oil and gas reserve information.

Jonathan E. Duchac. Ph.D.
Merrill Lynch Associate Professor of Accounting
Calloway School of Business
Wake Forest University
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Testimony provided to the U.S. House of Representatives, Committee on Financial Services
"Shell Games: Corporate Governance and Accounting for Oil and Gas Reserves",
Wednesday, July 21 2004

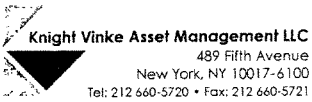
Mr Chairman, Ranking Member Frank, and Members of the Committee:

Introduction

My name is Eric Knight and I am the managing director of Knight Vinke Asset Management, a New York based asset management firm registered with the SEC as an Investment Adviser under the Investment Advisers Act of 1940. Our investment strategy involves investing in fundamentally sound public companies where sub-optimal stock market performance can be attributed in some way to poor governance structures and practices, which we interpret in the broadest sense. In such cases, we work with the company's institutional and other shareholders to overcome or redress these governance-related problems and aim, thereby, to obtain a re-rating of the stock and make a profit on our investment.

Through Knight Vinke Institutional Partners ("KVIP"), an investment fund which invests in European equities, we hold approximately 1.32 million shares of Royal Dutch Petroleum with a market value of approximately $70 million. CalPERS, who have a $ 200 million commitment to invest in KVIP, separately also have holdings in Royal Dutch Petroleum ("Royal Dutch") and Shell Transport & Trading ("Shell Transport") amounting to 6.58 million shares and 31.31 million shares, respectively, with a combined market value of approximately $580 million.

We have been working closely with CalPERS and other institutional shareholders of the Royal Dutch Shell Group, both in Europe and in the U.S., with a view to pressing its boards and management into re-examining their unusual governance practices and accepting a more orthodox corporate governance framework.



Why are we interested in governance at Shell?

Although, as recently as 2002, the boards of the Royal Dutch Shell Group declared that they prided themselves on upholding "the highest standards of integrity and transparency in their governance of the Company" and that they aimed to be "at the forefront of internationally recognised best governance practice" (2002 annual reports), we believe that reality presents a different picture. In light of the multiple reserve restatements over the past few months and the astonishing revelations of the Davis Polk report, shareholders can perhaps be forgiven for being sceptical. The Group concedes that "the framework within which the Boards operate is conditioned to some extent by Royal Dutch's unique relationship with Shell Transport, and this results in some special arrangements which may not be appropriate in other companies". We felt it necessary, therefore, to look carefully into these "special arrangements".

During the course of our due diligence, we asked our counsel in the Netherlands, the U.K. and the U.S. to prepare a report on the Royal Dutch Shell Group's governance structures based on publicly available information and a copy of this report is included in the attached materials (see Exhibit 4).

Shell's Unorthodox Corporate Governance Structures

By way of background, the Royal Dutch Shell Group of companies is 100% owned by two holding companies: Royal Dutch (60%), which is the largest listed company in The Netherlands, and Shell Transport (40%), which is one of the ten largest in the U.K.

Royal Dutch is managed by a Supervisory Board and a Management Board, as is usual in The Netherlands, whereas Shell Transport has a unitary board comprised of non-executives and executives, which is the structure most commonly found in the U.K. It is important to realise, however, that both Royal Dutch and Shell Transport are pure holding companies, with no operating activities of their own.

The following is a summary of some of the more surprising facts which emerged from our analysis:

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- The operating companies of the Royal Dutch Shell Group (i.e. the group of companies below the two parent holding companies) are managed on a day-to-day basis by an informal committee of senior managers — the so-called "Committee of Managing Directors" (or CMD) – and not by a chief executive officer. Substantial power and autonomy is given to the CEOs of each of the Group's four main Operating Companies, and, although there is a chairman of the CMD, none of these executives reports formally to this person.
- The "boards" of Royal Dutch and Shell Transport are comprised of different groups of individuals – responsible to separate shareholder constituencies -- and it is unclear, therefore, exactly to whom the CMD and its Chairman report or are accountable. The two parent company boards come together on a regular basis in a large gathering known as "the Conference", but this is yet another informal body, vested with no formal powers and unaccountable directly to the shareholders of either holding company.
- The Royal Dutch supervisory board (perhaps the most powerful of the different Shell governing bodies as it controls the majority shareholder in the operating companies) is effectively a close-knit, self-perpetuating body. This results from the existence of a class of so-called "priority" shares, which have the exclusive right to nominate board representatives at Royal Dutch and to reject nominations by shareholders. As of now, the members of the Royal Dutch supervisory and management boards hold or control 100% of these priority shares and thus have the ability to control their own nominations. This self-perpetuating mechanism is wholly inconsistent with internationally accepted principles of good governance.

Despite mounting evidence of poor internal communication, inadequate controls, lack of accountability and unclear reporting lines, Shell's management and board members still maintain that the reserves débacle had nothing to do with structure.

We disagree. Shell's management has operated for years, indeed decades, with none of the basic building blocks of modern governance: its divisional management did not report

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formally to a group chief executive: its divisional CFOs did not report to a Group CFO; the person presented as the chief executive, the Chairman of the CMD, apparently lacked either the authority, responsibilities or the accountability normally associated with a chief executive; he reported to two boards composed of different individuals, and so effectively to none; and the boards of Royal Dutch were shielded from shareholder intervention through the priority share mechanism which made them a "closed shop". The Royal Dutch Shell Group's unusual board and management structures may not be entirely to blame for the misstatement of reserves, but we believe that they, and the corporate "culture" they foster, certainly contributed to the problem.

Exemption from US Proxy Rules

Royal Dutch – as a "foreign private issuer" – is currently exempt from the "proxy rules" under the U.S. securities laws despite that fact that some $25 billion in market value of its shares are represented on the US markets. Nevertheless, in the buildup to this year's annual meeting Royal Dutch employed a prominent U.S. proxy solicitor to obtain support for a resolution giving a shareholder "discharge" to its Supervisory and Management Board members (see Exhibit 3). In itself, this would not be remarkable were it not for the fact that the resolution was strongly opposed by the mostly European shareholders who attended the annual meeting and that, despite this opposition, the resolution was passed thanks to a large block of proxies coming mostly from the U.S. held by the board.

Approximately 25% of Royal Dutch's shares are held in the U.S. in the form of ADRs and in this context, we ask ourselves:

- Did U.S. shareholders know (or were they made aware) that item 2 of the Agenda, covering approval of the accounts, payment of the dividend <u>and</u> discharge of the board members – all presented as a single item – were in fact separate resolutions, each to be voted on separately?
- Did they know, for instance, that shareholders could have voted <u>in favour</u> of the accounts and the dividend but <u>against</u> the discharges?

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Had Royal Dutch not been exempted from the provisions of the U.S proxy rules, we believe that the SEC could have asked for clarification on these points and that, in light of recent events, the vote could well have gone the other way.

In conclusion, if Shell and other multinationals want substantial access to the U.S. capital markets, it seems anomalous that they should be held to lower disclosure standards than their U.S. peers – and this applies to proxy solicitation just as it does to reserve accounting.

Thank you.

Washington, July 21 2004

Eric Knight (45) is Managing Director of Knight Vinke Asset Management LLC, the general partner of the General Partner of Knight Vinke Institutional Partners, a specialist equity fund dedicated exclusively to institutional shareholder engagement and value investing in Western Europe.

From 1996 to February 2002, Mr. Knight was Managing Director of Sterling Investment Group Limited and its partially owned subsidiary SSP-Special Situations Partners, Inc., each of which is an activist, value-oriented private investment company. At the end of 2001, Sterling and SSP had combined net assets under management amounting to approximately U.S. $230 million.

From 1991 to 1996, Mr. Knight was founder and Managing Director of Knight Vinke & Cie., S.A. a corporate finance boutique. From 1989 to 1990 he worked for Groupe Pargesa and was responsible for cross border mergers and acquisitions for the group's banks, based in Paris and London. From 1981 to 1989, Mr. Knight worked in the corporate finance group at Merrill Lynch & Co. in New York, London and Paris.

Mr. Knight has a BA (Hons.) degree in Economics from Cambridge University and an MSc in Management degree from the Massachusetts Institute of Technology's Sloan School of Management.

FINANCIAL TIMES
WEDNESDAY JUNE 16 2004

LEADERS & LETTERS

Nothing less than fundamental governance changes will satisfy Shell Group shareholders

From Mr Eric Knight and Mr Ted White.

Sir, The views expressed at the recent meetings held between shareholders of the Royal Dutch/Shell Group and its board members, in which we participated, evidenced a powerful shareholder consensus concerning the need for a fundamental and wide-ranging re-examination of the special arrangements between the group parent companies and the manner in which the group is managed and governed. Protestations to the contrary notwithstanding, it remains our view – shared by many institutional shareholders – that, at the very least, a portion of the blame for the reserves debacle is to be attributed to the prevailing governance culture of the group and the absence of orthodox board structures. Whether or not this be true, this is the market's perception today.

As must have been apparent to the directors of Royal Dutch Petroleum and Shell Transport & Trading, many of their shareholders desire that this re-examination of board and management structures, a process Jeroen van der Veer, Shell Group president, has dubbed the "thinking phase", be both coherent and comprehensively transparent. In particular, we and other shareholders believe that, if the process is to be at all credible, the directors must disclose publicly the terms of reference of this review – namely: the specific issues to be considered; the composition of the body conducting it; and a timetable, involving further shareholder consultation before formal approval of any changes is sought.

It was our collective hope and expectation that this rather basic information would be disclosed to shareholders concurrently with publication of the agendas for the group's annual general meetings on June 28. This opportunity has been lost. We now, therefore, explicitly request that the directors provide the market with this minimal level of disclosure – sufficiently in advance so as to enable shareholders to form a well-balanced point of view in preparation for the meetings.

We believe there is a significant opportunity for the group to repair some of the confidence that has been lost by conducting this process in a manner that embraces openness and candour.

We look forward to meeting the directors in The Hague and in London on June 28, and in anticipation thereof it may be of use to them to consider responses to the following questions, which may well be posed at each meeting:

- Please disclose to the assembly of shareholders the specific issues to be considered in the detailed re-examination of Shell's board and governance structures. Will the issues to be considered include at least the following: first, the role and authority of the chief executive and this person's formal relationship with the group's boards and senior management; second, the need for transparency with respect to management succession; third, the need for shareholder involvement in board succession; and fourth, the composition of the group's boards?
- Could they please tell their shareholders who exactly will be conducting this re-examination, how this body's independence will be assured and what outside parties have or will be retained to assist this body?
- When will this body's findings be reported to the group's boards and to its shareholders? Will the group's shareholders be consulted with respect to alternative proposals put forward and, if so, when and in what manner will this consultation take place?

