# INSTITUTE OF SURVEYORS OF TRINIDAD AND TOBAGO (ISTT)

Incorporated 1996

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**March 9, 2023**

## STATEMENT ON SURVEYING ASPECTS OF THE PARIA DIVING TRAGEDY OF FEBRUARY 2022

The ISTT is the professional body of surveyors practising in various disciplines including Building Surveyors, Land Surveyors, Quantity Surveyors and Valuation Surveyors.

ISTT discussed amongst its members the evidence presented by Expert Witness, Engineer Zaid Khan in January 2023 at the Commission of Enquiry into the Paria Diving tragedy which occurred on February 25, 2022 when divers perished after being sucked into an underwater pipeline because of a Delta-P Event. Of particular interest to surveyors was the lack of definitive information with respect to the seabed topography on which the horizontal portion of the particular pipeline lay and the methods used to measure the level of fluid in the vertical risers of the pipeline.

Surveyors with experience in the particular environment of the pipeline noted the following –

1. The particular pipeline is part of a network of original pipelines constructed 50-70 years ago. The topography of the seabed was, at best, uncertain given the propensity for soft mud to have accumulated over the decades, from the discharge of Venezuelan rivers into the Gulf of Paria, rendering the pipelines and the seabed of the Gulf of Paria almost opaque to contemporary surveying equipment and measurements.
2. Historical or legacy data, information and knowledge, such as maps of the original pipelines, may have been misplaced or lost over time as the various transitions occurred from predecessor companies to Paria Fuel Trading Limited (PFTL). PFTL has a significant knowledge gap to close.
3. It is difficult to manage and maintain seabed infrastructure without knowing exact locations, depths, sizes, alignments, connections and associated marine hazards. As such the mapping and preparation of an accurate marine cadastre for the Gulf of Paria is strongly recommended to prevent future disasters. The Hydrographic Unit of the Surveys and Mapping Division can assist with basic mapping.
4. The levels of fluid in the vertical (risers) of the particular pipeline should have been measured relative to a common benchmark, given the approximate 400-metre distance between the risers. This would have indicated a better relative difference related to ullage to be achieved.

**END**