Dr. Johnson’s Principal Opinions

- The Government’s hydraulic methods cannot be used to calculate a cumulative release from Macondo to a reasonable degree of engineering certainty.
  - The inputs required for a proper hydraulic model are complex and change over time.
  - Applying constant values derived on July 15 to all prior days does not account for known and unknown changes in the system, and results in erroneous and uncertain cumulative estimates.

- Additionally, Dr. Griffiths:
  - Does not account for alternative productivity index (PI) profiles.
  - Inaccurately estimates BOP pressures when there is no PTB data (pre-May 8) and inaccurately interprets PTB data in his “best estimate” after May 8.
  - Inaccurately estimates a decreasing flow rate trend by failing to model multiphase effects in the actual dual flow paths caused by the drillpipe.
  - Presents a false validation of his best estimate by comparing it to methods that use the same constant values.

- Additionally, Dr. Dykhuizen:
  - Provides unreliable Top Hat estimates.
  - Provides unreliable Top Kill estimates.