PESA News

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In The News

PESA Elects Officers at Annual Meeting

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Immediate Past Chairman
Robert Workman, National Oilwell Varco
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Explorers of Houston
Charles E. Jones, Forum Oilfield Technologies, Inc.
Emerging Leaders Liaison
Bob Potter, FMC Technologies, Inc.
Energy Educators
Pat Bond, Smith Drilling & Evaluation

Event Calendar

PESA Chairmen's Planning Session

June 24, 2010
11:00 a.m. to 1:00 p.m.
Intercontinental Hotel, Houston

Oil 101

Oct. 25-26, 2010
8:00 a.m. to 4:30 p.m.
Norris Conference Center at CityCentre, Houston

For more information on this or any other PESA event, call (713) 932-0168.

One hundred eighty members and spouses registered for the 2010 Annual Meeting—the theme was "Managing Through Global and Economic Uncertainty." The meeting featured six leading industry speakers on two panels, eminent economist Don Reynolds, body language expert Jan Hargrave, and more. Planning for the meeting was led by incoming PESA Chairman Bill Coates (Schlumberger).

Annual Meeting 2010

Economy, stock markets to rebound for near-term growth

Editor's note: *This essay was compiled from Don Reynolds' keynote speech at the 2010 PESA Annual Meeting.*

In order to give a sound economic analysis, you have to ask yourself one question: "What's really going on in the world today?" But, before I get to that, I'd like to deliver the punch line in the beginning. I don't think anything so succinctly describes my personal feeling toward the economic environment as this: As an investor, I am 100 percent all in.

Recovery

Last year, we had a horrible hangover and were trying to work our way out of a crisis. We went from "how bad is it going

■ See Economy, Page 3

Oil in for strong recovery; gas to maintain $5

Oil is poised for a strong and long-term recovery, while gas will hover at current rates, says Marshall Adkins, Managing Director for Oilfield Services at Raymond James & Associates.

Adkins forecasts that oil prices will move steadily higher with prices averaging more than $100 over the next five years on very strong fundamentals. However, the oil to gas price disconnect will continue for at least the next 3 years and as much as 5 years with gas prices averaging $5 mcf—but $5 gas, he says, is not a disaster.

Demand Drives Oil

The international side of the industry is driven by oil, he says. Historically, analysts consulted oil inventories for pricing data, but that correlation has fallen apart. Crude prices today are driven by demand.

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If you have ideas for the coming year, give us a call

Thank you to everyone who attended PESA's recent annual meeting in Naples, Florida.

Our program committee put together an outstanding program and I believe everyone enjoyed having the opportunity to see old friends and make a few new ones. One of the great things about a PESA Annual Meeting is we always have some new members attending each year.

Thanks also to the companies who helped to sponsor our meeting. The contributors are displayed in our newsletter and we are very grateful for the support they give us.

Each year's annual meeting marks the end of a term at PESA and the beginning of a new one. We completed a very busy and productive year and we are grateful to last year's Chairman, Robert Workman (National Oilwell Varco), and the members of the Executive Committee and Committee Chairmen who dedicated a great deal of time and effort to PESA activities and programs.

PESA's Incoming Chairman, Bill Coates (Schlumberger), has already set up a planning session for this term's industry volunteers.

If you have ideas for programs for the coming year, please give us a call. PESA is a member-driven organization and we attempt to focus on the issues that are important to you. We thrive on your input and appreciate your ideas.

—Sherry Stephens
PESA President

I'm no longer 'slightly' optimistic

Those of you who know me are aware that one of the things I like to do is talk about what's going on in the business.

Last fall, I gave a presentation at a PESA luncheon on where I felt the industry was heading after the downturn. At the very last minute, I changed the title of my presentation from "An Optimistic View of 2010" to "A Slightly Optimistic View of 2010." I was a little nervous about the coming year.

I'm going to retract my "slightly optimistic" comment. Revenue in the U.S. and Canada was obviously higher than last year. And the rig count—one of the reasons that I was only slightly optimistic—was a little higher than we had forecast.

But that's not why I'm excited about the last half of 2010 and moving forward. We are in the midst of a fundamental market shift in our businesses. For the first time in both the U.S. and Canada, we have more rigs drilling horizontal wells than conventional.

This is not a temporary shift. This is a fundamental and permanent shift. This is a shift that I think we can look back and liken to the shale plays coming to prominence—they arrived more suddenly than anyone expected in terms of production, technologies, techniques and the ways in which the industry reacted to that very dramatic change.

We as suppliers in the industry bear a large burden of the research and development for new products and services. I think that in horizontal drilling, we have a lot of opportunity for innovation. It's an area in which I don't believe we've found the most efficient means of delivering maximum value in terms of extracting hydrocarbons.

Bill Coates

The horizontal trend is real, it's permanent in the U.S., and it's eventually going to be exported in a major way into the rest of the world. ExxonMobil announced the world's longest extended reach well in April, which is the higher end of this more general trend, but confirms the issue of using horizontal techniques for better extraction.

