Introduction to High Pressure
High Temperature Field Development
Comprehensive overview of the entire value chain and process of HPHT field
28-30 September Bali, Indonesia

PetroSync Distinguished Instructor

James King
Managing Director, King Petroleum Ltd

- Over 30 years of experience in various aspects of subsurface engineering
- Extensive project management experience in delivery of large scale oil and gas field development, abandonment, HPHT and subsea projects
- Held positions as Field Development Project Manager for several major international, national and independent operator companies in worldwide
- Trained and registered as a UKCS offshore Installation Manager and UKCS Statutory Duty Holder more than 350 wells

Course Objectives

- UNDERSTAND and DIFFERENTIATE the specific subsurface environment
- UNDERSTAND the HPHT challenges during exploration and production phase
- IDENTIFY the drilling problems that are typically encountered in an HPHT well
- LEARN what data should be acquired and how are the abnormalities identified
- INCREASE efficiency on the inter-department project team communication

Specially Designed for

This course is specifically designed for employees in the oil and gas industry who are engaged in HPHT field development such as:

- New Graduated Engineer
- Trainee Well Engineer
- Trainee Subsurface Engineer
- Trainee Production Engineer
- Field Support
- Financial
- Accounting
- Legal
- Drafting
- Procurement
- Investors
- Analysts

HYBRID TRAINING SOLUTIONS

FOCUS TRAINING • REDUCE COST • ENHANCED RESULTS

Over the years, there has been a growing demand for hybrid training programs. It is an excellent option to maximize your training dollar for your specific training needs. We make it possible to run a training program that is customized totally to your training needs at a fraction of an in-house budget!

If you like to know more about this excellent program, please contact us on +65 6415 4500 or email general@petrosync.com
This course is designed to provide the knowledge of HPHT field development. It will help you to understand the difference between HPHT and "normal". Besides, it cover from HPHT field planning, drilling, completion and production phase. They will also learn the latest technology that being used by operator's in HPHT enviroment. Pratical exercise and video will be covered during the class.

PetroSync Distinguished Instructor
James King
Managing Director, King Petroleum Ltd
James has outstanding record in delivering a range of high-value and challenging sub-surface development projects. He is a professional Petroleum/Well Engineer, with nearly 30 years of experience in various aspects of subsurface engineering. Extensive project management experience in delivery of large scale oil and gas field development, abandonment, HPHT and subsea projects. Petroleum Engineering experience includes specialist skills in Petrophysics and Production Technology. Log Analysis (both Open and Cased hole), Nodal Analysis (Prosper/Gap/Mbal), Sand Control Management, Artificial-Lift Design, and Production Optimization (including Subsea). Well Engineering skills include Well Construction (conventional, HPHT and SMART), DST/Completion/Well Testing design and field supervision, and overseas well-site 'Company Man' experience. Registered as a Chartered Physicist, Chartered Scientist and Chartered Engineer. BSc (Hons), and Post-Graduate Management Qualifications. Worked for major international, national and independent operator companies worldwide as Field Development Project Manager, Wells/Reservoir Team Leader and Drilling Manager for SHELL UK Limited, BP Exploraion Operationg, Perenco UK and so on. Also previously trained and registered as a UKCS Offshore Installation Manager, and UKCS Statutory Duty Holder more than 350 wells.

Awards:
- Chartered Physicist (CPhys) – Continuing Professional Development Award.
- Member of the Institute of Physics (MInstP).
- MENS Certificate of Merit.
- Society of Petroleum Engineers Outstanding Leadership Award (former section Chairman).
- Former Trustee–director of the Shell Contributory Pension Fund.

PROGRAM SCHEDULE

<table>
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<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>08:00 - 09:00</td>
<td>Registration (Day 1)</td>
</tr>
<tr>
<td>09:00 - 11:00</td>
<td>Session I</td>
</tr>
<tr>
<td>11:00 - 11:15</td>
<td>Refreshment &amp; Networking Session I</td>
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<tr>
<td>11:15 - 13:00</td>
<td>Session II</td>
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<tr>
<td>13:00 - 14:00</td>
<td>Lunch</td>
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<tr>
<td>14:00 - 15:30</td>
<td>Session III</td>
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<tr>
<td>15:30 - 15:45</td>
<td>Refreshment &amp; Networking Session II</td>
</tr>
<tr>
<td>15:45 - 17:00</td>
<td>Session IV</td>
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<td>End of Day</td>
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INTRODUCTION TO HPHT FIELD DEVELOPMENT for New and Non-Technical Professionals

28-30 September 2015 at Bali Indonesia

Course Agenda

1.0 Introduction to HPHT Area
1.1 Defining an HPHT Environment - What is the difference between "normal" and HPHT?
1.2 Understanding HPHT Challenges - Why are things so different with HPHT?
1.3 Fluid Characteristics - What fluids need considering with HPHT activities?
1.4 Flow Assurance in HPHT fields - Is there a difference with Flow Assurance in HPHT, if so what and how is it managed?
1.5 Current Technology - What technology is currently being used by operator's in HPHT environment?
1.6 Worldwide HPHT Fields and Facilities examples - What are HPHT fields worldwide, what are the field and facilities differences?