Finally, while we do not wish to be prescriptive about the most appropriate company structure for the Royal Dutch/Shell Group (a task best left to the boards and their professional advisers), we do wish to re-emphasise our belief that fundamental changes are required in the governance of Royal Dutch and Shell Transport, and that we and other shareholders will not be satisfied by compliance with minimal governance standards at the expense of this longer-term objective.

Eric Knight,
Managing Director,
Knight Vinke Asset Management,
New York, NY 10017, US

Ted White,
Director, Corporate Governance,
California Public Employees' Retirement System (Calpers),
Sacramento, CA 95814, US

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FINANCIAL TIMES
MONDAY MARCH 15 2004

COMMENT

ERIC KNIGHT

Shell must improve relations with its investors

Following the precipitous departures of Sir Philip Watts and Walter van de Vijver from Royal Dutch/Shell, the company's shareholders may recall the recent appointment of Rex Tillerson to the board of ExxonMobil. The board and shareholders of ExxonMobil will have at least a year to evaluate Mr Tillerson and other candidates for chief executive before a decision is made.

Shell shareholders will also have noted with interest Coca-Cola's decision to break with a 100-year tradition by extending the search for its next CEO to outside candidates – seeking to appoint "the best player out there for this type of business in the world", to quote Warren Buffett.

This is in striking contrast to Royal Dutch/Shell, where replacements for Sir Philip, chairman of Shell's Committee of Managing Directors (CMD), and for Mr van de Vijver, head of exploration and production, were announced immediately from within the ranks, and the reshuffle was portrayed as a fait accompli. How could this happen?

The answer lies in the fact that Royal Dutch Petroleum is the dominant partner in the Royal Dutch/Shell Group and that the selection of all management and supervisory board positions at Royal Dutch is controlled by incumbent members of those boards. Management succession is tightly controlled from within – it is effectively a "closed shop".

There are other governance-related issues of concern to Shell's shareholders, but one stands out. At both Shell Transport and Royal Dutch, executive management has been delegated by the boards to the CMD, a committee comprising senior executives from each of the two public companies. It is perhaps not well appreciated that the members of this committee, in particular the CEOs of the main operating divisions, do not report and are not formally responsible to the CMD chairman. This is because the CMD is an informal body, with no formal executive authority; the position of chairman is, therefore, also informal. As a consequence, Shell's top management operates in what Shell refers to as a "collegiate" fashion, with no CEO having authority or responsibility for management of the group as a whole.

> Sir Philip Watts and Walter van de Vijver were replaced immediately. The reshuffling of management was portrayed as a fait accompli

Taking the analysis a step further, the group has two entirely different main boards (one at each publicly quoted company) and separate bodies of shareholders. In effect, the group's senior management must serve two masters – seriously weakening management's accountability and making it very difficult for either of the two boards to intervene effectively to safe guard shareholders' interests.

Shell's response to such criticism in the past has been to say that, in reality, it operates as a single company and its boards operate as a single board. Shell points to yet another committee – the "conference" – which includes the entire membership of the two boards and appears to function internally as a group board. However, the efficiency of a board comprised of 23 individuals and its lack of direct accountability to shareholders require careful consideration.

Through these various committees Shell has created the illusion of normality: a unitary board overseeing a unified management team headed by a group chief executive.

Shell has operated like this for decades. But this may have fostered inefficiency, lack of adequate control and unclear lines of accountability. Shell is now going through an unprecedented crisis, partly attributed to a loss of confidence by the market in its unorthodox governance structures – and a lingering concern that the reserves fiasco could in some way be related.

The US Securities and Exchange Commission will soon conclude its investigation and this may intensify pressure for change in the way the group is managed. Meanwhile, shareholders can and should seek transparency in the processes leading to top management changes and the way governance-related issues are evaluated.

Shell's management has reconfirmed its willingness to listen to shareholders' concerns about governance for the next few weeks, to think about these issues and to announce changes, if any, in April 2005. As presented, this process is unstructured, opaque and conveys no sense of urgency. It has been coldly received by many of the group's institutional shareholders.

Ensuring that Shell has the "best player out there" as its next CEO and, equally important, that its leader is given sufficient authority and responsibility to be effective, are the two most potent ways for Shell's boards to create true value for shareholders over the years to come.

The writer is the managing director of Knight Vinke Asset Management, a shareholder in Royal Dutch

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Royal Dutch Petroleum Company

Notice of Meeting - Agenda

Agenda for the General Meeting of Shareholders of Royal Dutch Petroleum Company to be held on Monday, June 28, 2004, at 10.30 a.m. in the Circustheater, Circusstraat 4 in The Hague.

1. Annual Report 2003.
2. Annual Accounts 2003.

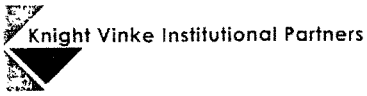
   Finalisation of the Balance Sheet as at December 31, 2003, the Profit and Loss Account for the year 2003 and the Notes to the Balance Sheet and the Profit and Loss Account.

   Declaration of the total dividend for the year 2003.

   Discharge of the Managing Directors of responsibility in respect of their management for the year 2003.

   Discharge of the members of the Supervisory Board of responsibility for their supervision for the year 2003.
3. Appointment of a Managing Director.
4. Appointment of a member of the Supervisory Board.
5. Appointment of a member of the Supervisory Board owing to retirement by rotation.
6. Reduction of the issued share capital with a view to cancellation of the shares acquired by the Company in its own capital.
7. Authorisation of the Board of Management, pursuant to Article 98, Book 2 of the Netherlands Civil Code, as the competent body to acquire shares in the capital of the Company.

The Annual Report and the Annual Accounts 2003 are available for inspection at and may be obtained free of charge from the Company (Carel van Bylandtlaan 30, PO Box 162, 2501 AN The Hague, The Netherlands, tel. +31-70-377 4540 or per email: ir-hague@shell.com) and the offices of ABN AMRO Bank N.V. (for inspection: Foppingadreef 22, 1102 BS Amsterdam, The Netherlands; for obtaining free of charge: tel. +31-76-579 9455), and Fortis Bank (Nederland) N.V. (Rokin 55, 1012 KK Amsterdam, The Netherlands). The Annual Report and the Annual Accounts 2003 are also accessible at www.shell.com/annualreport. Copies of the nominations pertaining to items 3 to 5 on the agenda are available for inspection at and may be obtained free of charge from the Company.



CONFIDENTIAL MEMORANDUM

A REVIEW OF CORPORATE GOVERNANCE AT ROYAL DUTCH / SHELL AND PROPOSALS FOR CHANGE

SCOPE

The dual-headed structure of the Royal Dutch / Shell group (the **"Group"**), has resulted in the adoption of an uncommon corporate governance structure which has been in place for a considerable time. This paper, which has been prepared in conjunction with Ashurst (London), Nauta Dutilh (Rotterdam/Amsterdam) and Cleary Gottlieb (New York), reviews the current governance structure of the Group and, in particular, considers the following matters:

- The dominant position of Royal Dutch within the context of its joint venture with Shell Transport, and its implications for Shell Transport directors and shareholders.
- The exclusive right of incumbent Royal Dutch supervisory and management board members (through control of the Company's priority shares) to nominate board representatives at Royal Dutch and to reject nominations by shareholders. This mechanism is self-perpetuating and is inconsistent with internationally accepted principles of good governance.
- The apparent absence of external competition to fill executive vacancies at the highest level that is perpetuated by this mechanism - with no shareholder involvement - particularly in view of Sir Philip Watts' retirement as Chairman of the Committee of Managing Directors within 18 months.
- The concept of a large multi-national quoted group being run by committee without a group chief executive.
- The roles of chairman and senior group executive being exercised by the same person.

The aim of this memorandum is to propose changes, without necessarily advocating an end to the dual-headed structure, which would result in: (a) the appointment of a Group CEO with clearly delineated responsibilities and accountability to the Group's main boards, (b) the appointment of a non-executive Group Chairman, (c) a more balanced relationship between the executive and non-executive elements on these boards, with increased influence at Group level for the Shell Transport directors than that which they currently enjoy, and (d) the possibility for shareholders to participate in the nomination process with respect to the Group's directorate without requiring approval from the same.

These measures would bring the Royal Dutch Shell group more into line with modern generally accepted principles of good governance relevant to a major quoted multi-national.

IMPORTANT NOTICE

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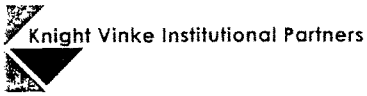

1. GROUP STRUCTURE AND GOVERNANCE

1.1 Group Structure

NV Koninklijke Nederlandsche Petroleum Maatschappij (**"Royal Dutch"**) and The Shell Transport and Trading Company plc (**"Shell Transport"**) came together in 1907. The two top tier companies, Royal Dutch and Shell Transport, jointly own the Group and share in its net assets on a 60:40 basis through three intermediate holding companies (the **"intermediate holding companies"**) – Shell Petroleum NV in the Netherlands, Shell Petroleum Company Limited in the U.K. and Shell Petroleum Inc. in the U.S. (*see Appendix 1*).

Royal Dutch and Shell Transport are entitled to 60 per cent. and 40 per cent., respectively, of the dividend and interest income received from Group companies. An equalisation agreement (the **"Equalisation Agreement"**) between the two top tier companies provides that they share the burden of all charges in the nature of income taxes in respect of such dividends and interest income in the same proportions after taking into account certain tax credits with respect to dividends.