It's an absolute game changer in the way we as service and manufacturing companies think about how we plan the future.

Perhaps you're thinking, "what am I going to do in my product development portfolios or how am I going to service this market in the years to come?" I would encourage you to think about the horizontal world going forward.

Future of PESA

As Robert Workman (National Oilwell Varco) summarized in the PESA Annual Report, PESA not only survived 2009 but actually did extremely well—membership is up and the financial situation has frankly never been better.

We have a few new programs that are relatively young that have gotten traction—programs in which if you're not already involved, you should be.

One of these is the Emerging Leaders program, which was started with a lot of effort from Bob Potter (FMC Technologies). At the time there were a few companies—Schlumberger was one—that were skeptical about the program's viability.

The Emerging Leaders committee has turned out not only to be viable, but a tremendous success. And I think if there's one thing that will guarantee the long-term future of this organization, it's the Emerging Leaders committee. Through them, we've managed to expose many members of our companies' younger management to PESA.

If your company does not have people in the EL program, I would encourage you to seek out Ed Hemphill (GE Drilling Systems), the chairman of the Emerging Leaders Committee, or Chris Evans at the PESA office and get involved. It's a fantastic organization, and a great way to bridge the generational gap that many of us feel exists in the industry.

Finally, I want to thank the membership for entrusting me with this great role. PESA is a wonderful organization, and I'll look forward to meeting you at our events.

—Bill Coates
PESA Chairman

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PESA Chairman
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PESA President
Sherry A. Stephens

PESA Vice President
Michael Perini

PESA Director of Communications
Chris Evans

ECONOMY

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to get," to "when will the recovery begin," to "we're in recovery." At the low point, the U.S. had negative 3 percent economic growth, and we're currently running a positive 5.8 percent growth. The horrible mess of the housing sector has bottomed and stabilized. Banks are making money, and more importantly, they're raising new money to the tune of $500 billion. And $240 billion of the much-maligned TARP package, which totaled $350 billion, has been paid back with a $19 billion profit.

So, what has changed and what have we learned? I think we learned that the financial center of the U.S. moved from New York City to Washington, D.C. I think we learned that economic power has shifted from the developed countries to the developing countries—developed countries are now net borrowers, and developing countries are net lenders.

I think we learned that classic revolution theory is alive and well—it goes something like this: the upper class goes to excess, alienates the middle class, who then ally with the lower class to create significant change. It's safe to say that's what happened with the last set of elections. I think we learned that it's not necessary to take over an industry if the government can pass several thousand new rules and regulations to control an industry. I think we learned that if you borrow too much money, it can cause big problems.

The Cause

It wasn't long ago that the basic formula for buying a home was that you can't get a loan above three times your salary. In some markets a few years ago, banks were giving loans at up to nine times annual income. It went like this—Fred wants to buy a home, and is convinced that he can afford a home that is realistically beyond his means. The bank gives Fred a special 2-percent interest-only loan, which the banker sells to a larger bank. The larger bank is happy to buy the loan because in 3 years, it's no longer a 2-percent interest-only loan, it's a 7-percent 30-year amortization mortgage. The bank re-sells Fred's and similar mortgages to hedge funds. The hedge funds are able to borrow enough to buy $40 billion in mortgages on $1 billion in capital. The fund looks for someone to guarantee, and AIG obliges. Investment bankers then re-sell these 7-percent interest yield bearing AAA rated American mortgages to international banks, who then put them in their money market fund. Business is great for everyone.

Three years go by, and Fred's payment adjusts from $1,500 to $3,000 a month. He can't refinance the house, can't sell it, and so

Robert Workman (National Oilwell Varco), Galen Cobb (Halliburton), and Bill Coates (Schlumberger) were among ten volunteers used by Don Reynolds to explain the causes for the economic crisis.

he's forced to give up the house. The dead mortgage bounces from the mortgager to the guarantor, and then other similar mortgages start to devalue, and a vicious cycle begins. There are thousands of Freds and AIG takes a $160 billion hit on mortgages. The money market funds take a hit, and the whole system unravels.

Today, the real estate market has bottomed, but 22 percent of all homes in America are still worth less than their loans. Home loans are back to around 3.4 times annual income. Hedge funds will be regulated more. And we wake up to find that some remarkable things have occurred with the tax system. The top 1 percent of earners pay 40 percent of taxes. The top 10 percent of earners pay 60 percent of taxes. The top 50 percent of earners pay 100 percent of taxes. The other 50 percent pay nothing, and of those 50 percent almost three-quarters get cash back.

Asia and Debt

The U.S. is no longer the world's primary engine of economic growth. This year, China's economy will grow by 8.2 percent; India by 8 percent; Indonesia by 6 percent, and Brazil by 5 percent. The U.S. will be up 2.9 percent next year; the Euro-zone will be 1.4 percent; and Japan 1.5 percent.

