



From: Barnes, John A
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To: Dupree, James H
Cc: Caldwell, Jason
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Attachments: JHD GoM OTC 1st DRAFT jab.ZIP

James: I am attaching the first draft of your OTC talk. I ran it past Larry Thomas and Daren Beaudon here in GPA and incorporated their comments.

We talked about using the 1996 Dave Rainey slide and the tilting Thunder Horse slide. Not sure of what else you might want to use. (If anything.) Perhaps a schematic of the technology beneath Thunder Horse? We can talk further. Thanks.

Best,

John A. Barnes

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FIRST DRAFT

Reviving the “Dead Sea:” BP in the Gulf of Mexico

Remarks by James H. Dupree

Senior Vice President
Gulf of Mexico SPU Leader
BP America Inc.

At BP Day
Offshore Technology Conference
Houston, TX
May 3, 2010

Good morning to you all. Thank you for coming.

My name is James Dupree, and I am Vice President of BP’s Gulf of Mexico business. My team and I are responsible for all of BP’s exploration and production operations in this very critical energy basin.

I hope that many of you will be joining us for the various technical sessions that describe some of the challenges and successes that we’ve experienced in building a truly great portfolio.

All of us are here today to tell you a story.

It’s a story of people.

It’s a story of perseverance.

And it’s a story of using technology to accomplish some extraordinary activities that many thought impossible as recently as a decade ago.

It’s also a story that almost no one expected to see written — except for the people who will follow me to this podium.

And like all the best stories, it not only features an unlikely triumph over daunting odds, it sets the stage for even greater triumphs to come.

Nearly two decades ago, the Gulf of Mexico was known widely within our industry as “the dead sea.”

In the mid-1990s, most of our competitors thought the Gulf was in decline. Many packed up and headed for what they thought were richer basins.

Not BP.

We stayed.

We were convinced of the Gulf's potential — and our ability to realize that potential.

[NEW SLIDE]

This slide was presented by BP at the Exploration Forum In January 1996. Our vision, as you can see, was that we could pump 500,000 barrels bboe in the Gulf by 2010.

Considering that we were only pumping 36,000 bboe at the time, there were plenty of skeptics in the room.

But on May 22, 2009, we hit the 500,000 mark of daily production — more than a year ahead of plan.

As we look ahead to the decade of opportunities, many of the skeptics are now back.

In the decade and a half since we first entered the deep water, we have become the leading deepwater producer in the Gulf, with an average of over 400,000 bboe production and 500,000 boe installed capacity. We are also the largest leaseholder, and the most successful explorer, having found more than 30 percent of the large fields over the last decade.

We have eight major deepwater facilities delivering about 30 percent of total deepwater Gulf production. We have an interest in 22 producing deepwater fields and are progressing 12 major projects. **(NOTE NOT SURE THESE NUMBERS ARE UP TO DATE.)**

Achieving this remarkable result meant overcoming challenges aplenty, but at BP, we view challenges not as obstacles, but as opportunities for improvement and growth.

And we have managed to do it while at the same time maintaining safe and reliable operations.

Throughout the day today, some of BP's best and brightest will give you the details of how we accomplished all this. I'm sure you will find the sessions very enlightening.

First, I would like to share with you what I believe to be our core strategy for rising to the challenges and opportunities presented by our work in the Gulf. I call it the "three Ts:" Technology, Talent, and Transformation.

Technology has long been seen as an enabler both for BP's unique challenges in the Gulf, and for the benefit of the broader company and industry. It is certainly that, but in recent years, BP has come to see technology differently. It is not merely an enabler, but a *distinguisher*, something that has taken our company from a user of commercial technology to a leading industry innovator.

It allows us to operate at the frontiers, in the most challenging offshore basins in the world.

Let me illustrate what I mean.

{NEW SLIDE: TILTING THUNDER HORSE}

You've all seen this picture. In 2005, it was on the front page of nearly every newspaper in the world.

For the benefit of anyone who might have been visiting Mars at the time, this is Thunder Horse, the largest platform in the world.

The headlines were just as bad. "Hobbled Horse," read the *Wall Street Journal's*.

Now a picture can tell a story, but not even the most compelling picture can tell the whole story. And this picture doesn't tell the whole story by any means.

It is one of life's sad truths that you rarely get credit for what doesn't happen. But it's worth noting what didn't happen five years ago:

The platform did not sink.

There was no environmental damage.

There were no fatalities, or even injuries for that matter.

The project was not abandoned.

And those results were no accident.

The world had a good glimpse of what can go wrong in the offshore. It was one of BP's darkest hours. But from this singular event came a renewed commitment to the offshore. Quite simply, we rolled up our sleeves, dusted off our pride and got busy working. We haven't looked back.