1.2 Governance structure

Royal Dutch and Shell Transport do not engage in operational activities; they derive substantially all of their income from their "investments" in the numerous companies comprising the group. As such, they are pure holding companies, with Royal Dutch controlling a majority of both the share capital and the board seats within each of the intermediate holding companies and Shell Transport holding a minority. As of today, Royal Dutch controls 6 of the 9 board seats at each of Shell Petroleum NV and Shell Petroleum Company Limited *(See Appendix 1)*. Royal Dutch's control over the board of Shell Petroleum Inc. is not apparent – perhaps for tax reasons – but is assumed effectively to follow the model of the other two intermediate holding companies.[1]

As a consequence, the Shell Transport board appears to have little direct control over the affairs of the Group from a strictly formal perspective, other than as may be permitted under the Equalisation Agreement. The Equalisation Agreement covers matters such as the distribution of board seats at the intermediate holding company level, dividend rights and the like. The strongest right appears to be a veto right over "the disposal or transfer of any shares in any company coming wholly or partly within the circle of the Royal Dutch Shell Group".

The Royal Dutch/ Shell group describes itself as "a decentralised, diversified group of companies" and it is mentioned that "each Shell company has wide freedom of action" (Statement of General Business Principles). Furthermore, "the management of each Operating Company is responsible for the performance and long term viability of its own operations" (Form 20-F). It appears, therefore, that substantial power and autonomy is given to the CEOs of the four main globally organised Operating Companies, with each such company having its own finance, business development, technology and/or personnel functions.

It is of significance to note that the current CEO's of these four businesses (Exploration & Production, Gas & Power, Oil Products and Chemicals) each come from the Royal Dutch side. In fact, they are the four members of the Royal Dutch Management Board (see below).

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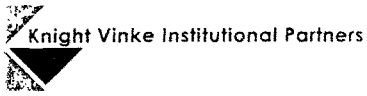
[1] Shell Petroleum Inc, a Delaware corporation, is owned by Royal Dutch and Shell Transport but its dividend income from Shell Oil flows directly to Shell Petroleum NV before being divided amongst the two parent companies.



Given that Royal Dutch and Shell Transport have different executive and supervisory/non-executive directors on their respective boards, the potential exists for conflicting views to be held by the two boards. To alleviate such concerns, the boards have established joint committees to assist with their respective governance responsibilities (see *Joint Committees* below) and a 'senior' executive committee to deal with management on a group-wide basis (see *section 2: Group-wide Management* below). It should be noted, however, that none of these committees is vested with formal powers, their roles being limited for the most part simply to advising and informing the Group's boards.

1.3 Royal Dutch Board

Royal Dutch is managed by a Board of Managers comprising four managing directors and a Supervisory Board made up of eight members including two former managing directors (see Appendix 2). Each year one member of the Supervisory Board comes up for re-election.

Appointments to the Board of Managers and the Supervisory Board are made by the Royal Dutch shareholders from two persons nominated by the holders of priority shares in the company. Shareholders may not appoint any person who has not been nominated by the holders of priority shares. Shareholders representing 1 per cent. or more of the share capital may propose a person for nomination by the priority shareholders, but the priority shareholders are not bound to accept such a proposal and may reject it.

Royal Dutch has issued 1,500 priority shares, of which six are held by each Managing Director and member of the Supervisory Board (i.e., by twelve individuals in total) and the rest is held by a foundation constituted under Dutch law (the **"Foundation"**). The board of the Foundation consists of the same twelve directors (of whom six are current or former managing directors and six are "outside" directors) and decides how the priority shares held by the Foundation will be voted.

No person may cast more than six votes, so the Foundation appears to have what amounts to a "casting vote" as between the managing directors, on the one hand, and the "outside" directors on the other. According to Art. 7 of the Foundation's By-Laws, "resolutions of the Board [of the Foundation] shall be passed by an absolute majority of the votes cast. Pursuant to rules **to be laid down by the Board**, this provision may be departed from in the event of an equality of votes in a poll" (emphasis added). Neither the identity of the Foundation's chairman nor the deadlock resolution provisions adopted by the Board of the Foundation appear anywhere in the public domain. In the absence of transparency, one is led to assume that this is a self-perpetuating mechanism designed to shield the "club" of past and present Royal Dutch managing directors from interference in matters concerning succession in the boardroom -- not only from the Royal Dutch shareholders, but possibly from the Supervisory Board as well.

The mechanism of binding nominations for the appointment of directors is very common in Dutch corporate governance but its implementation falls into three distinct categories:

(a) *The most archaic group*
Royal Dutch, Akzo Nobel and Unilever all have an archaic "grandfathered" right of binding nomination which prevents shareholders from overriding any nomination put forward by the board and/or from nominating their own candidate(s). This right was formally "grandfathered" (i.e., confirmed by the Dutch authorities) in 1928 and again in 1971, but in the latter case, it was mentioned that the right would not last in perpetuity and that the Dutch Council for Economic Affairs had

the right to investigate and advise upon its cessation. No such investigation has yet taken place.

(b) *The system pre- 1 January 2004*
Most Dutch listed NV's have a system of binding nominations whereby a 2/3 majority of shareholders (of those present at the meeting, representing more than 50% of the total issued share capital) may override the nominations put forward by the board and appoint another director (*art. 2:133 Dutch Civil Code: Shell has grandfathered rights and thus is exempted from this shareholder right*).

(c) *Companies applying the New Corporate Governance Code (Tabaksblat) as from 1 January 2004*
The new Dutch Corporate Governance Code contains a best practice rule (IV.1.1) stating that an absolute majority (50% plus one vote) of shareholders present may override any binding nomination and that such shareholders need only represent more than 1/3 of the issued capital. If this proportion of the share capital is not represented at the meeting, but an absolute majority of the votes cast is in favour of overriding the binding nomination, a new meeting may be convened at which the resolution may be passed by an absolute majority of the votes cast, regardless of the proportion of capital represented at the meeting. The Dutch Code operates with the "apply or explain" principle. In the next few months, it will become clear which Dutch listed companies will comply with this best practice rule and which will explain why they have decided not to comply (and thus proceed as in (b) above).

In conclusion, the "grandfathered" rights granted to Royal Dutch in respect of binding nominations mean that the Board of Management and Supervisory Board effectively have unfettered power with regard to the appointment of their members. This is inconsistent with modern corporate governance principles and contrary to recent developments in Dutch corporate best practice.

It should be noted, however, that "Royal Dutch aims to be at the forefront of **internationally** recognised best governance practice" (2002 Annual Report, emphasis added). As such, Royal Dutch should be prepared to go beyond local best practice to facilitate the nomination of directors by significant shareholders. In this context, it would be logical for the Company to remove the right of its priority shareholders to reject nominations by holders of 1 per cent. or more of its ordinary share capital and this would place it at the forefront of best governance practice in many of the largest capital markets in which the Group operates -- including the U.K. and the U.S.

1.4 Shell Transport Board

The Shell Transport board (the **"Shell Board"**) comprises two managing directors and nine non-executive directors, of which seven are considered by the Shell Board to be independent (*see Appendix 2*).

Accordingly, the structure of the Shell Board observes the UK's Combined Code of Corporate Governance (the **"Code"**) provisions that at least half the board, excluding the Chairman, should comprise non-executive directors determined by the board to be independent. Also, in accordance with the Code, the Shell Board has nominated a senior non-executive director.

The articles of association of Shell Transport require that all directors should be subject to re-election at intervals of not more than three years and all directors must vacate office at the age of 70, which is in compliance with the Code.

Non-executive directors are appointed to the Shell Board in consultation with the Shell Transport Nomination Committee and appointments are ratified by shareholders at the next annual general meeting after such appointment. The Nomination Committee is comprised of the whole Shell Board and the Chairman of the Board acts as the Chairman of the Nomination Committee. The Nomination Committee reviews all potential appointments before the candidate is approached and new appointments can only be made by the Shell Board after a recommendation from the Nomination Committee. This ensures that all directors can participate in the nomination process and that the Committee is constituted with a majority of independent non-executive directors.

The appointment of executive directors to the Shell Board is considered in tandem with proposals for appointment of individuals to the position of Group Managing Director and, where appropriate, the Shell Board either co-opts the person concerned as a director or, if timing allows, recommends the person to the shareholders for election at the next annual general meeting. Proposals for the nomination of an individual to the position of Group Managing Director are reserved to a joint committee comprised of representatives from both the Royal Dutch Supervisory Board and the Shell Transport Board -- the Remuneration and Succession Review Committee ("Remco") (see below *1.5 Joint Committees*). Unlike at Royal Dutch, shareholders have the opportunity to nominate directors for election to the Shell Board provided that they can speak for five per cent. or more of the share capital (jointly or on their own), but there is no certainty that a director so elected will be appointed to the position of Group Managing Director since this is Remco's prerogative.

The Shell Board has acknowledged in its 2002 Annual Report and Accounts that the Chairman of Shell Transport is currently also the most senior executive director of the Group, which conflicts with the Code principle that there should be a clear division of responsibilities at the head of the company. It is argued that the existence of the Committee of Managing Directors ensures that no one individual has unfettered powers of decision and therefore that the spirit of the principle set out in the Code is complied with.

However, due to the informal nature and constitution of the Committee, it could be argued that its existence does not, in and of itself, solve the problem since the Committee's legitimacy, when viewed from the outside, is far from clear (see 2.1 below).

1.5 Joint Committees

Royal Dutch and Shell Transport have formed a number of joint Committees to assist with the discharge of their respective governance responsibilities. Of relevance to the provisions of the Code are the Group Audit Committee (to monitor and report on financial and risk matters) and the Remuneration and Succession Review Committee (to make recommendations on remuneration and succession of Group Managing Directors; the exact powers conferred on this committee, beyond those relating to Group Managing Directors, are not clear from publicly available documents).

Each of these Committees is composed of six members, in each case three of whom are appointed by the Shell Board from amongst its independent members and three by the Supervisory Board of Royal Dutch from amongst its members. The requirement for such joint Committees raises the following governance issues for Shell Transport under the Code, each of which have been disclosed in its 2002 Annual Report and Accounts:

(a) the board committees dealing with audit and remuneration matters are joint committees of the Supervisory Board of Royal Dutch and the Board of Shell Transport with the chairmanship alternating between the two. This means that

the chairman of these committees will sometimes be a nominee of Royal Dutch and as such will not be able to attend the AGM. In these circumstances a Shell Transport member of the committee will deal with any appropriate questions at the AGM;

(b) the Remuneration and Succession Review Committee comprises six non-executive Directors including two former Group Managing Directors - one UK and one Dutch. The Boards have considered it helpful, given the complexity of the Managing Directors' salary structure in relation to other Group executives, for the Committee to include former Managing Directors, although theoretically the former Managing Directors are not "independent"; and

(c) the Remuneration and Succession Review Committee, as a joint committee of two independent Boards, is not able formally to "determine" the remuneration package of individual directors (who are not employees of Royal Dutch or Shell Transport). It makes recommendations to the Boards of Royal Dutch and Shell Transport which, if thought fit, pass the proposals on to the employing companies concerned for implementation.

