

Managing risk and building value in the next decade

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Introduction

Good morning everyone and thank you Steve for that kind introduction. Thank you for chairing OTC 2012 – looks like it's going to be a fantastic week.

Thank you also to OTC for the invite to speak with you all on behalf of BP. This is my first time and it is an honour to be here at this important gathering of our offshore industry. I also see many of our partners in the room this morning – thank you for coming.

It is always great to be back in Houston. I worked here as a Drilling Engineer for 7 years – including on the discovery well of the super-giant Thunder Horse field. I loved my time here – the people, the place and the job.

Having worked in the North Sea, Vietnam, the Gulf of Mexico and Alaska, I have seen first-hand the incredible feats of engineering and the human endeavours that this industry undertakes – day in, day out. I have met, and worked with, the most remarkable and innovative people. And I have made great friends. It is a very long way from Fords and John Deeres!

Traveling over here yesterday, it struck me that many of you in this room have experienced similar excitement – that of making discoveries and bringing new energy resources to a world that is hungry for ever more. Many of us have been part of ground-breaking new projects and operations. And for those

of us from BP in the room – we have also experienced great tragedy.

We at BP have just marked the second anniversary of the Deepwater Horizon accident, where 11 men lost their lives. That is a tragedy none of us will ever forget. I, along with many of my colleagues in the room today, worked here in Houston responding to the spill. And as you would expect - we are working tirelessly to help prevent an accident like this from ever happening again. There are also many companies in this room that came to our aid during the incident, and continue to help the industry advance capability in the areas of prevention and response. Thank you.

As we look to the future, the challenges for our industry are immense, deeper waters, harsher environments, a negative perception of large business, to name but a few. But so too are the needs of the world – BP projects the world might need as much as 40% more energy between now and 2030 – that’s another America and another China.

This morning, I would like to do two things:

Firstly, share with you what we are doing at BP to take on these challenges and,

Secondly, share some thoughts on what more we might do together as an industry.

Part 1

So *firstly* – to what we are doing in BP.

From the beginning of our company in the earliest days of the last century, when a prospector named George Reynolds struck out for the Persian desert, exploring for oil and gas in

challenging environments has been one of BP's hallmarks. It still is.

But, as you would imagine, the Deepwater Horizon accident challenged us to the core. Outside - commentators understandably questioned our ability and even our willingness to sustain our commitment to the deepwater, and indeed, to the Gulf of Mexico.

After much soul searching in the fall of 2010, we concluded it would be wrong to walk away.

To do so would have meant abandoning thousands of employees, who represent generations of experience, innovation and resilience.

It would also have adversely affected millions of Americans, who count on us for secure and reliable energy and the jobs it generates. Since 2006, BP has invested more than \$50 billion in US energy development, the largest in our industry, and more than we invest in any other country.

We would have been walking away not only from our past, but from a key component of our future.

And crucially, we would have lost those learnings that were so significant.

Our considered decision was to press ahead with our exploration and development program, coupled with a reinforced focus on risk management.

Globally – we accessed new acreage. Governments worldwide have awarded us a record number of licenses – 55 in 2011 alone and over 80 since 2010 – in over a dozen countries.

Many of these are in deepwater – in Australia, Angola, Brazil, China, Egypt, India and elsewhere.

This is part of our plan to double our exploration budget in coming years.

But when we think about deepwater opportunities, we keep coming back here to our heartland, to the **Gulf of Mexico** basin.

To stay in the Gulf of Mexico, we knew we had to accomplish certain goals.

The first and most important is restoring trust by living up to our commitment to help economic and environmental restoration efforts in the Gulf Coast region.

We have made significant progress on this front.

Thanks in part to the focused efforts of our employees, local residents, as well as federal, state and local agencies, the most dire predictions have not come to pass. Beaches and waters are open for recreational use and tourism has rebounded – to record levels in many places. Gulf Coast seafood is as safe to eat as it was before the spill, according to the US Food and Drug Administration.

BP has spent more than \$22 billion to date – some \$8bn to individuals, businesses and government entities, and \$14bn in response operations and clean-up.

That is not to say there are no issues. There is work still to be done, but the area's natural beauty, economy and distinctive way of life is still there and continues.

Another challenge we face is securing a reasonable resolution to the remaining claims against us. Two weeks ago, we took an important step in that direction when we reached a legal settlement with many of those claiming economic loss and medical harm that we estimate will cost around \$7.8 billion.

As far as our deepwater oil and gas operations are concerned - we returned to work in the Gulf of Mexico late last year. In October, the federal government granted us our first drilling permit since the accident. And this month, we brought on our first new production since the incident.