Thunder Horse is now an incredible success story. Along with Atlantis, Thunder Horse produces 10 percent of BP's daily global production and six percent of US daily domestic oil production. **(IS THIS NUMBER CORRECT?)** Thunder Horse and Atlantis are, respectively, the biggest and deepest moored floating platforms in the world.

When you live on the frontier, as BP does, the unexpected sometimes does occur. We go after big fields, in challenging environments, and when you do that, sometimes you stub your toe.

[TITLE SLIDE]

The unexpected and the exceptional have been the story of Thunder Horse and Atlantis. On both, the great equalizer has been technology.

At the time both fields were discovered in the late 1990s, there was no "off-the-shelf" technology available to unlock their potential. We knew we had discovered a major hydrocarbon prize, but delivering it safely and efficiently would require taking offshore technology to the next level.

This is a crucial point that often gets omitted when you read those "end-of-the-Integrated Oil Company" stories in the media. Simple discovery is not enough. Finding the oil and gas, bringing it to the surface, transporting it to where it can be refined and then getting it to customers can only be accomplished by an organization with deep pockets — married to wide-ranging expertise.

Not to mention a strong stomach.

Fortunately, BP has all of the above, and the world is now reaping the benefits.

I can give you only an idea of the technology stretches we encountered at the many phases of these mega-projects, but here are some highlights:

- In 1999, there was no existing subsea equipment capable of handling fluids under pressures of 1200 bar and 135 degrees Celsius. Not only did the subsea trees that control the wells on the seabed and all related equipment and control systems have to be developed, they had to be able to operate reliably a mile underwater.
- At 35,000 feet beneath the ocean floor, the depth of the reservoirs meant that existing drilling techniques and completion equipment were completely inadequate. Innovative components made of high-strength materials had to be developed for completing the Thunder Horse and Atlantis wells.
- Adding to the drilling challenge is the fact that the drilling risers and drill strings first must pass through a mile of water to reach the seabed in a region notorious for its tricky currents. A fifth-generation of drilling rigs had to be designed and constructed to meet these operational extremes.

In the end, the number of components with the serial number "one" — meaning they were the first of their kind ever made — incorporated into Thunder Horse wells exceeds 100.

While this work was going forward all over the world, project development was moving ahead in parallel. This included the construction of the massive 60,000-ton production-drilling-quarters, which is heavier than most World War II battleships.

It's tempting to liken the process for developing Atlantis and Thunder Horse to rocket science, except for one thing: I think rocket science might be easier.

After all, executing the project before the technology has even been developed might seem a bit like designing the lunar lander while the spaceship is already on its way to the Moon. It's not quite like that, of course, but the fact that we went ahead showed the confidence we had in our own ability to develop what we needed.

Technology is vital for maximizing exploration successes, enabling increased ultimate recovery, and ensuring more efficient, profitable and safe operations. However, even the most exciting, most advanced technology hinges on the second "T:" Talent.

It all comes down to people. And the war for talent is only going to accelerate in coming years as our business undergoes what we call "the Great Crew Change." Many of you are engaged in the same struggle for talent. Large numbers of mature geologists, engineers, senior scientists and other key personnel are moving toward retirement age and will need to be replaced.

As part of the effort to ensure we have a qualified work force in the Gulf, the BP Foundation in January announced \$2.25 million in grants over a three-year period to six Louisiana community colleges and universities. The grants will support math and science enrichment programs, as well as provide scholarships and curriculum enhancements for technical programs that provide training for jobs in the oil and gas industry.

Also in Louisiana, we last year dedicated a brand new Operations Learning Center in Houma, to further develop our existing Gulf workforce.

And on our Houston campus, we have just opened our world-class Exploration and Production Learning Center, which will train BP personnel from all our major E&P operations and allow the sharing of global best-practices.

Important as it is to recruit and train top talent, it is only a part of the story. Once you have top people, you need to give them scope to do what they do best. Let

me show you one example of how BP has done that in the crucial field of seismic imaging.

Most of the Gulf of Mexico seabed is covered by a massive and complex subsea salt canopy. The salt tends to distort normal seismic imaging. The difference has been compared to discerning what is happening behind a pane of frosted glass as opposed to clear glass.

If BP was to succeed in the Gulf, then finding a way to see through that salt canopy was not an option. It was a necessity.

[[SEISMIC SLIDE]]

Enter WATS. Most of you have probably heard of WATS — wide-azimuth towed streamers. In fact, you may have heard about it from some of our competitors, who brag about it. What they don't tell you is that they didn't invent it — BP did.

The really interesting thing about WATS is that it is not really new technology. It is a new way of using existing technology.

WATS uses a standard 3D seismic survey configuration of receivers mounted on towed streamers to collect data, but rather than using a single sound source mounted on the recording boat, additional source boats are deployed. This makes it possible to collect images from different angles — the wide azimuth. By combining and processing the data, a much clearer picture of the geology below the salt can be obtained.

