STATEMENT OF THE PLUME TEAM OF THE FLOW RATE TECHNICAL GROUP

WRITTEN BY TEAM LEAD: Bill Lehr, National Oceanic and Atmospheric Administration

On May 19, the NIC Interagency Solutions Group established the Flow Rate Technical Group, including the Plume Team. This team contains experts on fluid dynamics, subsurface well blowouts, petroleum engineering and oil spill behavior as part of the larger effort to improve spill size estimation. The team consists of both government scientists and leading scholars at academic institutions throughout the United States.

On May 27, the Team issued an Interim Report that established an estimated range for the minimum possible spillage rate but did not issue an estimate for a possible maximum value because the quality and length of the video data could not support a reliable calculation. Instead, they requested, and received, more extensive videos from British Petroleum (BP). Based upon analysis of these new videos, the group has reached the following conclusions, recognizing that these estimates are only to aid the Response, not to determine the final Federal calculation of spillage. Other applications of these results are not authorized and are not considered valid.

Because of time and other constraints, only a small segment of the leakage time was examined, and assumptions were made that may through later information or analysis be shown to be invalid. For example, the Team assumes that the average flow between the start of the incident and the insertion of the RITT was relatively constant and the time frames that were included in the examined videos were representative of that average. If this were not true, then the actual spillage may differ significantly from the values stated below.

Most of the experts have concluded that, given the limited data available and the small amount of time to process that data, the best estimate for the average flow rate for the leakage prior to the insertion of the RITT is between 25 to 30 thousand bbl/day. However, it is possible that the spillage could have been as little as 20,000 bbl/day or as large 40,000 bbl/day. Further analysis of the existing data and of other videos not yet viewed may allow a refinement of these numbers.

The team has not estimated the flow rate during the period of active measures to reduce leakage such as the period after the insertion of the RITT or during and immediately after Top Kill. The team is still examining the video of flow shortly after severing of the riser and will produce an addendum, if appropriate, with an updated leakage estimate.

Each expert that contributed to this estimate reserves the right to alter his conclusions based upon further analysis or additional information