AWES

Advanced Well Equipments
Standardization Group

AWES Recommended Practice For the Selection, Manufacture, Testing and Use of Openhole Zonal Isolation Devices

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Foreword

AWES (Advanced Well Equipment Standards) is a global industry workgroup formed under the guidance of OTM, a consulting firm based in Guildford, England. Invitation to this group has been extended to members of various branches of the oil and gas industry including; oil and gas exploration and production companies, service companies and equipment vendors.

The main task of this technical committee is to prepare an international standard based on the statement of requirements of the end users of said downhole equipment. This committee and the resultant standards will not be designed to hamper innovation of equipment developed by suppliers and vendors. Instead the focus has been dedicated to standardizing the qualification testing criteria of said equipment as per mutually agreeable conditions.

This document is only valid if it has been verified to be the latest revision.

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Introduction

This standard has been developed by users/purchasers and suppliers/manufacturers of open hole zonal isolation devices intended for use in the petroleum and natural gas industry worldwide. This standard is intended to give requirements and information to both parties in the selection, manufacture, testing and use of open hole zonal isolation devices. Further, this standard addresses supplier/manufacturer requirements which set the minimum requirements with which suppliers/manufacturers shall comply to claim conformity with this standard.

This standard has been structured to allow for grades of increased requirements both in quality control and design validation. These variations allow the user/purchaser to select the grade required for a specific application for a chosen accessory.

The three quality grades provide the user/purchaser the choice of requirements to meet a specific preference or application. Quality grade Q3 is the minimum grade of quality offered by this product standard. Quality grade Q2 provides additional inspection and verification steps, and quality grade Q1 is the highest grade provided. Additional quality requirements may be specified by the user/purchaser as supplemental requirements.

Four standard design validation grades (V3 to V6) provide the user/purchaser the choice of requirements to meet a specific preference or application. Design validation grade V6 is the minimum grade and represents equipment where the validation method has been defined by the supplier/manufacturer. The complexity and severity of the validation testing increases as the grade number decreases.

Users of this standard should be aware that requirements above those outlined in this standard may be needed for individual applications. This standard is not intended to inhibit a supplier/manufacturer from offering, or the user/purchaser from accepting, alternative equipment or engineering solutions. This may be particularly applicable where there is innovative or developing technology. Where an alternative is offered, the supplier/manufacturer should identify any variations from this standard.

Scope

This Recommended Practice provides requirements and guidelines for openhole zonal isolation devices, as defined herein for use in the petroleum and natural gas industry. This International Standard provides requirements for the functional specification, technical specification and supplier/ manufacturer requirements. This standard covers the qualification testing parameters as it pertains to various downhole environmental conditions.

Not included are other products such as: liner/tubing hangers, down-hole well test tools, sand control screens, inflow control devices, surface controlled sliding sleeves and chokes, down-hole artificial lift equipment, and all functionalities relating to electronics. This standard does not cover the connections to the well conduit. Installation of these products is outside the scope of this Recommended Practice. If products covered in this standard are intended to be used as a barrier in cased hole, ISO 14310 or API11D-1 shall be used for qualification.

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