2. GROUP-WIDE MANAGEMENT

The link between the respective top tier parent companies is provided by a committee, known as the "Committee of Managing Directors", and by a working group, known as the "Conference".

2.1 The Committee of Managing Directors

The Committee of Managing Directors is comprised of four managing directors from the Royal Dutch Management Board and two from the Shell Board (such proportional split being indirectly provided for in the Equalisation Agreement as the Committee of Managing Directors mirrors the constitution of the Presidium of Shell Petroleum NV which, it is stipulated in the Equalisation Agreement, must be made up of Royal Dutch representatives and Shell Transport representatives in the ratio 2:1). The members of the Committee of Managing Directors are known as the "Group Managing Directors".

The role of the Committee of Managing Directors is described by the Group as being that of considering and developing "objectives and long-term plans of the Group", yet neither its status nor its responsibilities are set out in the articles of either of the parent companies. Furthermore, no reference is made to such Committee in the trade register extracts of either Royal Dutch or Shell Petroleum NV. As a result, it is unclear what its powers and responsibilities in fact are, and the extent to which it influences and controls policy and decision-making of the Group.

The only conclusion which can be reached is that it is an internal arrangement of function, which is opaque to shareholders and the legitimacy of which is neither confirmed nor explained in the by-laws of the Group parent companies.

2.2 The Conference

Meetings of the Conference comprise some or all of the directors of Shell Transport and members of the Management and Supervisory Boards of Royal Dutch, together with senior executives from the operational companies of the Group. However, it is not clear which such executives or non-executives attend each meeting and whether or not attendees are selected from time to time. The purpose of the Conference is stated in the 2002 Annual

Report and Accounts as being to "receive information from Group Managing Directors about major developments within the Group and to discuss reviews and reports on the business and plans of the Group". In particular, the Conference apparently reviews and discusses, amongst other things:

- the strategic direction of the businesses of the Group;
- the business plans of both the individual businesses and of the Royal Dutch/Shell Group of Companies as a whole;
- major or strategic projects and significant capital items;
- the quarterly and annual financial results of the Group;
- reports of the Group Audit Committee;
- annual or periodic reviews of Group companies' activities within significant countries or regions; and
- governance, business risks and internal control of the Group.

Again, even though the list of responsibilities set out above are key management issues relating to the Group, neither the status nor the responsibilities of the Conference are set out in the articles of either of the parent companies and no reference is made to it in the trade register extracts of either Royal Dutch or Shell Petroleum NV.

One would commonly expect such important issues to be dealt with by a board of directors, the conduct and constitution of which is regulated in a company's constitution and open to public (or, at least shareholders) review, rather than by a guarded and opaque committee.

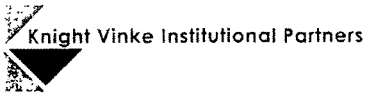
3 DRAWBACKS OF THE EXISTING GOVERNANCE STRUCTURE

3.1 Management by Committee

It would seem that, as a result of the Committee of Managing Directors / Conference structure, management of Group-wide policy and strategy is effectively conducted by committee.

Under the UK Combined Code, the delegation of certain board powers to committees for the purposes of, for instance, overseeing audit regulation and setting executive remuneration, are key tenets of the principles of best practice. However, these committees are required to be comprised of independent non-executive directors. In the case of the Committee of Managing Directors, all its members are executive directors and therefore the concept of independent review of its actions is completely by-passed, making it difficult to see how its existence can be considered in line with governance best practice. The Group may argue that the independent control is provided by the Conference, where both independent directors of Shell Transport and members of the Royal Dutch Supervisory Board are invited to attend. However, without any formal guidelines covering the conduct and powers of the Conference, it is impossible to say whether it offers any effective independent check on the operations of the Committee of Managing Directors. This in itself is contrary to overriding principles of good corporate governance, such as the requirement for formal and transparent management structures and clarity of divisions of responsibility.

The concept of group-wide strategy being controlled by a small committee of executive directors from two distinctly separate boards, under the apparent review of a seemingly more independently represented forum (in the shape of the Conference), is highly unusual in the context of UK and Dutch listed companies. It raises the question of upon what basis the directors of each of Royal Dutch and Shell Transport can consider the delegation of such powers to be in the best interests of their respective companies.



3.2 Method of appointment to the Royal Dutch Board/ Management Succession

Another issue arises when one considers the process of succession to these 'super-committees'. The Remuneration and Succession Review Committee (*see above*) reviews and endorses candidates for appointment to the position of Group Managing Director. When considered with the power of the Royal Dutch priority shareholders and the Shell Transport Nomination Committee, it becomes clear that succession to senior group executive posts is very much internally driven and controlled. As a result, there is very little direct shareholder influence on the constitution of these governing bodies and no clear lines of accountability to their members.

This is particularly relevant in the context of Sir Philip Watts' retirement within the next 18 months and the likelihood that his successor will be appointed by virtue of tradition from the Royal Dutch Board of Managers -- the appointment (traditionally) alternating between Royal Dutch and Shell Transport. As mentioned, there is a lack of shareholder input in the nomination process to the Board of Managers and Supervisory Board of Royal Dutch due to the archaic "grandfathered" binding nomination rights enshrined in the articles. This results in no influence for the shareholders on nominations to the various joint Committees, including the Committee of Managing Directors, other than indirectly through participation as a shareholder in Shell Transport.

We are of the view that vacancies for the most senior executive positions within a multinational group such as Royal Dutch Shell – in particular to the position of Group CEO – should be open to the very best possible candidates, both internal and external, and that the selection process needs to be as transparent as possible.

3.3 Conflict at top tier Board level

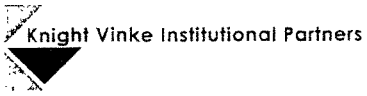
The Boards of the two top tier companies are comprised of two different groups of executive and non-executive/supervisory board directors. Each Board is bound to consider the separate interests of their respective companies and their own shareholders. This can obviously result in conflict at the top tier level which can be detrimental to the Group as a whole. The Conference, which attempts to alleviate this problem, is too large a body to be effective in case of true need and, as discussed above, is lacking in legitimacy.

3.4 Transparency of Group decision-making body

The present decision-making body at a Group level takes the form of the Committee of Managing Directors, which is an internally appointed body, lacking in transparency and accountability and with no defined lines of succession. Fundamental decisions regarding overall strategy and direction of the Group are seemingly taken without review from any independent body or representative in the absence of any defined powers or specific responsibilities being reserved to the Conference.

3.5 Direct accountability of Chief Executives

The distribution of executives across the two top tier companies and the Committee of Managing Directors, dilutes and blurs lines of accountability to the Group's divisional chief executives in respect of performance and management of the Group. The amalgamation of the roles of Chairman and Chief Executive at Shell Transport blurs the individual responsibilities of the two roles.



4 UNILEVER AS A PRECEDENT

By way of comparison, set out below is a brief summary of the situation at Unilever, also a dual-headed group, which has recently announced a radical reform of its antiquated governance structures.

Unilever NV and Unilever Plc, the top tier companies of the Unilever Group, have operated under a dual-headed structure since 1929. The two top tier companies operate together as one company, with identical boards of executive directors, therefore avoiding the danger of the two boards moving in separate directions as can occur where the top tier company boards are different.

The identical composition of the two boards is ensured because the NV's articles of association grant to the holders of ordinary shares numbered 1 to 2,400 inclusive the right to draw up a binding nomination list for the appointment of directors by the general meeting of shareholders, and because the Plc's articles of association provide that no persons shall be eligible to be elected as directors except such persons as shall have been nominated by the holders of the company's deferred stock. NV Elma, a group company of NV and United Holdings Limited, a group company of Plc, each hold 50 per cent. of the ordinary shares numbered 1 to 2,400 in NV and 50 per cent. of the deferred stock in Plc. These two group companies, therefore, together draw up the nomination lists for the election of directors and only the persons nominated by them may be elected.

Each top tier company of the Unilever Group has advisory directors appointed by their respective boards. Although not required under the articles of association, the advisory directors appointed by each board tend to be the same. They are the principal external presence in Unilever's governance. Although they are not able to vote at board meetings they have a supervisory role and are members of the various joint committees such as the executive committee, audit committee, corporate risk committee and the nomination committee.

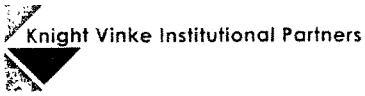
Included in the announcement of the Unilever Group's annual results published on 12 February 2004, was the following statement which outlines the group's response to developments in corporate governance regulation in its main reporting countries:

"The most important change is a move to a unitary board for both parent companies, Unilever N.V. and Unilever Plc. Our current Advisory Directors will be proposed as Non-Executive Directors, ensuring that both Boards will be identical in composition and will be comprised of a majority of independent Directors. All Directors will stand for election each year. This governance structure will further enhance transparency and will be, at all times, subject to shareholder choice."

The result will be to introduce an independent element to both boards and shows a willingness to provide more effective shareholder participation in the appointment of directors. This sets an appropriate precedent for other multi-national quoted companies and highlights a welcome shift in approach with respect to issues of governance best practice and shareholder participation.

5. PROPOSALS FOR CHANGE

It is stated in the Royal Dutch and Shell Transport 2002 Annual Reports and Accounts that they "aim to be at the forefront of internationally recognised best governance practice". The recent statement by Unilever referred to above shows that other similarly structured multi-nationals have recognised the need continually to update and refine their



governance structures to enhance transparency and shareholder influence. With this in mind, the following proposals for change could be raised with the boards of Royal Dutch and Shell Transport with a view to improving the Group's corporate governance structure and increasing the ability of its shareholders to influence its management, whilst maintaining the present dual-headed corporate structure.

5.1 Appointment of Group CEO and non-executive Group Chairman

It is proposed that two individuals be appointed to the boards of both Royal Dutch and Shell Transport, functioning, respectively, as Group Chief Executive and non-executive Group Chairman. The CEO position needs to be at the top of an unambiguous chain of command, with clearly delineated responsibilities and accountability to the Group's boards. Finding a world-class CEO to step into Sir Philip Watts' shoes will necessarily involve both an internal and an external search, and if clarity is not achieved in this respect, the best candidates are unlikely to be interested. Responsibility for considering and developing objectives and long-term plans for the Group should pass to the boards of the top tier parent companies.

