

1.0 Introduction

Several operators have developed SBOP drilling techniques for use with mobile offshore drilling units (MODUs). The SBOP drilling technique differs from conventional floating drilling operations in that the well control components (i.e., the BOP stack) are not located at the seabed. Instead, the BOP stack is located at the surface just below the drill floor of the MODU. A further key difference is the SBOP drilling riser is designed to contain wellbore pressure whereas a conventional marine riser does not contain wellbore pressure and is isolated from wellbore pressure when the BOPs are closed.

There are numerous standards and guidelines for conventional drilling operations. Some of these cover many parts of the SBOP system design, configuration and operation. However, there are at present no SBOP specific guidelines that the industry can use in the planning and implementation of an SBOP operation. Consequently, the approach to SBOP operations within the industry has been driven by specific circumstances and individual operator requirements, rather than by industry accepted best practices.

The International Association of Drilling Contractors (IADC) is seeking to rectify this and has taken the initiative in developing these SBOP specific guidelines for use by the drilling industry. The efforts started in November of 2002,

when the IADC hosted a conference on SBOP Drilling. In this first of its kind event attended by over 250 delegates from industry and government information, knowledge and concerns were shared in a series of formal presentation and workshop style breakout sessions.

An IADC task force was assembled and an initial meeting held in February 2003. The mission of the Task Force was to develop a set of guidelines to aid the drilling industry in planning and conducting SBOP operations on floating MODUs using existing best practices and the experience and study of the contributors developing them. The Guidelines are intended to give the drilling industry a basis on which to build future deepwater SBOP operations worldwide. The task force assembled three working groups or committees of industry professionals and an overall IADC Steering Committee directed the work. The organization and study areas are shown in Figure 1.1

1.1 Background to SBOP

A typical SBOP system configuration is shown in Figure 1.2. The basic method is not new and in fact goes back to the early days of floating drilling. Existing platform and jack-up technology, where the BOP is traditionally at the surface directly below the drill floor, was extended to use on floating vessels in deeper water. Initially these vessels were simple barges and ships with essentially land rigs on deck. As water depths began to increase from more than

a few tens of feet, the subsea drilling system was developed where the BOP is placed on a wellhead at the seabed and a large diameter marine drilling riser extended back to surface. This became the standard method of drilling from floating rigs and systems have been developed for water depths of 10,000-ft.

With increasing water depths, SBOP techniques have re-emerged as a viable alternative to conventional subsea drilling systems. Applications of the technology range from the benign environments of Southeast Asia to more demanding environments in Brazil and the Mediterranean with water depths also approaching 10,000-ft.

1.2 SBOP Guidelines

The guidelines are divided into chapters dealing with an introduction to SBOP, well construction and planning, well control, drilling vessel and equipment and HSE. The areas of applicability of each chapter to the physical equipment on a drilling rig are shown in Figure 1.3.

These guidelines are intended for use in operations from **floating MODUs** such as semi-submersibles and drillships. These guidelines are not intended for use on bottom founded shallow water MODUs such as jack-ups or submersibles. The guidelines are also not intended for use on permanent production facilities such as TLPs and spars.