2.0 HPHT Drilling and Completion Operations
2.1 Well Completion Design - Why is an HPHT Completion different?
2.2 Drilling Technology - Why is a different level of Technology required for HPHT drilling operations?
2.3 HPHT Drilling Problems - What drilling problems are typically encountered in an HPHT well?
2.4 Subsea HPHT Development - When and why would an HPHT field be developed as a subsea infrastructure?
2.5 Dry Tree HPHT Development - How do surface trees differ in an HPHT well?

3.0 Facilities Design
3.1 Subsurface Considerations with Facilities Design - what challenges will the sub-surface environment introduce to the surface facilities?
3.2 Impact of Wells and Workover on Facilities Design - Why is different level of Technology required for HPHT drilling operations?
3.3 Scaling and Production Chemistry - What should surface facilities expect?
3.4 Materials Selection - Is there a standard materials specification, if not how are differences managed?

4.0 Production Phase
4.1 Over Pressure Protection Systems - What different systems are required for HPHT environments?
4.2 Managing Topsides Facilities - Do HPHT assets have to be managed differently, if so how?
4.3 Identifying Data Abnormalities - What data should be acquired, How are abnormalities identified?
4.4 Lessons Learn from Other HPHT Fields - What have operators learnt in developing HPHT assests?
4.5 Wellhead Maintenance - How is an HPHT Wellhead / Xmas Tree maintained?
4.6 Facilities Maintenance - How different is it performing wireline operations in an HPHT environment?
4.7 Wireline Activities - Review what has been covered, and assess if training needs were met.

Practical exercises are included in this program
Recap and Summarize of the course

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SAVE COST • IMPROVE PERFORMANCE • REDUCE RISK
PetroSync understands that in current economic climate, getting an excellent return on your training investment is critical for all our clients. This excellent training can be conducted exclusively for your organization. The training can be tailored to meet your specific needs at your preferred location and time. We will meet you anywhere around the globe.

If you like to know more about this excellent program, please contact us on +65 6415 4502 or email general@petrosync.com
Title: Introduction of HPHT Field Development
Date: 28th - 30th September 2015
Location: Bali, Indonesia

INVESTMENT PACKAGE

<table>
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<tr>
<th>Investment Package</th>
<th>Deadline</th>
<th>FULL MASTERCLASS</th>
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<tbody>
<tr>
<td>Standard Price</td>
<td>25th Sept</td>
<td>USD $ 3,295</td>
</tr>
<tr>
<td>Early Bird Offer</td>
<td>28th Aug</td>
<td>USD $ 3,195</td>
</tr>
<tr>
<td>Group Discount (3 or more Delegates)</td>
<td>25th Sept</td>
<td>USD $ 2,995</td>
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Group Discount is based on Standard Price
Early Bird Offer is one month before the event schedule

* To enjoy the promotion & discount offer, payment must be made before deadline
* For 7 or more delegates, please inquire for more attractive package.
* Prices include lunches, refreshments and materials. Promotion & discount cannot be combined with other promotional offers.
* Important: Please note that registration without payment will incur a SGD 200 administration fee.

DELEGATES DETAILS

1st Delegate Name: Mr □ Mrs □ Ms □ Dr □ Others □
Direct Line Number: Email: Job Title: ____________________________ Department:
Head of Department: ____________________________

2nd Delegate Name: Mr □ Mrs □ Ms □ Dr □ Others □
Direct Line Number: Email: Job Title: ____________________________ Department:
Head of Department: ____________________________

3rd Delegate Name: Mr □ Mrs □ Ms □ Dr □ Others □
Direct Line Number: Email: Job Title: ____________________________ Department:
Head of Department: ____________________________

INVOICE DETAILS

Attention Invoice to: ____________________________
Direct Line Number: Fax: ____________________________
Company: ____________________________ Industry: ____________________________
Address: ____________________________ Postcode: ____________________________
Country: ____________________________ Email: ____________________________
Please note:
- If you have not received an acknowledgement before the training, please call us to confirm your booking.
- Indicate if you have already registered by Phone  □ Fax  □ Email  □ Web  □

PAYMENT METHODS

☐ By Credit Card: Please quote invoice number(s) on remittance advice
☐ By Direct Transfer: Please quote invoice number(s) on remittance advice

Charge & Fee(s)

- For Payment by Direct Telegraphic Transfer, client has to bear both local and overseas bank charges.
- For credit card payment, there is additional 4% credit card processing fee.

CERTIFICATE OF ATTENDANCE

70% attendance is required for PetroSync’s Certificate of Attendance

DETAILS

Please accept our apologies for mail or email that is incorrectly addressed.
Please email us at registration@petrosync.com and inform us of any incorrect details. We will amend them accordingly.

Course Confirmation

I agree to PetroSync’s terms & conditions, payment terms and cancellation policy.

Authorized Signature: