

**Macondo Fluid Analysis**

- As not that Dr. A dropou the gas Dr. Bl values by bot volum

**Estimate of C**

- Dr. Bl our on estimate our original oil in
- In this analysis, we use BP's origin place. Our analysis indicat MMSTB represents the 50 percentile value.

- We also show that the amount of hydrocarbon pore volume present in the reservoir based on our own values as well as Drs. Blunt, and BP's internal experts are consistent with one another, ranging from 256 million to 264 million reservoir barrels. These reservoir barrels can be converted to standard conditions using initial  $B_{oi}$ . For example, using a  $B_{oi}$  of 2.14 and pore volume estimate of 259 million barrels we derive an original oil in place of approximately 121 MMSTB.

**Well Test Interpretation**

- The work presented by Drs. Blunt and Gringarten ignores generally accepted well test interpretation practices and techniques. Moreover, Dr. Blunt ignored actual events that took place at Macondo and therefore his analysis is unreliable.
- It is a fundamental tenet of well test analysis that one must account for the specific rate schedule that occurred just prior to the test. Here, Dr. Blunt has completely ignored the

<sup>2</sup> Dr. Zick, A.: "Expert Rebuttal Report," June 10, 2013.  
CONFIDENTIAL  
5

rate variation that occurred just prior to shut-in as the choke valve closed, and Dr. Gringarten has not given adequate explanation as to how he handled this rate variation.

**Well Test Interpretation**

- The work presented by Drs. Blunt and Gringarten ignores generally accepted well test interpretation practices and techniques. Moreover, Dr. Blunt ignored actual events that took place at Macondo and therefore his analysis is unreliable.
- It is a fundamental tenet of well test analysis that one must account for the specific rate schedule that occurred just prior to the test. Here, Dr. Blunt has completely ignored the

rate variation that occurred just prior to shut-in as the choke valve closed, and Dr. Gringarten has not given adequate explanation as to how he handled this rate variation.

- Dr. Gringarten's cumulative oil released calculations are unreliable because his calculation of bottom hole pressures is incorrectly assumed to be independent of the rate profile. In addition, his reliance on flawed MDT permeabilities cannot be justified.

**SECTION I. RATE PREDICTIONS THROUGH THE CAPPING STACK**

In our original report, we calculated flow rates through the capping stack as the well was progressively shut by closing a choke valve, and concluded that the flow from the well on July 15 was approximately 54,000 STB/day. In addition, we calculated the rates through the kill line during the same time period and obtained similar rates. None of the reports submitted by defendants directly challenge our flow rate calculations through the capping stack.