Minimised Vibration Maximises ROP

IDEAS is pleased to announce the upgrade of its BHA / Drill String Section regarding the Drilling Vibration Mitigation & Reduction section of its Optimised Drilling Practices Course in order to maximum ROP and minimise twist-off risk which further reduces drilling costs and fish risk – something which the Industry cannot afford today.

We look at the vibrations caused by the bit (particularly a heavy-set PDC compared with a light-set long-gauge PDC bit and roller cone bit) and the BHA’s stabilisation design and the drilling parameters. We also look at hole quality – hole to drill the best quality hole so that casing / liner can be run to bottom due to reduced tortuosity.

Excessive Wellbore Tortuosity can increase Torque, Drag, Over-pull and Set-Down and reduce the change of running casing / tubing to bottom

Heavy-set PDC bits can significantly influence downhole vibration

Ideally we wish to see a smooth cutting index

Stick-Slip whilst drilling illustration (Courtesy of Tomax)

Helical Buckling of Drill Pipes

Today’s Computer Simulations are Invaluable (Courtesy of SPE/IADC 173141)