We now have five rigs in operation – 2 at Thunder Horse; 2 at Atlantis and 1 rig drilling at Kaskida. That is the same number as before the accident.

And by year's end, we expect to add three more – focused on exploration, appraisal and development. One of those is the DS3 rig which is being brought back to the region from West Africa.

Our Mad Dog field is an illustration of how we are expanding and extending our existing assets.

Mad Dog was discovered in 1998 and produced first oil in 2005. Appraisal drilling last year confirmed that the field now has some four billion barrels of original oil in place. That places it comfortably in the category of a super-giant field, making it a rival of Thunder Horse.

So we have reached the final investment decision on Mad Dog Phase 2 – our first for an operated stand-alone facility in nearly a decade in the Gulf of Mexico. We anticipate first oil towards the end of the decade, with production expected to last beyond 2050.

Fields such as Mad Dog are one reason we are investing some \$4 billion in the Gulf of Mexico this year and why we hope to invest at least that much every year over the next decade.

So where do we see the new opportunities, not only in the Gulf of Mexico, but elsewhere in the deepwater?

The big new play is the Palaeogene, or Lower Tertiary. In the Gulf of Mexico, this includes BP's discoveries at Kaskida in 2006 and Tiber in 2009.

Each of these fields has accessible hydrocarbons today, but each also has resources that lie beyond our industry's current limit of 15,000 pounds per square inch and 275 degrees Fahrenheit.

We have announced that we will take on this challenge through our “**20K**” project, increasing capability to 20,000 psi and temperatures of 350 to 400 deg Fahrenheit. In many ways – the next chapter in deepwater. Over the next decade, we will work with others to develop an integrated system, from the rig to the risers and the subsea, all the way to the well and the ability to intervene.

For the engineers in the room, this could include equipment such as:

- Subsea valves, weighing 20 tons, capable of closing and isolating hydrocarbons in a matter of seconds;
- State-of-the-art sensing and monitoring systems for real-time subsea integrity management;
- BOP’s weighing in excess of a million pounds and standing more than 70 feet high (for reference - the exhibition space outside is 60 ft);
- And the equipment will have to be tested successfully to 30,000 psi onshore – one and a half times its designed working pressure.

Making this vision a reality will require unprecedented collaboration across and outside of the industry—involving not only operators, vendors, and contractors, but also academics and regulators. This will be necessary to define codes and standards for the design, operation and reliability of the new technology.

It will also require a huge investment, the kind of investment no one company can do alone. We will have more to say on this in the future, but one thing is for sure - we will need all of your help.

Part 2

This was a little bit about some of what we are doing at BP. I'd like now to move to the **second** part of my talk today – and share some thoughts on what more we might do as an industry.

We are in absolutely no position to preach – we know that – and nor would we want to. So what follows is by way of observation – the way it looks to a company that has stared disaster in the eye and thought long and hard about the future.

Going forward, we see four key areas where we can, and should, work closely together as an industry:

- First, continuing to further enhance our **standards**;
- Second, **sharing** more with each other within industry and with regulators;
- Third, continuing to build the industry **capability and competence**, with a particular emphasis on learning from other industries ;
- And fourth, becoming **more transparent**, so we can earn the trust of the public.

I would like to share a few thoughts on each of these in turn.

Firstly – **Enhancing our Standards.**

Let's talk for a minute about what BP is doing to enhance safety and risk management.

Our progress includes the following:

- Our new Safety and Operational Risk Organization is in place. With a team of experts at its center designing and updating standards, it also has another team deployed alongside the businesses to provide advice and scrutiny. S&OR has the authority to stop operations and to veto appointments. But its main aim is to provide deep technical expertise – to enable every operations leader to deliver their activity in a safe, reliable and compliant manner.
- We are implementing the 26 recommendations made in the Bly Report, our internal inquiry into the accident. It is no simple task. It means new practices, new training, new verification processes and new expectations. And that's why we have a team of around 85 people working full-time on it.
- To enhance education, we are establishing a Global Wells Institute. A core principle is the inclusion of our contractors in these programs.
- And we have taken some very specific steps that go beyond what is required by current regulations. One you may have heard about is our insistence that any BOP used by a dynamically positioned rig must have two sets of blind shear rams, along with a set of casing shear rams.

Sometimes we are asked – what does this all cost? The answer is simple – “we don't view this as cost – this is an investment”. And we know it is one worth making.

These are just some examples of what we have done. Our industry colleagues are each taking their own steps.

And cross industry initiatives are making a difference. One such example is the Global Industry Response Group, GIRG, put in place by the International Association of Oil and Gas Producers – our global trade organisation.

The GIRG has put forward the concept of a three-tier review of wells activity: self-auditing, independent oversight, and regulatory inspection.