It was two BP engineers, Carl Regone and John Etgen, who did the heavy lifting of proving the value of WATS and bringing it to commercial reality. It was their tireless efforts at wave-equation modeling and evaluation of different approaches to acquisition that eventually convinced BP of the value of this type of acquisition.

For their work on WATS, Etgen and Regone received the prestigious Virgil Kauffman Gold Medal from the Society of Exploration Geophysicists, and the first WATS survey ever was carried out in the Gulf over Mad Dog in 2005.

End of story? Not at all. Actual seismic surveys are expensive. BP's challenge was to find a less expensive way of acquiring the same information.

Fortunately, BP is one of the world's largest private users of supercomputing capacity. How much capacity? Well, if you took a 120 gig iPod, and made a stack of them three miles high, you would just about equal BP's existing supercomputing capacity. And we're increasing it all the time.

This enormous in-house capability — allied with algorithms we have written ourselves — allows us to carry out WATS surveys without a single survey boat

leaving the dock. Many of our surveys now take place in the virtual world, being shot first inside a computer, using a model of the salt and the reservoir based on our current understanding of a particular field. We can then tailor the survey to meet our subsurface objectives.

So not only did BP's engineers come up with a ground-breaking means of using an existing technology, they found a more cost-effective way of employing it in a "try before you buy" approach.

Collecting the data is one thing. Interpreting it another. That's where BP's worldwide experience comes in. While some National Oil Companies can tell you a great deal about the geology of their own country's fields, they have little specialized knowledge of fields elsewhere. We don't have that luxury. We need to be able to interpret data from widely different geographies, and our track record in the Gulf and elsewhere shows that we can do that.

That skilful blending of the theoretical and the practical simply can't be bought from a contractor at any price. It can only be nurtured from within over a space of many years.

Our work in seismic is only one example of the talent that resides in BP. There are more that you will hear about today from my colleagues.

[NEW SLIDE]

And it brings us to the third "T:" Transformation, which is closely tied to the value placed on Talent.

One of BP's strategic challenges is getting the most out of our industry-leading portfolio – to execute it predictably and efficiently. So we are reinventing ourselves to get the most out of our skills and abilities by rolling out a common Operating Management System across our business. We have also just unveiled plans for a Centralized Developments Organization, designed to preserve the best of local relationships while leveraging our scale.

These efforts are key to our sector leadership goal, which aims at using capital more efficiently. In this spirit, the integrated Thunder Horse/Atlantis project team is getting ahead of the game by implementing continuous improvement (CI) practices to track project productivity, capture concrete learnings, and communicate them throughout the business.

Schedule slippage, for example, is a nagging performance problem that can be very costly. The Thunder Horse/Atlantis team uses root cause analysis to investigate schedule variances. Completing a weld behind schedule could well be a symptom. The root cause could be staging of materials, the competency of the welder, or unplanned Simultaneous Operations (SIMOPs), all of which

require a differing response. Correctly identifying the cause can prevent costly project delays.

It isn't just big platform projects where CI can help the bottom line. Last year, the Gulf of Mexico Logistics team identified increased vessel fleet efficiencies and captured a substantial marine logistics cost savings prize worth nearly \$7 million in 2009.

Transformation is another word for teamwork, which is essential to safe and reliable operations. Thunder Horse, for example, involved over 50 major contractors working in 30 different countries with over 30 million man hours of work. The potential for workplace mishaps was enormous. Yet, we worked literally millions of man hours without a single day-away-from-work injury. That is phenomenal.

[PAUSE]

[TITLE SLIDE]

So "the dead sea" is not dead. It is very much alive.

And this result was no miracle. It was a very deliberate effort by very talented and determined people at BP.

And the Gulf story is far from over. Our discoveries at Kaskida and Tiber have yet to be developed.

These are challenging discoveries for us. We are at the same place with them today that we were with Thunder Horse and Atlantis a decade ago. We must find solutions using technology and innovation. Many of these will be achieved with the support of contracting partners based here in Houston.

And our acquisition of Devon assets in the Gulf and elsewhere is the clearest possible statement of our belief that the deepwater Gulf has a bright, long-term energy future.

I'd like to close by reminding you of something once said by one of the pioneers of our industry, geologist Wallace Pratt.

Until Pratt came along, finding oil was pretty much a hit-or-miss proposition. It was Pratt who established that technical knowledge, not simple luck, was the key to finding oil and gas.

While he detailed his work in many books and papers, he boiled down the essence of his approach into one simple sentence.

"Oil," he said, "is found in the minds of men."

And women too, I might add.

You are going to meet some of those minds here today. And now, it gives me great pleasure to turn the podium over to them.

Thank you, very much.

