Product Evaluation, Application, and Testing of Stage Cementing Collars

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Product Evaluation, Application, and Testing of Stage Cementing Collars

1 Scope

This document provides requirements, guidelines, and recommended practices for stage cementing collars used in cementing applications in the petroleum and natural gas industry. Information is included on the types, application, specification, validation, manufacturing, job planning and execution, and preventing and diagnosing problems. Use of stage cementing collars for non-cementing applications or annulus casing packers, or both, are outside the scope of this document.

Products covered under another API or international specification are not included. This document does not cover the connections to the well conduit.

2 References

This document contains no normative references. For a listing of other articles associated with this publication, refer to the bibliography.

3 Terms, Definitions, and Abbreviations

3.1 Terms and Definitions

For the purposes of this document, the following terms and definitions apply.

3.1.1
annulus
The space between the open hole and tubulars, or between tubulars, where fluid can flow.

NOTE The annulus designation between the production tubing and production casing is the “A” annulus. Outer annuli between other strings are designated B, C, D, etc. as the pipe sizes increase in diameter.

3.1.2
baffle plate
A landing seat wholly contained within a tubular string and placed at a predetermined location for the purpose of landing a shutoff or bypass plug.

3.1.3
ball
A spherical device used to actuate downhole tools or release sub-surface darts or plugs.

3.1.4
bypass plug
Device designed to allow fluid to flow through or around itself once landed on a seat.

3.1.5
cancellation device
cancellation plug
A device dropped through the casing to fully cycle the stage collar from the run-in position to the closed position in a single operation.

3.1.6
cementing plug
plug
A device used to separate fluids and wipe the internal surface of the pipes as it is pumped from one location in the pipe to another or to operate downhole tools, or both.