

Production Chemistry Course

The Production Chemistry Course is a 3 day training course that serves as an overview of flow assurance issues and the use of production chemicals and technology to maintain and enhance oil and gas production.

The course is led by recognised industry experts who together have an abundance of knowledge within production chemistry and have produced over 100 publications between them. You are sure to be in good hands.

The course focuses on the following topics:

- Oilfield Corrosion
- Inorganic Scale
- Organic Scale: Asphaltenes
- Separation, Demulsifiers and Naphthenates
- Wax & Hydrates
- Near Wellbore Placement and Treatment Modelling (Place *iT*)
- Chemical Delivery
- Chemical Qualification
- EOR and Chemical Compatibility



Date and Venue

UK	Stavanger
2- 4 th October	3- 5 th September
Scaled Solutions	Scandic Forum
6 Nettlehill Rd	Gunnar Warebergs
Houstoun Industrial	gate 17, 4002
Estate	Stavanger, Norway
Livingston, EH54	
5DL	

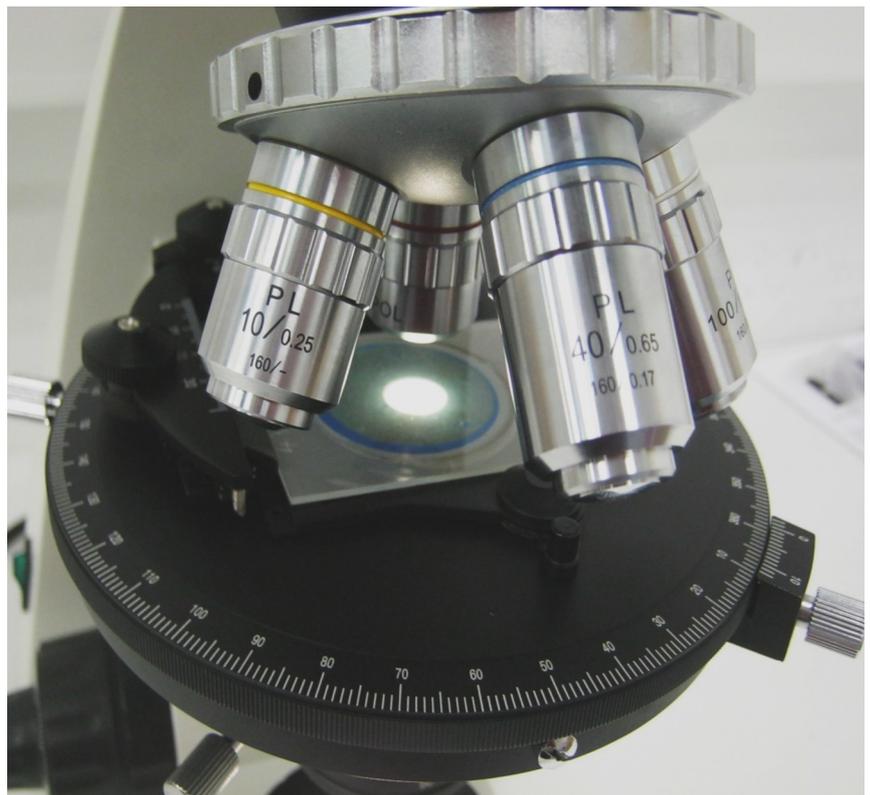
Who Should Attend?

The course is intended for new or practicing production engineers and production chemists involved in control and mitigation of flow assurance challenges.

Course Fee

Course fee is £1000GBP

For established clients of Scaled Solutions we will offer a discounted rate (nominal fee) set at £350GBP for up to 2 delegates per company.



Course Overview

Overview of Process Chemistry, Production & Chemistry & Flow Assurance

Introduction to process chemistry flow assurance and production chemistry. Definitions and overview of different production chemistry/ flow assurance/ corrosion challenges faced in production.

Oilfield Corrosion

The corrosion process, corrosion rate determining factors, forms of oilfield corrosion, structural corrosion, corrosion prediction, control & mitigation options (materials selection, lining & coatings, inhibition), corrosion monitoring, corrosion management systems & case studies.

Inorganic Scale

Oilfield water chemistry, types of scale, mechanisms for scale formation, scale prediction (& worked examples), scale prevention & mitigation (inhibitor chemicals, placement, squeezing, sulphate removal & water isolation), testing & evaluating chemicals (performance/ compatibility), remediation, alternative scale control methods. Presented with extensive case studies.

Organic Scale: Asphaltenes

Chemistry and causes, operational implications, prediction & management, chemical qualification, case studies.

Separation, Demulsifiers & Naphthenates

Chemistry and causes, operational implications, prediction & management, a case history.

Wax and Hydrates in Oil Production

Wax formation, impact on oilfield operations, properties, prediction of wax deposition tendency, management & monitoring.

Reservoir Souring

Mechanism, models, implication of H₂S, mitigation options, scavengers & biocides.

