Acknowledgements and Appreciation

The IADC Drilling Control System Alarm Management Guidelines could not have been produced without the hard work and efforts of volunteers from IADC member companies. These volunteers contributed their time, energy and knowledge for the betterment of the global drilling industry. We appreciate their efforts and the generosity of their employers in facilitating and encouraging their volunteer efforts on behalf of IADC.

About the IADC DCS Alarm Management Guidelines

These guidelines set forth several areas of improvement related to alarm management for drilling control systems. While IADC believes that the information presented is accurate as of the date of publication, each reader is responsible for his own reliance, reasonable or otherwise, on the information presented. Technology and practices change quickly, and the subject matter discussed herein may quickly become surpassed. IADC does not warrant or guarantee that the use of these guidelines will produce the result desired by the reader.

IADC DCS Alarm Management Work Group

Bobby Brignac, National Oilwell Varco
Stewart Gillies, Aberdeen Drilling Consultants
Christopher Goetz, Kingston Systems
Mike Lyssy, AE Solutions
Trenton Martin, Transocean
Peter Nguyen, Ensco plc
Steve Ronan, Northwest Technical Solutions
Brian Wright, CAD Control Systems
TABLE OF CONTENTS

1. Summary ................................................................. 3
2. Purpose and Scope ...................................................... 3
3. Alarm Management .................................................... 3
   3.1 Acronyms and Definitions ......................................... 3
   3.2 Relevant Standards ................................................ 4
      3.2.1 ANSI/ISA 18.2 Summary .................................... 5
      3.2.2 EEMUA 191 Summary ....................................... 5
      3.2.3 YA-711 Summary ............................................. 6
   3.3 Alarm Benchmarks .................................................. 6
      3.3.1 Gaps between Standards and the Drilling Environment. 6
   3.4 Alarm Philosophy .................................................. 7
   3.5 Alarm Design Considerations .................................... 7
   3.6 Alarm Documentation .............................................. 7
   3.7 Roles and Responsibilities ...................................... 8
   3.8 Alarm Rationalization .............................................. 11
   3.9 Alarm Management of Change .................................... 12
      3.9.1 What Prompts an MOC for a DCAS ....................... 12

LIST OF FIGURES AND TABLES

Figure 1: Alarm management lifecycle .................................. 5
Table 1: Alarm benchmarks ................................................. 6
Table 2: Alarm targets ..................................................... 6
Table 3: Alarm philosophy requirements and recommendations .... 7
Table 4: Roles and responsibilities ..................................... 9-10
Figure 2: Alarm rationalization process .................................. 11