China is aware of its economic power. They're sitting on $2 trillion of our debt—the U.S. has $6 trillion in debt overseas. China's new car sales are up 53 percent, corporate profits are up 70 percent, three of the four largest banks in the world are based in China, as are the top two largest insurance companies. China, who once sought all comers, are now more difficult to work with. There are policies in place to restrict foreign company growth in China.

But China has its problems, such as the world's most rapidly aging workforce, a fall-out from the "one child" policy. They realize this will be a drain on government resources. Political repression is also reportedly on the rise in China, and that's a sign of weakness. They also have a real-estate bubble—the 200 million-strong middle class makes $12,000 a year and is buying $150,000 apartments, which have been overbuilt.

Back in the U.S., we have serious issues with the federal budget deficit. Over the next 10 years, the government will spend about $47 trillion, of which $9 trillion is borrowed. The deficit by 2020 will be $21 trillion. The Congressional Budget Office says we can get out of this mess if we grow 4 percent GDP each year, but the historical average of the past 25 years is 2.5 percent. We can tax our way out, but we'd have to raise taxes by about 60 percent. We can inflate our way out if we go 10 percent each year. The real answer is they will tax some, borrow some, and inflate some.

The Future

As I said, as far as the economy and the stock market, I'm fully invested. Here's my theory: From 1950 to 1966 the economy goes straight up. From 1966 to 1982 it moves sideways and goes from 700 to 1,000 five times. From 1982 to 2000, it's straight up again. And from 2000 it goes from 14,000 to 7,000, rallies back to 14,000 and back to 7,000. I think we're beginning to emerge from a lateral-moving economy. In the near term, I'm a raging bull and have invested everything. The Dow Jones will get back to 12,000 and back off a little before elections. Eventually, we'll work our way up to 14,000, and then all the bad things come to roost and we come back down.

My view on energy is simplistic. We use 25 barrels per person, India uses 2, and China uses 0.8 barrels. As their demand goes up, so do prices. So for the long term, I'm all in.

U.S. E&P: Independents' view

Newfield, Southwestern, Petrohawk share insight on domestic production

Day 1 Panel

From left on stage: Richard Stoneburner (Petrohawk Energy Corporation), Lee Boothby (Newfield Exploration), Steven Mueller (Southwestern Energy), and moderator and Incoming PESA Chairman Bill Coates (Schlumberger).

Industry must unite for 'great gift' success

He calls it the great gift—a gift to the industry, the nation and the world.

Speaking of unconventional hydrocarbons, Newfield Exploration President and CEO Lee Boothby says that the game has truly changed.

"We're in a different world today—one that we couldn't conceive even a few years ago," he says. "When you think that we have a chance to solve some of the problems that we're confronted with as a nation, it's exciting. The opportunity is immense, it's real, it's here, and we have a 100 year-plus supply."

But, he says it's important for the entire industry to get on the same page and make sure that unconventionals are recognized.

"This gift will fuel our future. It will win in the marketplace, but we've all got to do our part to ensure the message is out there."

More Oily Plays

Newfield's portfolio is heavily weighted toward natural gas with 70 percent gas and 30 percent oil. The company is now, however, aggressively seeking "oily plays." The company's current oil projects are in Monument Butte in Utah, Williston Basin in North Dakota, and international projects in Malaysia and China.

"We produce 40,000 barrels per day, but get 60 percent of our revenue from oil assets," says Boothby. "Over 90 percent of our reserves are onshore North America. We've added 500,000 acres in oily plays in the past 6 months in Southern Alberta Basin in Montana, the Eagle Ford, and Deepwater Gulf of Mexico."

The Woodford shale is Newfield's foundational gas asset. They've drilled 300 wells in the play, starting in 2006.

"Six years ago, there was less that 10 mcf coming out of the basin, and last week we averaged 350,000 mcf per day," he says. "Most acreage is held by production, which means as an operator we have the ability to speed up, slow down, or stop depending on conditions in the market."

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Lee Boothby, President and CEO, Newfield Exploration.

Steven Mueller, President and CEO, Southwestern Energy.

SWN looking to repeat Fayetteville find

After discovering the Fayetteville shale, Southwestern Energy is looking to repeat.

Currently the thirteenth largest natural gas producer in the U.S. with 1.2 bcf per day of production, the company is looking beyond Arkansas.

"The Fayetteville is the driver of everything we do, it's 70 to 75 percent of all our work and we have about a $1.5 billion to $2.1 billion budget for the play," says Steven Mueller, President and CEO of Southwestern Energy. "But we have to replace the Fayetteville, and we think we've captured it in New Brunswick, Canada."

Southwestern is one of the most focused E&P companies out there, says Mueller. The company's production is 99 percent gas and their E&P segment operates in Arkansas, Texas, Oklahoma and Pennsylvania.