5.2 Reorganisation of the Committee of Managing Directors

The Committee of Managing Directors should be reorganised to function in much the same way as the "executive committee" of other similar sized multi-national groups. With unified boards (see below), the *raison d'être* of the Committee of Managing Directors as a means of arbitrating between the interests of each board no longer applies.

5.3 Unification of the top tier Boards by symmetrical appointment

The appointment of the same executive and non-executive directors (including independents) to each of the Royal Dutch and Shell Transport Boards, thereby effectively appointing a de facto Group board, would ensure clarity of responsibility and accountability at the top tier level and minimise inefficiencies and conflicts. It would also give the Shell Transport non-executive directors more of a say in the way the Group is managed.

5.4 Modification of Royal Dutch Shareholder Rights/ Adoption of Tabaksblat Rules

Royal Dutch should be bound to accept nominations for board appointments put forward by shareholders holding one per cent. or more of its issued share capital and, furthermore, should abide by the Tabaksblat rules concerning binding nominations.

6. BENEFITS OF THE CHANGES PROPOSED

6.1 Appointment of Group CEO and non-executive Group Chairman

It has been argued in the past that the unorthodox corporate governance structures in place at Royal Dutch and Shell Transport have worked successfully for decades, so why change them? The circumstances today are somewhat different: the recent reclassification of reserves has cast significant doubt on the Group's reputation for conservatism; its reserve replacement track record appears to have fallen behind that of its peers; its stock price is near its 5-year low; and the Group faces class action lawsuits and investigation by the SEC. It may be hard to demonstrate strict cause and effect with respect to the past booking of reserves – but a more orthodox corporate governance structure combined with

an internal and external search for a world-class Group CEO should set the scene for regaining the market's confidence and a re-rating of the Royal Dutch and Shell Transport shares.

6.2 Reorganisation of the Committee of Managing Directors

The reorganisation of the Committee of Managing Directors along the lines of an "executive committee" reporting directly to the CEO would allow key decisions regarding the Group to be centralised and to be subject to review and input by independent/supervisory directors, thereby better reflecting generally accepted rules of best governance. It would also bring greater transparency to the management of the Group, improving lines of accountability and efficiency and returning management power to bodies that are directly answerable to the shareholders.

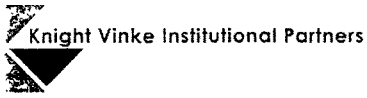
6.3 Unification of the top tier Boards by symmetrical appointment

The effective unification of the top tier boards would remove the need for any unifying management committee and return ultimate group-wide management control to the top tier company boards where non-executive, and particularly independent non-executive, directors will be able to contribute to and supervise Group-wide decision-making. A unitary board would also make it easier to highlight and enhance the role of the Group's chief executive, whilst ensuring that the decision-making process is reviewed by an independent body of directors. In addition, the proposed changes would bring shareholder influence closer to the Group executive, especially if coupled with changes to the director nomination procedure as outlined below.

An instructive example is that of Reed Elsevier, which itself was formed from a merger between UK and Dutch companies - the removal of its four-person management committee in 1999, in favour of a unified command led to greatly improved performance.

In order to implement and maintain a unitary board structure, an arrangement similar to the appointment structure adopted by Unilever could be used (except that non-executives would be appointed directly onto the main boards rather than constituting an Advisory Board), as follows:

- shareholders of Royal Dutch to appoint 60% of executives and non-executives of Royal Dutch ("A directors");
- remaining 40% of executives and non-executives of Royal Dutch are appointed (by shareholders of Royal Dutch) upon the (binding) nomination of the priority shares, which are held by a foundation of which the board always nominates the persons appointed by the shareholders of Shell Transport ("B directors");
- shareholders of Shell Transport appoint 40% of executives and non-executives of Shell Transport (the "B directors"); and
- remaining 60% of executives and non-executives of Shell Transport to be appointed by a subsidiary of Shell Transport holding deferred shares in Shell Transport and instructed to vote in favour of the same persons as the A directors.



6.4 Modification of Royal Dutch Shareholder Rights/ Adoption of Tabaksblat Rules

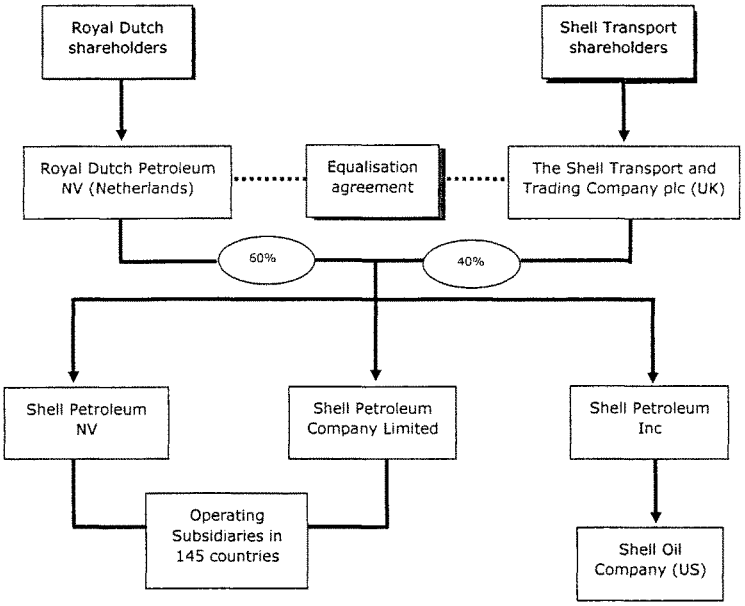
The articles of association of Royal Dutch currently allow shareholders (acting individually or in concert) holding 1 per cent. or more of the share capital to propose nominations for appointment to the Board. However, the priority shareholders are not bound to accept such proposals and may, at their sole discretion, disregard them when proposing nominations to be voted on by the shareholders in general meeting. Abolition of the right for the priority shareholders to disregard nominations duly proposed by shareholders and replacing it with an obligation for the priority shareholders to nominate such persons would ensure shareholder participation in the lines of succession to the Royal Dutch Board.

The mechanism of binding nomination rights needs to be brought into line with modern-day governance principles and should at the very least follow best practice in the Netherlands. Although most Dutch listed NVs currently permit shareholders to reject the board's nominations (and to appoint their own nominees) by a two thirds majority of the shareholders present at the general meeting (provided they represent 50% of the share capital), this system is considered to be unworkable in the ambit of large listed companies with wide shareholder bases, such as Royal Dutch. The new Dutch Corporate Governance Code contains a best practice rule (IV.1.1) stating that an absolute majority (50% plus one vote) of shareholders present may override any binding nomination and that such shareholders need only represent more than 1/3 of the issued capital. This is the minimum standard which Royal Dutch should be setting for itself.

New York
24 February, 2004

APPENDIX 1

ROYAL DUTCH/SHELL
combined group



Knight Vinke Institutional Partners

APPENDIX 2
ROYAL DUTCH/ SHELL CORPORATE GOVERNANCE

TOP TIER COMPANIES	ROYAL DUTCH PETROLEUM NV	THE SHELL TRANSPORT AND TRADING COMPANY PLC
	Board of Managers Jeroen van der Veer (President) Walter van de Vijver (CEO) Malcolm Brinded Rob Routs ***Supervisory Board*** Aad Jacobs (Chairman) Wim Kok Jonkheer Aarnout Louden Prof Hubert Markl Prof Joachim Milberg Lawrence Ricciardi Maarten van den Bergh (former Executive) Henny de Ruiter (former Executive)	***Board of Directors*** Sir Philip Watts (Chairman & Managing Director) Judy Boynton (CFO) Sir Mark Moody-Stuart (Non Exec & former Chair) Teymour Alireza (Non Exec) Sir Peter Burt (Ind Non Exec) Dr Eileen Buttle (Ind Non Exec) Luis Giusti (Ind Non Exec) Mary Henderson (Ind Non Exec) Sir Peter Job (Ind Non Exec) Sir John Kerr (Ind Non Exec) Lord Oxburgh (Ind Senior Non Exec)

Committee of Managing Directors
Sir Philip Watts (Chairman)
Jeroen van der Veer (Vice Chairman and **CEO Chemicals**)
Walter van de Vijver (MD and **CEO Production & Exploration**)
Judy Boynton (MD and CFO)
Malcolm Brinded (MD and **CEO Gas & Power**)
Rob Routs (MD and **CEO Oil Products**)

INTERMEDIATE TIER COMPANIES	SHELL PETROLEUM NV	SHELL PETROLEUM COMPANY LIMITED	SHELL PETROLEUM INC
	Board of Directors Sir Philip Watts (Presidium) Jeroen van der Veer (Presidium) Walter van de Vijver (Presidium) Judy Boynton (Presidium) Malcolm Brinded (Presidium) Rob Routs (Presidium) Henny de Ruiter Sir Mark Moody Stuart Maarten van den Bergh	***Board of Directors*** Sir Philip Watts Jeroen van der Veer Walter van de Vijver Judy Boynton Malcolm Brinded Rob Routs Henny de Ruiter Sir Mark Moody Stuart Maarten van den Bergh	***Board of Directors*** Robert F Daniel Vilma S Martinez Lynn Elsenhans Curtis R Frasier Steven L Miller Gordon R Sullivan M Fran Keeth Raoul Restucci Sir Philip Watts

OPERATING TIER	Non US Operating Companies	US Operating Companies

Royal Dutch Shell Internal Review of Governance Related Issues:

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the Need for a More Transparent and Structured Approach

78

Notes for a Meeting with Messrs.
Aad Jacobs and Jeroen van der Veer
May 2004

The Royal Dutch Shell Group and Corporate Governance

- Royal Dutch Shell's Boards are each "committed to upholding the highest standards of integrity and transparency in their governance of the Company".
- They also each aim "to be at the forefront of internationally recognised best governance practice".

