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La Asociación de Geólogos y Geofísicos Españoles del Petróleo os invita a la conferencia:

Medida del Nivel de Petróleo en Barcos Hundidos en Aguas Profundas y Campañas Geológicas. Aplicación al caso del " Prestige "

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Impartida por **Jesús Sotomayor**, especialista en petrofísica de Repsol YPF
Os esperamos en el Auditorio de Repsol-Ypf , Pº de la Castellana, 278, el día:

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Oil Level Measurement on Deep Water Wrecks and Geological Surveys, a Cased Study for “Prestige Oil Tanker” Wreck

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ABSTRACT

The potential damage of an oil tanker is enormous, shown by past catastrophic accidents such as: the Exxon Valdes in the north coast of Alaska, the Erica in the French coast of the Atlantic Ocean and most recently the Prestige in the northern part of Spain, also in the Atlantic Ocean.

The Prestige tanker was carrying 77,000 tons of heavy fuel, split into two during a storm sinking the stern and the bow to 3565m and to 3830 m of water depth respectively. The wrecks are located 150 miles from the Spanish coast. The remaining oil in place and its leaks (37,000 tons expected, after the preliminary studies) at the initial stage, where a potential threat for additional damage to nature and human activities.

The government of Spain instructed necessary actions to avoid further damage and selected Repsol-YPF to carry out a complete study of the site, to review the wrecks, and to get all information required to confine or extract the remaining fuel oil in place, and to develop a plan that would minimize further risks to its very minimum.

Besides several repair works performed in the Prestige wreck, for the stern and the bow, the knowledge of the oil level measurement for all the tanks and the ground stability, where two key parameters for the project. The first one would give the remaining oil in place and its distribution, in order to evaluate the resources required for its extraction. The second would indicate the risk associated to any possible wreck movement due to sea bed slides, to storms or to earthquakes.

This paper talks about the complexity of the operations, the problems and solutions, designs or adaptations, to evaluate the bottom sea profile, to carry out the geological studies, and to measure the oil level of the tanks. These type of operations had never been done before and no experience was available to undertake the challenge. Many things had to be redesigned or adapted to fulfill the requirements, within a very short time frame.