"Our strategy is built on organic growth through the drill bit," he says. "From 2004 to 2009, we've averaged over 40 percent annual production and reserve growth and annually replaced over 500 percent of our production at a F&D cost of $1.46 per mcf."

The company's producing properties include 900,000 acres in the Fayetteville, 150,000 acres in the Marcellus, and 100,000 acres in east Texas. Management has increased market capitalization from $187 million at year-end 1998 to approximately $14 billion today.

In Southwestern's Fayetteville property, which is the equivalent of 1,400 square miles, the company first tried to make the play work with vertical drilling, then re-started as horizontal.

"We've been learning over the past five years," says Mueller. "We've drilled 1,000 wells, and know enough that we need 10 wells per section, so 10,000 wells need to be drilled at about 600 a year."

They have reduced days to drill from under 17 days to 11—one was drilled in 4.5 days. In that time, lateral length has doubled and will increase another 1,500 feet in the near future.

"We grew production by 50 percent last year, doubled reserves to 1.5 tcf, all while maintaining a flat drilling cost," he says. "We anticipate participating in 650 to 680 wells in 2010, 475 to 500 of which we plan to operate."

In New Brunswick, Canada, the company holds exploration licenses for more than 2.5 million acres within the Maritimes Basin. Work in the area began about a year ago.

"We look to be ahead of the game, to be the first movers, to repeat the Fayetteville," says Mueller. "We want to replace the Fayetteville, and we don't want to replace it with lots of small projects."

The principal targets are the conventional and unconventional sandstone and shale reservoirs of the Horton Group. The company has a three-year initial exploration license to complete the work program with yearly rentals of $1.55 per acre. There are options for multiple five-year extension leases and a maximum 12.5 percent royalty.

"The shale is 200 to 600 feet thick and may have oil potential," says Mueller. "The next three years and $47 million will all be for science—more magnetics, more seismic, and we'll drill test wells toward the end."

Southwestern has only to drill one well per block to hold the lease—the blocks are huge at around 60,000 acres, which equates to 30 to 40 wells.

Finally, Mueller gave his take on the rig environment, rhetorically asking why the industry is adding rigs in a depressed price market.

"The answer is there is a lot of drilling to hold acreage," he says. "The average length left is 3 to 4 years, and by our count you'd have to run 550 horizontal gas rigs to hold that on a risked basis. We're at 600 today."

Shales are strong producers, getting better over time

There are unique challenges in building a large-scale shale gas E&P, says Richard Stoneburner, President and COO of Petrohawk Energy Corporation.

Much like the shale plays the company seeks, Petrohawk's evolution has been rapid. In mid-2006, they merged with KCS Energy, which included 10,000 acres in the Fayetteville Shale—the company's first foray into shale.

"We went into the Fayetteville as a second or third mover and it was expensive," says Stoneburner. "We accumulated positions in the Haynesville and Eagle Ford in 2008 as first movers, but still had competition, so it was expensive as well. When you work in shale gas you need to be clever, bold, aggressive, and have a lot of capital."

For Petrohawk, much of the capital has been raised through divestment of non-core assets totaling $1.4 billion.

Today, the company holds 2.75 tcf of proved reserves with 32 tcf of risked resource potential and about 340 million barrels of condensate or oil potential.

"We doubled proved reserves last year," he says. "The asset base we have, particularly in the Haynesville and Eagle Ford, is top of the class for the reserve potential and is higher than anybody else in those plays."

The Finish Line

Many forecasters agree that the short to mid-term for natural gas prices will be relatively low, around the $4 to $5 range.

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Richard Stoneburner, President and COO, Petrohawk.

International oil: Supermajors' view

ExxonMobil, Total, Raymond James discuss evolving industry

Day 2 Panel

From left: Marshall Adkins (Raymond James & Associates), Victor Obadiah (Total E&P New Ventures), moderator and PESA Vice Chairman John Gremp (FMC Technologies, Inc.), and Peter Coleman (ExxonMobil Production Company).

Asia Pacific is the growth area for energy

To see the future of energy, follow the money.

Energy follows GDP, says Peter Coleman, Vice President, Americas, ExxonMobil Production Company.

"Energy is a fundamental part of economic growth and the two are inextricably linked," he says. "By 2030, Asia Pacific will have the highest GDP of any region in the world. The U.S. will grow but not at the pace that it has over the past 25 years; Europe will slow as they work through financial issues; the big growth is Asia Pacific, and it's burdened by Japan as their growth will be negligible."

Peter Coleman, Vice President, Americas, ExxonMobil Production Company.

By extension, the big energy growth area is Asia Pacific. The region will account for two-thirds of global energy demand growth by 2030. North American and European demand will remain essentially flat due to gains in energy efficiency.

"Asia Pacific does not have efficiency flow yet—they're still building energy infrastructure, and not necessarily energy-efficient infrastructure," he says. "Coal will be a major part of the growth, but oil and gas will increase as well. We need to expand all economic fuel sources to meet growing energy demand through 2030."