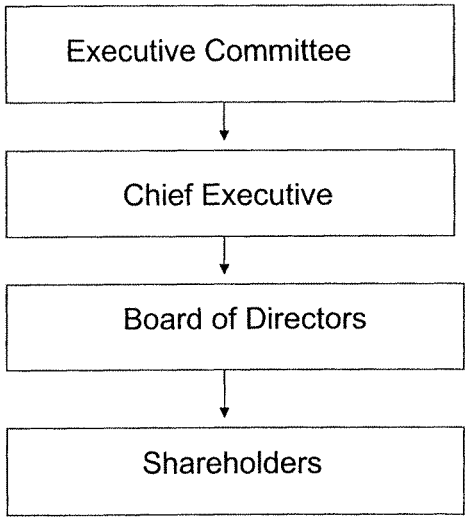
Royal Dutch and Shell Transport Annual Reports 2002

Royal Dutch and Shell Transport
Special Arrangements

- "The framework within which the Boards operate is conditioned to some extent by Royal Dutch's unique relationship with Shell Transport, and this results in some special arrangements which may not be appropriate in other companies".

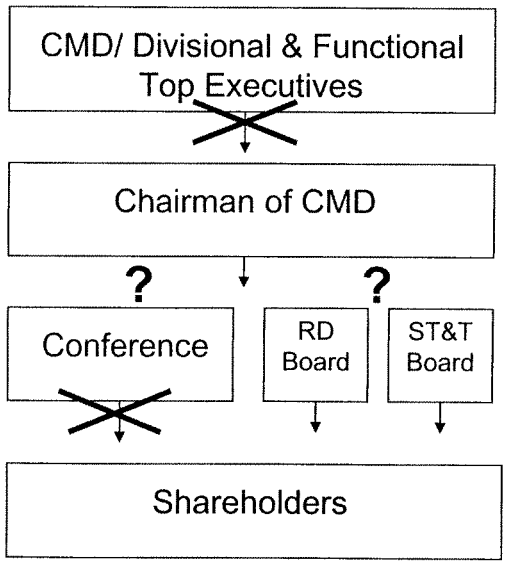
- The Group's main justification is that these have existed for decades and have served shareholders well.

Public Company Governance – Typical Building Blocks



- Senior Management reports to the Chief Executive
- The CEO is accountable and reports to the Board
- The Board is accountable and has a fiduciary duty to the Shareholders

Structures - Royal Dutch Shell



In Red: Informal Bodies/ Positions

- It would appear that the Group's most senior executives do <u>not</u> report formally to the Chairman of the CMD.
- It is not clear to whom the Chairman of the CMD reports and to whom he is truly accountable.
- The Conference as an entity is not directly accountable to shareholders and yet appears to have appropriated the Boards' main functions.
- Shareholders are not able unilaterally to nominate directors to the RD Board in case of under-performance
- Nominating to the ST&T Board is of limited effect (given ST&T's limited control).

Shareholder Concerns

- Royal Dutch Shell's governance structures are unorthodox and have survived unchallenged mainly due to lack of serious crises in the past.

- The "reserves débacle" is blamed on one or two "bad apples". According to the Company, the system is not at fault.

Whether or not this is true, the market's confidence has been shaken badly and this issue needs to be addressed with sensitivity.

Shareholder Concerns

- We and other shareholders believe that Royal Dutch Shell's "special arrangements" may have fostered management inefficiency and unclear lines of accountability.
- We also believe that they may act as a deterrent to the emergence of strong leadership in the future and the creation of shareholder value.

Listening and Thinking Process

5th February

"We need to think hard about group structure. I think we have to get into some serious conversations with our shareholders and see what they have to say. But this is not a commitment to do anything." *Sir Philip Watts*

5th March

"Shell will remain in listening mode until its annual meetings on 23rd April. After that, there will be a thinking phase and it would be natural for the Company to address these issues at its 2005 annual meeting." *Jeroen van der Veer*

18th March

"Shell is considering the views of investors in respect of overall governance of the Group, including the composition and operation of the parent and holding company boards...The outcome of this review will be made public in good time to enable the process to be concluded at the AGMs in 2005." *Jeroen van der Veer*

19th April

"In light of today's [Davis Polk] report, the Boards have decided to accelerate the review. A working party has started and is empowered to take external financial, legal and tax advice and is exploring all possibilities for improving governance and structure."

"An update on its progress and an expected timetable for its conclusions will be given at this year's AGM on June 28, 2004." *Jeroen van der Veer*

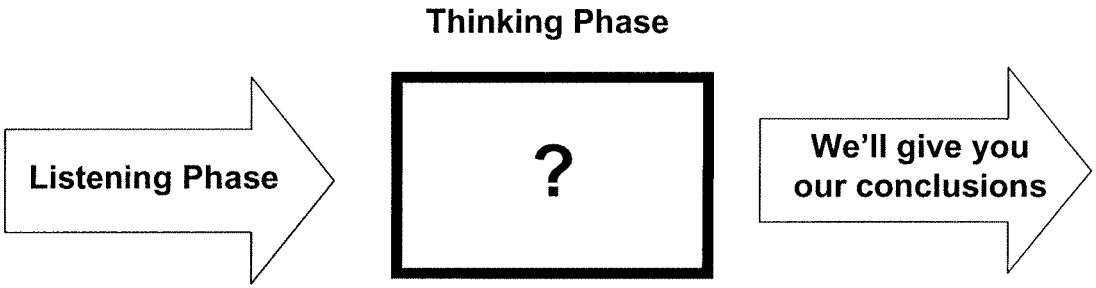
Royal Dutch Shell's response - actions

The Group also points to certain actions which it has taken:

- Divisional CFOs now to report to the Group CFO
- Non-Executive Chairman at Shell Transport

Although these steps are appropriate, a far more radical transformation is required.

The “Black Box” Approach



- The process is opaque and leaves the market with great uncertainty for several months.
- It is unstructured – the objectives to be achieved are not announced clearly in advance and there is no mechanism for external monitoring.

What Do Shareholders Want?

		Announced
1.	The establishment of a board-level committee comprised of non-executives from Royal Dutch and Shell Transport to undertake a rigorous and wide-ranging re-examination of the Group's "special arrangements" and more generally the way the Group is managed.	?
2.	Publication in advance of the terms of reference of this committee – with precisely stated objectives, the names of the participants, an agreed timetable and regular feedback to the market.	
3.	Access by the committee to independent financial and legal advisers.	Yes
4.	Express provision for regular consultation with representatives of the Group's long-term shareholders during the committee's process.	
5.	Publication of the committee's conclusions and recommendations.	Yes

What Shareholders are Not Seeking

- We are not seeking to be prescriptive about the structure which achieves our common objectives. i.e.,
  - we are not necessarily seeking a merger of RD and ST&T.
  - we are not necessarily seeking an Anglo-Saxon style combined executive and non-executive board.
- We are also not seeking blind compliance with the Tabaksblat or Combined Codes.

Terms of Reference - Objectives

As part of its terms of reference the Committee should (at the very least) address the following:

- The role and authority of the chief executive
- Management succession
- Board succession
- The composition of the Group's boards

Role and Authority of the CEO

- The role of the CMD is described as being that of considering and developing “objectives and long-term plans of the Group” yet neither its status nor its responsibilities are set out in the articles of either parent company nor in the trade register extracts of Royal Dutch or Shell Petroleum NV. Its powers and responsibilities are unclear to the outside world.
- The Chairman of the CMD – often presented as a Group CEO – appears to have no formal powers or responsibilities.
- The absence of a true Group CEO with clearly delineated authority and overall responsibility for management of the Group is of great concern to shareholders.

Management Succession

- We believe that there should be a transparent board-level process, including external searches, shareholder consultation and a suitable evaluation period, to address management vacancies at the highest executive level.
- Competition is one of the key Business Principles by which the Royal Dutch Shell Group conducts its affairs; it is important that this also be seen to apply to the selection of the Group's most senior executives.
- Recent and forthcoming management changes need to reflect this.

Board Succession

- There is a lack of mechanisms for meaningful shareholder involvement in the selection of the Group's directors, including the CEO.
- In particular, the rights of Royal Dutch's priority shareholders need to be re-examined, both in light of best practice and as a practical matter.
- We believe that the Group does not need protections of this nature and, given its aspirations, should be prepared to accept nominations from 1% shareholders as a matter of principle.

Composition of the Group's Boards

- The fact that the Group's two main boards are composed of different individuals makes it difficult for any Group CEO to know where his allegiance and accountability truly lie.
- Reed Elsevier – also a complex, Anglo-Dutch Group – resolved this issue by making its two Boards identical.
- No solution is ideal, but the Conference, which is both too large and unaccountable directly to shareholders, has clearly demonstrated its limitations.
- Ideally, the Group CEO should be accountable to a unified Group Board, headed by a non-executive chairman. The composition of this Board could reflect the 60/40 split of assets.

Conclusion

- Royal Dutch Shell is going through an unprecedented crisis of confidence related to the reclassification of its reserves. Its reputation for integrity and conservatism have been badly dented.
- With the regulators focusing on what happened in the past, the Group's long term shareholders need (and want) to look to a better future.
- Governance changes are a vital part of this forward-looking exercise and Royal Dutch Shell needs to go beyond minimum standards imposed by regulators to restore the market's confidence. A radical transformation is required.
- The "Black Box" approach goes against the grain of what shareholders are seeking – and is inconsistent with the high governance standards to which the Group aspires.
- A more transparent, structured approach to the Group's transformation is a necessary part of this process.

Hearing on Oil & Gas Accounting & Disclosures

COMMITTEE ON FINANCIAL SERVICES

U.S. House of Representatives

Washington, D.C.

July 21, 2004

By: Matthew R. Simmons
President

SIMMONS & COMPANY
INTERNATIONAL

I am Matthew Simmons, Chairman and CEO of Simmons and Company International, an investment banking firm that has solely concentrated in providing energy research and corporate finance advice to corporations and institutional investors for the past thirty years. Our firm has been the advisor on over 500 individual projects, public and private offerings and mergers and acquisitions. The cumulative value of the projects the firm has completed exceeds $60 billion. I am also a member of the National Petroleum Council, The Council on Foreign Relations and the Atlantic Council of the United States.

I am honored to have the opportunity to address the topic of the accounting and financial disclosure of our oil and gas industry to this important committee that has led the way to a higher standard of corporate governance. The topic we are discussing today is timely and important as I feel our entire energy reporting system globally and in the United States is badly in need of reform. Our current system lacks the reliability and transparency that should be mandatory for something as important to our economy and way of life as energy.

