



المركز العالمي للتدريب والتطوير
International Centre For Training & Development



DE136

Well Testing Design Analysis & Interpretation



ACTVET
Abu Dhabi Centre for
Technical and Vocational
Education and Training
مركز أبوظبي
للتعليم والتدريب
التقني والمهني

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Course Introduction:

This five-day course will focus on the different types of tests and techniques, both analytical and graphical, for data representation and analysis of well tests. Types of techniques covered will include diagnostic plots-derivative for draw down, and buildup tests. Participants will learn about the interpretation of complex data, such as those from well test in naturally fractured reservoirs, hydraulically fractured wells, horizontal wells, along with gas and gas condensate reservoirs. Each day participants will see examples of the types and techniques discussed along with practice problems.

Course Objectives:

Upon successful completion of this course, the delegates will be able to:

- ✓ Learn about the interpretation of complex data, such as those from well test in naturally fractured reservoirs, hydraulically fractured wells, horizontal wells, along with gas and gas condensate reservoirs
- ✓ Learn about the need for testing and the states of well performance
- ✓ Learn about diagnostic and derivative plots analysis
- ✓ Learn about the interpretation methodology of various types of well testing
- ✓ Learn about the interpretation of well test data in naturally fractured reservoirs
- ✓ Learn about well test analysis in gas and gas condensate reservoirs
- ✓ Learn about pseudo-pressure and type curve analysis techniques, along with phase redistribution
- ✓ Learn about interference test and reservoir limit tests

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Who Should Attend?

This course is intended for all drilling engineers, reservoir engineers, petroleum and production engineers, development asset and project managers.

Course Outline:

Day 1:

TYPES OF TEST ANALYSIS

- Steady state, semi-steady state, and transient well performance
- Basic concepts for test analysis
- Drawdown and buildup testing
- Semilog analysis and estimating average reservoir pressure

Day 2:

DIAGNOSTIC AND DERIVATIVE ANALYSIS

- Diagnostic and derivative analysis
- Wellbore storage and type curve matching
- Sealing faults and stratigraphic pinchouts
- Late time boundary and depletion effects

Day 3:

TYPES OF WELL TESTING

- Interpretation of well test data
- Analysis of post-fracture tests
- Variable rate analysis methods
- Horizontal well testing
- Multi-well testing

Day 4:

ANALYSIS GAS AND GAS CONDENSATE RESERVOIRS

- Modifications for gas wells and multiphase flow
- Well test analysis in gas and gas condensate reservoirs
- Pseudo-pressure and type curve analysis techniques
- Phase redistribution

Day 5:

DST

- DST key features
- DST design and analysis
- Interference tests
- Reservoir limit tests
- Well test design and step-by-step procedure

Course Certificate:

International Center for Training & Development (ICTD) will award an internationally recognized certificate(s) for each delegate on completion of training.

Course Methodology:

A variety of methodologies will be used during the course that includes:

- (30%) Based on Case Studies
- (30%) Techniques

- (30%) Role Play
- (10%) Concepts
- Pre-test and Post-test
- Variety of Learning Methods
- Lectures
- Case Studies and Self Questionnaires
- Group Work
- Discussion
- Presentation

Course Fees:

To be advised as per the course location. This rate includes participant's manual, hand-outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Course Timings:

Daily Course Timings:

08:00 - 08:20	Morning Coffee / Tea
08:20 - 10:00	First Session
10:00 - 10:20	Coffee / Tea / Snacks
10:20 - 12:20	Second Session
12:20 - 13:30	Lunch Break & Prayer Break
13:30 - 15:00	Last Session