Historically, the U.S. has been the largest energy user in the world at about 100 quadrillion BTUs per year. Today, Asia Pacific is the largest user at double the use of the U.S.

"By 2030, Asia Pacific will be by far the largest user at 300 quadrillion BTUs," he says. "This should be an opener for the industry."

The growth will be driven by power generation and by far the greatest contributor will be coal. However, Asia Pacific total BTU use of oil and gas will mirror that of the U.S.

China's drive for power generation is starting to affect the regional economies and suppliers around China.

"That will affect our industry, particularly with the build-up of activities in Australia," he says. "We're vying for the same resources as the mining industry in Australia, which is the largest supplier of coal into China."

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COLEMAN
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Oil and Gas

Global oil demand is expected to reach 90 million barrels per day by 2030. While he says that non-OPEC crude will continue to be essential, the big question is OPEC.

"OPEC should be supplying about 28 million barrels a day and will need to grow to 37 million by 2030," he says. "The reality is that OPEC has found it difficult to grow over the past 10 to 15 years."

The industry also will reach a better gas supply and demand balance. Natural gas usage in the U.S. and Europe will be identical at over 60 bcf a day in demand, and Asia Pacific will be over 100 bcf a day.

"In the U.S., the big wedge of growth will be unconventional," says Coleman. "In the conventional mix there's the Alaska gas pipeline, but overall there's not a rosy forecast for conventional."

LNG imports are the unknown, he says. Demand for LNG is currently about 175 million tons per year, and by 2030 it will be 430-plus million tons.

"We have capacity to take in about 10 bcf per day, but we took in 1.5—the LNG went to Europe," he says. "In Asia Pacific, gas usage was fairly small in the overall energy mix, but the area will consume a large portion of total LNG supply."

Business environment

ExxonMobil is positioned to get through a number of business cycles, says Coleman.

"We're an open weather sailor and we make course corrections from time to time, but we're sailing a big ship and can't make lots of short course corrections," he says. "Some competitors are re-evaluating their near-term business plans and are getting out of certain sectors—we'll see if these bets are the right ones."

Financial markets are stabilizing but in a way that a flight to quality is more evident, he says. The pace of economic recovery is uncertain, particularly in the U.S. as recovery is happening on a state-by-state basis.

"The supply and demand balance is linked to economic recovery," he says. "The recovery will be in two phases—a liquids recovery and slower gas-based recovery."

In the meantime, ExxonMobil is committed to spending about $125 billion in capital investments over the next five years. About 22 percent will be spent in Canada and about 15 percent in the U.S.

"The U.S. spend is principally onshore, though the current spending does not include the XTO acquisition," he says. "North America remains attractive to us and I think it will attract us more and more, but it will come down to opportunities."

Victor Obadiah, President and CEO, Total E&P New Ventures.

Total seeks partners for its mega-projects

Total is a truly global operator with a presence in nearly every corner of the globe.

The company is on a roll—last year they strengthened their upstream position and portfolio, production is on schedule to increase, and reserves will build continuously over the next several decades, says Victor Obadiah, President and CEO, Total E&P New Ventures.

"Most of our projects take 6, 8, or 9 years before they're done," he says. "Moving forward we will expand our efforts to form partnerships and joint ventures. These are big projects and we like to have partners."

An important development for Total is its North American portfolio.

"Our company's strategy in this region has evolved as a new focus," says Obadiah. "We will continue to capitalize on the expertise of certain operators in the U.S., who are now our partners. We've seen a significant increase over the past five years in our proved and probable reserves, with proportionate spending increases."

Through New Ventures, Total signed a $2.25 billion partnership agreement with Chesapeake Energy, which gives Total a 25 percent stake in their portfolio. The agreement includes 300,000 net acres, 90 percent of which is in the core area of the Barnett Shale. The agreement gave Total an immediate net production of 175 mcf per day.

Total entered into three other partnerships of similar scale in 2009. They were awarded the Halfaya field in Iraq with PetroChina and Petronas, entered a field development agreement with Gas de France in Kazakhstan, and signed a partnership agreement in the Ahnet gas field in Algeria.

Total's 2010 exploration budget is estimated at $1.8 billion providing an exploration risk potential of about 3.6 billion BOE.

"We renewed our resources base by enhancing our exploration portfolio in the Gulf of Mexico, Cameroon, Guyana, Egypt, Norway, Azerbaijan, and Vietnam," he says. "We will continue using joint ventures to expand our resources while balancing the type of upstream asset in the portfolio between OECD and non-OECD countries. We will continue in conventional, non-conventional, onshore, and offshore."

