Best Technology Solutions **BTS**

Cement Logging Tools & Data Interpretation

Training Program

Introduction:

Without having basic knowledge on cement recipe it is not easy to evaluate cement integrity behind casing and whether isolation is performed. Different cement tools have methods for analyzing isolation and well integrity. The course will discuss how cement behind double casing be identified and interpreted with careful interpretation. Noise log which is another method to find out if there is any good isolation behind casings will also be discussed.

Who Should Attend?

Geologists, Geophysicists, Geomechanics Engineers, Drilling Engineers, Production Engineers, Completion Engineers, Reservoir Engineers, Petrophysicists, Petroleum Engineers, Exploration Supervisors and managers concerned with the Geomechanics challenges of field development and exploration, Supervisors and managers concerned with wellbore stability, Technical/Reservoir Engineers, Processing Engineers, Commercial Analysts, Contractors, Decision makers/ investors in oil and gas sector.

Course Objectives:

By the end of this course, delegates will be able to know about:

- Basics on cement rheology
- Cement – drilling fluids behavior
- Cement slurry properties
- Cement logging tools basics
- Principle of different service company tools
- Low and high frequency tools
- Cement curve data
- Full interpretation
- Noise log system
- Communication behind casing
- Basics of perforation design

Course Outline:

- Cement powder
- Cement mixture
- Cement slurry and its properties
- Cement – drilling fluid relationship
- Use of Sea Water for cement recipe
- Thixotropy
- Cement setting time cycles
- Examples
- History of cement logging tools
- Frequency range used for cement tools
- Low frequency cement logging tools
- High frequency cement logging tools
- Cement tools of different service
- Companies
- The bond logs & variable density
- Tools
- Travel time
- Conditions setting for logging in
- Vertical & horizontal wells
- Data acquiring in deviated wells
- Tool centralization
- Data quality check
- Validity of the data
- Interpretation of the travel time (TT)
- Interpretation of the segment data
- Data analysis of the pads
- Data analysis of the sectors
- VDL data
- Quantifying VDL data

- Calculating the micro-channel width
- Problems with micro-channel
- Full data analysis
- Examples
- Noise log tools, basics , frequencies
- used and full data evaluation
- Perforation: types of gun in the market
- Choosing the right gun for your
- formation
- Data simulation
- Zonal isolation
- Other perforations
- Squeezing cement
- Basics rules to follow in cementing
- Basic rules to follow in cement log
- Data analysis