

**From:** Borghei, Jed [Jed.Borghei@OilSpillCommission.gov]  
**Sent:** Saturday, December 04, 2010 11:38:22 AM  
**To:** Tom Hunter; SCHU  
**Subject:** Re: containment report

Tom,

Thank you for your comments on our source-control paper and presentation. I will forward them to the whole team.

The paper attempts to describe the July 15th capping as the high-water mark of the containment effort, and convey the difficult and poignant decisions made leading up to and during the well integrity test. I hope we accurately capture these events in our account.

Regarding flow-rate, on October 6th the Commission released a staff working paper titled: The Amount and Fate of the Oil. In that paper, we detail the contributions made by the DOE/National Labs Team to the June 15th 35,000-60,000 bbls/day estimate. We note that the team generated the high end of this range through pressure readings taken from inside the top hat.

In addition, the Amount and Fate paper describes the method used by the DOE/National Labs Team to generate a flow rate estimate on July 14th using pressure sensors in the capping stack. We note that the team then modeled backwards, using data on the reservoir's pressure depletion, to generate an estimate spanning the entire spill. We add that the Woods Hole team contributed a mid point and supplied the oil-to-gas ratio of the flux based on their source sample. A copy of this paper can be found on our website at the following link:

<http://www.oilspillcommission.gov/sites/default/files/documents/Working%20Paper.Amount%20and%20Fate.For%20Release.pdf%20>

We hope our work has done justice to the DOE/National Labs Team's profound contribution to the Deepwater Horizon response. The willingness of Secretary Chu and yourself to provide us with your first-hand accounts has been integral to our ability to tell these stories.

Please let me know if you have any additional comments, they are greatly appreciated.

Sincerely,

Jed Borghei

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**From:** Tom Hunter  
**To:** Borghei, Jed; SCHU  
**Sent:** Sat Dec 04 03:31:57 2010  
**Subject:** containment report

Jed

I was only able to scan the report on the containment effort. Seems quite good and comprehensive. Well done. Some descriptions of events are different than I recall, but the differences are not of great consequence.

Unless I missed it, the report did not describe very much about the critical time when the flow was finally able to be estimated by the DOE team and as a consequence the whole flow rate effort was brought to a conclusion for a government official estimate. The pressure measurements taken in the capping stack allowed fairly straight forward engineering calculations to be done when the flow to the sea was only out of the new kill valve and part of the flow was still going to the surface from the lower lines. This changed everything in the understanding of the flow and will be the basis for all future deliberations on the flow including interaction between the US government and parties held liable for the accident. These critical measurements allowed a quantitative basis to evaluate the flow which was done by DOE scientists over a critical weekend and culminated in bringing together all the flow rate teams who ultimately agreed that the DOE estimate was the one to claim as the official government estimate. These estimates at day 87 were combined with depletion estimates by DOE and USGS scientists to get the estimate over the 87 day period.

I could easily have missed it. In my view, the critical features were that the government insisted on the pressure measurements and did the critical analysis to make the estimate. To my knowledge BP has not, understandably, used this data for a flow estimate discussed publicly. This whole saga will play out over time.

ps I noticed in the Cspan coverage of the Commission's last meeting that two points were made that are not consistent with my views.

The first is that the relief well was the critical feature in the sealing of the well. My view is that the capping stack, mud injection, and top cementing were the dominant sealing method. The relief well was an important added feature and an important demonstration of technology. The discussion was about requiring a relief well as a containment feature. I am sure everyone realizes that cement went into the well almost 6 weeks before the relief well intercept.

The second is that the 3rd parties were the major factor in the estimate of flow. As neither the first estimate (35-60k) and certainly not the second and final estimate (over 87days, 63 to 53k) relied heavily on 3rd parties. The higher values in the first estimate were from calculations via pressure measurements in the top hat. The real confidence in the flow for the second and final estimate was derived as I discussed above from pressure measurements in the capping stack. The estimates over time (87days ) were also made only by the government team. The Woods Hole happened to agree at the midpoint but were not the major contributor to confidence. I believe that you were aware of much of this from your comments but it appears that the commission has the view that it was not the government that made the estimate-the opposite is true. This untrue view is quite an injustice to the government scientists in the DOE and USGS that actually made the estimate.

By the way in the commission meeting ,I thought the staff did a fine job reviewing the containment effort. Priya did a good job covering the issues.

wishing you well

tom