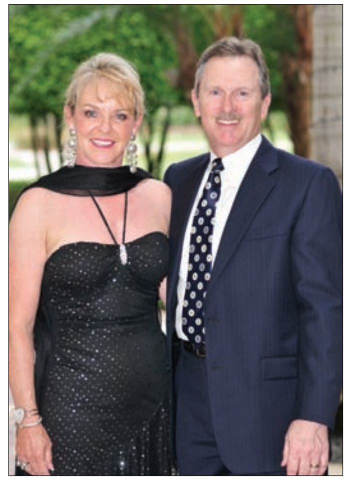
Total began several major projects in 2009. The Tahiti project in the Gulf of Mexico will yield 125,000 barrels a day; two projects in offshore Nigeria will yield 225,000 barrels; the Qatar Gas II project with ExxonMobil began production in 2009 and holds the record for the largest LNG train, and Yemen LNG began in October.

Obadiah says that Total's investment levels for 2010 are intended to sustain growth objectives. The company expects $18 billion gross with upstream capturing almost $14 billion.

Among the company's major investment projects is Phase II of the company's oil sands project in Canada, which is a partnership with ConocoPhillips. Total also owns 80 percent of the Laggan and Tormore gas fields in West of Shetland, U.K., along with the gas gathering infrastructure—Obadiah says it's one of the country's largest infrastructure projects in decades.

By 2014, he estimates that Total will produce 800,000 barrels of oil equivalent per day.

"Among our plans to get there is further development drilling in the Barnett Shale, which alone will provide 250 million cubic feet per day with a significant increase in unproved reserves," he says. "We're also seeking a better balance between our conventional reserve portfolio and those that require high technology extraction methods. The bottom line is that since 2004, we not only have renewed our reserve resources, but also diversified that base from prior years."



Formal Night—

The Annual Meeting wrapped up with a black tie dinner.

Henry Cho (top left) entertained the crowd, including several bits on his golf game with Peter Kinnear (FMC Technologies, Inc.).

Couples donned their finest at the event. From above left to right: Bonnie and Jim Wright (Cameron); John and Patty Royall (Gulf Publishing / World Oil); Paul and Belinda Coppinger (Circor International, Inc., Energy Group); John and Cindy Gremp (FMC Technologies, Inc.); and Britt and Martha Braddick (TIW).

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Markets

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Marshall Adkins of Raymond James & Associates says that a lack of excess capacity from OPEC—by his count they have about 3 million barrels per day excess—will have markets rationing oil by price within the next few years, placing oil prices north of $100 again.

"As demand started to get 'less worse,' we saw prices rally with the demand side," says Adkins. "There's no doubt demand will be important in the long term—oil demand in the developed world has to go down to accommodate the developing world. China and India will be the key drivers."

Non-OPEC supply declines will be a bigger driver of oil prices in the next few years.

"In the first part of the decade we had phenomenal growth in non-OPEC, but now the direction is clearly moving downward and will continue to do so," he says. "We are right at the point of peaking non-OPEC crude supply. By our numbers, in late 2009 or early 2010 we will have had absolute non-OPEC production peaking."

The key driver is Russia. They had rapid growth the first half of the decade, declined in 2008, bounced up again in 2009, and likely will be up slightly this year, says Adkins.

"In 2011 and beyond we think Russia will begin to see a gradual decline in their production," he says. "Russia is facing what the U.S. faced in the 1970s, where we had 4,000 rigs drilling, spending was up 20 fold, and production still fell by 35 percent."

If Russia is left in decline, then the only growing non-OPEC countries will be Brazil, Canada, and the Caspian.

He says that OPEC has done a great job of managing around demand decline by cutting productions and maintaining prices. Moving forward, the market will focus on excess capacity. However, Adkins feels that OPEC's stated excess capacity is largely an exaggeration—for example Venezuela claims 200,000 bpd surplus.

"If you haircut the stated capacity with what I think is the real world, you get down to a little less than 3 million barrels of excess capacity," he says. "If demand returns to historical levels, which it appears to be doing, you get demand growth of 1.5 million to 2 million barrels per day each year. If you get no growth in OPEC, in two years you're done and we'll have a shortage of crude again."

Overall, Adkins says that forecasting oil is fairly simple.

"Prices will move higher based on deteriorating non-OPEC supply and falling excess OPEC capacity," he says. "The market must eventually ration available oil by price, and that will begin within 2 to 3 years."

Natural Gas

The industry has shown that U.S. supply can grow at $5 mcf, so there's not a lot of reason to be above $5, says Adkins. In addition, LNG imports will surge above $5 mcf as will gas to coal switching for utilities.

The reason is shale gas—the game has changed.

"I was a permabull for a decade because supply was falling," he says. "Now supply is up sharply in the shales. Barnett wells were twice as productive in 2006 as an average well, then three times as productive in 2007. And Haynesville wells are 10 times more productive."

He says that the industry will see an expansion of horizontal drilling into all types of reservoirs.

"Private operators in the past nine months have gone from 20 percent horizontal drilling to 50 percent," he says. "The economics are much better and the shift is here to stay."

