

4-day course

**Oilfield Production  
Chemicals & Microbiology**  
1<sup>st</sup> September to 4<sup>th</sup> September 2009



*At the Maryculter House Hotel, Aberdeen, UK*

**Course starts 0930 hrs Tuesday 1<sup>st</sup> September 2009.**

### Course Description

Chemical additives are essential to the efficient production of crude oil and are used in drilling, completion, stimulation and production processes. This course focuses on those products used to facilitate the production processes. Potential problems are recognised and described. A wide variety of simple and complex, inorganic and organic chemicals are used within this industry. The course is designed to provide an insight into the reasons for deploying chemical products. The types of chemicals that are used will be described together with guidelines for product selection. Emphasis will be placed on practical, operational aspects, laboratory and field evaluation techniques and deployment. The course does not seek to explore detailed theoretical issues.

### Learning Objectives

Upon completion, participants will have gained an understanding of the wide diversity of chemicals and formulated blends that are used in the oil production industry. The participant will learn why chemicals are necessary, how they are evaluated and understand the options for deployment within the process plant. Participants will also gain an insight into how new products and processes help environmental compliance.

### Who Should Attend

The course aims to provide a common understanding of oilfield production chemicals to petroleum engineers, chemists and other scientific and managerial disciplines. Project engineers, petroleum engineers, technical and commercial managers, those responsible for product development or evaluation and field operating personnel would all benefit. Employees responsible for environmental issues or marketing of chemicals should find interest in the content of this course.



### Enquiries

All enquiries to hts consultants, 10b Howe Lane, Nafferton, Drifffield, East Yorkshire, UK, YO25 4JU.

Tel / Fax: (44) 1377 255502. E Mail: [htsassist@aol.com](mailto:htsassist@aol.com)

[www.hts-consultants.co.uk](http://www.hts-consultants.co.uk)

**Oilfield Production Chemicals and Microbiology, 1<sup>st</sup> to 4<sup>th</sup> September 2009**

<p>Tuesday 1<sup>st</sup> Sept 2009</p> <p>0930 hrs to 1645 hrs.</p>	<p><b>Registration (available from 0845 hrs onward)</b></p> <p><b>Introduction to Oil Production Operations</b> Overview of production processes. Equipment used to process crude.</p> <p><b>Chemical Additives, the Chemistry of Crude Oil and the Chemistry of Surfactants</b> – an introduction.</p> <p><b>Environmental Issues</b> Discharges, hazardous substances, ecotoxicity testing</p> <p><b>Wax and Asphaltene Control</b> Wax formation and control; inhibitors (PPD's, crystal modifiers). Rheological properties. Laboratory evaluation. Asphaltene Inhibitors, dispersants and solvents</p>	
<p>Wednesday 2<sup>nd</sup> Sept, 0845 hrs</p> <p><b>Drag Reducers.</b> Flow improvement. DRA chemicals application.</p> <p><b>Hydrate Control</b> Thermodynamic and threshold inhibitors. Advantages of new inhibitors.</p> <p><b>Foam Control</b></p> <p><b>Gas Treatment</b> Sweetening and dehydration of gas. Hydrogen sulphide scavengers. Liquid unloading.</p> <p><b>Lunch</b></p> <p><b>Demulsification</b> Emulsions and stability. Types of demulsifiers. Formulation practices, Evaluation / optimisation. De-oilers. Separators and associated equipment.</p> <p><b>Exercises:</b> emulsions and organic solids.</p> <p><b>Water Injection Chemicals and Practices</b> Injection of sea water. Re-injection produced water. Oxygen removal</p>	<p>Thursday 3<sup>rd</sup> Sept, 0845 hrs</p> <p><b>Oilfield Microbiology</b> Introduction to bacteria. Problems associated with bacteria.</p> <p><b>SRB in Injection and Production systems.</b> Monitoring techniques and bacteria MIC</p> <p><b>Lunch</b></p> <p><b>Reservoir Souring</b> Reservoir souring. Options to reduce souring. Biocide action and application strategy</p> <p><b>Scale Control</b> Scale formation. Prevention options. Inhibitor types and laboratory evaluation. Application of scale inhibitors. Squeeze techniques. New Technologies.</p> <p>Scale Removers: types and application. Radioactive scale problems.</p> <p><b>Exercise - scale</b></p>	<p>Friday 4<sup>th</sup> Sept, 0845 hrs</p> <p><b>Chemical Injection practice</b></p> <p><b>Corrosion Control</b> Forms of Corrosion. Cathodic protection. Control options. Corrosion inhibitors: types available. Evaluation of corrosion inhibitors.</p> <p>Application of corrosion inhibitors. Monitoring of Corrosion.</p> <p><b>Exercise – corrosion</b></p> <p><b>Lunch</b></p> <p><b>Production Chemicals Market</b> Size of chemicals market. Value of market. Geographic Distribution</p> <p>Finish by 1430 final day.</p>

Note that it may be necessary to modify the contents, timing and the order of delivery.

