

For the analysis in Figure 2, there is no PI-B data available before the 8th May 2010. Dr. Griffiths assumed a pressure at the bottom of the BOP at the time of the blowout by extrapolation backwards of his least-squares fit to a selectively picked data set² from the available PI-B data. This extrapolation of the PI-B data is a factually unsupported assumption. Indeed there is evidence to suggest that the pressure at the bottom of the BOP at the time of the blowout was much higher than Dr. Griffiths' value (see section 4.2).

From integration of the flow rate profiles presented in Figure 2, Table 1 shows the total predicted volume of oil released from the well over the incident and the total leaked to the sea (i.e., subtracting the 0.81MMstb that BP collected during the incident (ref. 12) and subtracting the oil that was released and subsequently burned in the 1.5days prior to the *Deepwater Horizon* sinking (see ref. 13) that states that the first 2 days of flow from the well are not included in the volume of oil released to sea).

PI Path	Total Volume of Oil from Well (MMstb)	Volume of Oil to DWH (MMstb)	Collected Volume of Oil (MMstb)	Total Volume of Oil Leaked to Sea
Constant PI	5.0	0.10	0.81	4.1
Path A	4.2	0.05	0.81	3.3
Path B	3.7	0.05	0.81	2.8

Table 1. Total Oil Volumes Based on Dr. Griffiths' Method Using Different PI Assumptions

mean large variations in the size of the openings in the BOP (i.e., the eroded flow paths or the gaps between rams, etc.). However, this is not the case because of the shape of the curve for the loss coefficient versus the open area of the restriction as shown in Figure 3. The loss coefficients required to give a match to the PI-B data, for the low PI scenarios are all large (i.e., between about 10,000 and 100,000) and are, therefore over to the left hand side of the curve in Figure 3. The steepness of the left hand side of the curve in Figure 3 illustrates how

² For example, Dr. Griffiths deleted high pressure data points at the end of the Top Hat period and low pressure data prior to the Top Kill period.

³ In this discussion the riser also provides a restriction, but has been omitted from the discussion for purposes of clarity.

⁴ Loss coefficient refers to the constant of proportionality between the pressure drop across the BOP and the flow rate squared through the BOP.