He added that while horizontal drilling is what everyone talks about, other things drive lower cost. There was substantial high-grading in the market—the rig count is 30 percent lower, so Adkins theorizes that the industry simply got rid of 30 percent of the worst wells.

"Service costs are also down 30 percent, and drilling efficiencies are about 20 percent faster," he says. "Now you have wells that once took an $8 price to drill, now takes $4."

He says that a lot of companies are making money at $5 gas, and rig count is up 65 percent.

"So why are companies drilling in a $4 world? It's the oily gas plays," he says. "Pioneer had 20 mcf a day of gas and 2,000 barrels of crude condensate, so it works economically."

The U.S. has seen a huge increase in LNG import capacity. The country can bring in 15 bcf per day, but Adkins says it won't happen because there isn't enough supply.

"When we net out global supply and demand issues for LNG, we think we'll have a net 3 bcf per day more gas in the system than last year, and maybe a 1 to 1.5 bcf per day will come here," he says. "There will be an increase in LNG but it will be price sensitive—we think gas will be $4.25 this year and $3.50 in the heat of the summer. If gas were $6, it would be 3 to 4 bcf per day."

Demand also is picking up—industrial demand has added .5 bcf per day with the same increase in utilities.

"Coal to gas switching accounted for about 2 bcf per day more demand last year, and if it goes above $5, it will switch back," he says.

Finally, he says that the U.S. average rig count will move higher in 2010, although it will peak near May. The industry will not need 2,000 rigs for some time.

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First Place

Second Place

Third Place

Golf Tournament

The Ritz-Carlton Golf Resort, Naples—home to the PGA Tour Tiburon Golf Course—provided nearly perfect weather and a scenic Southern Florida backdrop for the 2010 Annual Meeting Golf Tournament.

Golf Champs

First Place (Score: 126)
Bob Judge (GE Oil & Gas), Jack Moore (Cameron), and John Gremp (FMC Technologies, Inc.).

Second Place (Score: 128)
Wayne Wallace (GE Oil & Gas), Larry Kerr (Gardner Denver), and Isaac Joseph (National Oilwell Varco).

Third Place (Score: 129)
Barry Pennypacker (Gardner Denver), Haynes Smith (National Oilwell Varco), Don Greenlee (Oil States Industries), and Ron Callaway (Greene, Tweed & Co.).

Longest Drive (Men's)
Russ Laas (Hart Energy Publishing)

Longest Drive (Women's)
Bonnie Wright (wife of Jim Wright, Cameron)

Closest-to-the-pin (Men's)
Gary Stratulate (Axon Energy Products)

Closest-to-the-pin (Women's)
Bonnie Wright

Tennis Tournament

Left: Jerry Lastovica (Flexitallic) swings away at a volley.

Below: The final match pitted Jerry Lastovica and Danielle Mendes (wife of Neil—Greene, Tweed & Co.) vs. Linda Newman (wife of Dan—Norris Production Solutions) and Eric Hollingsworth (Wells Fargo). The Newman / Hollingsworth team won.

Stoneburner

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Petrohawk's Richard Stoneburner explains the company's rates of return on its shale plays.

Stoneburner says that the company's plan for weathering the next few years includes a mid to late 2011 finish line.

"By 2011, we'll have most of our acreage held by production—we'll have a flexibility at that point that will be market-driven, rather than capture-driven."

The company's capital program is driven by lease capture requirements. Because Petrohawk is ahead of schedule in its Haynesville lease capture program, Stoneburner says the company was recently able to reduce its budget by $100 million.

"We have some nice acquisitions of high condensate yield and oil potential in the Eagle Ford play, and with that we wanted to re-allocate some of our gas budget to a liquid style portfolio," he says. "Our modeling suggests we'll have $50 million more revenue with the new budget."

He added that since Petrohawk's budget is dictated by lease capture, hedging is vital. For 2010, the company is hedged at 70 percent with a $5.85 floor.

The Right Spot

If you do your homework and find the right position, it's hard to pay too much for acreage in the large shale gas plays, says Stoneburner.

The Eagle Ford and Haynesville shales are similar in nature in that they're both fairly deep and higher pressure, which Stoneburner says equates to more gas potential. From the top to the bottom of the formation, he says, it's all effective pay zone.

"In the Haynesville, we assume a 65 percent probability of success; in the Eagle Ford, we assume an 80 percent probability of success, and in the Fayetteville we assume about 50 percent because our acreage is on the fringe," he says. "Our rate of return in the Fayetteville is about 20 percent; the Haynesville is 60 percent; the Eagle Ford Hawkville dry gas is about 110 percent, and the high-condensate Eagle Ford Blackhawk is about 1100 percent."

The company dominates when it comes to results in the Haynesville, says Stoneburner. Petrohawk holds 368,000 net acres under lease with the average leasehold cost about $5,000 per acre—inexpensive considering some $20,000 to $30,000 lease rates during the 2008 land rush. In the second half of 2009, the estimated well cost was $8.5 to $9.5 million with an average initial production of 18.1 Mmcf per day.

