

Target Exploration

Energy Geosciences Research & Development



Announcing a New Target Exploration Course (TarC-10)



Design and Interpretation Challenges of Production Logging and Injection Logging (PLT/ILT) Operations

5 Days Course: 11-15 November 2018

Venue: Somerset Hotel, Panorama Mall, Muscat, Oman

Instructor: Mohamed Elyas, *Petroleum Reservoir Engineer, AUK, Mishrif, Kuwait*

Organizer: *Target Exploration Consultants, London, UK.*

Course Description

This course focuses on PLT/ILT in vertical wells and progresses to more complex cases of highly deviated, explaining the application, limitations and evolution of the different sensors used in the PLT/ILT services. Most importantly, the course empowers the attending delegates to tailor data acquisition programs selecting the best set of sensors depending on fluids being produced, well deviation, completions type and objective of the log. The discussion of the response and quality control of each sensor is used to guide the attendees on the process of interpretation, starting from individual sensors and evolving to the combination of two or more sensors to determine fluid type and its quantitative contribution by each of the producing intervals. This course is illustrated with practical exercise after each topic and quizzes at the end of each day to help the attendees absorb and retain the important concepts of each day and to help the tutor gauge the progress as course progresses.

Course Objectives

To introduce the principles, applications, techniques and procedures for PLT/ILT, including limitations and optimum configuration of the different sensors used for the production logging. The aim is also to help professionals with functional role or interest in this area to use PL proactively and to use the well information to design and plan data acquisition as part of the solution to flow assurance, well integrity and diagnosis.

Who Should Attend

Engineers in exploration, production and completions departments; reservoir, production, well integrity and flow assurance engineers, Petrophysicists.

Course Content

Day 1:

- Definitions and terminology used in production logging
- Fluids behavior and flow regimes at different downhole conditions
- PVT and its importance to production logging interpretation
- Interpretation Preparation
- Importing Data
- Fluid Identification
- Spinner Calibration
- Fluid Velocity Calculation
- PVT
- Flow Rate Calculations
- Reporting and Final Presentation, docs and Las files.

Day 2:

- Spinner velocity measurement tools
- Spinner response in different fluid regimes and fluid mixtures
- Exercise #1, qualitative interpretation of spinner response
- Pressure and Temperature measurements
- Exercise #2, qualitative interpretation of temperature response

- Fluid Holdup measurements (fluid density)
- Exercise #3 computation of holdup from fluid density and PVT data
- Fluid Holdup measurements (Electrical Probe Measurements)
- Exercise #4 detecting first oil entry from electrical probes response
- Fluid Holdup measurements (Optical Probe Measurements)
- Exercise #4 detecting first gas entry from optical probes response
- Exercise #5 three-phase holdup interpretation from the probes
- Quiz #1

Day 3:

- Quiz #1 review
- Fluid Holdup measurement (Dielectric-capacitance measurements)
- Exercise #6 computing Holdup from capacitance measurements
- Pulsed Nuclear measurements applied to Production Logging
- Exercise #7 estimating best setup for water velocity measurement
- Spinner velocity quantitative interpretation
- Exercise #8 computing fluid mixture velocity from spinner curves
- Pressure and Temperature interpretation
- Exercise #9 using P-T measurement to determine well stability
- Conditions affecting production logging sensors
- Production logging interpretation equations and techniques
- Production logging interpretation equations and techniques
- Quiz #2

Day 4:

- Quiz #2 review
- Production logging at deviated wells
- Exercise #7 estimating flow-regimes from fluids holdups and velocities
- Principles of the algorithms used in computerized interpretation
- Combining the production logging measurements
- Single phase interpretation
- Exercise #8 single –phase PLT log manual interpretation
- Two-phase interpretation
- Exercise #9 two-phase PLT log manual interpretation
- Three-phase interpretation
- Exercise #10 example of three-phase PLT and qualitative interpretation
- Quiz #3

Day 5:

- Quiz #3 review
- Data acquisition planning
- Exercise #11 practical example of sensor selection
- Designing Production logging program
- Exercise #12 practical design of a logging program
- Practical examples of production logging
- Quiz #4
- Review of Quiz #4
- Q & A session

Participants Receives

- A. Course materials with up to date reference list
- B. Certificate of course Completion

Course Logistics

Venue: The Somerset Hotel, Panorama Mall. Muscat, Oman

Date: 11-15 November 2018

Timing: Course starts at 08:00 am and ends at 16:30 pm

Language: English

Format: 4 sessions of 1.5hr each and 2 Refreshments, 1 Lunch breaks/Day

Ideal No.: 20 Participants

Instructor: Mohamed Elyas, MSc.

Mohamed is the current Training Manager and Reservoir Engineer at Weatherford International (Kuwait) which he joined in 2009. He is a part-time Lecturer on Petroleum Engineering at the Australian College of Kuwait "ACK" (School of Engineering, Petroleum Department) since 2016, and a PhD Candidate at Universiti Teknologi of Petronas (UTP) since 2016.



He received his BSc (2003) and his MSc (2009) in Petroleum Engineering from the Faculty of Engineering, Petroleum Department, Cairo University where he worked as a teaching assistant upon receiving his BSc in October 2003 until August, 2009.

His professional responsibilities at Weatherford International (Kuwait) includes:

- Manage all Training Courses at WFT Kuwait
- Designing and Running Inflow Control Device (ICD) Operations
- Team leader; Data acquisition, validation, interpretation and analysis of TPS data
- Petroleum and Reservoir Engineering Trainer.
- Cased Hole Reservoir Evaluation "Raptor" Processing, Interpretation & Evaluation
- PLT Processing, Interpretation, and Evaluation
- Sampling and Pressure Analysis

His Duties, Responsibilities as Part-time Lecturer on Petroleum Engineering at the Petroleum Department, School of Engineering of ACK, Kuwait includes lecturing the following courses:

- Advanced and Basic Reservoir Engineering
- Exploration Engineering and Geophysics
- Advanced Production Engineering
- Well Testing Engineering and Transient Well Testing Analysis
- Formation Evaluation (Open Hole Well Logging and Core Analysis)
- Production Well Logging
- Reservoir Simulation
- Basics of Reservoir Simulation with the Eclipse Reservoir Simulator
- Geostatistical Reservoir Modelling
- Drilling Fluids
- Directional Drilling-MWD-LWD
- Coring and Core Analysis - CCA
- Special Core Analysis (SCAL)
- Well Completion
- Drill Stem Testing
- Well Control
- Stuck Pipe Prevention and Fishing Operations
- Well Stimulation, Production Enhancement, and Enhanced Oil Recovery.



Registration Form

Production Logging Tool / Injection Logging Tool: 5 Days Course

Date: 11-15 November 2018 @ Somerset Hotel, Panorama Mall, Muscat, Oman

PERSONAL DETAILS

Delegate	Name	Position	Telephone	E Mail
1 st Delegate				
2 nd Delegate				
3 rd Delegate				
4 th Delegate				
5 th Delegate				

PAYMENT DETAILS

Registration fee for single participant is US\$ 5,500 (includes course materials, coffee and lunches). There is an escalating group registration discount, as in the table below:

Number of participants	Registration Fee in US\$/Participant
One to Five Participants (1 -5)	5,500.00
Six to Ten Participants (6 - 10)	5,250.00
> Ten Participants (> 10)	5,000.00

Course registration payments should be credited to Target Exploration Consultants bank account no later than 30 days before the date of the course. Payment receipt is a proof of course registration.

Bank Transfer: Send Bank Account Details of Target ECL to _____

Credit Card Payment:

VISA **AMERICAN EXPRESS** **MASTERCARD**

Credit Card No:

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Expiry Date		Card Verification Code	
Cardholder		Cardholder Signature	
Date		Cardholder Address	
		Post Code	

To register, please fill and e-mail this registration form to: **Dr. Muhammad W. IBRAHIM**, Target Exploration Consultants. 65 Kenton Court, London W14 8NW, UK. **Tel:** +44 (207) 371 2240
Email: m.ibrahim@targetexploration.com **No refund for cancelation within 30 days of the course date**