## Booking Form.

Please return to ourselves by fax (01377 255502), post or send e Mail ([htsassist@aol.com](mailto:htsassist@aol.com)) with details,

	Name	Postal Address for correspondence and E Mail address
1		
2		
3		Attendees from EU countries (except UK) to provide company VAT registration number please.

**Accommodation:** Is not included. **Lunch:** Is included. Special diets: please specify.

### Course Fee

£915 (plus VAT for UK companies) per participant, including course notebook and lunch.

£825 (plus VAT for UK companies) per participant for 3 or more people booking from one company.

### Terms

Acceptance will be confirmed by E Mail. Our normal procedure is to issue an invoice after the booking form is received. Payment should be received before the start of the course to secure your place. For late bookings our terms are strictly 30 days from date of invoice. Cancellations permitted up to August 19<sup>st</sup> 2009. Cancellations between August 19<sup>st</sup> 2009 and August 24<sup>th</sup> 2009 will be charged 50% of the Course Fee. Cancellations after August 24<sup>th</sup> 2009 will be charged full course fee. Substitutions permitted.

### Payment

This may be made by sterling cheque (payable to hts consultants at address below) or by bank transfer / international money draft in sterling. Bank details: Bank Address: Lloyds Bank plc, 15 Market Place, Driffield, UK, YO25 7AH  
Sort Code 30 - 12 - 86. Account Code 00113071. Cheques / draft to be made payable to hts consultants.  
IBAN: GB79LOYD30128600113071. Vat Registration Number GB 598 8633 61

## Faculty Description

**Alan G Hunton** is currently manager of **hts consultants**, a UK based consultancy which has provided advice and training on various aspects of production chemicals deployment since 1991. Previously he was Technical Project Leader within the oilfield chemicals business of BP Chemicals. He has over 26 years experience within this industry. A member of the Society of Petroleum Engineers, The Institute of Petroleum and The Water Management Society, he has authored several papers on scale control and sulphide scavenging. **Don C Ballance** has been the Managing Director of Blairchem Ltd since 1992, a speciality manufacturing and consultancy business in Aberdeen. During his 30 years in the oil industry he has worked both with an International Oil Company in operations and with three chemical companies with responsibility for oilfield chemicals. He is a member of the Society of Petroleum Engineers and the US National Association of Corrosion Engineers and has co-authored several papers. **Stephen Maxwell** is Managing Director of Commercial Microbiology Ltd., Aberdeen, and is responsible for all aspects of their industrial microbiology consultancy. He has over 26 years experience particularly in biological monitoring and control, bacterial corrosion, reservoir souring, biocide testing and application, hydrocarbon spoilage and field monitoring. He has travelled extensively and has provided services to oilfield operators world-wide. He is a chartered biologist, a Fellow of the Institute of Petroleum, and a member of the Institute of Biology and the National Association of Corrosion Engineers.

## The Venue.

### The Maryculter House Hotel.

South Deeside Road, Maryculter, Aberdeen,  
Aberdeenshire AB12 5GB.  
[01224 732124](tel:01224732124).

Maryculter House is situated on the banks of the river Dee, built on the site of a preceptory of the Knights Templar and dating from the 13th century. Many of the original features can still be traced inside the walled churchyard in the hotel grounds. The last owner of the property, Sir Cosmo Duff Gordon, in 1935 was one of the few male survivors of the Titanic. Dining areas include the Poachers Pocket for snacks, the Cocktail Bar, built above the cellars and the main Priory Restaurant where the cuisine is traditional Scottish with French influences.  
[reservations@maryculterhousehotel.com](mailto:reservations@maryculterhousehotel.com)



**NOTE:** If booking accommodation, please book direct to the hotel and inform that you are attending the HTS Consultants course.

Course bookings must be made direct to HTS (see booking form)

#### Other Nearby Hotels

Ardoe House. 01224 860600

#### Some Hotels in Town.

Thistle Caledonian, Union Terrace, 01224 640233

Copthorne Hotel Aberdeen, .  
01224 630404

Holiday Inn Express, Chapel Street  
01224 623500

There are many other hotels of all standards in the Aberdeen area. There is usually a shortage of Hotel beds in Aberdeen so please book your accommodation in good time.