Among the challenges in the Haynesville is reducing well costs.

"Our development costs equated $2.02 per mcf, but that was a $10.7 million well," he says. "This year we can drill at $9 million per well, and next year in the $8-8.5 million range."

In the Eagle Ford, Petrohawk was initially without competition. The company holds 360,000 net acres total, of which 225,000 acres are in oil and condensate window.

"We like to say that we went from first idea to 10 tcf in 10 months," he says. "It's a consistent area with very little faulting and pretty much productive from tip to tail."

Petrohawk's average leasehold cost in the Eagle Ford is $400 per acre with an average well cost of $4.5 million to $5 million. The average initial production for 11 wells to date is 8.9 Mmcf per day with a gas to oil ratio of 6:1 and 10.5 Mmcf per day with a gas to oil ratio of 15:1.

Since the drilling pace is not dictated by short primary terms since the leases contain continuous drilling clauses, Petrohawk has been working on tests of stimulation theory in the Eagle Ford.

The company completed two wells with 18 stage fracs, using more frac fluid. The result is strong initial production rates with shallower pressure and production declines. The Dora Martin 1850 #1H has an initial production of 8.8 Mmcf per day and an average first-30-days production of 8.1 Mmcf per day. The Henderson-Cenizo 877 #1H has an initial production of 13.2 Mmcf per day with an average first-30-days production of 10.4 Mmcf per day. These rates are 35 to 75 percent higher than the average of the first seven wells in the Eagle Ford.

"We're finding that shale reserves improve over time—we get smarter and learn how to treat the wells and produce them better and more efficiently," he says.

Gulf Publishing / World Oil's Ron Higgins and John Royall listen to the Petrohawk presentation.

U.S. Oil and Gas Field Equipment Exports

Top 15 Destinations for Q1 2010

(in U.S. $1,000)

	JAN	FEB	MAR
Korea	32,841	128,530	55,536
Singapore	67,645	51,820	74,282
Colombia	33,456	81,751	78,325
Brazil	39,204	53,044	78,343
U.A.E.	32,569	33,310	24,882
U.K.	26,451	25,387	28,311
Saudi Arabia	18,900	23,844	28,555
China	32,616	19,843	14,123
Russia	12,533	20,183	21,354
Nigeria	14,513	18,658	14,235
Angola	17,869	12,963	15,691
Mexico	13,296	12,987	13,996
Venezuela	12,574	10,838	12,373
Algeria	12,404	8,331	13,757
Egypt	8,003	9,197	13,500
Subtotal:	374,875	510,686	487,263
All Other:	242,686	203,983	201,123
Total:	617,561	714,669	688,386

Source: U.S. International Trade Commission

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Boothby

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Last year, despite the financial meltdown and low gas prices, Newfield chose to continue operating—a decision supported by their hedge position.

"We felt it was important to remember the crews and service providers and folks in the field making these plays work," he says. "We'll monitor the market, and we have a strong hedge position through 2011, but because of the oil economic advantage we're going to continue our push toward oil."

The Uinta Basin is Newfield's foundational oil asset. The company's 180,000 acres are held by production with 4,700 remaining locations. Production has increased from 7,000 barrels about 6 years ago, to 20,000 barrels today.

"This is an asset that will continue to grow," he says. "A little over a year ago we were laying oil rigs down in the Rockies for preference of gas rigs in the mid-continent. This year, it's flipped. We're adding rigs to the Rockies, accelerating oil projects in Southeast Asia, and backing off the accelerator on our gas projects."

Lee Boothby of Newfield Exploration describes unconventional oil and gas as a great gift to the industry, nation, and world. The success of these resources are not guaranteed, and the industry must "be on the same page in terms of messaging."

Seek Win-Win

Unconventional plays are operations driven, but it takes all players from every part of the industry to make them successful.

"It takes every single person in an organization to make these work—they're not just capital intensive, they're people intensive," he says. "There is and will be a focused demand for quality crews and services with reliable performance and equipment."

Boothby says that unconventional plays have a long life cycle and relationships lead to improved performance.

"The first thing is to sit down and help me understand your situation, and I'll help you understand mine. We can find that win-win," he says. "The views of the past—the heads I win, tails you lose mentality—are gone. We can find that place, and we won't turn our back on relationships with those who have supported us."

By working together, he says the industry can shave off the tops and bottoms of the boom and bust cycle, improve budget forecasting, and hone the industry's ability to issue performance guidance.

But the public needs to be educated about the abundance and true nature of unconventional resources.

"We have this great gift—natural gas is the real bridge fuel—and it's 50 percent cleaner than coal is today," he says. "The great news is that it's abundant. We all have a part to play in getting the country educated, though not by fifteen-second sound bytes, and not by politicians—we need to get out there and educate in person and while we're at it, ensure that young people understand there are great careers in energy."