

From: vhines@usgs.gov  
Sent: Sunday, July 11, 2010 7:25:59 PM  
To: mark\_sogge@usgs.gov  
Subject: Re: Your thoughts on revised Nodal results paragraph

Mark -- I think it's clearer, but as you pointed out the other day it's a huge range and that's difficult to understand. Is there anything else we could add that would explain the best case and worse case scenarios in more detail? What assumptions do we have to make to come up with the worst-case, and how likely do we think likely do we think that is? Just trying to figure out how to put this range into perspective. Vic

On Jul 11, 2010, at 11:56 AM, Mark K Sogge wrote:

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>  
> Hi Vic,  
>  
> Would appreciate your thoughts on this re-write... bottom line, does  
> it  
> improve anything?  
>  
> New Version:  
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>  
> Nodal Analysis Team - The Team estimated flow rate for various time  
> periods  
> based on modeling by five different DOE national labs, each using  
> different  
> approaches. The estimated flow rate ranges (based on 95% confidence  
> intervals) for two key time periods were: (1) 40,000-91,000 BPD for  
> April  
> 25 - May 5, and (b) 35,000-106,000 BPD for June 1 - 3. These values  
> are  
> reconciled ranges based on independent estimates from multiple  
> national  
> labs using a statistical analysis by NIST. The large range in the  
> estimates (up to a 75,000 BPD between minimum and maximum) is a  
> result of  
> using a variety of modeling scenarios due to uncertainties about how  
> the  
> well structure actually failed and the fluid flow path into and  
> within the  
> well. The Nodal Analysis Team summary report is presented in Appendix  
> [ \_\_\_\_ ]  
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> Original Version:  
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> Nodal Analysis Team - The Team estimated flow rate for various time

**Exhibit No.  
8848**

**Worldwide Court  
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> periods based on modeling by five different DOE national labs, each  
> using  
> different approaches. The estimated flow rate ranges (95% confidence  
> intervals) for two key time periods were: (1) 40,000-91,000 BPD for  
> April  
> 25 - May 5, following partial closure of the BOP but prior to  
> capping of  
> the drill pipe and (b) 35,000-106,000 BPD for June 1 - 3, following  
> cutting  
> of the riser but prior to placement of the Top Hat device. These  
> values  
> are reconciled ranges based on independent estimates from multiple  
> national  
> labs using a statistical analysis by NIST. The large range in the  
> estimates  
> (up to 75,000 BPD) are primarily due to uncertainty about the well  
> failure  
> mechanism and the flow scenario within the well. The Nodal Analysis  
> Team  
> summary report is presented in Appendix [ \_\_\_\_ ]  
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>  
> Mark  
>  
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