Near Wellbore Placement & Treatment Modelling

Modelling chemical placement and optimising treatment lifetimes for chemical (scale inhibitor) squeeze treatments– hands on introduction to the Place *iT* near wellbore simulator.

Chemical Delivery

The processes required for specialist chemicals: topside injection, capillary delivery, gas lift injection & squeeze treatments.

Chemical Qualification & Chemical QA

A description and discussion of the analytical techniques and methodologies employed for chemical qualification and quality assurance.

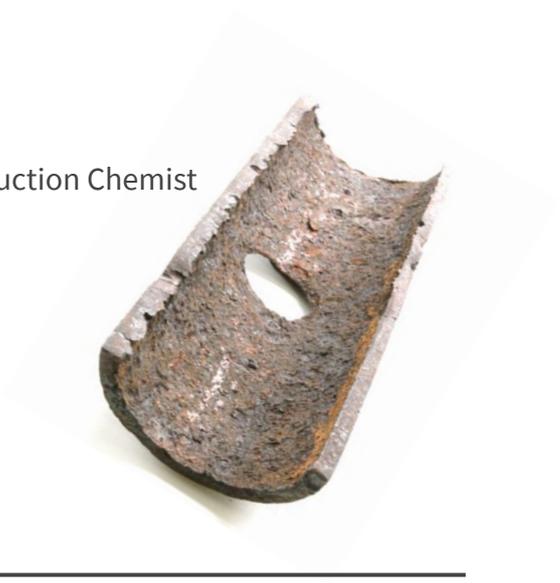
EOR and Chemical Compatibility

Review of how addition of chemicals/ EOR can impact the physical compatibility and performance of other chemicals.

Schedule

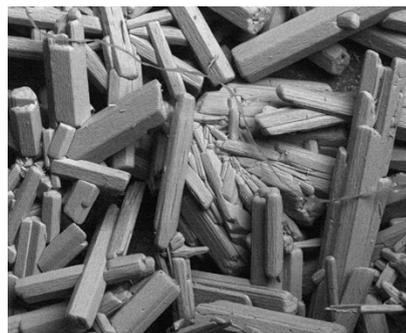
DAY ONE

0800—0830: Introduction
0830—0930: Process Chemistry & Role of the Production Chemist
0930—0945: Break
0945—1100: Corrosion (I)
1100—1145: Lunch
1145—1245: Corrosion (II)
1245—1345: Asphaltenes
1345—1400: Break
1400—1430: Wax
1430—1500: Hydrates



DAY TWO

0800—0945: Inorganic Scale (I)
0945—1000: Break
1000—1100: Inorganic Scale (II)
1100—1145: Lunch
1145—1300: Formation Damage
1300—1415: Near Wellbore Placement
& Treatment Modelling
1415—1430: Break
1430—1500: Summary / Q&A



DAY THREE

0800—0845: Reservoir Souring
0845—0915: Separation and Demulsifiers
0915—0945: Naphthenates
0945—1000: Break
1000—1100: Scale Removal
1100—1145: Lunch
1145—1230: Chemical Delivery
1230—1315: Chemical Qualification and QA
1315—1400: EOR and Chemical Compatibility
1400—1445: Summary: Compatibility, Stability & Utility
1445—1500: Open Discussion



* Times are based on Stavanger PC Course and may slightly change for other PC Courses.

Course Instructors



Dr Gordon M. Graham is the Managing Director of Scaled Solutions. He has been active in production chemistry & flow assurance for over 25 years examining both field application challenges and R&D aspects. He is a recognised industry expert in oilfield scaling/ flow assurance and author/ co-author to over 100 publications on the topic.



Dr Dario M. Frigo is an internationally recognised technical expert in production chemistry, water flooding and completions. He was formerly the Global Discipline Head in Production Chemistry with Shell and served over 25 years with the company. His career began in optoelectronics materials before moving to Shell in the early 1990's. He joined Scaled Solutions in 2014 as a Senior Technical Advisor.



Dr Neil Goodwin is the Technical Manager of New Developments & Engineering Sections at Scaled Solutions. Working at Scaled Solutions for over 11 years, Neil has been involved in a number of field specific development projects including the effect of sulphide scavengers on calcium carbonate scale, qualification of chemicals for continual down hole injection, polymer flood chemical selection and testing antiscale coatings.



Dr Robert Stalker is the Technical Manager of Scaled Solutions LLC. He is a chemist with a background in synthetic organic chemistry and physical chemistry. In addition, he has a comprehensive understanding of mathematical modelling pertaining to oilfield chemical squeeze treatments and was the original designer of the Place *iT* near wellbore squeeze treatment simulator.



Dr Caroline Simpson is the Operations Manager at Scaled Solutions. She is an inorganic chemist and has worked for Scaled Solutions for over 10 years. Formerly the Technical Manager of Corrosion and Performance, Caroline has contributed to the development and support of our sulphide testing capabilities at Scaled Solutions, for both scale and corrosion testing.



Contact

lewisrensch@scaledsolutions.co.uk

+44 01506 439994

www.scaledsolutions.com