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# BP's Deepwater Oil Spill - Another Weather Pause - and Open Thread

Posted by Heading Out on August 31, 2010 - 10:15am
Topic: Environment/Sustainability
Tags: deepwater horizon, oil spill [list all tags]

The weather is currently holding up the proceedings at the Deepwater Horizon well site. The seas are some six to eight feet, which is apparently the height of the top 1/3 of all waves.

(There is a table that shows how it is affected by wind speed, duration and fetch, which last is the surface area that is being affected by that wind. There is also a site with a post on wind basics that explains the basics. So the underwater effort is likely to be put off for another two to three days (depending on how Earl behaves, though it's not supposed to get close, but it might. The current problems are more local to the Mississippi Delta).

So there will be a delay for at least a couple of days until the water settles down a little more. The problem is caused by the considerable length of the risers and cables on which the large steel structures sitting at the sea bed will ride as they are moved about. With the waves lifting and the swells rocking the vessels there are risks both from the changes in dynamic loading, and also in generating a pendulum effect as the weights sway. Much better to pause a little longer.

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At his press conference today the Admiral described the plans for the next step in the process:

> . . . the Discoverer Enterprise (will) remove the capping stack and then back off. (At) that point (the) Q4000 will come in and lift the blowout preventer (BOP) which will also (hold) the transition spool which was put in to accommodate the capping stack. And a third step will be (for the) Development Driller II, which is drilling a second relief well, (and which) will move in with the new blowout preventer, and put the blowout preventer on.
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> Once that blowout preventer is in place, the well will be in a position to withstand the pressures expected on the intercepts of the analysts by Development Driller III and the drilling mud that will be forced in there when that happens. All is in readiness, and at this point we are just standing by for a weather window.

In discussing the current thoughts on why there are three pieces of pipe in the BOP, the Admiral also explained where his concept of the the pipe being fragile was generated.

> When we first were looking at the riser pipe, if you remember, there was a kink. And then we were looking to cut the riser pipe, and we made a shear cut. And then we actually unbolted the stub that was bolted to the flanges before we put the capping stack on. At one point, we actually saw two pieces of pipe.
>
> The original presumption at that point, and this is a long time ago now, was that a part of the pipe had fallen down into the Lower Marine Riser Package, and it was alongside a pipe that was extending through the centerline down into the BOP. As we have gotten into the blowout preventer itself and taken a good look at it, we found out that that pipe is fragile, is broken into three pieces, and we no longer have a pipe that's suspended in the centerline.
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> So our assumption is, our original assumptions on the pipe – and at that time they actually might have been. These pipes are being subjected to a lot of different forces in there. If you remember, we've had the dynamic kill and the static kill. There have been a lot of different fluids that have been forced through the blowout preventer or the capping stack, Lower Marine Riser Package.
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> In general, we have concluded that the pipe is of extreme fragility. And while we could try and recover it, the pipe that we can get to right now is not connected to any pipe that is on the (center) line. It could extend out into the BOP. So for that reason we just foregone any more fishing experiments, and have gone directly to remove the blowout preventer.

If I understand this correctly the current thinking is that none of the pieces of pipe above the shear ram are being held by it, and that they are less consequential as a result. Whether that also means that the DP was actually sheared in half by the ram is a different question, but apparently not one that the current investigation is going to look at further at the moment.

It does, peripherally suggest that there may not be any pipe now below the rams. Because if the different treatments that have caused the pipe to break into these bits did so across the shear ram plane, then there may not be enough holding the pipe below the BOP and it may be long gone. The gamma scan that showed the DP was there was, after all taken very early in this process, and much has happened to the well since.

The Admiral also noted that the drop in pressure (from the anticipated perhaps 9,000 psi) when the well was finally shut in is now believed to be due to reservoir depletion.

Oh, and for those of you admiring the ability of those on the platform to fish, the Admiral noted that the team involved in those operations included BP, Schlumberger, Transocean, Cameron and Baker Hughes personnel.

Incidentally I also think there was another transcription error (I tried to smooth some earlier ones by interpreting the words transcribed with my own (in paren, within the quotes). In dealing with the question of whether the DP is still there, and if it is held in place with either hydrates or cement, he said:

> The answer is I don't think we know. You know we think there may be a chance the pipe might have adhered to cement during the static kill process. We don't know that to a

> virtual certainty. But we don't want to try and pull the blowout preventer without having a contingency ready to deal with that eventuality.
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> So what we're doing is, we're going to life the blowout preventer. If it doesn't come off easily, we're going to apply 80,000 pounds of lift. And maybe somewhat of a mis—we'll calling that the gentle pull. If for some reason that does not free the pipe then we will go in and mechanically open the rams and lift the blowout preventer out over the pipe, and then we'll share the pipe with the wellhead.

I believe that last 'share" should be "shear" and will, actually, more likely be a saw cut.

And the small flow of bubbles from the stack, which the Admiral feels inconsequential, as earlier such flows proved to be, is still going on.