Until Shell Oil Company shocked the world with a 20% reclassification of its proven reserves, followed by a litany of other publicly held oil and gas company reserve write-downs, most energy industry observers casually assumed that the information presented by our publicly held oil and gas companies contained quite accurate assessments of individual oil and gas company results. In fact, the system has always had numerous flaws that grew in magnitude in recent years as fewer appraisal wells were drilled, as new oil and gas exploration and exploitation projects increased in complexity, as decline rates in existing oil and gas fields accelerated and as new projects got increasingly smaller in terms of potential reserves.

A tell-tale sign that the reported oil and gas results were askew was the wide number of public companies which routinely reported additions of 120 to 150% in proven reserves compared to their annual oil and gas production while fewer and fewer of these same companies showed any meaningful growth in their production volumes. In reality, a host of time-tested measures to assess reserves and their potential recovery dwindled as the price of oil and gas stayed too low to commercially afford the "standard tests." The industry ended up using far fewer outside third-party reserve engineers to help assess the level of proven, probable, and possible reserves. The number of appraisal wells that always follows a new field discovery dwindled by a substantial degree. The use of coring to test a new reservoir rock's properties fell and often limited flow tests, or no flow tests were conducted. Instead, the industry began relying heavily on far less geophysical data accompanied by expensive well bore testing (though these tests only measure a small radius beyond the well bore itself.) Computer simulation models then produced estimates of the amount of hydrocarbon a hydrocarbon-bearing structure might contain and the 90% or highly certain part of these hydrocarbons that represent "proven reserves." Lacking in this new era of high technology was the old system of testing what the reservoir rocks contained.

While geophysical technology improved by quantum leaps, as did computer techniques to "interpret" what this data meant, none of these techniques could easily determine the limits to where easily producible reserves lie. Since the cost to obtain seismic data and computer costs to analyze this data were infinitely less expensive than drilling more actual wells, the expenditure to "prove up" reserves plummeted. Furthermore, since few appraisal wells were drilled, there was less knowledge of the geological limits to producing a structure. As a result, with less well-bore data, it became easier to feel "comfortable" that a field contained a certain level of proven reserves.

In the low price environment that the industry struggled through for too long, the pressure mounted to declare "proved reserve" status as early as possible so all additional costs could be capitalized.

In my opinion, all these trends led to a widespread industry bias of booking higher levels of proven reserves while being able to spend far less money to create these reserves than would have been spent one or two decades ago. This not only created a cushion of proved reserves that might or might not ever get produced, but it also led to a possible illusion that finding and development costs per barrel were far less than the amount of money that needed to be spent to accurately assess a new reservoir's real reserve potential. Some of these reserves and some of the apparent cost reductions might end up being illusionary.

Proven reserves and accurate costs per barrel are not the only deficiencies in our system of capturing and reporting accurate and timely energy statistics. Today, the single biggest factor to begin estimating a single company or a country's future oil and gas production is to properly assess the rate of decline occurring in a company's existing oil and gas production. Yet there are no reports issued by any of the public, private, or national oil companies that even hint at the annual decline rates by each production region, let alone any field-by-field data.

If these flaws were not bad enough, we also ended up with no requirement today for a company to produce a detailed report of its aggregate total reserves. The only reports that companies are required to detail are the reserves each company deems to be "proven." Since proven status is what is deemed to be a 90% or better certainty, there is no way to create any uniformity for what constitutes "90%" from one company to another.

Even if a way was created to make these reported reserve numbers precise, the data still does not provide an analyst with a reliable tool to begin assessing field-by-field decline rates, or the degree to which a reporting company is being overly conservative or overly aggressive. This lack of reliable disclosure is not limited to only publicly held oil and gas companies. The problem extends to global oil and gas supplies. In fact, the problem of lack of detail and little transparency is far worse for all the national oil companies, particularly all the OPEC member countries. We have now evolved into a systemic "Trust Me" era for all energy providers.

With the capital intensity of the industry now starting to soar, the world's remaining spare oil capacity slim to possibly now becoming non-existent, and petroleum inventories now operating on a just-in-time basis, the "Trust Me" era needs to end. The time has come for all key oil and gas producers to join in a reform of how reserves and current production is reported.

The Energy Information Agency (EIA) in the United States has recently requested that all natural gas producers begin supplying current production data to our government. Absent this reform, the best supply information lags real production by as many as 6 to 18 months. We can no longer tolerate such a time lag with natural gas supply probably in a permanent decline. While the reporting of their production data to the EIA would be too costly, I argue it is too costly to our economy's well-being not to have timely, accurate production data.

This fall, the International Energy Agency (IEA) in Paris is calling for a mandated new set of reserve reporting and detailed field-by-field production reports by all key global oil producers. I applaud both the EIA and the IEA's data reform efforts and would urge the IEA to also extend these efforts to natural gas.

As the IEA presses all national oil companies, but in particular all OPEC producing countries for this new data reform, it is important that all U.S. publicly held oil and gas producers take the lead in such a data reform. Otherwise, it will be easy for all OEPC producers to balk at reform if ExxonMobil, BP, Shell, etc., are not held to the same standards.

In my opinion, the best data reform is for all global key producers to begin timely reporting of field-by-field daily oil and gas production (or production from key producing units) and accompany this new disclosure by the number of producing well bores from each production unit so analysts and public policy planners can finally begin to assess field-by-field decline rates. Absent such data, there is no way to even guess at future supplies by company or country.

On the proven reserve side, it will remain impossible to set a unified way of assessing a common definition of proven reserves. An important change would be to report, by key production unit, three key reserve estimates. First is the current estimate or the original hydrocarbons in place. Second is the current estimate of ultimate recoverable reserves. Third is the cumulative production already produced. The remaining "recoverable reserves" can then be broken into proven, probable and possible. With this added layer of disclosure, it is not so crucial that every producer meets the same 90% probability test. Analysts can gauge the quality of the layers of reserves left to produce and then dig out better answers through follow-up analysis. Today, there is so little data disclosed that analysis is difficult.

These new reforms also need some form of third party expert certification to insure the data is as accurate as GAAP accounting should be if properly applied. Third party reserve engineers do not need to calculate proven reserves just as CPA firms do not need to produce a

company's financial statements. But, it adds a degree of comfort to have an independent expert certify that the data was properly prepared.

What this suggested reform will do, if implemented, is begin to lay out the same level of data as that which was required by our public companies when key business segment detailed reporting began being mandatory at the tail-end of the conglomerate era. Before this business segment reporting was enforced, a company could simply report total revenues and earnings with no segment breakdown. This, too, represented a "Trust Me" era and it, too, came to an end.

The beauty of enacting a detailed breakout of key production and reserve data by key units is that all companies already possess this data. It is exactly the data a lender requires when a company wants to borrow funds against reserves. It is what any company wanting to sell reserves needs to furnish to a knowledgeable buyer.

If it means a company has to add even 20 to 30 more pages to its financial reports, this is a small cost when compared to today's system which leaves too many shareholder owners or potential shareholders in the dark. Why should shareholders not have access to the same data any lender or reserve buyer demands?

If this data reform happens, and it could happen quickly if all stakeholders join in the request for such key details, the whole world will be better off. We will begin an era when genuine analysis of our energy system's reliability and true profitability can be ascertained.

The time for this reform is at hand. This Committee can play an important role in helping this reform be effected.

Thank you for the opportunity to address these issues.

THE PROVEN RESERVE "SCANDAL" CAN LEAD TO ENERGY DATA REFORM

by
Matthew R. Simmons
Chairman & CEO, Simmons & Company International

Does the oil and gas industry now have a proven reserve scandal? Will the current rash of proven reserve reclassifications soon run its course, or could the industry now be seeing just the tip of a much larger iceberg? Does it even matter if a growing number of our leading oil and gas companies have overstated their initial proven reserve bookings? Has not the industry always ultimately ended up with sizable proven reserve appreciation as more and more is known about individual oil and gas fields? Are proven reserves even important anymore as either a valuation metric or a predictor of future oil and gas production?

These are all serious questions. It does matter if proven reserves have been too optimistically booked, as proven reserves are still the raw material for all future production growth. If proven reserve bookings have been too large, then the likelihood of future reserve appreciation is also low. It also suggests the industry might have created an illusion of lower per barrel costs by dividing the cost pool by an unrealistically large amount of proven reserves.

Do we now have a true Proven Reserve scandal? It is impossible to know. What is truly scandalous is the total lack of quality data available for analysts and/or shareholders to begin assessing whether this reserve booking issue is an industry-wide systemic problem or just a series of individual company mistakes.

The problem with estimating "Proven Reserves" stems from how difficult and challenging it still is to calculate the amount of oil and gas in place (commonly referred to as OOIP), let alone judge the amount that can ultimately be recovered. Once a calculation is determined on the estimated ultimate recoverable reserves (commonly known as EUR or URR), these are then narrowed into three categories: Proven reserve status (P1), probable reserve status (P2) and possible or contingent reserves (P3). As the filter narrows from OOIP to final proven booked reserves, the odds of anyone being exact to the extent of a 90% certainty in these calculations (or even close) plummets, unless the field is exceptional in reservoir quality or the initial estimate is extremely conservative.

It is unfortunate that the term "Proven" was ever adopted for what has always been a mere estimate of the oil and gas reserves that seem highly likely to be extracted from the ground. Estimates of total reserves are never proven until the last barrel is produced and the producing wells in a given field are capped. This is analogous to the process of estimating a human being's life span, the ultimate proof being when the obituary is written.

Is getting the quantity of proven reserves correct important? The answer is both "yes" and "no." "No" is the correct answer if the estimate is likely to be extremely conservative. For many of the early discoveries of land-based oil and gas fields, or even the offshore fields found in shallow waters, there was never a need to be extremely precise on the total amount of reserves that could be produced. The critical test was always whether the field had sufficient reserves to amortize the cost of building roads, a pipeline for transportation of the produced crude or a shallow water platform. Thus, operators tended to drill enough appraisal wells to make sure these costs could be recovered. Once development wells were underway, large fields grew as wells were drilled further and further from the field's crest where the New Field Wildcat is almost always drilled.

This practice of always leaving some "money in the bank" for what we now call "legacy assets" gave rise to the high level of reserve appreciation as time passed and the number of development wells grew. Thus, for the conservatively estimated giant discoveries, "No" was the correct answer to how critical it was to precisely gauge proven reserves.

