

Art Ratzel, Marcia McNutt, Bill Lehr, George Guthrie and Grant Bromell (DOE), Bruce Robinson (for Will Rees), Don Maclay and Gerald Crawford (BOEM), Paul Hsieh, MKS, [Andy Bowen and Rich Camilli (WHOI) joined after approximately 45 minutes]

Matters we need to cover

- **Intent of FLOW Meeting**
- **Time and date of teleconference**
- **Who will be invited to participate**
- **Format for the meeting (vg reports/discussion/dialog, etc)**

Desired Outcomes

Art: There is a lot of energy to get to a flow rate estimate, and to provide this to leadership.

Marcia: DOI is urging us not to necessarily use the CNN report as an impetus to do anything, other than a careful analysis. If we come up with a revised flow estimate, it must be carefully reasoned. The official government position is still 35-60k. If we issue a new number, it should be a substantial improvement, and should be absolutely defensible, and agreed upon by all the govt partners. Marcia thinks that we can not ever say there is A number for the flow rate; there were probably multiple rates over time due to configuration changes, well head pressure changes, reservoir evolution, etc. At some point, we will need to make some educated calculations on how those changes impacted flow. The one new factor we have is from the closing of the choke; provides an opportunity to come up with a flow rate with a lower 95% CI range than our previous methods have had. May be worth making some announcement on this if we all agree it is a good number.

Art: The DOE team has been working hard to look at the models re Top Kill, new cap, etc. They gave up on the pressure readings from the BOP, because you can't put a hard number with any confidence. That gage died yesterday anyway. At the close of the shut in, there was still a fairly large difference between the BOP gage and the stacking cap gage; this could indicate a faulty BOP gage. Even during the stacking cap preparation, there were reasons to be cautious about the BOP gage. DOE took the newer gage data, got some schematic geometry data, did some calculations. BP is "suddenly now" taking a look at this data itself, and trying to come up with a flow rate.

Art: We don't know where the 53k estimate (CNN) came from; he does not think BP knows either.

Marcia: this letter is dated July 5, even before the well was shut in. So it can't be based on the information from the choke measurements.

Art: There was a conference call with Tom Hunter and Chu on Monday, with first cut at data. Still cleaning up the number, but they look positive. 55k +/- 5k. Marcia sent numbers to Antonio and Pedro; they came up with 53k (47 – 58k for 95% CI). DOE then found out that there was Nodal and Reservoir team activities, Plume Team work, etc. Chu recommended bringing the teams together and look at what each team has done, review assumptions, etc., especially given the most recent information and modeling on the reservoir and well.

Art: Sees this as a chance to discuss each team's approach, etc. Come away with a set of recommendations. He senses more urgency on this than does Marcia. He was in Albuquerque last week, and got a call from Hunter saying we need to move fast.

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Marcia: Congressman Markey has been pushing this very hard. Salazar believes he can keep Markey updated and agreeable to wait. We need to coordinate our announcements through DOI. Need to tell them when we are ready.

Art: But we need to keep in mind that there are other entities who are looking for flow estimates and information. For example, DOJ called him yesterday – he told them to wait until this is worked out more fully.

Art: Lets do it on Friday, so each Team lead can work out a concise presentation and assemble some packages that we can get out to each member.

Marcia; She recommends we use PowerPoint slides, converted to PDF. Address:

- is there an epoch (particular time period) that your flow rate refers to?
- was there particular well configuration that was considered?

Marcia: We should focus on the post-riser cut period. Can also describe some of the other period estimates, but focus on post-riser period. Also try to determine 95% CI bounds. Give a brief summary of how the that was used works. What are model assumptions and parameters, what was the thinking behind each.

Art: it is clearly important to work toward an “apples-to-apples” understanding,

Art: we unfortunately missed another chance to get new data for another plume estimate, when BP removed the original flange and before putting on the transition flange. We could have acquired some high quality video of the plume for another analysis, but did not. The ROVs were engaged in the procedures, so it might not have been possible anyway.

We had a more discussion about what each team lead would present on Friday, who they would ask to take part, and how much time each would need.

Marcia and Art suggested that we involve the “science team” (the group of 5-6 scientists advising Secretary Chu) to take part. Both noted that the team will probably have a lot of questions, and that we need to keep in mind they are asking with constructive intent (which may not always be evident during the questions).

Overall, it appears we will need 4-5 hours total on Friday, probably starting around noon. Art will send a PowerPoint template that each team lead can use for their presentation material. All material will be due by 10:00 that day.

Art will send out details of the conference call number, etc.