It has also set out the principle of a two-barrier policy – where there are always two independent and physical barriers in place.

And here in the US, The Marine Well Containment Company, of which we are a permanent member, has made huge progress in enhancing the industry's preparedness for an event.

Overall – some very positive steps – and attested to in the recent update by members of the Presidential Commission.

My question is this: *What more can we do at the industry level?*

As one example - it is a fact that no industry-developed qualification exists for subsea engineers – the skillset responsible for maintaining that key piece of safety critical equipment – the BOP. That is the kind of gap we need to close.

The International Association of Drilling Contractors is in action and has drawn up plans for subsea engineer accreditation, along with competency standards for people with well-control responsibilities. BP is committed to, and supports this industry initiative.

Tackling the issues of standards globally at an industry level will bring many benefits: consistency, efficiency and improved learning. We have more to do.

Secondly – **Sharing across our Industry.**

The Deepwater Horizon accident impacted our entire industry. We know that. And the same is true of any accident that occurs in our industry today.

We must do more to share what each of us is learning within our own companies – this is not a place to compete.

At BP, we have documented the lessons of the Deepwater Horizon accident. Our Global Deepwater Response team, Richard Morrison, who heads that team, is in the room here today, has carried that knowledge to over 26 countries.

At the industry level, I know that the OGP is setting up a database of well-control incidents and asking companies to contribute their experiences. This is a first and the foundation is now laid.

This kind of collaboration must continue and expand. And while the lawyers will sometimes fret, learning from each other to prevent a future incident is good for us all.

Thirdly – **Building the Industry Capability and Competence**

We are all working hard to grow the capability and competence of our organisations.

At BP – we have had a particular focus on attracting skills from other industries, nuclear, aviation, space are just some examples. In 2011 alone, we brought a further 2,000 technical experts into the upstream, many from outside of our industry.

Last year, a team from BP spent two days talking to officers who were exiting various branches of the US armed forces. We interviewed 35 candidates for a number of safety critical roles including Wellsite Leaders and Drilling Engineers.

Among those who accepted jobs at BP are two Navy nuclear trained officers who ran Reactor Divisions onboard aircraft carriers, an F-16 pilot, more than 10 graduates of West Point, Annapolis and the Air Force Academy, and more than 10 officers with senior leadership experience.

These individuals bring a seriously impressive skill-set related to operational and risk-based decision making, along with great leadership and behavioural skills.

Last year we also began working with Wayne Hale who retired from NASA after 32 years. Over his career, Wayne served as Space Shuttle Program Manager and Space Shuttle Flight Director for 40 missions.

Wayne has been supporting the development of our Houston Collaborative Real Time Environment (CoRE) and our 24-hour Houston Monitoring Centre. This work with is focused on the development of wellbore monitoring drills and simulations that really test communications, decision making, issue escalation and resolution.

This work is making a real difference, and is being hugely enhanced by those with a different background and a fresh perspective.

Fourthly and finally - Sharing our story with the public

I've spoken a great deal this morning about resources, but we must never lose sight of the most precious resource of all: the trust and confidence of the public who buy our products and the regulators who oversee us.

All that I have just described previously will be for naught if our collective license to operate is corroded, or even withdrawn. The impact of the Fukushima nuclear accident on that industry shows what can happen. And we can see some challenges in our industry – for example - the ban on fracking in some countries in Europe.

So how do we earn and keep that trust?

Obviously, by being safe operators.

By sharing the relevance of what we do – in terms of precious jobs, energy security, and fuelling economic growth.

But equally by being transparent about *how* we do our business.

I believe the initiatives I have described will help restore trust in our sector – but only if the public knows about them. It is not enough to simply say that what we do matters – we have to share *how* we do it and what we are doing to improve. We have to hold up a mirror and ask ourselves – “what more can we do”?

Conclusion

And so to conclude.

The events of 2010 were tragic and we are working hard to learn and help prevent such an accident from ever happening again.

BP is becoming a better company. We have enhanced safety, we are working more closely with regulators, with partners, with our competitors and with the public, not only in the Gulf of Mexico but all over the world.

And getting to the next level will demand that we raise the bar even higher.

We need to impose **higher standards** upon ourselves, **share** what we learn, work together to attract **people with different skills** to our industry, and **share that story** with the world.

As we do this, we will access the deepest areas of the Gulf of Mexico, and the other great basins of the world. And we will be able to bring the people of America and the world the energy we all need to grow and to prosper.

Ladies and Gentlemen. Churchill once said – “a pessimist is one who sees the challenges in opportunities. And an optimist is one who sees the opportunities in challenges.” At BP – we are optimistic – and we are working hard to make a difference.

Thank you for your support of our company. And thank you for listening.

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