As legacy assets dwindled and fields became smaller or occurred in more challenging water depths or more challenging reservoirs, or both, assessing the total amount of OOIP, let alone the EUR/URR became more complex. Because the price of oil stayed low, it became increasingly difficult to justify new projects but it was far more important to try to assess the highest level of reserves a field

might have. Otherwise, a potential project's authority for expenditure (AFE) might fail to pass muster as being commercially attractive. For this generation of oil and gas fields, it did become more critical to precisely define the reserves that could be recovered.

In the low price environment of the past decade or two, it also became increasingly important to book potential project resources into "proven reserve" status as early as possible when a field was about to be developed. If this was done, all the field's remaining development costs could be capitalized and then expensed over the life of the field as depreciation, depletion and amortization or "DD&A", otherwise all costs incurred would have to be expensed. This earnings sensitivity undoubtedly "nudged" many oil and gas companies into booking proven reserves quicker than a perfect world's data would justify.

How are proven reserve estimates calculated? Has the process vastly improved over the last few years in concert with the oilfield technology revolution? Or, is the process of estimating proven reserves still largely an art form of applying a series of scientific guesses to a series of unknown or partially known "facts"?

The process of calculating proven reserves begins with the technology of mapping a field's size. Modern 3-D seismic surveys now create images of incredible quality compared with what used to be gold standard 2-D technology. The new suite of logging tools employed to determine the characteristics of a

reservoir and gas/oil/water saturation has improved immensely. But, this well logging data only covers a few feet beyond the well bore. New reservoirs now being developed are often much more complex than a decade ago. In many cases, the technological advances allowed more complex structures to be developed but the increased complexity also simply offset the added value of the technology.

Despite the many technical advances of the past decade or so, the process of finding oil and gas and then properly booking the estimated reserves to be ultimately recovered still involves a complex series of guess work. The principal elements of the process have remained essentially unchanged for a decade.

When a structure that looks as if it has hydrocarbon potential is first mapped, the most likely place to drill is identified (usually at the structural crest or "up-dip"). A new field wildcat well is then drilled in this location. Most of the time, or about 70% of the time, there is insufficient evidence of commercial oil and gas and the effort is deemed a "dry hole." Too often, a structure being drilled seemed to have all the ingredients of a great new oil field but when a wildcat was drilled, the hydrocarbon had already apparently migrated elsewhere instead of being trapped as the geologist working up the project had assumed.

While the lack of sufficient oil or gas to prove commercial viability creates dry holes, the history of the industry has also been littered with tales of a dry hole

condemning a new prospective region, and years later, fresh reviews of the data suggests that the new field wildcat should have been drilled in a different spot. Some of the great oil and gas finds of the past 50 years were in areas someone mistakenly labeled "dry".

If a new field wildcat well is successful, it does not immediately prove the new field is a commercial success. Whether there are enough hydrocarbons to cross an economic success threshold is usually determined by then drilling a follow-up series of "appraisal wells" to test the thickness of the hydrocarbon-bearing column and the extent to which this column or series of columns extends across the areal extent of the structure.

After an operator drilled a series of appraisal wells, the new and enhanced well data was intensely analyzed by the reservoir engineers and compared to data from similar fields which are called "analogs." (In the investment banking world, we call this process using "comparables".) The reservoir engineers need to assess the reservoir characteristics across the structure to determine the permeability and porosity of the hydrocarbon bearing rocks. Some fields have exceptional "homogeneity" in that most of the entire reservoir has relatively uniform characteristics while others exhibit a high degree of heterogeneity, meaning that the reservoir characteristics vary significantly either laterally, vertically or both.

To obtain the highest quality knowledge in any new field which is expensive to develop, not only are a multiple series of appraisal wells important to drill but it is important that these appraisal wells are also both cored (a process involving cutting a sample of the actual rock that has trapped the hydrocarbon) and flow-tested for some period of time to determine how the flow properties of the rocks in various parts of a complex field actually work in producing commercial quantities of oil or gas.

Ideally, appraisal wells need to be drilled as close to the "edge" of a potential structure to fully test the ultimate size of a field. But, each added well can increase the total project cost significantly, so there is always a tradeoff between the search for perfect data and the limit to what can be spent.

The cost to properly drill multiple appraisal wells and then cut cores and flow-test the wells can be extremely high, even when drilling costs are low. Cutting cores and flow-testing can easily add up to 30 days to drilling an offshore well. But, operators who religiously practice this technique swear that it is the only insurance policy against developing a project that ends up being a commercial failure because the reservoir rocks did not behave as anticipated.

All the well data, seismic data, logs and "analog" analysis are ultimately entered into a reservoir simulation model. The model helps reservoir engineers develop their estimates of the OOIP, the EUR/URR, and finally the 90% certain portion of

URR/EUR. This forms the basis of "proven reserves" (or a reasonably certain standard as set by the SEC) that are booked as a field's development sanctioned process gets underway.

The ultimate factors that determine the recovery parameters are set or limited by the reservoir rocks. Mother Nature is still the main arbitrator of EUR/URR.

The role which modern technology plays in this whole process is often misunderstood and sometimes badly hyped as introducing a certainty into this inherently ambiguous process that is simply not possible.

Seismic technology and applications have advanced by great strides over the past two decades. The image quality is a step-change improvement from just a few short years ago. 4-D seismic shot over a series of different time periods can tell a great deal about the historic movement between the three phases of an oilfield: gas, oil and where the cursed water finally begins. But, a significant element of these crisp pictures is merely how a computer interprets this data. Thus, much of the sharper image is based on a series of assumptions, not facts.

Logging tools can now measure with far greater precision the true nature of the reservoir along the face of the well-bore, although these logs do not capture most significant changes which may occur in the rocks beyond a very short distance from the well-bore face.

Modern reservoir simulation modeling technology creates an unusually clear picture of what the reservoir probably looks like, though the simulation is still merely a mathematical representation of the myriad rock, fluid, pressure and temperature characterization. Simulators are only as good as the assumptions that drive them. Small changes to key assumptions can dramatically change the conclusions drawn from a simulation analysis.

It is important to note that neither 3-D seismic nor reservoir modeling can sense the true nature of the various types of rocks within a reservoir and how they actually allow hydrocarbon to flow. Only through drilling multiple wells that are cored and flowed can this key data be known. Even with this added knowledge, actual production over time can end up creating a dramatically different picture of a reservoir's true potential.

Over the course of the last two decades of low oil and gas prices, there is no question that the industry ended up drilling far fewer appraisal wells and cored even fewer of such wells. The process was simply too expensive in the low cost world the industry was forced to live with for too long.

Without drilling these multiple appraisal wells, the cost of finding new proven reserves plummeted. However, the extent of knowledge of a field's productive limits was often also reduced. This may have enabled a reserve estimator to feel

comfortable in booking a high amount of proven reserves as no conflicting data indicated otherwise.

How much the process of spending less and finding more contributed to finding and developing (F&D) costs plummeting from what was once as high as $20 to $25 per barrel to less than $5 in recent years might never be known. I suspect it had an enormous impact and created the illusion that the cost to extract oil and gas had come way down while the money spent to extract the oil and gas was steadily rising.

How commonplace has it been for companies to book aggressive amounts of proven reserves? It is impossible to know today as almost no data is ever revealed by any of the publicly traded oil and gas companies on field-by-field reserves. Partners owning parts of the same field often do not know even the amount the other partners estimate as the OOIP, let alone the URR, the P1 or Proven Reserves.

The only fact that does stand out as an indicator that many companies could have been too aggressive at booking proven reserves is the fact that companies booked far more proven reserve additions over the past five to seven years while their daily production of oil and gas steadily either declined or showed little growth. When a company has multiple years of high proven reserve growth AND production declines, then one of the two numbers is probably wrong.

Over time, any company that books a realistic amount of proven reserves and adds 125% more each year than it produces should start to see daily production volumes rise. It only takes four years of 125% proven reserve growth over current production for a company to theoretically double future production. If the daily production barely grows, a smell test suggests that the proven reserve additions could be too optimistic.

The whole area is confusing, but contributing to the problem is the complete lack of quality data for anyone to analyze.

There is a simple in-concept solution that will produce the additional data needed to assess the overall quality of a producing E&P company's asset base and defuse the whole P1 "proven reserve" issue. The concept is more difficult to implement, but it is better than today's system.

THE 13 POINT PROGRAM

My suggestion for the reform of reserve and production data reporting would begin by requiring all oil and gas companies to define their oil and gas asset base by key production units. For companies with interests in key fields, it is simple to then report each as a significant production unit. For companies holding scattered interests in many different areas, the selection of what

constitutes key production units becomes slightly more complex though perhaps this is even more important for a shareholder or prospective shareholder to know.

A company with varied interests in the Gulf of Mexico Shelf could list the GOM Shelf as a production unit, but the shelf should not be co-mingled with deepwater interests. The two areas are quite different.

Once a list of all key production units is presented, 13 pieces of data would then be reported for each unit. The first five pieces would be the past five years' production history and the next five would be the cumulative number of well penetrations for each of the five years.

If the only data reform was merely the disclosure of these 10 items, the energy world will be far better off because analysts and prospective shareholders can then divide total annual production into the number of producing wells and get a trend line of well productivity. If this ever gets widely adopted as a standard reporting procedure, analysts following the E&P industry could begin to grasp the power of depletion.

The last three pieces of information are more subtle, but just as important. The first two are simply estimates and should be clearly noted as such. These are the production unit's most recent updated OOIP, and the second is the most

recent estimate of the gross EUR/URR. Finally, the cumulative barrels produced from each production unit should be disclosed.

This new disclosure standard would not answer reserve and field productivity questions - the topic is far too complex for that. But providing these 13 data points by each key production unit will quickly highlight fields now into decline. The three sets of reserve data also provides solid clues of how far into decline each key field is.

This new disclosure can be summed up in three words: Simple, Available and Analyzable. All companies have this data and it is easy to analyze. If it is not readily at hand, this signals far greater problems for the company in question.

If all the key oil and gas providers in the world embraced this new form of reporting, it would trigger a massive re-evaluation of global resource adequacy. It would also give partners in shared oil and gas fields a glimpse at what their partners think the asset is all about. It would quickly highlight a company's asset quality. Those with highest quality would shine and those with old, depleting assets would also be revealed.

Is this data reform possible? Unless the stakeholders involved in owning these companies and the public policy groups that should worry about global resource

adequacy press for a change, nothing will happen. But the need for a change is becoming urgent.

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