Well Test Analysis
(Basic theory and practice)

OPC

Location	Doha, Qatar
Duration	3 days
Date	16 – 18 May 2016
Cost	$2,950 per delegate

Course objectives

- » An understanding of the theory and practice of pressure transient analysis using analytical methods
- » An understanding of the geological and fluid parameters which affect the results of pressure transient analysis
- » Skills to interpret pressure transient analysis data for permeability and the various components of skin
- » Skills to evaluate reservoir geometry and connected volume using boundaries and mobility/storativity models
- » Experience in analysing real sets of test data

The course materials and example datasets are not software specific thus can be used with any commercial software package. Use of the PIE well test software from WellTestSolutions (the software used by BP and Total among others worldwide) will be available for the course.

WHO SHOULD ATTEND?

Engineers and Geoscientists who wish to obtain a basic understanding of well test interpretation and the skills required to use PIE. The individuals attending the course should be able to develop their skills to a level where they will be able to do the analysis themselves and contribute knowledgeably to a department or asset that has some involvement in this area. It would be useful to have had some previous exposure to well testing, well operations, or theory of reservoir engineering; but this is not vital.

Registration & further information
Kat.Cook@opc.co.uk
+44 (0)207 428 1111

Tutor
Piers Johnson

The instructor for Well Test Analysis is Piers Johnson, Managing Director of OPC Ltd. Piers has over 30 years of experience in all aspects of petroleum engineering, with specialisation in well testing and analysis. He commenced his career with Flopetrol Johnston Schlumberger, established Oilfield Production Consultants (OPC) Ltd. in 1988 and has consulted worldwide for all of the major international and state owned oil companies.

He is a visiting professor in Well Testing at selected prestigious institutions including Imperial College, London and the Institut Français du Petrole (ENSPM) in Paris where he lectures on the Masters course in Reservoir Geoscience and Engineering.

London, Aberdeen UK | Doha Qatar | Houston USA | Atyrau, Astana Kazakhstan | Stavanger Norway | Basra Iraq | Lagos Nigeria | Abu Dhabi UAE

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Course timing
6 hours per day between 9am - 5pm (1 hour for lunch)
Sessions will be one hour each (optimum time for attention).
Please ensure you arrive by 8:45am ready to start at 9am.

Course logistics
Please ensure you bring your own laptop with you for the course
Any required software will be supplied by OPC
Delegates are responsible for their own travel arrangements and accommodation
Refreshments and lunch will be provided
Dress code is smart casual

Course cost
$2,950 per delegate. This price excludes applicable taxes required by law, such as VAT, which shall be included on OPC's invoice to COMPANY at the prevailing tax rates.

5% discount for second delegate enrolled from same company

10% discount on third delegate enrolled from same company

20% discount offered for all subsequent delegates enrolled from same company

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Course details
Training shall comprise of a 3 (three) day beginner level course using PIE to reinforce Well Test Analysis theory throughout the course. So, both theory and the use of PIE are addressed and will include a section on well test design and gauges: positioning, selection and sampling rates.

Below is a high level summary of the course agenda for each of the days:

Day 1
» Brief introduction to well testing, its evolution and the theory: so that an understanding is obtained of what affects the test results
» The basics: Obtaining good data, Radius of investigation, the inverse problem, Type Curve Models, Superposition
» Introduction to PIE: Data loading exercise from a spreadsheet and ASCII file
» Gauge comparison
» The principles and importance of Superpositions and the rate history
» Analysis/diagnostic plots and the manipulation of them: Horner, Superposition and Log Log Derivative plots – straight line analysis with examples
» Well bore storage and skin – with examples

Day 2
» Flow regimes: Radial flow, spherical flow, linear flow and bi-linear flow, pseudo steady state – what this means and why
» Type Curve Models
» Examples to reinforce all of the above
» Examples to demonstrate all of the first day's theory in practice
» Boundaries and how this effects the pressure responses, plus how to analyse test data with boundaries
» Reservoir Pressure and Reservoir Surveillance with examples
» Gas well testing with examples

Day 3
» Horizontal wells with examples
» Multi-fracced Horizontal well responses and interpretation
» Factors complicating well testing
» Test design
» Introduction to Deconvolution
» Interpretation guidelines
» Recognising Derivative shapes