SPE/IADC 92626: Modeling Ultra-Deepwater Blowouts and Dynamic Kills and the Resulting Blowout Control Best Practices Recommendations (2005)

SPE/IADC 92626

Modeling Ultra-Deepwater Blowouts and Dynamic Kills and the Resulting Blowout Control Best Practices Recommendations

Samuel F. Noynaert, Texas A&M University, BP, and Jerome J. Schubert, Texas A&M University

TREX-120002.1

In response to the drilling industry breaching new frontiers, specifically ultra-deep waters (5,000 ft or more of water depth), new blowout control measures are necessary.

TREX- 120002.1

Control of Blowouts. There are many ways offshore blowouts are controlled. These include:

- Capping
- Wellhead equipment installation/operation
- Cement/Gunk plug
- Bridging
- Depletion/flooding of reservoir
- Momentum kill/bullheading
- Dynamic kill

The majority of the listed blowout control methods have their origins in shallow water or land well applications. The working depth in ultra-deepwater wells limits the practicality of many of the methods. According **Fig. 2**, the relative majority of blowouts were controlled through bridging. If a blowout is to be controlled through bridging, this typically occurs in the first 24 hours. After this point the probability of passive control through bridging decreases. At this point, other options should be considered. In ultra-deepwater blowouts, active control methods will center on subsurface intervention techniques. Most subsurface techniques require a

TREX- 120002.2