

IOGP-649: Seawater Pressure to Depth Conversions

Acknowledgements

This Report was written by the Pressure to Depth Conversion Expert Group, part of IOGP's Geomatics Committee, with contributions from the Surveying and Positioning Subcommittee, Geodesy Subcommittee, and the Metocean Committee.

About

Vertical positioning has emerged as a topic of growing interest in the oil and gas community, but there remains no common industry standard of practice for the conversion of depth measurement from seawater pressure measurements. Accurate and repeatable depth measurements are critical for the successful installation of wells and other subsea infrastructure within their vertical design tolerances, and most high accuracy depth surveys are conducted using pressure sensors.

The lack of industry standardisation on this subject raises the risk of incompatible depth surveys, installation mishaps, or costly design rework.

The purpose of this guidance note is to explain the fundamental processes of pressure to depth measurement conversions and provide a list of known conversion methods currently used in the industry, with recommendations on their implementation, intended use, relative merits, and comparative accuracies.

The aim is not to provide any guidance on topics of tidal adjustments, vertical survey reference systems, or acoustic depth measurement systems, or to set out or enforce any mandatory technical specifications or requirements and the guidance is provided for information purposes only.

See link below to the IOGP Website:

[Seawater pressure to depth conversions | IOGP Publications library](#)

For more information, please contact roger.moore@imca-int.com or reception@iogp.org

Related Guidance

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